ROBUS®

YOUR WORLD ILLUMINATED

QUALITY **ROBUS** PRODUCTS BY **LED GROUP**

LEDGROUP

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NEW!

WELCOME
TO ROBUS
2018

ON BEHALF OF THE LED GROUP, LET ME EXTEND A WARM WELCOME TO YOU.

Michael Slein Founder and Director

Welcome to the 2018 LED Group ROBUS Catalogue.
We continue to expand popular ranges and introduce market-led product innovation. Some of the highlights this year are the ROBUS UGR <19 and CCT3 selectable ranges, the ever popular linear fittings, new Low Bay and High Bay fittings and our new range of Street Lighting.

WE EMBRACE EMERGING TECHNOLOGIES AND THE BENEFITS THEY BRING TO THE MARKET, CREATING ENDURING PRODUCTS WITH LOW ENERGY, LOW MAINTENANCE, OUTSTANDING PERFORMANCE AND RETURN ON INVESTMENT.

Throughout the ROBUS catalogue you will see evidence of our promise to supply high quality, reliable lighting products. As a Deloitte Best Managed Company, we are ISO certified and a key member of Lighting Associations across the world. We don't compromise on quality and deliver industry leading QC measures, so you get products your customers can rely on.

With 34 years heritage in the lighting industry, the ROBUS brand is available from all leading wholesalers in Ireland and the UK. Whilst our product quality is the foundation to our success, our business is focused on customer relationships, through constant contact and engagement. In every country in which we operate, our people interact on a daily, ongoing basis with stockists and end users.

Our team are charging into 2018 with energy, hard work and thriving upon our customer relationships, building the highest level of trust. Our team is your team!

Working with ROBUS is the one simple thing you can do in 2018 to improve your profitability.

We have been fortunate to welcome many new customers over the past year and to maintain the loyalty of 100% of our key stockists.

If you are a customer already, we thank you sincerely and hope you continue your journey with us. **Our business succeeds when your business succeeds.**

MICHAEL SLEIN
Founder and Director
T: +353 1 709 9000
M: +353 86 256 6430
E: mslein@led.ie

INTRODUCING
OUR TEAM

THE BOARD OF DIRECTORS ARE:
John Humphery (UK & European Managing Director),
Christian Dijkstra (Financial Director),
Michael Slein (Founder & Director),
Derek Slein (Export Director),
Mike G. Slein (Commercial Director).

INTRODUCING OUR TEAM

HEADQUARTERS MANAGEMENT TEAM

THE LED GROUP IS RUN BY A DIVERSE MANAGEMENT TEAM LED BY THE BOARD OF DIRECTORS. THEY BRING A WEALTH OF EXPERIENCE TO BEAR IN STRATEGIC PLANNING AND OVER-SEEING THE DAY TO DAY OPERATIONS OF THE BUSINESS.

MEMBERS INCLUDE:

Left to right back row: Aisling Byrne (Purchasing Manager), Jason Kennedy (Conversions Technical Manager), Liam Mahady (Operations Manager), Michele Lynch (National Lighting Store Manager), Andrea Daly (Credit Control Manager), Henry Bradley (IT Manager), Mark Walshe (QC Manager), Pat Kelly (RD&I Director), Lisa McDonagh (Financial Accountant), Patrick Dunne (Conversions Manager)

Left to right front row: Claire Mahony (NPD Manager), Laura Lawlor (Business Intelligence and Internal Sales Manager)

GLOBAL MANAGEMENT TEAM

1. John Humphery (UK & European Managing Director)
2. Mick Slein (Commercial Director) 3. Phil Hunt (UK Sales Director)
4. Sharon Sweeney (Irish Sales Manager) 5. Jonathan Andrassy
(Sales Director – Continental Europe) 6. Leigh Morrin (Regional
Director) 7. Roger Harold (Regional Director) 8. Chris Roberts
(Regional Sales Manager) 9. Robert Campbell (Key Accounts Manager)
10. Mike Biggs (Product Training Manager) 11. Deirdre Howard
(Head of Marketing) 12. Connie Wu (General Manager, China)

ABOUT US

THE LED GROUP IS A GROWING INTERNATIONAL
LIGHTING COMPANY ESTABLISHED IN 1984.
WE ARE THE LARGEST IRISH LIGHTING COMPANY
IN THE WORLD WITH A LONG AND PROUD
TRADITION OF COMMERCIAL SUCCESS AND
RELATIONSHIPS ACROSS IRELAND, THE UK,
EUROPE, UAE AND AUSTRALASIA.

The LED Group has developed the globally successful ROBUS brand of products sold through the electrical wholesale market. ROBUS has a reputation for energy efficient commercial and residential solutions, supported by world class customer service in more than 40 countries around the world.

Located in Dublin is our 10,000sqm head office and distribution centre. We also have distribution and offices in the UK, Australia and China, servicing over 3,000 stockists and tens of thousands of installers. We employ more than 250 talented people around the world, working with us to grow our business and nurture the ROBUS brand.

Our global presence enables us to meet the current and future needs of our customers and the aspirations of our people.

The LED Group is a member of the EMDA in Ireland, the EDA, The Lighting Association and LIA in the UK and The Lighting Council in Australia – lighting bodies worldwide creating and promoting industry standards.

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HQ Dublin, Ireland
Bracknell, UK
Ma'anshan, China
Guangzhou, China
Brisbane, Australia

IN A NUT-SHELL

ROBUS
ONE OF THE LEADING IRISH, UK & AUSTRALIAN BRANDS IN OUR
SECTOR, WITH INCREASING MARKET SHARE ACROSS THE WORLD.

THE WORD ROBUS COMES FROM THE LATIN FOR STRONGHOLD.
WE TAKE THIS TO REPRESENT THE POSITION OF STRENGTH HELD
BY OUR BRAND LOCALLY AND GLOBALLY.

1,100
Product Lines

3000+

ROBUS stockists
in 40 countries

Sales

With over 60
directly employed
sales personnel,
our focus is very
much on customer
service including
quick response and
fast turnaround of
orders.

People

We employ over 250 talented people worldwide

Robus Direct

Is our very successful online ordering system for stockists **robusdirect.com**

Offices

With offices in **Ireland**, **UK**, **Australia** and **China**

18 Years

Designing and manufacturing winning LED Product Lines

Values

Accountability
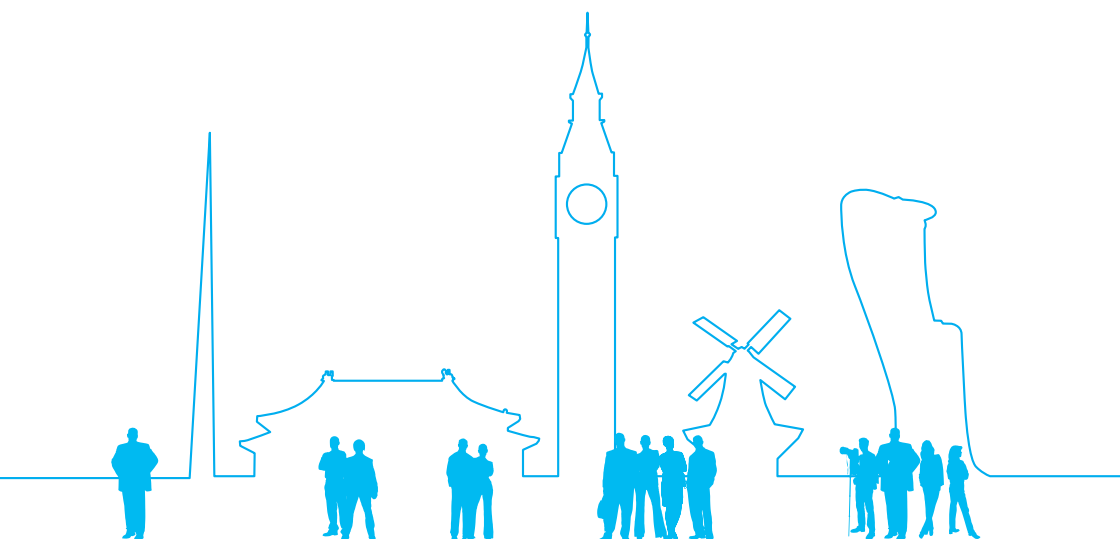Ambition
Empowerment
Customer focus
Fast pace

Over 34 Years

Delivering lighting expertise

LED GROUP HISTORY

1994
10 Years

2004
20 Years

1984
LED Group founded by Michael Slein in Dublin, Ireland

1990
LED Group becomes first Irish/UK lighting company to import from China

1996
ROBUS Sales UK

1997
ISO Certification

2005
Moved to current HQ in Dublin

2006
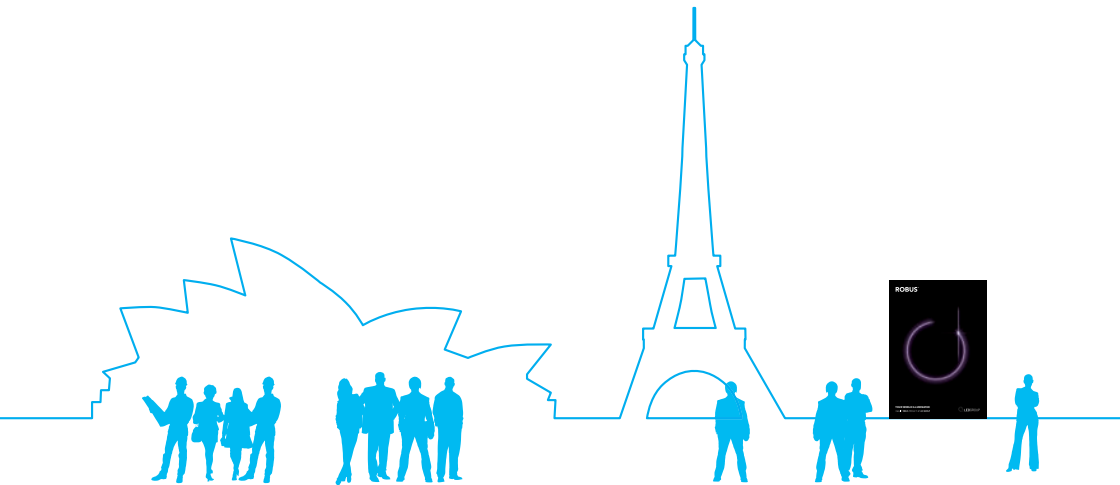Best Companies to Work for in Ireland Award

2008
ROBUS Sales Benelux

2009
ROBUS Sales Middle East

2010
LED Group ROBUS Australasia offices opened in Brisbane

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2014
30 Years

2011
Stockists
online
ordering

2012
ROBUS
Sales
New
Zealand

2013
Visitor
centre
opened at
Dublin HQ

2014
ROBUS
Sales
France,
Baltics &
Scandinavia

2015
Deloitte
Best
Managed
Companies
Award

2016
Sydney
& Perth
Distribution
Centres
opened

2018
Catalogue
Launch

OUR VALUES, VISION & MISSION

Our Vision

Light has no boundaries!

Light stimulates and informs us – it effects how we see our world and the way we feel. Light is integral to architecture, definition and beauty.

Light is life. Just like light, our brand ROBUS and our people know no boundaries. There is a demand for fresh and exciting products and working practices to satisfy the desires of an ambitious team spirit.

Our Values

Our five values are the foundation of our culture and our approach to business. They are synonymous with the LED Group and are at the heart of everything we do, uniting us across geographies and making us a great company to work with and for.

> **Accountability:** We always do what we say we will do.

> **Ambition:** We have ambitious growth plans and attract ambitious people.

> **Empowerment:** We give people autonomy to do their jobs effectively.

> **Customer Focus:** Our customers are the reason we exist.

> **Fast Pace:** We make decisions quickly, communicating positive energy and drive.

Our Mission

To make our internal and external customers stick to us like glue.

THE ROBUS BRAND

Since its introduction the ROBUS brand of lighting solutions has become synonymous with innovation, quality and value for money. Simple installation, significant energy savings and 'fit and forget' solutions are key hallmarks of the range.

All new product introductions to the ROBUS range are advanced LED solutions to replace traditional light sources for both commercial and residential applications.

Over 1,100 product lines are held at our Central Distribution Centres in Dublin and Australia.

WHY ROBUS?

The ROBUS range of high quality lighting products provides the ultimate 'fit and forget' solution.

- Established in 1984 – extensive industry experience
- Over 18 years manufacturing LED Lighting
- Over 34 years servicing the electrical industry
- Quick and easily installed products
- In-house reliability testing & quality control codes of practice
- Maintenance saving or in some instances elimination
- ROBUS Retrofit LED solutions use energy more efficiently
- Delivering higher lumens per watt
- Legislation compliance
- Colour consistency
- Uniform light distribution
- Photometrics – genuine performance files for use with lighting design software
- Full solutions – emergency, dimmable, dual power and sensor options to suit a range of applications
- Warranties of 2 to 5 years

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ROBUS QUALITY

LED technology has changed the way we measure and present lighting performance information. Currently the lighting industry is full of confusion and inflated claims from some brands with regards to colour stability, efficiency, lumen output and reliability.

ROBUS products are produced to standards, using only high spec LEDS from leading brands, who have precise and reliable performance data on their LED chips.

Furthermore, we are committed to rigorous testing and the provision of honest and accurate product information.

The technical information presented in this catalogue follows the industry guidelines for presentation of LED product data. All ROBUS products come with warranties.

ROBUS – OUR INFORMATION IS BLACK AND WHITE!

See the back section of the catalogue for details on Quality Approvals including the Carbon Trust Green Business Fund, Enhanced Capital Allowances; SEAI Triple E scheme and the LIA verified scheme.

COMMERCIAL

COMMERCIAL
SPACE UGR <19 LED PANEL

NEW!

SPACE UGR<19 LED panel, 600x600mm, White

- Suitable for use in offices, shops, reception areas, restaurants, hotels, schools, hospitals
- LED replacement for 4x18W T8 lay-in panels
- Fits into standard sizes of ceiling grid – 15mm and 24mm
- Impact rating of IK06
- High efficacy of 106lm/W
- Wide operating ambient temperature range of -20°C to +40°C
- 50,000 hour rated LED life. Up to 5 times that of a standard fluorescent
- Flicker free driver available as accessory

- Pre-wired with Swift male and female loop in/loop out connector enabling fast fix installation
- Suspension and surface mount kits available
- Suitable for switching by PIR, Microwave or Photocell
- 1-10V, DALI and Push dim driver available – code: HED2040-D
- Emergency spacing details in back section of catalogue
- Complies with requirements of the Energy Technology Criteria List. Enhanced Capital Allowances may be claimed on the cost of the luminaires, installation and transport to site

Specially designed optics provide:
- **UGR≤19** low direct glare for increased eye comfort
- Luminance ≤3000cd/m² at ≥65° for ease of screen viewing
- Complies with the requirements of EN12464 for reading, writing and computer based tasks in offices and other areas

Accessories:

|	
R3EMPK-PSU	Plug and play emergency pack
R6060SMKFB-01	Flat packed surface mount box
RAMSUS-3W	3 wire suspension kit 1200x300mm
RAMSUS-4W	4 wire suspension kit 600x600mm
RAMSUS-6W	6 wire suspension kit 600x1200mm
RAMSST	Safety bracket and 2m strap 600x600mm
RAMRC	Plaster board recessed clips kit

Darwin International Airport, Australia

	Neutral White	Cool White
	RSP32406060G-01	**RSP32506060G-01**
Comparable to:	4x18W Fluorescent	4x18W Fluorescent
Total Power (W):	32W	32W
Total Light Output (lm):	3,390	3,420
Efficacy (lm/cctW):	106	107
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	1,290	1,310
Beam Angle (deg):	100	100
CCT (K):	4000	5000
CRI:	80	80
IP:	20	20
Impact Rating (IK):	06	06
Power Factor:	0.9	0.9
Width (mm):	595	595
Length (mm):	595	595
Depth (mm):	10	10
Box Qty:	4	4
Weight (kg):	3	3

5 YRS | 106–107 LmW | SWIFT Connector

OP 220 240 | IP 20 | PHOTO METRICS | PART L2
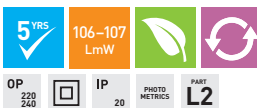
ECA Eligible

COMMERCIAL
SPACE UGR <19 LED PANEL

600 x 1,200mm

Surface Mount box
600 x 600mm

SPACE UGR<19 and ATMOS surface mount box, White

- A surface mount box that allows for surface mounting of panel with the driver concealed behind the fitting or located behind the wall / ceiling void
- Frames supplied flat packed and must be assembled on site

	600x600mm
	R6060SMKFB-01
Length (mm):	600
Width (mm):	600
Depth (mm):	50

	300x1,200mm
	R1230SMKFB-01
Length (mm):	300
Width (mm):	1,200
Depth (mm):	50

	600x1,200mm
	R60120SMKFB-01
Length (mm):	600
Width (mm):	1,200
Depth (mm):	50

SPACE and ATMOS suspension kits

- Enables panel to be suspended at a length of 1.2/1.5m

RAMSUS-3W	3 wire for 300x1200mm panels
RAMSUS-4W	4 wire for 600x600mm panels
RAMSUS-6W	6 wire for 600x1200mm panels
RAMRC	Plaster Boards Recessed Clips Kit for ATMOS and SPACE LED Panels
RAMSST	Safety bracket and 2m strap kit for ATMOS and SPACE LED Panels

1.1m

RAMSUS-3W

RAMSUS-6W
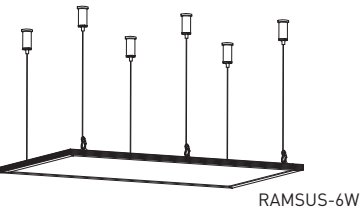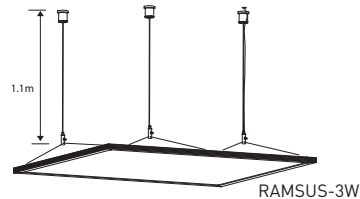
COMMERCIAL
SPACE UGR<19 LED PANEL

COMPLETE WITH SWIFT CONNECTOR
Easy to install
Plug & play connector with large
terminals & integrated cable restraint

METAL BACKPLATE

BARRIER LAYER
Ensures protection of optical layers

REFLECTIVE SHEET
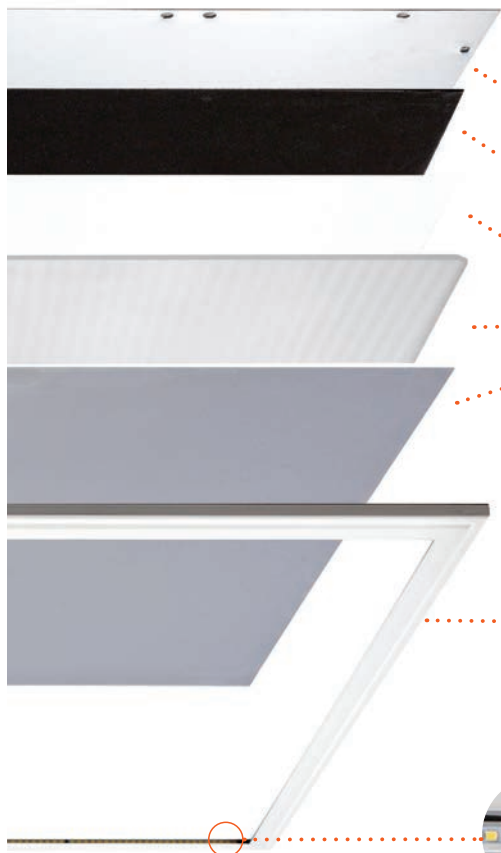**LIGHT GUIDE PLATE**
& DIFFUSER
High efficiency
Low glare

ALUMINIUM FRAME
Low profile design
Fits in standard ceiling grid sizes

HIGH OUTPUT LED'S
106-107 lm/W
50,000 hour rated LED life
5 to 10 times that of a standard florescent
4000K and 5000K versions

SPACE UGR<19
FLUORESCENT REPLACEMENT

The ROBUS slim profile LED panel light allows you to create a beautiful environment of space and a sense of natural light.

Fast and simple to install, it replaces the standard fluorescent T8 lay-in modules to provide energy efficient, but perhaps more importantly, low maintenance solutions where constant replacement of fluorescent tubes and cleaning of the fitting can be avoided.

Installed where energy savings and low maintenance costs are of paramount importance it will enable the building to achieve a low carbon footprint and complies with today's building regulations producing over 106 lumens per circuit Watt.

Specially designed optics provide:
- **UGR≤19** low direct glare for increased eye comfort
- Luminance ≤3000cd/m² at ≥65° for ease of screen viewing
- Complies with the requirements of EN12464 for reading, writing and computer based tasks in offices and other areas

600 x 600mm
Comparable to T8 4x18W

ACCESSORIES / VARIATIONS:
Surface Mount System
Suspension Kit
Emergency Option
Dimmable with DALI or 1–10V Drivers

Mirage Inks, Frome, United Kingdom

COMMERCIAL
ATMOS LED PANEL

600x600mm

ATMOS LED panel, 600x600mm, White

- Suitable for use in offices, shops, reception areas, restaurants, hotels, schools, hospitals
- LED replacement for 4x18W T8 lay-in modular
- Fits into standard sizes of ceiling grid – 15mm and 24mm
- High efficacy of 83-91 lm/W
- Wide operating ambient temperature range of -20°C to +40°C

- 50,000 hour rated LED life. Up to 5 times that of a standard fluorescent
- Suspension kit available
- 1-10V, DALI and Push dim driver available – code: HED2040-D

Accessories:

R3EMPK-PSU	Plug and play emergency pack
R6060SMKFB-01	Flat packed surface mount box 600x600mm
R60120SMKFB-01	Flat packed surface mount box 600x1200mm
R1230SMKFB-01	Flat packed surface mount box 1200x300mm
RAMSUS-3W	3 wire suspension kit 1200x300mm
RAMSUS-4W	4 wire suspension kit 600x600mm
RAMSUS-6W	6 wire suspension kit 600x1200mm
RAMSST	Safety bracket and 2m strap 600x600mm
RAMRC	Plaster board recessed clips kit

Fred Longworth High School, Manchester, United Kingdom

	Warm White	Neutral White	Cool White
Standard	**RAM40306060-01**	**RAM40406060-01**	**RAM40506060-01**
Comparable to:	4x18W Fluorescent	4x18W Fluorescent	4x18W Fluorescent
Total Power (W):	38.7	40.1	39.2
Total Light Output (lm):	3,200	3,600	3,580
Efficacy (lm/cctW):	83	90	91
Lifetime (hrs):	50,000	50,000	50,000
Lux at 1m (lux):	810	1,200	1,250
Beam Angle (deg):	110	110	110
CCT (K):	3000	4000	5000
CRI:	80	80	80
IP:	20	20	20
Power Factor:	0.97	0.97	0.97
Length (mm):	595	595	595
Width (mm):	595	595	595
Depth (mm):	10	10	10
Box Qty:	1/4	1/4	1/4
Weight (kg):	3.3	3.3	3.3

5 YRS | 83–91 LmW

OP 220 240 | IP 20 | PHOTO METRICS | PART L2
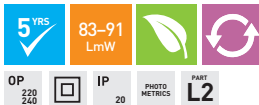
SEAI approved

COMMERCIAL
ATMOS LED PANEL

300x1200mm

ATMOS LED panel, 300x1200mm and 600x1200mm, White

- Suitable for use in offices, shops, reception areas, restaurants, hotels, schools, hospitals
- LED replacement for 2x36W and 4x36W T8 lay-in modular
- Fits into standard sizes of ceiling grid – 15mm and 24mm
- High efficacy of 83-87 lm/W
- Wide operating ambient temperature range of -20°C to +40°C

- 50,000 hour rated LED life. Up to 5 times that of a standard fluorescent
- Complete with 1m flex
- Suspension kit available
- 1-10V, DALI and Push dim driver available – code: HED2040-D

Accessories:

R3EMPK-PSU   Plug and play emergency pack

Spacing Distances

Code	Lux Level	Spacing Required	Wattage	Colour Temp	Size
RAM40406060-01	300 Lux 500 Lux	3.25 x 3.25 mm 2.4 x 2.4 mm	40W	4000K	600x600mm
RAM40506060-01	300 Lux 500 Lux	3.1 x 3.1 mm 2.6 x 2.6 mm	40W	5000K	600x600mm
RAM40403012-01	300 Lux 500 Lux	4.2 x 3.75 mm 3.0 x 3.3 mm	40W	4000K	300x1200mm
RAM60406012-01	300 Lux 500 Lux	3.3 x 3.0 mm 2.6 x 2.4 mm	60W	4000K	600x1200mm
RAM40306060-01	300 Lux 500 Lux	3.0 x 3.0 mm 2.25 x 2.25 mm	38W	3000K	600x600mm

600x1200mm

	40W	60W
	RAM40403012-01	**RAM60406012-01**
	300x1200mm	600x1200mm
Comparable to:	2 x 36	4 x 36
Total Power (W):	40.8	59.9
Total Light Output (lm):	3,380	5,220
Efficacy (lm/cctW):	83	87
Lifetime (hrs):	50,000	50,000
Beam Angle (deg):	110	110
Lux at 1m (lux):	1,100	1,800
CCT (K):	4000	4000
CRI:	80	80
IP:	20	20
Power Factor:	0.97	0.97
Width (mm):	295	595
Length (mm):	1,195	1,195
Depth (mm):	10	10
Box Qty:	1/4	1/2
Weight (kg):	3.3	7

5YRS | **83–87** LmW | |

OP 220 240 | | **IP** 20 | **PHOTO METRICS** | **PART** **L2**

SEAI approved

EMERGENCY PACK FOR PANEL & ETERNITY

3 hour Emergency Pack, with Swift Connector
for use with Space & Atmos Panels & Eternity downlights

- Suitable for use with SPACE and ATMOS LED panels and ETERNITY LED downlights
- Completely plug & play with SPACE and ETERNITY
- Low power consumption
- Provides 3-hour emergency discharge duration
- Wide operating temperature range of -10°C to +40°C

	R3EMPK-PSU
Total Power (W):	3
IP:	20
Power Factor (PF):	0.9
Length (mm):	160
Width (mm):	38
Depth (mm):	28
Box Qty:	1
Weight (kg):	0.23
Charging Time (hrs):	24
Discharge Time (hrs):	3

Darwin International Airport, Australia

COMMERCIAL
STELLAR UGR<19 LED INDIRECT PANEL

NEW!

STELLAR 28W UGR<19 LED indirect panel light, White

- Suitable for use in offices, shops, reception areas, restaurants, hotels, schools, hospitals
- LED replacement for 4x18W T8 lay-in panels
- Fits into standard sizes of ceiling grid – 15mm and 24mm
- High impact rating of IK06
- UGR <19 complies with the requirements of EN12464 for reading, writing and computer based tasks in offices and other areas
- Very high efficacy exceeding 112lm/W
- Wide operating ambient temperature range of -20°C to +40°C

- 50,000 hour rated LED life. Up to 5 times that of a standard fluorescent
- Luminance ≤3000cd/m² at ≥65° for ease of screen viewing
- Pre-wired with SWIFT male and female loop in / loop out connector enabling fast fix installation
- Suitable for switching by PIR, Microwave or Photocell
- 1-10V, DALI and Push dim driver available – code: HED2040-D
- Emergency option is also available

Accessories:

R3EMPK-PSU   Plug and play emergency pack

	RSL28406060-01
Comparable to:	4 x 18W fluorescent
Total Power:	28
Total Light Output (lm):	3,200
Efficacy (lm/cctW):	112
Lifetime (hrs):	50,000
Beam Angle (deg):	77.5
Lux at 1m (lux):	1,880
CCT (K):	4000
IP:	20
Power Factor:	>0.9
Width (mm):	595
Length (mm):	595
Depth (mm):	100
Weight (kg):	3

5 YRS | **112 LmW**

OP 220 240 | IP 20

PHOTO METRICS | PART L2

595mm

595mm

100mm
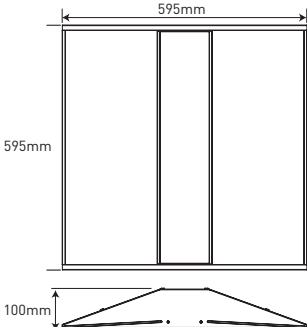
COMMERCIAL
SUN CIRCULAR LED PANEL

SUN LED circular panels, White

- Suitable for use in offices, shops, reception areas, restaurants, hotels, schools, hospitals
- Energy saving alternative to compact fluorescent fittings
- Low profile downlights ideal for installations in shallow ceiling voids
- Die cast aluminium construction

- High impact rating of IK10
- Complete with plug and play driver and 1m of flex
- High efficacy of 60-79lm/W
- Wide operating ambient temperature range of -20°C to +40°C
- Emergency, Analogue dimmable and DALI dimmable available through Conversions

	6W	9W	12W	18W	24W
3000K	**R120LEDC30-01**	**R150LEDC30-01**	**R170LEDC30-01**	**R225LEDC30-01**	
4000K	**R120LEDC40-01**	**R150LEDC40-01**	**R170LEDC40-01**	**R225LEDC40-01**	**R300LEDC40-01**
Comparable to:	1x9W CFL	1x13W CFL	1x18W CFL	1x26W CFL	2x18W CFL
Total Power (W):	6.7/6.5	8.5/8.2	11.3/11.6	18.6/18	23
Total Light Output (lm):	400/430	530/560	820/850	1,330/1,420	1,740
Efficacy (lm/cctW):	60/66	62/68	73/73	72/79	76
Lifetime (hrs):	30,000	30,000	30,000	30,000	30,000
Lux at 1m (lux):	140/150	180/200	280/320	450/480	590
Beam Angle (deg):	110	110	110	110	110
CCT (K):	3000/4000	3000/4000	3000/4000	3000/4000	3000/4000
CRI:	80	80	80	80	80
IP:	20	20	20	20	20
Impact Rating (IK):	10	10	10	10	10
Power Factor:	0.9	0.9	0.9	0.9	0.9
Diameter (mm):	120	150	170	225	300
Depth (mm):	25	25	25	25	25
Cut-Out (mm):	105	140	150	210	285
Weight (kg):	0.25	0.3	0.35	0.45	0.75

2 YRS | 60–79 LmW

OP 220 240 | IP 20 | PHOTO METRICS | PART L1 | PART L2

COMMERCIAL
VULCAN LED CORROSION PROOF

Designed for demanding industrial applications, the ROBUS Vulcan is the ultimate energy saving, corrosion-proof LED solution for car parks, cold stores, corridors and garages. The range provides light output comparable to waterproof linear fluorescent.

The Direct Linear Fluorescent Replacement

Single 6FT	**RVUF486FT-01**
Double 6FT	**RVUF966FT-01**
Single 5FT	**RVUF405FT-01**
Double 5FT	**RVUF805FT-01**
Single 4FT	**RVUF244FT-01**
Double 4FT	**RVUF484FT-01**
Single 2FT	**RVUF122FT-01**
Double 2FT	**RVUF242FT-01**

5 YRS   103–119 LmW

OP 100 240   IP 65

PHOTO METRICS   PART L2

ECA eligible

VULCAN
BUILT TO LAST

FEATURES:

CORROSION PROOF
IP65

HIGH STRENGTH POLYCARBONATE BASE & DIFFUSER
Wide beam angle and no glare
Evenly diffused light

EASY INSTALLATION
Supplied with LED Driver
Plug & Play mains connection system
Tool-free removable gear tray
Anti-corrosion clips
Surface or Chain Suspension

COST EFFECTIVE
35% energy saving
50,000 hour rated LED life
Reduced energy, maintenance and disposal costs

WIDE RANGE OF APPLICATIONS
No heat filaments or electrodes
Resistant to shock and vibration
Withstands temperatures of -25° C to 40°C

PERFORMANCE DRIVEN
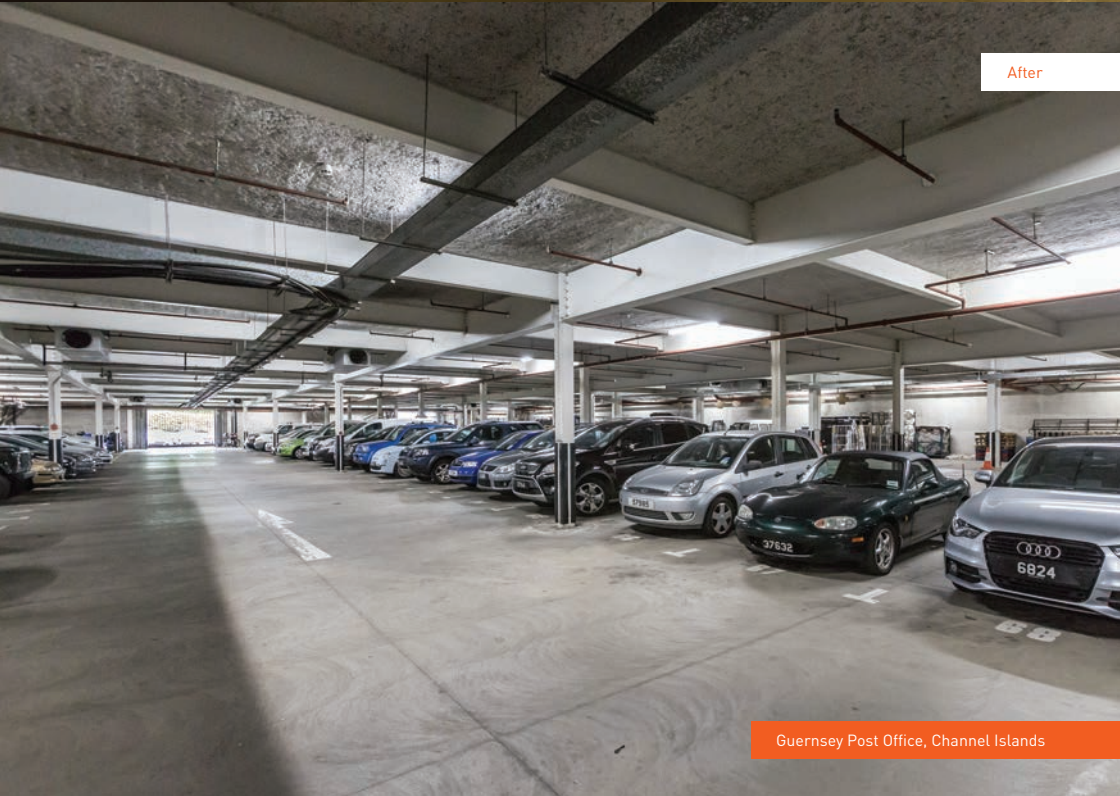>100 lumens per circuit watt
Part L2 compliant
5 year warranty

U.S Embassy, Dublin, Ireland

Clifton High School, Bristol

Before

After

Guernsey Post Office, Channel Islands

VULCAN LED CORROSION PROOF – 5FT AND 6FT

VULCAN LED corrosion proof, White

- Suitable for workshops, garages, warehouse, car parks, farm buildings, wet areas
- LED replacement for single and double 58W and 70W fluorescent corrosion proof fitting
- 50,000 hour rated LED life
- IP65, can be used for external applications
- Complete with anti-corrosion clips
- Impact rating of IK08
- High efficacy of 108-127lm/W
- Wide operating ambient temperature range of -25˚C to +40˚C

- Emergency version available with 3 hour emergency duration
- 330-380 lumen output in emergency mode
- 1-10V dimmable and integral Microwave Sensor options available through Conversions
- Emergency spacing details in back section of catalogue
- Complies with requirements of the Energy Technology Criteria List. Enhanced Capital Allowances may be claimed on the cost of the luminaires, installation and transport to site
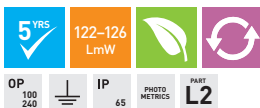

Bank's Brewery, Wolverhampton, United Kingdom

	Single	Double	Single	Double
	1.8M	1.8M	1.5M	1.5M
Cool White	1 x 48W	2 x 48W	1 x 40W	2 x 40W
Standard	**RVUF486FT-01**	**RVUF966FT-01**	**RVUF405FT-01**	**RVUF805FT-01**
Emergency	**RVUF486FTE-01**	**RVUF966FTE-01**	**RVUF405FTE-01**	**RVUF805FTE-01**
Comparable to:	1 x 70W T8 Fluorescent	1 x 70W T8 Fluorescent	1 x 58W T8 Fluorescent	2 x 58W T8 Fluorescent
Total Power (W):	46	93.2	39.6	78.7
Total Light Output (lm):	5,850 standard	11,410 standard	4,490 standard	8,480 standard
	380 emergency	360 emergency	330 emergency	330 emergency
Efficacy (lm/cctW):	127	123	113	108
Lifetime (hrs):	50,000	50,000	50,000	50,000
Lux at 1m (lux):	1,890	3,970	1,390	2,760
Beam Angle (deg):	115	115	115	115
CCT (K):	5000	5000	5000	5000
CRI:	80	80	80	80
IP:	65	65	65	65
Impact Rating (IK):	08	08	08	08
Power Factor:	0.97	0.97	0.95	0.95
Length (mm):	1,835	1,835	1,560	1,560
Width (mm):	93	140	93	140
Height (mm):	97	97	97	97
Box Qty:	4	4	1	1
Weight (kg):	2.7	3.8	2.5	3.5

5 YRS | 108–127 LmW

OP 100 240 | IP 65 | PHOTO METRICS | PART L2

ECA eligible

VULCAN LED CORROSION PROOF – 4FT AND 2FT

VULCAN LED corrosion proof, White

- Suitable for workshops, garages, warehouses, car parks, farm buildings, wet areas
- LED replacement for single and double 18W and 36W fluorescent corrosion proof fittings
- 50,000 hour rated LED life
- IP65, can be used for external applications
- Complete with anti-corrosion clips
- Impact rating of IK08

- High efficacy of 122-126lm/W
- Wide operating ambient temperature range of -25˚C to +40˚C
- 1-10V dimmable and integral Microwave Sensor options available through Conversions
- Complies with requirements of the Energy Technology Criteria List. Enhanced Capital Allowances may be claimed on the cost of the luminaires, installation and transport to site

Mirage Inks, Frome, United Kingdom

	Single	Double	Single	Double
	1.2M	1.2M	0.6M	0.6M
Cool White	1 x 24W	2 x 24W	1 x 12W	2 x 12W
Standard	**RVUF244FT-01**	**RVUF484FT-01**	**RVUF122FT-01**	**RVUF242FT-01**
Emergency	**RVUF244FTE-01**	**RVUF484FTE-01**	**RVUF122FTE-01**	**RVUF242FTE-01**
Comparable to:	1x36W T8 Fluorescent	2x36W T8 Fluorescent	1x18W T8 Fluorescent	2x18W T8 Fluorescent
Total Power (W):	23.1	47.5	12.8	23.6
Total Light Output (lm):	2,900 standard	5,780 standard	1,600 standard	2,880 standard
	330 emergency	330 emergency	330 emergency	330 emergency
Efficacy (lm/cctW):	126	122	126	122
Lifetime (hrs):	50,000	50,000	50,000	50,000
Lux at 1m (lux):	970	1,980	520	950
Beam Angle (deg):	115	115	115	115
CCT (K):	5000	5000	5000	5000
CRI:	80	80	80	80
IP:	65	65	65	65
Impact Rating (IK):	08	08	08	08
Power Factor:	0.95	0.95	0.95	0.95
Height (mm):	97	97	97	97
Length (mm):	1,258	1,258	660	660
Width (mm):	93	140	93	140
Box Qty:	1	1	1	1
Weight (kg):	2.5	3.0	1.1	1.4

ECA eligible

Portsmouth Football Club, United Kingdom

COMMERCIAL
SULTAN LED CORROSION PROOF

Sleek, slim and robust, the new SULTAN LED corrosion proof from ROBUS is a perfect LED retrofit solution where fluorescent corrosion proofs are used. The high strength opal diffuser delivers a superior evenly diffused light output perfect for use in car parks, cold stores, corridors and garages.

The Sleek Linear Fluorescent Replacement

Single 4FT	**RSUF244FT-24**
Double 4FT	**RSUF484FT-24**
Single 5FT	**RSUF405FT-24**
Double 5FT	**RSUF805FT-24**
Double 2FT Yellow Base	**RSUF242FT-09**
Single 4FT Yellow Base	**RSUF244FT-09**

SULTAN
BUILT TO LAST

FEATURES:

CORROSION PROOF
IP65

SLIM PROFILE
83mm wide for single fittings
103mm wide for double fittings

HIGH STRENGTH POLYCARBONATE BASE & DIFFUSER
Wide beam angle and no glare
Evenly diffused light

EASY INSTALLATION
Wire through the back or from either end

COST EFFECTIVE
35% Energy Saving
50,000 hour rated LED life
Reduced energy, maintenance and disposal costs

WIDE RANGE OF APPLICATIONS
No heat filaments or electrodes
Resistant to shock and vibration
Withstands temperatures of -25°C to 40°C

PERFORMANCE DRIVEN
Up to 126 lumens per circuit watt
3 year warranty

DIMMING OPTIONS
Suitable for Analogue, Dali and Switch dimming

Cable gland entry - enables wiring through either end of the fitting for easy installation

Polycarbonate base - provides protection against impact, IK08

Stainless steel clips - easy to secure the opal diffuser, anti-corrosion

LED – high quality SMD LEDs delivering over 106 lumens per circuit watt

Aluminium LED mounting tray - the perfect heat sink for the LEDs and control gear

**Polycarbonate diffuser** – provides a wide beam angle and evenly diffused light

COMMERCIAL
SULTAN LED CORROSION PROOF

SULTAN LED corrosion proof, Grey

- Suitable for workshops, garages, warehouses, car parks, farm buildings, wet areas
- LED replacement for 1x36W, 2x36W, 1x58W, 2x58W fluorescent corrosion proof fittings
- 50,000 hour rated LED life
- IP65, can be used for external applications
- Complete with stainless steel clips
- Impact rating of IK08
- High efficacy of 106-126lm/W

- Wide operating ambient temperature range of -25°C to +40°C
- Emergency version operates for 3 hour duration, c/w test switch
- 390-430lm output in emergency mode
- Suitable for Analogue, Dali and Switch Dimming
- 1-10V dimmable and integral Microwave Sensor options available through Conversions
- Emergency spacing details in back section of catalogue
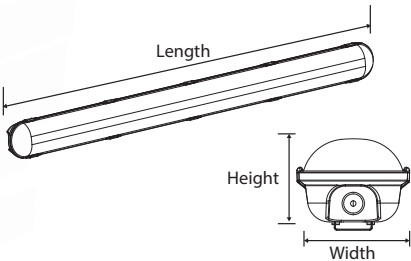
CODE	WIDTH	HEIGHT	LENGTH
RSUF244FT/E-24	85mm	77mm	1,230mm
RSUF484FT/E-24	103mm	77mm	1,230mm
RSUF405FT/E-24	85mm	77mm	1,530mm
RSUF805FT/E-24	103mm	77mm	1,530mm

Portsmouth Football Club, United Kingdom

	Single	Double	Single	Double
	1.2M	1.2M	1.5M	1.5M
Cool White	1 x 24W	2 x 24W	1 x 40W	2 x 40W
Standard	**RSUF244FT-24**	**RSUF484FT-24**	**RSUF405FT-24**	**RSUF805FT-24**
Emergency	**RSUF244FTE-24**	**RSUF484FTE-24**	**RSUF405FTE-24**	**RSUF805FTE-24**
Comparable to:	1 x 36W	2 x 36W	1 x 58W	2 x 58W
Total Power (W):	22.9	45.4	40.2	77.9
Total Light Output (lm):	2,860 standard	5,600 standard	4,440 standard	8,260 standard
	430 emergency	410 emergency	390 emergency	390 emergency
Efficacy (lm/cctW):	126	124	111	106
Lifetime (hrs):	50,000	50,000	50,000	50,000
Lux at 1m (lux):	990	1,790	1,410	2,560
Beam Angle (deg):	120	120	120	120
CCT (K):	5000	5000	5000	5000
CRI:	80	80	80	80
IP:	65	65	65	65
Impact Rating (IK):	08	08	08	08
Power Factor:	0.95	0.95	0.95	0.97
Length (mm):	1,230	1,230	1,530	1,530
Width (mm):	85	103	85	103
Height (mm):	77	77	77	77
Weight (kg):	1.3	1.5	1.6	2.0

3 YRS | 106–126 LmW

OP 220 240 | IP 65 | PHOTO METRICS
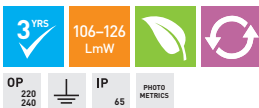
ECA eligible
**Triple E registered**

# COMMERCIAL
SULTAN 110V LED SITE CORROSION PROOF

SULTAN LED site corrosion proof, Yellow base, 110V

- Suitable for construction sites, wet areas, workshops
- LED replacement for 2x18W & 1x36W fluorescent corrosion proof fittings
- 5000K cool white light output
- 30,000 hour rated led life
- IP65, can be used for external applications
- Complete with stainless steel clips
- Impact rating of IK08

- High efficacy of 125-126lm/W
- Wide ambient temperature operation range of -25°C to +40°C
- 3 hour emergency duration
- 430lm output in emergency mode
- 15% of maintained output
- Emergency spacing details in back section of catalogue

632mm

77mm

103mm

2FT

1230mm

77mm

85mm

4FT
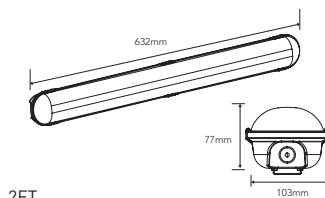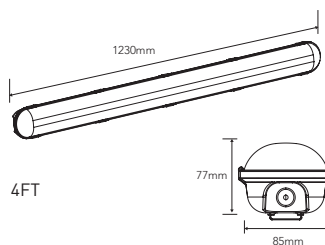
	RSUF244FT-09	RSUF242FT-09
Standard	**RSUF244FT-09**	**RSUF242FT-09**
Emergency	**RSUF244FTE-09**	**RSUF242FTE-09**
Comparable to:	1 x 36W T8 Fluorescent	2 x 18W T8 Fluorescent
Total Power (W):	22.9	23.2
Total Light Output (lm):	2,860 standard	2,900 standard
	430 emergency	430 emergency
Efficacy (lm/cctW):	126	125
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	990	970
Beam Angle (deg):	120	120
CCT (K):	5000	5000
CRI:	80	80
IP:	65	65
Impact Rating (IK):	08	08
Power Factor:	0.95	0.95
Length (mm):	1,230	632
Width (mm):	85	103
Height (mm):	77	77
Weight (kg):	1.3	1.0

3 YRS | 125–126 LmW | OP 110 | IP 65 | L2 PART
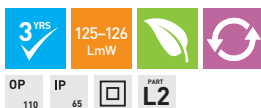
ECA eligible

CAESAR LED BATTEN

CAESAR LED batten, White

- Suitable for use in offices, corridors, stairways, retail shops, health centres, storage areas, work stations, hotels, schools
- LED replacement for T8 fluorescent
- 50,000 hour rated LED life
- Impact rating of IK08
- High efficacy of 111-127lm/W
- Wide operating ambient temperature range of -25˚C to +40˚C
- Emergency version operates for 3 hour duration, c/w test switch

- 400-410lm output in emergency mode
- Large terminals allowing easy loop-in/ loop-out
- C/w mounting accessories and suspension kit allowing suspending at max 1m
- Suitable for analogue, DALI, and switch dimming
- Emergency spacing details in back section of catalogue
- Complies with requirements of the Energy Technology Criteria List. Enhanced Capital Allowances may be claimed on the cost of the luminaires, installation and transport to site

	0.6M	1.2M	1.2M	1.5M	1.5M
Neutral White	24W	24W	48W	48W	80W
Standard	**RCA244006-01**	**RCA244012-01**	**RCA484012-01**	**RCA484015-01**	**RCA804015-01**
Emergency			**RCA484012E-01**	**RCA484015E-01**	**RCA804015E-01**
Comparable to:	2 x 18W	1 x 36W	2 x 36W	1 x 58W	2 x 58W
Total Power (W):	23.1	23.0	46.0	45.8	78.5
Total Light Output (lm):	2,660 standard	2,850 standard	5,320 standard 410 emergency	5,400 standard 410 emergency	8,720 standard 400 emergency
Efficacy (lm/cctW):	115	124	116	118	111
Lifetime (hrs):	50,000	50,000	50,000	50,000	50,000
Lux at 1m (lux):	730	770	1,440	1,460	2,320
Beam Angle (deg):	140	140	140	140	140
CCT (K):	4000	4000	4000	4000	4000
CRI:	80	80	80	80	80
IP:	20	20	20	20	20
Impact Rating (IK):	08	08	08	08	08
Power Factor:	0.95	0.95	0.97	0.97	0.97
Length (mm):	560	1,160	1,160	1,460	1,460
Width (mm):	62	62	62	62	62
Height (mm):	74	74	74	74	74
Weight (kg):	0.8	2.1	2.1	2.5	2.5
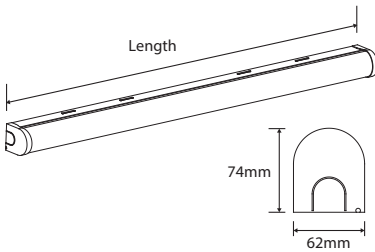
Length

74mm

62mm

	LENGTH	WIDTH	HEIGHT
RCA244006-01	560mm	62mm	74mm
RCA244012-01	1,160mm	62mm	74mm
RCA484012/E-01	1,160mm	62mm	74mm
RCA484015/E-01	1,460mm	62mm	74mm
RCA4804015/E-01	1,460mm	62mm	74mm
RCA604018-01	1,723mm	62mm	74mm
RCA964018-01	1,723mm	62mm	74mm

	1.8M	1.8M
Neutral White	60W	96W
Standard	**RCA604018-01**	**RCA964018-01**
Emergency		
Comparable to:	1 x 70W	2 x 70W
Total Power (W):	56.4	96.4
Total Light Output (lm):	7,140 standard 400 emergency	11,260 standard 400 emergency
Efficacy (lm/cctW):	127	117
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	1,900	3,150
Beam Angle (deg):	140	140
CCT (K):	4000	4000
CRI:	80	80
IP:	20	20
Impact Rating (IK):	08	08
Power Factor:	0.97	0.97
Length (mm):	1,723	1,723
Width (mm):	62	62
Height (mm):	74	74
Weight (kg):	3.1	3.2

5YRS   111–127 LmW

OP 220 240   IP 20   PHOTO METRICS   PART L2

ECA eligible
Triple E registered

PIR FOR CAESAR, SULTAN & VULCAN

360° PIR

- Suitable for use with CAESAR LED battens and SULTAN and VULCAN LED corrosion proof fittings
- Polycarbonate housing
- Mounting height of 2.8m to 7m
- Adjustable detection range - 25%, 50%, 75%, 100% of maximum
- Adjustable step dimming levels of 0%, 10%, 20%, 30%
- Adjustable lux settings of 10-50lx and daylight setting
- Adjustable time delay of 10sec to 60min
- Maximum loading of 2A
- Wide temperature operating range of -10°C to +40°C
- Remote control option available
- Step dimming function only available for products with dimmable driver option

ECA eligible

Note: Above available through Conversions

Remote Control

- Maximum remote operation of 7m

360° PIR	**R360PIR-01**
Remote Control	**R360RC-01**
Detection Area:	360°
Motion Detection Range:	7m Diameter at 2.8m
Loading:	Max. 300W LED
	Max. 300W Fluorescent
	Max. 300W Incandescent
Time Settings:	10 Seconds to 60 minutes for standby
	1 Minute to 24 hours dimming time
Lux at 1m (lux):	10-50lx and daylight setting
Impact Rating (IK):	10
IP:	65
Length (mm):	149
Width (mm):	36
Depth (mm):	28
Box Qty:	1
Weight (kg):	0.1

J & S Automotive, Dublin, Ireland

COMMERCIAL
TOUCAN LED BATTEN

TOUCAN LED batten, White

- Suitable for use in flat and apartment blocks, public buildings, care homes, communal areas, reception areas
- LED replacement for 2 x 18W / 2 x 36W/ 1 x 70W T8 fluorescent surface fittings
- Low profile aluminium housing with PBT end caps and polycarbonate diffuser
- High impact rating of IK08

- Complete with stainless steel mounting brackets
- Pre-wired with 1m of flex
- High efficacy of 97-106lm/W
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell
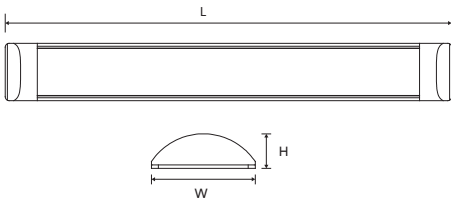
	W	H	L
RTC184006-01	75mm	25mm	615mm
RTC364012-01	75mm	25mm	1215mm
RTC454015-01	75mm	25mm	1515mm
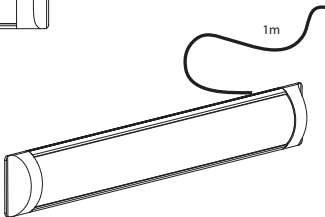
	18W	36W	45W
	RTC184006-01	**RTC364012-01**	**RTC454015-01**
Comparable to:	2 x 18W	2 x 36W	1 x 70W
Total Power (W):	18.7	34.3	43.4
Total Light Output (lm):	1,810	3,640	4,340
Efficacy (lm/cctW):	97	106	100
Lifetime (hrs):	30,000	30,000	30,000
Lux at 1m (lux):	600	1,200	1500
Beam Angle (deg):	120	120	120
CCT (K):	4000	4000	4000
CRI:	80	80	80
IP:	20	20	20
Impact Rating (IK):	08	08	08
Power Factor:	0.95	0.95	0.95
Height (mm):	25	25	25
Length (mm):	615	1,215	1,515
Width (mm):	75	75	75
Box Qty:	1	1	1
Weight (kg):	0.4	0.8	1.1
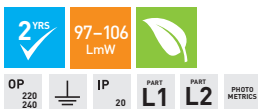
2 YRS   **97–106** LmW

OP 220 240   IP 20   PART **L1**   PART **L2**   PHOTO METRICS

Triple E registered

BARON LED CCT3 SELECTABLE BATTEN

NEW!

BARON LED CCT3 selectable batten, IP20, White

- Correlated Colour Temperature (CCT) selectable via 3 way switch under one of end caps enabling switching between 3000K, 4500K and 6500K
- Suitable for use in flat and apartment blocks, public buildings, care homes, communal areas, reception areas
- LED replacement for 2x18W T8, 2x36W T8, 2x58W T8, 1x70W T8 fluorescent surface fittings
- Low profile aluminium housing with polycarbonate end caps and diffuser

- Large screw terminal block allowing max 2.5mm² conductors
- High efficacy of 82-110lm/W
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

	600mm	1,200mm	1,500mm	1,800mm
	RBN2006CCT3-01	**RBN4012CCT3-01**	**RBN6015CCT3-01**	**RBN6018CCT3-01**
Comparable to:	2 x 18W	2 x 36W	2x58W	1x70W
Total Power (W):	20.2/19.9/20.3	40/38.7/40.3	59/56/59	59.5/57.6/59.5
Total light output (lm):	1,960/2,180/2,080	3,460/3,880/3,640	5,402/5,835/5,408	4,997/5,508/4,936
Efficacy (lm/cctW):	97/110/103	87/100/90	91/104/91	83/95/82
Lifetime (hrs):	30,000	30,000	30,000	30,000
Lux at 1m (lux):	600/670/640	1,010/1,140/1,070	1,566/1,692/1,568	1,449/1,597/1,431
Beam Angle (deg):	120	120	120	120
CCT (K)	3000/4500/6500	3000/4500/6500	3000/4500/6500	3000/4500/6500
CRI:	>80	>80	>80	>80
IP:	20	20	20	20
Impact Rating (IK):	07	07	07	07
Power Factor:	0.95	0.95	0.95	0.95
Length (mm):	600	1,200	1,500	1,800
Height (mm):	37.8	37.8	37.8	37.8
Width (mm):	83.4	83.4	83.4	83.4
Box Qty:	1	1	1	1
Weight (kg)	0.32	0.61	0.77	0.9

3 YRS · 82–110 LmW

OP 220 240 · IP 20 · PHOTO METRICS

COMMERCIAL
SCHOLAR LED BATTEN

SCHOLAR LED batten, White

- Suitable for use in schools, hotels, offices, retail shops, corridors, stairways, work stations, storage areas, inspection areas
- LED replacement for 2 x 36W and 2 x 58W T8 fluorescent
- Pressed steel housing with polycarbonate diffuser
- High impact rating of IK08
- 50,000 hour rated LED life
- Opal diffuser available to improve glare

- Equipped with flicker free driver
- High efficacy of 95-96lm/W
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell
- DALI, 1-10V and integral Microwave Sensor options available through Conversions
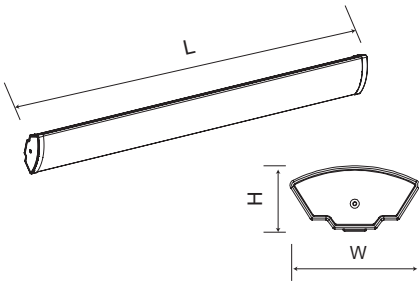
	L	W	H
RSC504012-01	1190mm	144mm	70mm
RSC604015-01	1490mm	144mm	70mm

	50W	60W
	RSC504012-01	RSC604015-01
Standard	**RSC504012-01**	**RSC604015-01**
Comparable to:	2 x 36W	2 x 58W
Total Power (W):	48.6	56.7
Total Light Output (lm):	4,610	5,470
Efficacy (lm/cctW):	95	96
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	1,300	1500
Beam Angle (deg):	120	120
CCT (K):	4000	4000
CRI:	80	80
IP:	44	44
Impact Rating (IK):	08	08
Power Factor:	0.97	0.97
Length (mm):	1,190	1,490
Width (mm):	144	144
Height (mm):	70	70
Weight (kg):	2.4	3.1

OPAL diffusers

	RSC120D	RSC150D
Total Light Output (lm):	3,960	5,000

5 YRS **95–96 LmW**

OP 220 240 **IP 44** **PHOTO METRICS** **PART L2**
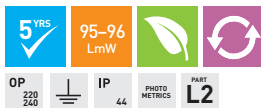
ECA eligible
Triple E registered

COMMERCIAL
CASEY LED LOW BAY

With Opal Diffuser

Standard

CASEY 120W LED low bay, White

- Suitable for use in manufacturing plants, work stations, warehouses, workshops, shopping arcades
- Steel housing with polycarbonate diffuser
- Opal diffuser as an accessory - RCYDIFOP-01
- Complete with M8 Ø25 eyebolts for use with any suspension system
- Complete with 1m flex and SWIFT connector

- Wide operating ambient temperature range of -20°C to +40°C
- 3 hour emergency duration
- 490lm lumen output in emergency mode
- Suitable for switching by PIR, Microwave or Photocell

Standard	**RCY12055-01**
Emergency	**RCY12055E-01**
Comparable to:	4 X 36W T8
Total Power (W):	115.2
Total Light Output (lm):	11,830 standard
	490 emergency
Efficacy (lm/cctW):	103
Lifetime (hrs):	50,000
Lux at 1m (lux):	5500 standard
	160 emergency
Beam Angle (deg):	110
CCT (K):	5500
CRI:	85
IP:	20
Impact Rating (IK):	07
Power Factor:	0.95
Length (mm):	830
Width (mm):	330
Depth (mm):	90
Box Qty:	1
Weight (kg):	6.1 standard
	6.6 emergency

5 YRS | 103 LmW

OP 220 240 | IP 20

PHOTO METRICS | PART L2

ECA eligible

SWIFT
★ ★ ★ ★ ★
Connector

Accessory
OPAL Diffuser   **RCYDIFOP-01**

COMMERCIAL
PRISMOID LED LINEAR HI-RACK

NEW!

PRISMOID LED linear Hi-Rack, Aluminium

- LED replacement for traditional 250W+ Metal Halide for use in warehouses, manufacturing plants, garages, workshops & aircraft hangars, retail superstores, gymnasium & sports halls
- Extruded aluminium housing provides optimal heat dissipation for long LED life
- PMMA lens for accurate beam angle control and light uniformity
- Optional lenses available for use at alternative mounting heights and illuminance requirements
- Dimmable driver as standard provides step dimming or automatic daylight harvesting (with appropriate sensors)
- High impact rating and very wide ambient operating temperature range for hot or cold applications

- Long rated LED life without costly maintenance regimes associated with traditional light sources
- Suitable for switching/dimming by PIR, Microwave or Photocell
- Emergency option available via Conversions
- Suspension kit included for fast and simple mounting to lighting trunking
- Pre-wired with 350mm 3*1.0mm² rubber flex
- Surface mounted rotating bracket available as accessory
- IP20 SWIFT connector (RSW44-P), IP68 connector (RCONIP68-04) or a suitable junction box can be used to connect supply
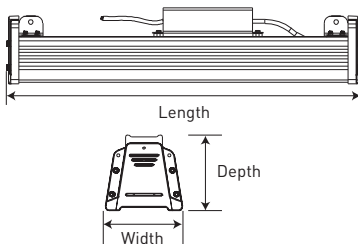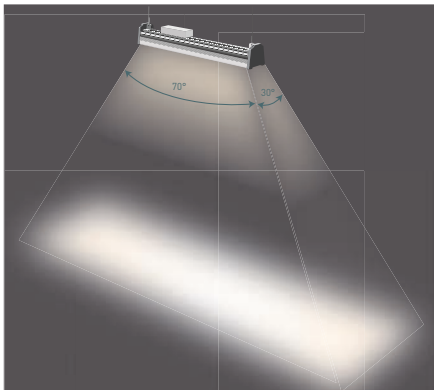
Note: Standard 30° x 70° beam angle lens is ideal for optimum light coverage in racking aisles

	100W	120W	150W	180W
	RPD10050DA-23	**RPD12050DA-23***	**RPD15050DA-23***	**RPD18050DA-23**
Comparable to:	200W MH	250W MH	300W MH	400W MH
Total Power (W):	100	121.8	148.2	180
Total Light Output(lm):	13,000	15,670	19,940	23,400
Efficacy (lm/cctW):	130	128	135	130
Lifetime (hrs):	50,000	50,000	50,000	50,000
Lux (lux):	339 at 8m	893 at 5m	1,252 at 5m	581 at 8m
Beam Angle (deg):	30 x 70	30 x 70	30 x 70	30 x 70
CCT (K):	5000	5000	5000	5000
CRI:	>70	>70	>70	>70
IP:	65	65	65	65
Impact Rating (K):	10	10	10	10
Power Factor:	>0.9	>0.9	>0.9	>0.9
Length (mm):	590	590	880	880
Depth (mm):	125	125	125	125
Width (mm):	130	130	130	130
Weight (kg):	4	4	5	5

*Note: RPD12050DA-23 and RPD15050DA-23 kept in stock, other wattages ordered on demand.

	200W	240W	300W	400W	600W
	RPD20050DA-23	**RPD24050DA-23**	**RPD30050DA-23**	**RPD40050DA-23**	**RPD60050DA-23**
Comparable to:	400W MH	500W MH	600W MH	800W MH	1000W MH
Total Power (W):	200	240	300	400	600
Total Light Output(lm):	26,000	31,000	39,000	52,000	78,000
Efficacy (lm/cctW):	130	130	130	130	130
Lifetime (hrs):	50,000	50,000	50,000	50,000	50,000
Lux (lux):	688 at 8m	504 at 10m	434 at 12m	574 at 12m	628 at14m
Beam Angle (deg):	30x70	30 x 70	30 x 70	30 x 70	30 x 70
CCT (K):	5000K	5000K	5000K	5000K	5000K
CRI:	>70	>70	>70	>70	>70
IP:	65	65	65	65	65
Impact Rating (K):	10	10	10	10	10
Power Factor:	>0.9	>0.9	>0.9	>0.9	>0.9
Length (mm):	1,180	1,180	890	1,180	1,180
Depth (mm):	125	125	125	125	125
Width (mm):	130	130	135	135	135
Weight (kg):	5	5	5	5	5

ECA eligible

Accessories:

RPDRB	Surface mounting, rotating, brackets
RPDL90	90° lens accessory
RSW44-P	IP20 Swift connector
RCONIP68-04	IP68 connector
RDLHRV-HMW32S	Daylight harvest sensor, 1-10V dimming
RRD360MW-01	RADAR 360° MW sensor with 3 step dimming

COMMERCIAL
SONIC LED HIGHBAY

NEW!

SONIC LED Highbay, IP65, Black

- Suitable for use in warehouses, manufacturing plants, garages, workshops & aircraft hangars, retail superstores, gymnasium & sports halls
- LED replacement for 200W/300W/400W metal halide highbay fittings
- Die cast aluminium housing with tempered glass front providing high impact rating of IK08
- Pre-wired with 1m flex and Swift connector
- Fitting has 110° beam angle, 85° lens accessory available

- Surface mounting bracket and wire guard available
- Very high efficacy of 129-132lm/W
- Wide operating temperature range of -25°C to +45°C
- Dimmable with most 1-10V systems
- Suitable for switching by PIR, Microwave or Photocell

	RSN10050DAS-04	RSN15050DAS-04	RSN20050DAS-23
Comparable to:	200W metal halide	300W metal halide	400W metal halide
Total Power (W):	99.1	149.5	199.2
Total Light Output (lm):	13,050	19,320	25,890
Efficacy (lm / cctW):	132	129	130
Lifetime (hrs):	50000	50000	50000
Lux at 1m (lx):	4,610	6,810	9,063
Beam Angle (deg):	110	110	110
CCT (K):	5000	5000	5000
CRI:	80	80	80
IP:	65	65	65
Impact Rating (IK):	08	08	08
Power Factor (PF):	0.98	0.98	0.98
Height (mm):	206	215	219
Diameter (mm):	330	330	379
Box Qty:	1	1	1
Weight (kg):	3.6	4.2	5.3

5 YRS

129–132 LmW

OP 220 240

IP 65

PHOTO METRICS

PART L2

SWIFT
★ ★ ★ ★ ★
Connector

Accessories:

RSNL85-S	85° lens for 100W & 150W
RSNL85-L	85° lens for 200W
RSNB-S	Surface mounting bracket for 100W & 150W
RSNB-L	Surface mounting bracket for 200W
RSNWG-S	Wire guard for 100W & 150W
RSNWG-L	Wire guard for 200W
RDLHRV-HMW32S	Daylight harvest sensor, 1-10V dimming
RRD360MW-01	RADAR 360° MW sensor with 3 step dimming

SONIC LED Highbay

COMMERCIAL
DISK LED HIGHBAY

DISK LED highbay, Black

- Suitable for use in warehouses, manufacturing plants, garages, workshops & aircraft hangars, retail superstores, gymnasium & sports halls
- LED replacement for 200W/300W/400W metal halide highbay fittings
- Die cast aluminium housing with tempered glass front providing high impact rating of IK07
- Pre-wired with 1m flex and SWIFT connector

- 110° beam angle as standard, 60° and 90° aluminium reflectors available
- High efficacy of 127-134lm/W
- Wide operating temperature range of -25°C to +40°C
- Combined on/off and 0-10V dimmable driver as standard
- Suitable for switching by PIR, Microwave or Photocell
- DALI version available from Conversions

1. **Tempered glass:** Provides a high impact rating of IK07

3. **Die Cast Aluminium:** Housing and heatsink integrated into a single piece which provides a perfect thermal control of the LEDs

4. **Driver Housing:** Protects the driver from external agents

2. **Diffuser:** Allows for an even 110° uniform beam angle

5. **Sturdy Bracket:** Allows for suspension ceiling and wall mounting options on one fitting

6. **Easy to Install:** Allows for screwless suspension

	100W	160W	200W
Standard	**RDS10050DA-04**	**RDS16050DA-04**	**RDS20050DA-04**
Emergency		**RDS16050DA-04E**	**RDS20050DA-04E**
Comparable to:	200W Metal Halide	300W Metal Halide	400W Metal Halide
Total Power (W):	103.8	161.4	197.9
Total Light Output (lm):	13,650	20,500	26,510
Efficacy (lm/cctW):	131	127	134
Lifetime (hrs):	50,000	50,000	50,000
Lux at 1m (lux):	4,471	7,643	10,000
Beam Angle (deg):	110	110	110
CCT (K):	5000	5000	5000
CRI:	75	75	75
IP:	65	65	65
Impact Rating (IK):	07	07	07
Power Factor:	0.98	0.98	0.95
Height (mm):	252	310	310
Diameter (mm):	365	457	457
Box Qty:	1	1	1
Weight (kg):	5.1	9	9

5 YRS

127–134 LmW

OP 220 240 | IP 65

PHOTO METRICS | PART L2

ECA eligible

Triple E registered

SWIFT
★ ★ ★ ★ ★
Connector

Accessories:

RDSHBRF60-S	60° beam angle reflector for 100W
RDSHBRF90-S	90° beam angle reflector for 100W
RDSHBRF60-L	60° beam angle reflector for 160/200W
RDSHBRF90-L	90° beam angle reflector for 160/200W
RDSHBW90-L	90° wire guard for 160/200W
RDSHBOD-L	Opal diffuser for 160/200W
RDLHRV-HMW32S	Daylight harvest sensor, 1-10V dimming
RRD360MW-01	RADAR 360° MW sensor with 3 step dimming

FAMILY STAND

CENTRAL CAR AUCTIONS

CENTRAL CAR AUCTIONS CENTRAL CAR A

Rangers FC, Glasgow, Scotland

Before

After

Guernsey Post Office, Channel Islands

Ross Hall Hospital, Glasgow, Scotland

COMMERCIAL
STREEX LED STREET LIGHTING

NEW!

STREEX LED Street light, Grey

- Suitable for use in public or private roads, hotel drives and car parks
- High impact rating of IK08
- Body is made of die cast aluminium with an extra corrosion resistant powder coating
- Standard stock is a wide S class beam – which reduces number of columns required and prevents "sky glow" unlike SOX and SON fittings
- High quality Samsung LEDs - fully integrated
- LED system that provides optimal lumen output and thermal management for longer LED rated life
- Comes with Philips Xitanium 1-10V driver that provides high light output and a superior efficacy of 105-123lm/W
- 50,000 hour average lamp life
- Wide operating ambient temperature range of -25°C to +40°C

- Complete with flicker-free driver
- All wattages can be ordered on demand with choice of: NEMA socket and waterproof cap, NEMA socket and Photocell, or without a NEMA socket or Photocell
- Two side retaining clips - preventing the fitting being blown open in windy conditions
- Hinged lid with safety stay that holds lid in open position when being worked on
- Spirit level included to highlight any leaning columns, making substantial installation time savings
- Can be side or column-top mounted
- 60W - 240W versions can be ordered on demand

	35W	60W	90W	120W
	RSE3540S-25	**RSE6040S-25**	**RSE9040S-25**	**RSE12040S-25**
Total Power (W):	34	58.6	91.8	118.6
Total Light Output(lm):	3,710	7,220	9,600	13,590
Efficacy (lm/cctW):	109	123	105	115
Lifetime (hrs):	50,000	50,000	50,000	50,000
Lux at 1m (lux):	820	2,040	2,340	4,120
CCT (K):	3000/4000/5000	3000/4000/5000	3000/4000/5000	3000/4000/5000
CRI:	75	75	75	75
IP:	66	66	66	66
Impact Rating (K):	08	08	08	08
Power Factor:	0.99	0.99	0.99	0.99
Length (mm):	690	690	690	690
Height (mm):	134	134	134	134
Width (mm):	305	305	305	305
Weight (kg):	7.4	7.4	9.0	9.5

1. **HOUSING**
   The canopy & frame are made of anti-corrosion die-cast aluminium. RAL7037 grey as standard. Black and other RAL colours available on request

2. **5 PIN NEMA SOCKET TO ALLOW FOR PHOTOCELL**
   35W STREEX is kept in stock and comes complete with 5 pin NEMA socket and waterproof cap Photocell can be ordered as an accessory – Code: RSE-PC All other wattages can be ordered on demand with choice of: NEMA socket and waterproof cap, NEMA socket and Photocell, or without

3. **HIGH QUALITY SAMSUNG LEDS**
   Fully integrated LED system that provides optimal lumen output and thermal management for longer LED rated life

4. **BEAM ANGLE LENS CONFIGURATIONS**
   S class lens available as standard. Other options available. See right panel for more information

5. **STAINLESS STEEL HINGED HOLDER**
   Allows for hands & tool free installation

6. **BREATHE HOLE**
   Helps to keep the thermal management of the fitting by balancing the internal and exterior temperature of the fitting preventing condensation build up on glass cover

7. **TEMPERED GLASS COVER LENS**
   Prevents upward light to G5 glare classification and downward light to between G2 and G3 glare classification to BS EN 13201-2 2015

8. **PHILLIPS XITANIUM 1-10V DRIVER**
   Providing high light output to match traditional lighting sources with energy savings of 50%

9. **SURGE PROTECTION DEVICE**
   Surge protection device that acts as an additional defence to damage from power surges

10. **CABLE CONNECTION**
    M16 cable gland with strain relief. Pre-wired with 10m of 3 core H05RR-F rubber flex

11. **SPIRIT LEVEL**
    Makes head & beam alignment easier and compensates for misaligned columns

12. **ADJUSTABLE SPIGOT MOUNT**
    Allows for side or column-top mounting and head fine adjustment in the horizontal or vertical position

13. **4 X STAINLESS STEEL M10 MOUNTING BOLTS**
    Creating a sturdy and secure positioning of the fitting

14. **TWO SIDE RETAINING CLIPS**
    Canopy doesn't get blown open by strong winds or vibration

15. **IP66 SILICONE GASKET**
    Creating a durable protective seal against excessive dust and moisture

	150W	200W	240W
	RSE15040S-25	**RSE20040S-25**	**RSE24040S-25**
	143.3	197.9	230.4
	17,090	22,120	27,760
	119	112	120
	50,000	50,000	50,000
	5,120	6,740	8,210
	3000/4000/5000	3000/4000/5000	3000/4000/5000
	75	75	75
	66	66	66
	08	08	08
	0.99	0.99	0.99
	829	829	829
	172	172	172
	385	385	385
	12	12.5	13

5 YRS   109–123 LmW

OP 220 240   IP 65   PHOTO METRICS   PART L2

Accessories:

RSE-PC   5-PIN NEMA Photocell

DOWNLIGHTS

RAMADA 8.5W LED fire rated downlight

- Suitable for use in offices, retail shops, reception areas, hotels, restaurants, bars & clubs, showrooms
- Fire rated dimmable LED downlight replacement for 50W LV halogen downlights
- 30, 60 and 90-minute fire tested
- Complete with white and brushed chrome trims
- Complete with 3-way terminal block with large terminals for loop in loop out
- Integrated insulation frame enabling insulation to be laid over

- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell
- Dimmable with selected leading & trailing edge dimmers. Compatibility list available on website
- Polished chrome trim accessory available RRATRIM-03
- 850°C glow wire tested

	RRA083060-01	RRA084060-01
Comparable to:	50W LV Halogen	50W LV Halogen
Total Power (W):	8.5	8.7
Total Light Output (lm):	590	670
Efficacy (lm/cctW):	70	77
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	540	640
Beam Angle (deg):	60	60
CCT (K):	3000	4000
CRI:	80	80
IP:	65	65
Power Factor:	0.9	0.9
Cut out (mm):	70	70
Depth (mm):	94	94
Diameter (mm):	86	86
Box Qty:	1	1
Weight (kg):	0.3	0.3

Accessory:
RRATRIM-03 Polished Chrome Trim

4. Reflector:
Ensures all the light from the lens is guided outwards

6. LED:
High quality COB LED

5. Lens:
Provides 60° beam angle

3. Silicon seal:
To ensure IP65 protection

2. Single spring clips:
Designed for fast installation whilst avoiding damage to the ceiling

7. Heat Sink:
Designed for thermal management of LED chip

8. Connector Block:
With large terminals, ideal for loop in loop out

9. Integrated insulation guard:
Ensures sufficient gap for air

1. Trim Options:
C/w white and brushed chrome trims, Polished chrome trim available as accessory (RRATRIM-03)

Ø86mm

94mm

Ø70mm
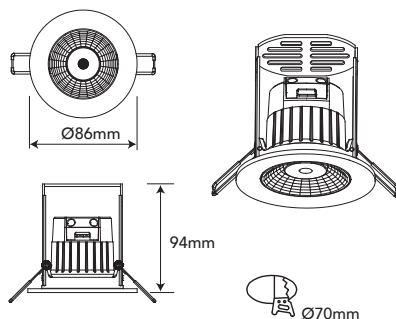
TRIUMPH ACTIVATE™ LED FIRE RATED

TRIUMPH AC TIVATE™

ACTIVATE DRIVER ON BOARD

ACtivate true Driver-On-Board (DOB) technology eliminates the electrolytic capacitor and provides driver efficiency and reliability to improve LED lifetime.

All power supply, driver components, dimming functionality, power factor, surge & thermal protection are integrated onto the LED PCB powered direct from the mains supply.

The TRIUMPH ACTIVATE™ has state of the art integrated circuitry with no traditional electrolytic capacitors which ensures long life (electrolytic capacitors are often the cause of premature driver failure).

ACTIVATE is a very efficient technology which is significantly more reliable than separate, or driver 'integrated' into the fitting or heat sink.

• Electrolytic capacitor free – eliminates the weakest component
• Light engine with driver-on-board manufactured in a fully automated semiconductor plant with machine vision quality control
• Driver-on-board consumes less power and is more efficient
• Provides IC control for stable drive current to maximise LED performance and life
• Smooth dimming functionality is achieved using a range of selected dimmers
• Natural and soft dimming of the uniform LED COB
• No external driver to locate in the void, nor issues of incorrectly connecting a mains supply to a LV fitting causing failure
• 5 year warranty

Chip On Board

The TRIUMPH ACTIVATE™ doesn't stop at DOB technology. It also uses the latest Chip-on-board (COB) LED technology, delivering a high lumen output in a single beam, low power consumption and low heat emissions.

Of particular consideration for lighting designs, the single chip light beam is easier to control and brings greater uniformity than multiple SMD or multi-lens LED fittings.

Compared to LV halogen, the TRIUMPH ACTIVATE™ produces:

• Over 70% more light output, so fewer fittings may be used for the same lighting effect, reducing costs
• Energy savings in excess of 80%, reducing CO_2 Emissions and electricity costs
• Efficacy of ⩾83 luminaire lm/cctW, compliant with Part L1 & L2 UK Building Regulations and eligible for Enhanced Capital Allowances
• LEDs run cooler, resulting in 50,000 hour life – compared to halogen lamp changes every 1,000 hours, saving on maintenance costs

ACTIVATE
DOB
★ ★ ★ ★ ★
DriverOnBoard

COB
★ ★ ★ ★ ★
ChipOnBoard

T +353 1 709 9000 **F** +353 1 709 9060

What is the difference between 'true' driver on board, partial driver on board and integrated driver?

LEDs are generally powered by a DC supply. A driver circuit is required to rectify and condition AC power from the mains supply. Traditionally these drivers have been large power supply boxes of discrete electronics, (usually including transformers, rectifying bridges, regulators and a large electrolytic capacitor), on a trailing lead from the light fitting.

True Driver On Board
LED drivers can now be fabricated using integrated circuit electronics on the same circuit board (PCB) as the LED chips. This is called 'Driver-On-Board' technology, where all driver components are on the board, which is AC powered directly from the mains supply. This is a more advanced concept than simply enclosing, or bolting on a traditional external driver, with its large, discrete components.

Some manufacturers offer 'integrated' drivers or 'mains-operated' downlights, which simply brings a conventional external driver into the light fitting enclosure or connector block, usually compromising the thermal mass and heat capacity of the heat sink, or its convection cooling. This can impact the driver and LED lifetime.

Partial Driver On Board
Usually has an integrated circuit on the printed circuit board, but often has other circuitry located elsewhere in the fitting, typically in the heat sink region, compromising its performance and the reliability of the fitting.

Integrated Driver
Generally means that the driver circuitry is located elsewhere in the fitting, typically in the heat sink region, reducing the thermal mass of heat sinking and the efficiency of heat transport. Driver circuitry will typically be conventional.
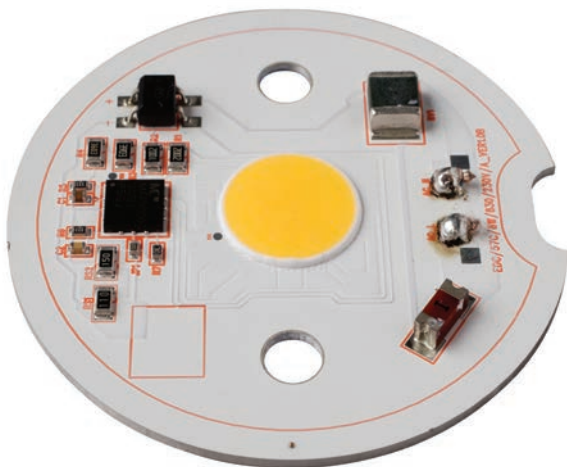
ACTIVATE
DOB
★ ★ ★ ★ ★
DriverOnBoard

COB
★ ★ ★ ★ ★
ChipOnBoard

TRIUMPH ACTIVATE™ LED FIRE RATED

TRIUMPH ACTIVATE™ LEDCHROIC downlight

- True ACtivate Driver-On-Board (DOB) mains operated technology – providing dimmability, driver efficiency and reliability (no electrolytic capacitor)
- Chip-On-Board (COB) for superb light output, high efficiency and long life
- Efficiency of ≥83 luminaire lm/cctW to comply with Part L1 & L2 UK Building Regulations and eligible for Enhanced Capital Allowances
- Interchangeable LEDCHROIC lens system achieving unequalled light distribution, uniformity and clarity
- Interchangeable trim bezel system allows fitting of six accessory trim colours – allows fitting of 60° lens accessory to 6W & 8W and 38° lens accessory to 11W
- Fire, acoustic and airflow tested in compliance with Parts B, C & E of UK Building Regulations
- Integrated insulation stand-off enabling insulation to be laid over the fitting

- Available pre-wired with ROBUS SWIFT 4 pin male/female plug & play connector with large terminals and integrated cable restraint
- High lumen output of 500-1030 lumens
- Operating temperature range of -20°C to +40°C
- Ultra low heat emissions of 4.7– 8.5W
- 70mm cut out and wide flange
- Short narrow main body is ideal for shallow ceiling voids and retrofits
- Dimmable with selected dimmers. Compatibility list available on website
- Suitable for emergency conversion using SWIFT connector plug and play emergency pack (RTED/4/TP60/240W)
- Complies with requirements of the Energy Technology Criteria List. Enhanced Capital Allowances may be claimed on the cost of the luminaires, installation and transport to site

Accessories:

RATRTRIM-02 Brass Trim
RATRTRIM-03 Chrome Trim
RATRTRIM-10 Matte Black Trim
RATRTRIM-11 Matte White Trim
RATRTRIM-13 Brushed Chrome Trim
RATRTRIM-14 Antique Brass Trim
RATRLENS38 LEDCHROIC™ lens with 38° beam angle
RATRLENS60 LEDCHROIC™ lens with 60° beam angle
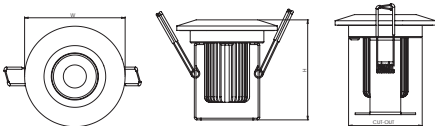
Product Code	Diameter	Depth	Cut-out	Weight
RATR6P03038	92	63	70	270g
RATR8P03038	92	98	70	320g
RATR0113060	92	108	70	370g

6W

8W

11W

Warm White

	6W	8W	11W
Standard	**RATR6P03038-01**	**RATR8P03038-01**	**RATR0113060-01**
No Connector	**RATR6P03038NC-01**		
Comparable to:	50W LV Halogen	1 x 18W PL	1 x 26W PL
Total Power (W):	6	8	11
Total Light Output (lm):	500	730	950
Efficacy (lm/cctW):	83	88	86
Lifetime (hrs):	50,000	50,000	50,000
Lux at 1m (lux):	890	1,140	920
Beam Angle (deg):	38	38	60
CCT (K):	3000	3000	3000
CRI:	>80	>80	>80
IP:	65	65	65
Power Factor:	>0.98	>0.98	>0.98
Diameter (mm):	92	92	92
Recessed Depth (mm):	63	98	108
Height above ceiling (mm):	10	10	10
Cut-out (mm):	70	70	70
Min Order/Carton Qty:	1/18	1/18	1/18
Weight (kg):	0.27	0.32	0.37

Neutral White

	6W	8W	11W
Standard	**RATR6P04038-01**	**RATR8P04038-01**	**RATR0114060-01**
No Connector	**RATR6P04038NC-01**		
Total Light Output (lm):	530	700	1,030
Lux at 1m (lux):	930	1,190	990
Efficacy (lm/cctW):	88	87	92
CCT (K):	4000	4000	4000

5 YRS | 83–92 LmW

OP 220 240 | IP 65

Zone 1 | PART L1 | PART L2

PHOTO METRICS

ECA eligible
Triple E registered

TRIUMPH **AC** TIVATE™

ACTIVATE **DOB** DriverOnBoard

COB ChipOnBoard

SWIFT Connector

LEDCHROIC™

TRIUMPH:AC:TIVATE™

SWIFT
Connector

Pre-wired with ROBUS SWIFT 4 pin male/female plug & play connector

Large terminals and integrated cable restraint

Integrated insulation stand-off allows insulation material to be laid directly over fitting avoiding cold spots and providing sufficient air gap for fitting to operate reliably

DIMMABLE
Dimmable as standard

Wide flange with short narrow main body

New 6W version is only 63mm in depth, ideal for shallow ceiling voids

COB
ChipOnBoard

ACTIVATE
DOB
DriverOnBoard

ACTIVATE True Driver on Board technology

No electrolytic capacitor

A uniquely combined DOB and COB downlight

Exceeds Part L1 and Part L2

30, 60, 90 minute fire rated

IP65

CRI 80

LEDCHROIC™

6W & 8W supplied with LEDCHROIC™ 38° optic. Optional LEDCHROIC™ 60° optic available as accessory. 11W supplied with LEDCHROIC™ 60° optic. Optional LEDCHROIC™ 38° optic available as accessory

≥83 luminaire lm/cctW

TWISTNLOCK

Supplied with a high quality white twist and lock detachable bezel. Range of Matte Black, Matte White, Chrome, Brushed Chrome, Brass and Antique Brass bezels available as accessories

City Buildings, Glasgow, Scotland

DOWNLIGHTS
TRIUMPH ACTIVATE™ TILT LED FIRE RATED

TRIUMPH ACTIVATE™ TILT LEDCHROIC 6W downlight

- Suitable for use in offices, retail shops, reception areas, hotels, restaurants, bars & clubs, showrooms
- Adjustable tilt of 24°
- True ACtivate Driver-On-Board (DOB) mains operated technology – providing dimmability, driver efficiency and reliability (no electrolytic capacitor)
- Chip-On-Board (COB) for superb light output, high efficacy and long life
- Efficacy of 75-80 luminaire lm/cctW to comply with Part L1 & L2 UK Building Regulations
- LEDchroic optic & reflector achieving unequalled light distribution, uniformity and clarity, whilst replicating traditional dichroic aesthetics

- Fire, acoustic and airflow tested in compliance with Parts B, C & E of UK Building Regulations
- Pre-wired with ROBUS SWIFT 4 pin male/female plug & play connector with large terminals and integrated cable restraint. Fast, simple and efficient installability
- Suitable to be loosely covered with solid or lay-over insulation
- Low heat emissions
- Dimmable with selected dimmers. Compatibility list available on website
- Operating temperature range of -20°C to +35°C
- 850°C glow wire tested

	RATT6P03038-01	RATT6P04038-01
Comparable to:	50W Halogen	50W Halogen
Total Power (W):	6	6
Total Light Output (lm):	450	490
Efficacy (lm/cctW):	75	80
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	850	900
Beam Angle (deg):	38	38
CCT (K):	3000	4000
CRI:	>80	>80
IP:	65	65
Impact Rating:	N/A	N/A
Output Current (mA):	26	26
Power Factor:	>0.98	>0.98
Diameter (mm):	104	104
Depth (mm):	95	95
Projection (mm):	8	8
Box Qty:	1	1
Weight (kg):	0.4	0.4

Triple E registered

Accesssories:

RATTTRIM-13   Brushed chrome trim set

RATRLENS60   LEDCHROIC™ lens with 60° beam angle

TRIPLEX LED CCT3 SELECTABLE, FIRE RATED

TRIPLEX 10W COB LED CCT3 selectable fire rated downlight

- Suitable for domestic dining, living, bathroom and bedroom spaces, hotel & office reception areas
- Colour temperature selectable; switch on the back of the fitting allows selection of 2800, 4200 and 6500 Kelvin
- Complete with 3-way terminal block with large terminals for loop in loop out
- LED replacement for 50W LV halogen downlights
- Die cast aluminium housing
- Complete with three trims: white, brushed chrome and polished chrome

- LEDchroic lens replicating halogen dichroic with uniform, shadow-free light
- Pre-wired with 0.6m of flex
- Shallow profile of only 48mm depth
- High efficacy of 71-91lm/W
- Wide operating ambient temperature range of -20°C to +40°C
- Compatible with selected trailing and leading edge dimmers. Compatibility list available on website.
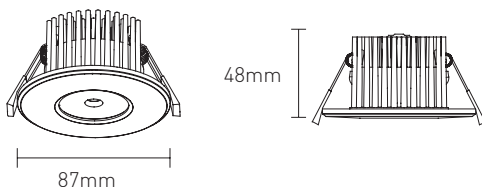
1. Twist and lock trim:
Available in white, brushed chrome and polished chrome

2. State of the art designed heatsink:
Allows for better LED thermal management

	RTR10X0-01
Comparable to:	50W LV Halogen
Total Power (W):	10.6/10/10.7
Total Light Output (lm):	750/910/840
Efficacy (lm/cctW):	71/91/79
Lifetime (hrs):	50,000
Lux at 1m (lux):	920/1,090/1,010
Beam Angle (deg):	60
CCT (K):	2800/4200/6500
CRI:	>80
IP:	65
Power Factor:	>0.9
Diameter (mm):	87
Depth (mm):	48
Cut out (mm):	65
Box Qty:	1
Weight (kg):	0.38

Note: Multiple CCT data shown in format WW/NW/DW

5 YRS | 71-91 LmW | OP 220 240 | IP 65 | PART L1 | PART L2 | PHOTO METRICS | Zone 1

-01 White | -03 Chrome | -13 B Chrome

Triple E registered

Why choose ROBUS for your fire rated fittings?

ROBUS offers a complete range of fire rated downlights, all of which fulfil building construction regulations and have full independent certification for fire protection of:

• All ceiling construction types
• 30, 60 and 90 minutes

30 mins
A 30 minute fire rated ceiling has the joists spaced at 600mm centres and uses a single layer of 12.5mm gypsum board.

30 minute fire rated ceilings are the most common and are used in 2-storey buildings, flats and maisonettes.

60 mins
A 60 minute fire rated ceiling has the joists spaced at 600mm centres and uses two layers of 15mm gypsum board.

90 mins
A 90 minute fire rated ceiling has the joists spaced at 450mm centres and uses two layers of 15mm gypsum board.

ROBUS fire rated solutions are available in:

DESCRIPTION	W	TYPE	ORIENTATION	DIMMABILITY	IP	PAGE
RAMADA	8.5W	LED	Straight	Dimmable	IP65	Page 88
TRIUMPH ACTIVATE™	6W, 8W, 11W	LED	Straight	Dimmable	IP65	Page 90
TRIUMPH ACTIVATE TILT	6W	LED	Directional	Dimmable	IP65	Page 96
TRIPLEX	10W	LED	Straight	Dimmable	IP65	Page 98
STARLING PREMIUM RANGE	50W	Low and Mains voltage	Straight and Directional	Dimmable	IP20	Page 101
STARLING SHOWER	50W	Low and Mains voltage	Straight	LEDC	IP65	Page 103
COMPACT RANGE	50W	Low and Mains voltage	Straight and Directional	Dimmable	IP20	Page 104

DOWNLIGHTS
STARLING PREMIUM FIRE RATED

STARLING 50W mains voltage die cast fire rated downlight

- Recessed straight downlights with pressed steel body and die cast aluminium front bezel
- Fitting design and intumescent seals retain the integrity of 30, 60, 90 minute fire rated ceiling/floor constructions

- Complies with BS476 Part 21. Report and certificate from INTERNATIONAL FIRE CONSULTANTS (IFC)
- Compatible with dichroic and aluminium lamp types
- Improved terminal block for loop in – loop out

Mains Voltage	GU/GZ10
White	**RSF201-01**
Chrome	**RSF201-03**
Brushed Chrome	**RSF201-13**
Total Power (W):	50
IP:	20
Cap Type:	GU10
Diameter (mm):	85
Depth (mm):	105
Cut-out (mm):	73
Box Qty:	10
Weight (kg):	0.25

Richmond Motor Group, Portsmouth, UK

–01 White	–03 Chrome	–13 B Chrome

DOWNLIGHTS
STARLING PREMIUM FIRE RATED

STARLING 50W mains voltage die case fire rated downlight, directional

- Recessed directional downlights with pressed steel body and die cast aluminium front bezel
- Fitting design and intumescent seals retain the integrity of 30, 60, 90 minute fire rated ceiling/floor constructions

- Complies with BS476 Part 21. Report and certificate from INTERNATIONAL FIRE CONSULTANTS (IFC)
- Compatible with dichroic and aluminium lamp types
- Improved terminal block for loop in – loop out
- Class I construction

	Mains Voltage GU/GZ10
White	**RSF208-01**
Chrome	**RSF208-03**
B Chrome	**RSF208-13**
Total Power (W):	50
IP:	20
Cap Type:	G5.3/GU10
Diameter (mm):	100
Depth (mm):	115
Cut-out (mm):	86
Box Qty:	10
Weight (kg):	0.34

excl. | excl. | 2 YRS | IP 20 | 20°

-01 White | -03 Chrome | -13 B Chrome

DOWNLIGHTS
STARLING PREMIUM FIRE RATED – SHOWER

STARLING 50W mains voltage fire rated downlight

- Recessed downlights with pressed steel body and die cast aluminium front bezel
- Fitting design and intumescent seals retain the integrity of 30,60,90 minute fire rated ceiling/floor constructions

- Complies with BS476 Part 21. Report and certificate from INTERNATIONAL FIRE CONSULTANTS (IFC)
- Compatible with dichroic and aluminium lamp types
- Class I construction

	Mains Voltage GU/GZ10
White	**RSF20165-01**
Chrome	**RSF20165-03**
B Chrome	**RSF20165-13**
Total Power (W):	50
IP:	65
Cap Type:	GU10
Diameter (mm):	91
Depth (mm):	125
Cut-out (mm):	76
Box Qty:	10
Weight (kg):	0.3

-01 White   -03 Chrome   -13 B Chrome

DOWNLIGHTS
COMPACT FIRE RATED

COMPACT 50W mains voltage pressed steel fire rated downlight

- Recessed straight downlights with pressed steel body & front bezel
- Fitting contains intumescent seals to give 30, 60 and 90 mins protection
- Complies with BS476 Part 21. Report and certificate from INTERNATIONAL FIRE CONSULTANTS (IFC)
- Shallow design depth of 100mm allows for installation into shallow ceiling voids

	Mains Voltage
White	**RFP201-01**
Chrome	**RFP201-03**
B Chrome	**RFP201-13**
Total Power (W):	50
IP:	20
Cap Type:	GU10
Diameter (mm):	85
Depth (mm):	100
Cut-out (mm):	72
Box Qty:	10
Weight (kg):	0.21
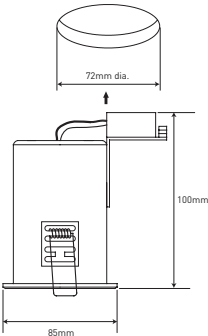
DOWNLIGHTS
COMPACT FIRE RATED

COMPACT 50W mains voltage pressed steel fire rated downlight, directional

- Recessed directional downlights with pressed steel body & front bezel
- Fitting contains intumescent seals to give 30, 60 and 90 mins protection
- Complies with BS476 Part 21. Report and certificate from INTERNATIONAL FIRE CONSULTANTS (IFC)
- Shallow design depth of 100mm allows for installation into shallow ceiling voids

	Mains Voltage
White	**RFP208-01**
Chrome	**RFP208-03**
B Chrome	**RFP208-13**
Total Power (W):	50
IP:	20
Cap Type:	GU10
Diameter (mm):	99
Depth (mm):	100
Cut-out (mm):	80
Box Qty:	10
Weight (kg):	0.29

80mm dia.

100mm

99mm
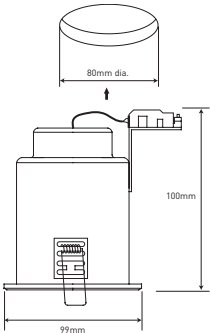
CCT3 COLOUR TEMPERATURE SELECTABLE

ROBUS CCT3 Colour Temperature Selectable Products

Three Colour Temperature Selectable (CCT3):
This has benefits to the wholesaler, installer and end user as it allows the Colour Temperature to be selected on-site at the time of installation or changed retrospectively after installation to a preferred warmer or cooler light colour appropriate for the task and use of the lit space or to compliment decor colour. Having this option in one fitting reduces the need to stock several products.

| Warm | Neutral | Daylight |

TRIPLEX

TAYLOR

CAVAN

+ CAVAN TILT

MORPH

DOWNLIGHTS
TAYLOR LED CCT3 SELECTABLE

TAYLOR 7W LED CCT3 selectable

- Suitable for use in offices, retail shops, reception areas, hotels, restaurants, bars & clubs, showrooms
- Colour temperature selectable; switch on the back of the fitting allows selection of 3000, 4000 and 6500 Kelvin
- C/w white and brushed chrome trims
- Pre-wired with 0.25m of flex and push-in connector
- LED replacement for 50W halogen downlights
- Wide operating ambient temperature range of -20°C to +40°C

- Suitable to be loosely covered with solid or lay-over insulation
- Extension trim available for up to 116mm holes
- Polycarbonate body & diffuser
- Dimmable with selected leading & trailing edge dimmers. Compatibility list available on website
- 850°C glow wire tested
- Meets RT2012 regulation for acoustics

64mm

250mm

Ø90mm

Ø72mm
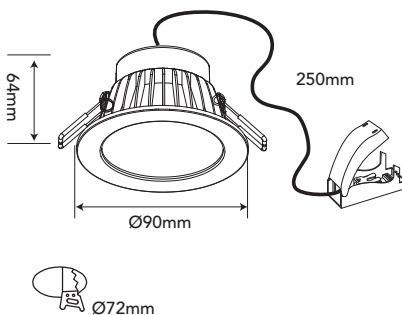
	RC7W723-01
Comparable to:	50W Halogen
Total Power (W):	6.7
Total Light Output (lm):	570/620/610
Efficacy (lm/cctW):	85/92/91
Lifetime (hrs):	30,000
Lux at 1m (lux):	250/300/270
Beam Angle (deg):	100
CCT (K):	3000/4000/6500
CRI:	80
IP:	44
Power Factor:	0.9
Height (mm):	64
Diameter (mm):	90
Cut out (mm):	72
Box Qty:	1
Weight (kg):	0.22

3 YRS ✓
85–92 LmW

OP 220 240 | □ | IP 44
L1 PART | **L2** PART | PHOTO METRICS

Triple E registered

Note: Multiple CCT data shown in format WW/NW/DW

Black	Brushed Chrome	Square White	Square Brushed Chrome

Accessories:

RC7TRIMX-04 Circular trim for 72mm cut out, Black
RC72TRIM-01 Extension trim to 92mm cut out, White
RC72TRIM-13 Extension trim to 92mm cut out, Brushed Chrome
RC7SQTRIM-01 Square trim for 72mm cut out, White
RC7SQTRIM-13 Square trim for 72mm cut out, Brushed Chrome

CAVAN 8W COB LED CCT3 selectable

- Suitable for use in offices, retail shops, reception areas, hotels, restaurants, bars & clubs, showrooms
- Tunable version requires use of a remote control (RC8REM) tuning range from 3000-6500K
- Remote control accessory enables:
  - Four separately controlled groups of fittings with each
  - Independently CCT tunable 3000-6500K
  - Dimmable from 100% to 10%
  - Scenes to be manually set for alternative use of the space
  - Lights to be turned on or off remotely for reading or to watch a film

  Note: one remote required per installation

- LED replacement for 50W LV halogen downlights
- Available with white or brushed chrome trim
- Die cast aluminium housing with polycarbonate trim and PC lens
- Suitable to be loosely covered with solid or lay-over insulation
- Large screw terminals allowing loop-in/loop-out
- Quick connect driver for faster installation
- Wide operating ambient temperature range of -20°C to +40°C
- High efficacy of 75-107lm/W
- Suitable for switching by PIR, Microwave or Photocell
- Dimmable with selected leading and trailing edge dimmers. Compatibility list available on website
- 850°C glow wire tested

64mm

90mm

	CCT Selectable	Tunable
White	**RC8CCT3-01**	**RC8TW-01**
Brushed Chrome	**RC8CCT3-13**	**RC8TW-13**
Comparable to:	50W Halogen	50W Halogen
Total Power (W):	7.9/7.7/7.9	9
Total Light Output (lm):	710/820/810	680-780
Efficacy (lm/cctW):	90/107/103	75-86
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	950/1,100/1,090	1,250-1,350
Beam Angle (deg):	38	38
CCT (K):	3000-6500	3000-6500
CRI:	80	80
IP:	65	65
Power Factor:	0.8	0.8
Diameter (mm):	90	90
Depth (mm):	64	64
Projection (mm):	5	5
Cut-out (mm):	72	72
Box Qty:	1	1
Weight (kg):	0.2	0.2

Note: Multiple CCT data shown in format WW/NW/DW

Triple E registered

Accessory:
RC8REM   Remote control required to operate RC8TW

CAVAN Tilt 6.5W COB LED CCT3 selectable

- Suitable for use in offices, retail shops, reception areas, hotels, restaurants, bars & clubs, showrooms
- LED replacement for 50W LV halogen downlights
- Adjustable tilt of 25°
- Available with white or brushed chrome trim
- Die cast aluminium housing with polycarbonate trim and high temperature resistance PC lens
- Suitable to be loosely covered with solid or lay-over insulation

- Large screw terminals allowing loop-in/loop-out
- Quick connect driver for faster installation
- Wide operating ambient temperature range of -20°C to + 40°C
- High efficacy of 88-103lm/W
- Suitable for switching by PIR, Microwave or Photocell
- Dimmable with selected leading and trailing edge dimmers. Compatibility list available on website

62mm

175mm

94mm

76mm
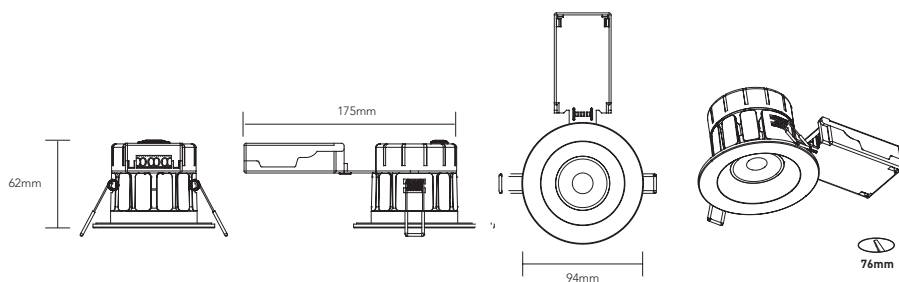
White	RCT6CCT3-01
Brushed Chrome	RCT6CCT3-13
Comparable to:	50W Halogen
Total Power (W):	6.6
Total Light Output (lm):	590/680/670
Efficacy (lm/cctW):	88/103/101
Lifetime (hrs):	50,000
Lux at 1m (lux):	880/1,000/1,000
Beam Angle (deg):	38
CCT (K):	3000/4000/6500
CRI:	80
IP:	20
Power Factor:	0.8
Diameter (mm):	94
Depth (mm):	59
Projection:	3
Box Qty:	1
Weight (kg):	0.2

5 YRS | 88–103 LmW | | | | COB ChipOnBoard

-01 White | -13 B Chrome

OP 220 240 | IP 20 | Zone 1 | PART L1 | PART L2 | PHOTO METRICS | 25°

Triple E registered

DOWNLIGHTS
DEXTER

NEW!

DEXTER 6W LED dimmable and non-dimmable downlight

- Suitable for use in retail shops, libraries, hotels, restaurants, pubs, offices, meeting rooms, hotels, reception areas, museums, galleries, bathrooms and cloakrooms
- Utilises high quality SMD technology for excellent light output and low power consumption
- Choice of three trims: white, brushed chrome and satin silver
- Non-dimmable or dimmable in warm or neutral white CCT for task based or more relaxing environments

- Wide and adjustable tilt angle to highlight wall or floor mounted goods
- Clear light beam with no dark spots and has gentle fade to edges for uniform lighting design
- Wide operating ambient temperature range of -20°C to +40°C
- Can be switched by microwave, PIR and/or photocell
- Dimmable with selected dimmers (dimmer compatibility list available on website)

41mm

86mm
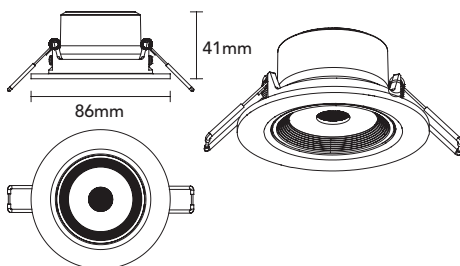
	RDE6P030-01	RDE6P030D-01	RDE6P040-01	RDE6P040D-01
	3000K Non-dimmable	3000K Dimmable	4000K Non-dimmable	4000K Dimmable
Comparable to:	50W halogen	50W halogen	50W halogen	50W halogen
Total Power (W):	5.9	5.3	5.9	5.4
Total Light Output (lm):	480	420	510	460
Efficacy (lm / cctW):	81	79	86	85
Lifetime (hrs):	30,000	30,000	30,000	30,000
Lux at 1m (lx):	680	600	710	630
Beam Angle (deg):	38	38	38	38
CCT (K):	3000	3000	4000	4000
CRI:	80	80	80	80
Ingress Protection (IP):	20	20	20	20
Power Factor:	0.54	0.8	0.54	0.8
Diameter (mm):	86	86	86	86
Cut out (mm):	70	70	70	70
Depth (mm):	41	41	41	41
Projection (mm):	3	3	3	3
Box Qty:	1	1	1	1
Weight (kg):	0.11	0.11	0.11	0.11
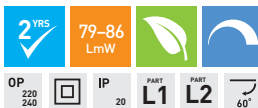
Accessories:

RDETRIM-13   Brushed Chrome Trim
RDETRIM-15   Satin Silver

MORPH LED CCT3 selectable

- Suitable for use in offices, reception areas, hotels, restaurants, shops, schools, hospitals, care homes
- Colour temperature selectable. Complete with in-line switch to select 3000K, 4000K or 6500K colour temperature
- LED replacement for a range of PL, CFL fittings
- Die cast aluminium body with polycarbonate diffuser
- C/w driver and quick fix secondary connector for easy installation

- Suitable for use with extension trim to 265mm (R1825265TRIM-01)
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell
- High efficacy of 84-109lm/W
- Dimmable with selected leading & trailing edge dimmers. Compatibility list available on website
- 850°C glow wire tested

Ø227mm

45mm

CCT select switch:
1: On, 2: Off = 3K
1: On, 2: On = 4K
1: Off, 2: On = 6K

750mm

750mm

Ø195mm

1. Aluminium bezel:
Robust and durable

2. Polycarbonate diffuser:
High quality diffuser
disperses light evenly
High efficacy of 84-109lm/W

3. Reflector:
Ensures all light from the LEDs
is reflected into the diffuser

**6. Colour temperature
selection switch**
Easy to set CCT choice

5. Die cast aluminium body:
Designed for optimal
thermal management of
the LED chips

4. Colour changing LED array:
High powered LEDs
producing up to 4,490 lumens
Dimmable

	20W	30W	50W
	RMP20WCCT3DL-01	**RMP30WCCT3DL-01**	**RMP50WCCT3DL-01**
Comparable to CFL:	2x26	2x32	2x42
Total Power (W):	20.2/19.3/20.4	30.6/28.8/31	49/45.7/48.3
Total Light Output (lm):	1,860/2,060/2,100	2,770/3,140/3,140	4,130/4,490/4,240
Efficacy (lm/cctW):	92/107/103	91/109/101	84/98/88
Lifetime (hrs):	30,000	30,000	30,000
Lux at 1m (lux):	600/700/620	900/1,000/930	1,550/1,700/1,600
Beam Angle (deg):	110	110	110
CCT (K):	3000/4000/6500	3000/4000/6500	3000/4000/6500
CRI:	80	80	80
IP:	54	54	54
Impact Rating (IK):	08	08	08
Power Factor:	0.9	0.9	0.9
Diameter (mm):	227	227	227
Cut out (mm):	195	195	195
Depth (mm):	45	45	45
Box Qty:	1	1	1
Weight (kg):	1.1	1.3	1.3

Note: Multiple CCT data shown in format WW/NW/DW

5 YRS | 84–109 LmW | OP 220 240 | IP 54 | PART L2 | PHOTO METRICS
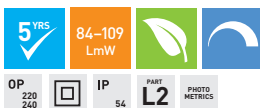
Triple E registered

ETERNITY LED downlight

- LED replacement for 2x18W and 2x26W fluorescent downlights
- Die cast aluminium housing with polycarbonate diffuser
- C/w driver and quick fix secondary connector for easy installation
- Pre-wired with 1.5m flex and SWIFT 4 pin male/female plug & play connector with large terminals and integrated cable restraint. Fast, simple and efficient installability
- 265mm extension trim available, allowing mounting in 250mm cut-out

- Wide ambient operating temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell
- Options available through Conversions: Emergency, Dual Power and DALI Dimmable
- 850°C glow wire tested
- Complies with requirements of the Energy Technology Criteria List. Enhanced Capital Allowances may be claimed on the cost of the luminaires, installation and transport to site

Ø 205mm

58mm

Ø 230mm
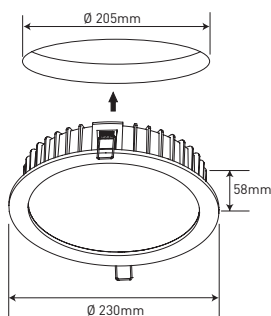
R1825265TRIM-01
Extension Trim

Accessories:
R3EMPK-PSU   3hr emergency pack with Swift connector
R1825265TRIM-01 265mm Wide Flange Extension for larger holes

The Island House Restaurant, Wolverhampton, United Kingdom

	18W Neutral White	25W Neutral White
Standard	**R18230DL-01**	**R25230DL-01**
Comparable to:	2 x 18W PL	2 x 26W PL
Total Power (W):	18.4	24.9
Total Light Output (lm):	1,540	2,130
Efficacy (lm/cctW):	84	86
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	600	750
Beam Angle (deg):	110	110
CCT (K):	4000	4000
CRI:	85	85
IP:	54	54
Impact Rating (IK):	0	0
Power Factor:	›0.9	›0.9
Cut-out (mm):	205	205
Depth (mm):	58	58
Diameter (mm):	230	230
Box Qty:	12	12
Weight (kg):	0.9	0.9

5 YRS | **84-86 LmW** | | | **SWIFT Connector**

OP 100 240 | | **IP 54** | **PHOTO METRICS** | **PART L2**

ECA eligible
LIA verified
Triple E registered

Darwin International Airport, Australia

DOWNLIGHTS
INSPIRE ACTIVATE LED

INSPIRE ACTIVATE LED downlight

- LED replacement for 2x18W and 2x26W fluorescent downlights
- Using advanced Driver-On-Board (DOB) technology
- Plastic-coated pressed steel housing with polycarbonate diffuser
- Stainless steel screws and spring clips
- Complete with 1.5m flex and SWIFT 4 pin male/female plug & play connector with large terminals and integrated cable restraint. Fast, simple and efficient installability

- Wide ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell
- 850°C glow wire tested

Neutral White

	16W	22W
Standard	**RNS01640-01**	**RNS02240-01**
Comparable to:	2 x 18W PL	2 x 26W PL
Total Power (W):	17.2	21
Total Light Output (lm):	1,430	2,000
Efficacy (lm/cctW):	83	95
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	650	900
Beam Angle (deg):	100	100
CCT (K):	4000	4000
CRI:	80	80
IP:	20	20
Power Factor:	0.9	0.9
Diameter (mm):	230	230
Depth (mm):	105	105
Cut-out (mm):	210	210
Box Qty:	1	1
Weight (kg):	0.6	0.6

5 YRS   83–95 LmW

OP 220 240   IP 20

PART L2   PHOTO METRICS

Triple E registered

SWIFT
★ ★ ★ ★ ★
Connector

ACTIVATE
DOB
★ ★ ★ ★ ★
DriverOnBoard

13W

35W

WILSON LED circular wall washer

- Suitable for use in bars, clubs, retail, showrooms, exhibition centres, museums
- Die cast aluminium housing with toughened glass
- High impact rating of IK08
- Wide operating ambient temperature range of -20°C to +40°C

- 35W version incorporates fast-fix driver feature for ease of installation
- 13W has adjustable tilt of 45°, 35W version adjustable tilt angle of 70° and swivel of 350°
- Suitable for switching by PIR, Microwave or Photocell

Neutral White

	13W	35W
	RWL01340-01	RWL03540-01
Comparable to:	20W	50W
Total Power (W):	12.7	35 .2
Total Light Output (lm):	1,050	3,220
Efficacy (lm/cctW):	83	91
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	1,070	2,250
Beam Angle (deg):	60	70
CCT (K):	4000	4000
CRI:	82	85
IP:	20	20
Power Factor:	0.95	0.95
Tilt/Swivel (deg):	45/NA	70/350
Cut-out (mm):	85	170
Diameter (mm):	98	195
Depth (mm):	70	175
Box Qty:	1	1
Weight (kg):	0.5	1.5

3 YRS 83–91 LmW

OP 220 240 IP 20

PHOTO METRICS L2 PART 45° 70°

LIA verified
Triple E registered

	RWL01340-01	RWL03540-01
Cut-out (mm)	85	170
Diameter (mm)	98	195
Depth (mm)	70	175

DEPTH

DIAMETER

CUT-OUT

ROCKSTAR LED WALL WASHER

ROCKSTAR LED recessed wall washer

- Suitable for use in bars, clubs, retail, showrooms, exhibition centres, museums
- LED replacement for 50W and 70W metal halide
- Die cast aluminium housing with toughened glass
- High impact rating of IK08

- Wide operating ambient temperature range of -20°C to +40°C
- Adjustable tilt angle of 60°
- Suitable for switching by PIR, Microwave or Photocell

Neutral White

	36W	44W
	RRC03645-01	**RRC04445-01**
Comparable to:	50W	70W
Total Power (W):	36.5	45.3
Total Light Output (lm):	3,430	4,250
Efficacy (lm/cctW):	94	94
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	1,500	1,950
Beam Angle (deg):	90	90
CCT (K):	4500	4500
CRI:	85	85
IP:	20	20
Power Factor:	0.95	0.95
Cut-out (mm):	130 x 220	130 x 220
Length (mm):	250	250
Width (mm):	150	150
Depth (mm):	130	130
Box Qty:	1	1
Weight (kg):	1.5	1.6

PVC 50W low voltage downlight, directional

- Directional PVC downlight with tilt of 30 degrees
- Corrosion resistant, ideal for exposed locations where dampness may cause corrosion of metal fittings
- Stainless steel lamp retention ring
- Available transformers for use with this fitting: LEB60D and RM105DN

White	**R1004-01**
Black	**R1004-04**
Total Power (W):	50
IP:	20
Cap Type:	G5.3
Diameter (mm):	105
Depth (mm):	95
Cut-out (mm):	95
Box Qty:	10
Weight (kg):	0.11

95mm

Ø105mm
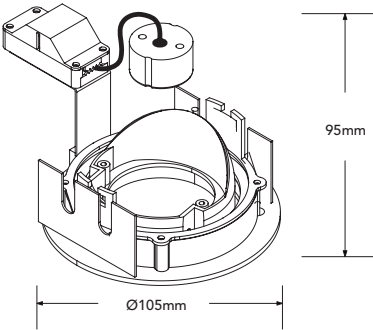
R201PS

R208PS

RIDA 50W GU10 pressed steel downlight

- GU10 circular downlight made from pressed steel
- Complete with bracket, terminal block and high quality GU10 lamp holder

- Spring clip
- R208PS has a directional tilt of 20°

	Straight	Directional
White	**R201PS-01**	**R208PS-01**
Chrome	**R201PS-03**	**R208PS-03**
Brushed Chrome	**R201PS-13**	**R208PS-13**
Total Power (W):	50	50
IP:	20	20
Cap Type:	GU10	GU10
Diameter (mm):	80	105
Depth (mm):	90	90
Cut-out (mm):	60	85
Box Qty:	10	10
Weight (kg):	0.10	0.19
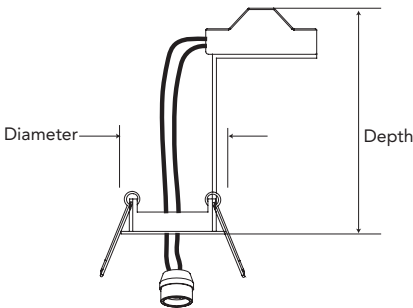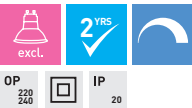
	Diameter	Depth
R201PS	80mm	90mm
R208PS	105mm	90mm

Straight

Directional

ZAK 50W GU10, mains voltage die cast aluminium downlight

- Die cast aluminium straight or directional downlight
- C/w bracket, terminal block & double insulated GU10 lamp holder

- Twist & lock front bezel
- Easy lamp replacement
- R208SC has a directional tilt of 20°

	Straight	Directional
White	**R201SC-01**	**R208SC-01**
Chrome	**R201SC-03**	**R208SC-03**
Brushed Chrome	**R201SC-13**	**R208SC-13**
Total Power (W):	50	50
IP:	20	20
Cap Type:	GU10	GU10
Diameter (mm):	78	93
Depth (mm):	100	100
Cut-out (mm):	70	82
Box Qty:	10	10
Weight (kg):	0.16	0.17

excl. | 2YRS ✓

OP 220 240 | IP 20

-01 White

-03 Chrome

-13 B Chrome

CODE	DIA.	DEPTH	CUT OUT DIA.
R201SC	80mm	100mm	70mm
R208SC	93mm	100mm	82mm

CUT OUT DIA.
ceiling
N L
DEPTH
DIA.
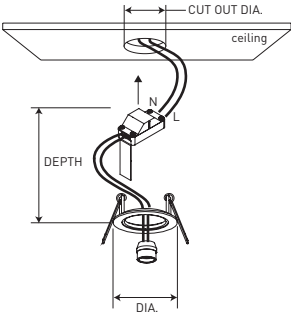
Straight

Directional

SALLY 50W GU10 spring loaded mains voltage pressed steel aluminium downlight, IP20, dimmable

- Pressed steel straight or directional downlight with electroplated finish
- Spring loaded lamp holder for ease of lamp change
- C/w bracket, terminal block & GU10 lamp holder

- Enclosed recessed GZ fitting with integral air cooling slots
- RS208E has a directional tilt of 20°
- Dimmer compatibility list available on website

	Straight	Directional
White	**RS201E-01**	**RS208E-01**
Brass	**RS201E-02**	**RS208E-02**
Chrome	**RS201E-03**	**RS208E-03**
Brushed Chrome	**RS201E-13**	**RS208E-13**
Total Power (W):	50	50
IP:	20	20
Cap Type:	GU10	GU10
Diameter (mm):	80	99
Depth (mm):	82	85
Cut-out (mm):	65	75
Box Qty:	10	10
Weight (kg):	0.19	0.19
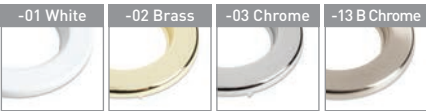
excl.

2 YRS

OP 220 240   IP 20

-01 White   -02 Brass   -03 Chrome   -13 B Chrome

SURFACE FITTINGS

SURFACE FITTINGS
EAGLE LED

GOLDEN RATIO

The EAGLE and HAWK family of surface mount light fittings have been designed with diffuser height, trim chamfer and trim wall in the ratio a:b:a, where a:b is the Golden Ratio 1:0.618, known to mankind since ancient times and popularised by Leonardo da Vinci during the Renaissance. Throughout nature the Golden Ratio is the hallmark of natural aesthetic beauty.

Thomas Deacon Academy, Peterborough, United Kingdom
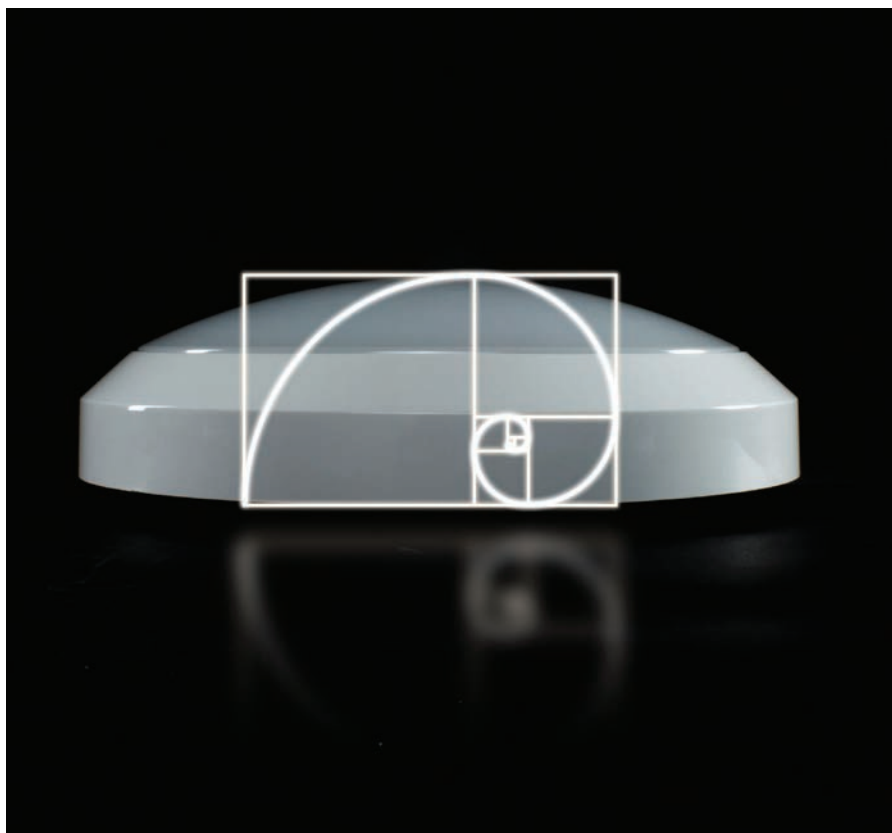
SURFACE FITTINGS
EAGLE LED

EAGLE LED surface fitting

- Elegant, slim and versatile family of perfectly proportioned LED surface light fittings
- Common aesthetic across the EAGLE range allows mix and match of fittings in the building of different lumen packages and physical size
- Range of shell size and light outputs:
  Eagle: Small 272mm Ø (7W)
  Eagle & Hawk: Medium 330mm Ø (10W & 14W)
  Eagle: Large 420mm Ø (24W)
- Strong and durable IK10 rated diffuser/enclosure
- Efficacy of ≥82 luminaire lm/cctW complies with the efficacy requirements of the ETCL for Enhanced Capital Allowances
- Suitable for surface or ABB AU19/BESA box mounting for conduit, rear grommet or glanded incoming supplies
- Wide operating ambient temperature range of -20°C to +35°C

- For fast and simple installation, the fitting has:
  - Twist & lock trim for easy gear tray access
  - Clip and detach hinged tray accesses termination area
  - Swift inside 4 pole loop in/out connector for quick disconnection of the tray before installation of base
  - Single gear tray to base locking screw completes the re-assembly process
- Optional 3-hour emergency conversion available
- To compliment up to 65% energy savings versus CFL, enhanced energy savings can be achieved using:
  - External PIR or integral microwave sensor controls and/or
  - Dual Power, 3 Step, DALI and Analogue dimming
- Emergency spacing details in back section of catalogue

Accessories	7W	10W	14W	24W
Chrome Trim	REESTRIM-03	REEMTRIM-03	REEMTRIM-03	REELTRIM-03
Brushed Chrome Trim	REESTRIM-13	REEMTRIM-13	REEMTRIM-13	REELTRIM-13
3000K Gear Tray	-	-	RETM01530	-
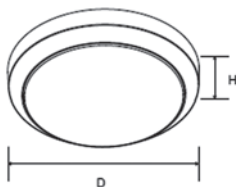
	D	H
REES7P540-01	272mm	91mm
REES7P540E-01	272mm	91mm
REEM01040-01	330mm	91mm
REEM01040E-01	330mm	91mm
REEM01540-01	330mm	91mm
REEM01540E-01	330mm	91mm
REEL02440-01	420mm	91mm
REEL02440E-01	420mm	91mm

GOLF

EAGLE

GOLF vs Eagle Comparison

Neutral White

	7W	10W	14W	24W
Standard	**REES7P040-01**	**REEM01040-01**	**REEM01540-01**	**REEL02440-01**
Emergency	**REES7P040E-01**	**REEM01040E-01**	**REEM01540E-01**	**REEL02440E-01**
Microwave Sensor		**REEM01040-01SEN**	**REEM01540-01SEN**	**REEL02440-01SEN**
Emergency Sensor		**REEM01040E-01SEN**	**REEM01540E-01SEN**	**REEL02440E-01SEN**
Comparable to:	16W 2D	28W 2D	38W 2D	55W 2D
Total Power (W):	6.5	9.6	12.7	21.4
Total Light Output (lm):	660 standard	1,050 standard	1,400 standard	2,340 standard
	130 emergency	120 emergency	160 emergency	260 emergency
Efficacy (lm/cctW):	102	109	110	109
Lifetime (hrs):	50,000	50,000	50,000	50,000
Beam Angle (deg):	110	110	110	110
Lux at 1m (lux):	210 standard	340 standard	450 standard	780 standard
	40 emergency	40 emergency	50 emergency	90 emergency
CCT (K):	4000	4000	4000	4000
CRI:	>80	>80	>80	>80
IP:	65	65	65	65
Impact Rating (IK):	10	10	10	10
Power Factor:	>0.9	>0.9	>0.9	>0.9
Diameter (mm):	272	330	330	420
Depth (mm):	91	91	91	91
Weight (kg):	1.05	1.45	1.45	2.10

5 YRS | 102–110 LmW

OP 220 240 | IP 65 | PART L1 | PART L2 | PHOTO METRICS

eagle

ECA eligible
LIA Verified
Triple E registered

Clip and detachable hinged EAGLET gear tray

1. SWIFT Connector:
For quick disconnection of the tray before installation of base

2. One Screw:
Easy to install, only one screw to tighten after base is installed

3. Hinged Base:
Easy to upgrade

4. Knock-out Centre:
Allows easy upgrade to Sensor Version

5. BESA Conduit Box Compatible:
Can be mounted directly on BESA conduit boxes

6. PC Base:
Allows for IK10 rating on a slim design
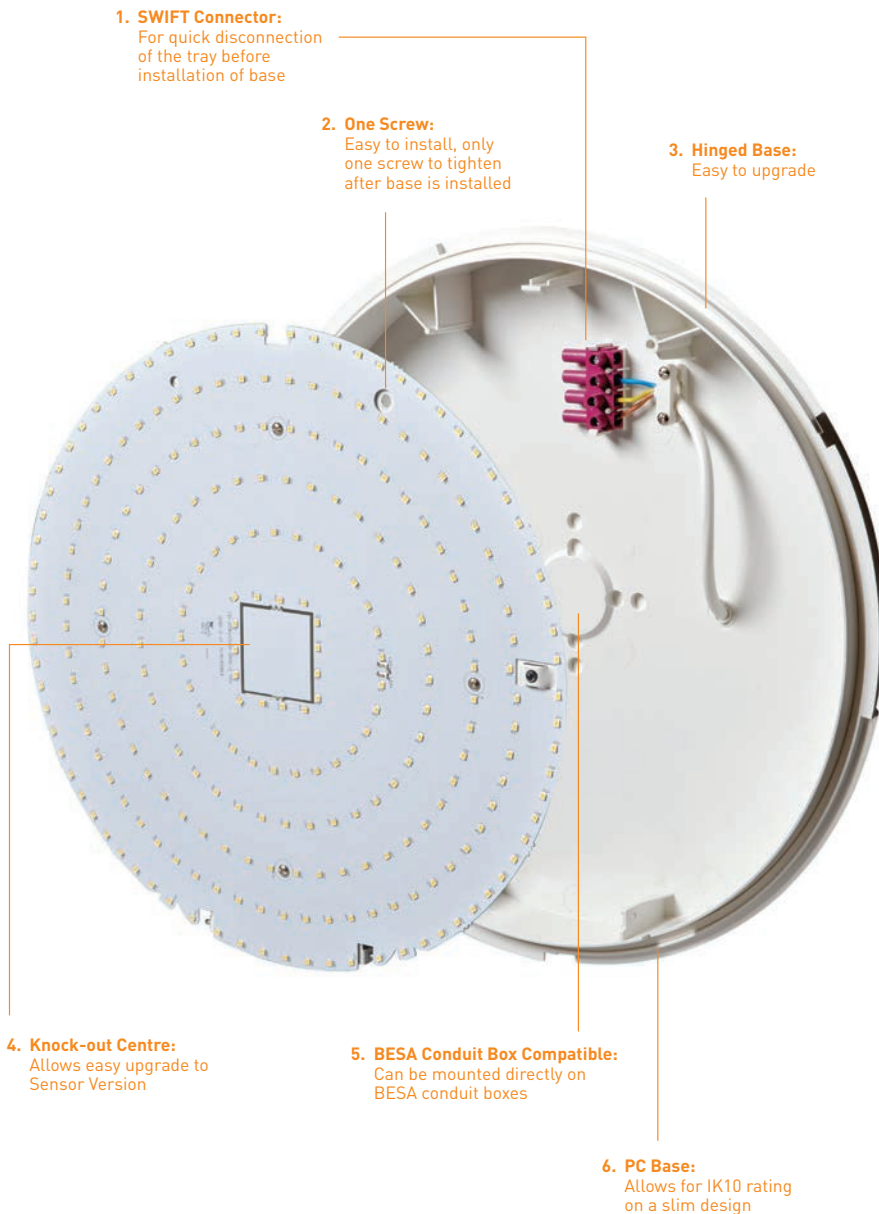
HAWK LED surface fitting

- A high security, anti-tamper companion to the EAGLE range
- Common aesthetic across the HAWK range allows mix and match of fittings in the building of different lumen packages and physical size
- Shell size, medium 330mm Ø (10W & 14W)
- Strong and durable IK10 rated diffuser/enclosure
- Efficacy of ≥82 luminaire lm/cctW complies with the efficacy requirements of the ETCL for Enhanced Capital Allowances
- Suitable for surface or ABB AU19/BESA box mounting for conduit, rear grommet or glanded incoming supplies
- Wide operating ambient temperature range of -20°C to +35°C
- For fast and simple installation, the fitting has:
  - Twist & lock trim for easy gear tray access
  - Clip and detach hinged tray accesses termination area
  - Swift inside 4 pole loop in/out connector for quick disconnection of the tray before installation of base
  - Single gear tray to base locking screw completes the re-assembly process

- Screw-on trim fitted with retained anti-tamper TORX T20 security screws and requires matching screwdriver head to release and replace trim
- Optional 3-hour emergency conversion available
- To compliment up to 65% energy savings versus CFL, enhanced energy savings can be achieved using external PIR or integral microwave sensor controls
- Dual Power, 3 Step, DALI and Analogue dimming available through Conversions
- Complies with requirements of the Energy Technology Criteria List. Enhanced Capital Allowances may be claimed on the cost of the luminaires, installation and transport to site
- Emergency spacing details in back section of catalogue

Accessories:

RHKMTRIM-04	Black Trim
RHKMTRIM-24	Grey Trim
RHKMEY-04	Black Eyelid Trim
RHKMEY-24	Grey Eyelid Trim
RHKMCR-04	Black Cross Grid Trim
RHKMCR-24	Grey Cross Grid Trim
RETM01530	3000K Gear Tray

Hawk Base

Anti-tamper, screw-on trim

Neutral White

	10W	14W
Standard	**RHKM01040-01**	**RHKM01540-01**
Emergency	**RHKM01040E-01**	**RHKM01540E-01**
Microwave Sensor	**RHKM01040-01SEN**	**RHKM01540-01SEN**
Emergency Sensor	**RHKM01040E-01SEN**	**RHKM01540E-01SEN**
Comparable to:	28W 2D	38W 2D
Total Power (W):	9.6	12.7
Total Light Output (lm):	1,050 standard	1,400 standard
	120 emergency	160 emergency
Efficacy (lm/cctW):	109	110
Lifetime (hrs):	50,000	50,000
Beam Angle (deg):	120	120
Lux at 1m (lux):	340 standard	450 standard
	40 emergency	50 emergency
CCT (K):	4000	4000
CRI:	>80	>80
IP:	65	65
Impact Rating (IK):	10	10
Power Factor:	>0.9	>0.9
Diameter (mm):	330	330
Depth (mm):	91	91
Weight (kg):	1.5	1.5

5 YRS | 109–110 LmW

ECA eligible
LIA Verified
Triple E registered

hawk

OP 220 240 | IP 65 | PART L1 | PART L2 | PHOTO METRICS

EIFFEL 14W LED blue surface fitting

- Suitable for use in toilets, transport facilities, railway stations, residential corridors, stairwells, and other publicly accessible areas where loitering and anti-social behaviours are to be discouraged; also usable in certain deep blue human centric lighting applications
- Available in either the HAWK high security, anti-tamper 330mm fitting or the EAGLE aesthetic twist-and-lock 330mm fitting
- Aesthetic design unity allows mix and match of EIFFEL (and GLOW) specialist surface fittings with any combination of HAWK and EAGLE light fittings at different sizes and lumen packages
- Utilises proven long-life 460 nm Blue SMD 2835 LEDs for maximum mW value to cost
- Delivers 25% more lighting power (4000mW) than a comparable EAGLE or HAWK 15W 4000K white light, but the lumen value is much lower than a white light because the human eye has lower sensitivity in the blue region of the visible spectrum
- Tough IK10 impact rated diffuser enclosure system

- BESA / ABB AU19 conduit box mounting facility provided on base of fitting
- Unique "clip and detachable hinge" EAGLET gear tray for easy installation and maintenance
- HAWK versions of EIFFEL have 2x conduit side entry points for trunking positioned 180º apart in both trim and base; EAGLE versions have Twist-and-Lock trims without side entry
- 20mm conduit/cable entry at back of base
- Loop-in, loop-out installation facilitated by 4-way "SWIFT inside" pluggable connector block
- HAWK version has screw-on trim fitted with retained anti-tamper TORX T20 security screws and requires matching screwdriver head to release and replace trim
- Anti-tamper grey and black trim accessories available for HAWK version
- Twist and lock polished chrome and brushed chrome trim accessories available for EAGLE version
- White/Blue Dual Power Sensor version available on request
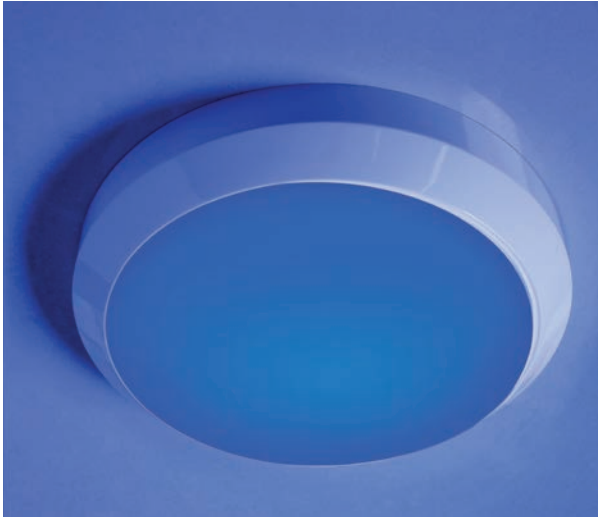
	RHKM015B460-01 EIFFEL in HAWK enclosure	REEM015B460-01 EIFFEL in EAGLE enclosure
Total Power (W):	14	14
Total Light Output (lm):	300 at 460 nm blue	300 at 460 nm blue
Lifetime (hrs):	50,000	50,000
IP:	65	65
Power Factor:	>0.9	>0.9
Diameter (mm):	330	330
Depth (mm):	91	91
Weight (kg):	1.5	1.45

eiffel

| 5 YRS | | | OP 220 240 | IP 65 | PHOTO METRICS |

Accessories:

HAWK enclosure version

RHKMTRIM-04	Black Trim
RHKMTRIM-24	Grey Trim
RHKMEY-04	Black Eyelid Trim
RHKMEY-24	Grey Eyelid Trim
RHKMCR-04	Black Cross Grid Trim
RHKMCR-24	Grey Cross Grid Trim

EAGLE enclosure version

| REEMTRIM-03 | Chrome Trim |
| REEMTRIM-13 | Brushed Chrome Trim |
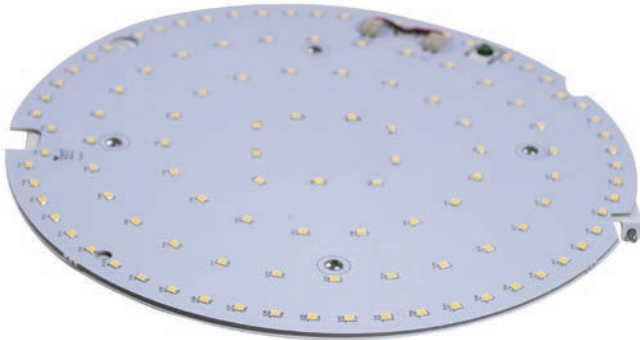
GLOW 14W LED retrofit tray for EAGLE and HAWK surface fittings

- Suitable for use in ladies hair & beauty salons, dressing rooms and toilets, bathrooms, medical facilities, retail outlets and displays, and other places where rendition of red is especially desirable
- Aesthetic design unity allows mix and match of GLOW R9 >70 with CRI >90 enable EAGLE or HAWK surface fittings at different sizes and lumen packages
- High efficiency of 94 luminaire lm/cctW to comply with Part L1 & L2 UK Building Regulations and eligible for Enhanced Capital Allowances

- Mounted on unique "clip and detachable hinge" EAGLET gear tray for easy installation and maintenance
- "SWIFT inside" (4 gang flying lead plug) - easy gear tray retrofit
- 65% energy saving when compared to 2D fluorescent fittings
- Complies with requirements of the Energy Technology Criteria List. Enhanced Capital Allowances may be claimed on the cost of the luminaires, installation and transport to site

EAGLET GLOW Retrofit Tray CRI 90	RETM01540C90
Total Power (W):	12.7
Total Light Output (lm):	1,190
Efficacy (lm/cctW):	94
Lifetime (hrs):	50,000
Beam Angle (deg):	110
Lux at 1m (lux):	390
CCT (K):	4000
CRI:	>90
R9:	>70
Power Factor:	0.95
Diameter (mm):	330mm EAGLE/HAWK

ECA eligible

GOLF LED with Pro-diffuser

- Suitable for use in retail, public buildings, communal areas, sports centres, stairwells, corridors, walkways
- >50% energy savings compared to fluorescent
- Utilises high quality, long life SMD technology
- High efficiency Pro-diffuser allows maximum light transmission, provides low glare, creates even light distribution – no hot spots
- Wide operating ambient temperature range of -20°C to +35°C

- Suitable for 24/7 use
- Suitable for switching by PIR, Microwave or Photocell
- Strong and durable IK09 rated diffuser/enclosure
- Dual Power, 3 Step dimming and emergency conversion to warm white available from Conversions
- Emergency spacing details in back section of catalogue

Accessories:

R282TRIM-03 Chrome Trim for 10W & 15W
R162TRIM-03 Chrome Trim for 7.5W

R162TRIM-03
Chrome Trim

	7.5W	10W	10W	15W
Standard	**R075LED-01**	**R100LED-01**	**R100LEDWW-01**	**R150LED-01**
Emergency	**R075LEDE-01**	**R100LEDE-01**		**R150LEDE-01**
Microwave Sensor	**R075LEDS-01**	**R100LEDS-01**	**R100LEDWW-01SEN**	**R150LEDS-01**
Emergency & Sensor		**R100LEDES-01**		**R150LEDES-01**
Comparable to:	16W 2D	28W 2D	28W 2D	38W 2D
Total Power (W):	7	10.6	9.3	14.6
Total Light Output (lm):	640 standard	860 standard	710 standard	1,250 standard
	180 emergency	180 emergency	N/A	180 emergency
Efficacy (lm/cctW):	91	82	76	86
Lifetime (hrs):	50,000	50,000	50,000	50,000
Lux at 1m (lux):	210	270	230	410
Beam Angle (deg):	110	110	110	110
CCT (K):	4000	4000	3000	4000
CRI:	80	80	80	80
IP:	65	65	65	65
Impact Rating (IK):	09	09	09	09
Power Factor:	0.9	0.9	0.9	0.9
Diameter (mm):	272	330	330	330
Depth (mm):	90	118	118	118
Box Qty:	6	6	6	6
Weight (kg):	1.09 standard	1.4 standard	1.4 standard	1.4 standard
	1.2 emergency	1.8 emergency	N/A	1.8 emergency

5 YRS ✓ | 76–91 LmW

OP 220 240 | IP 65 | PHOTO METRICS | PART L1 | PART L2

ECA eligible
LIA verified
Triple E registered

NEW!

GOLF LED CCT3 selectable

- Suitable for use in commercial offices, retail shops, nursing homes, apartment stairs and corridors, hotel receptions and sports centre changing rooms
- Colour temperature can be selected between 3000K, 4000K & 6500K on completion for best effect in the lit space and can be easily changed
- Available in standard, integral microwave with sensitivity, time-off delay and lux switching point adjustment, emergency versions, dual power and three step corridor function available
- High impact white polycarbonate construction providing protection against accidental or malicious abuse

- High efficiency Pro-diffuser allows maximum light transmission, provides low glare, creates even light distribution – no hot spots
- Wide operating ambient temperature range of -20°C to +35°C
- Utilises high quality SMD LED's which provide low power consumption, high efficacy and long rated LED life
- Can be switched by microwave, PIR and/or photocell
- Emergency with integral microwave sensor, Dual Power, 3 Step, DALI and Analogue dimming available through Conversions

Accessories:

R282TRIM-03   Polished Chrome Trim

R162TRIM-03
Chrome Trim
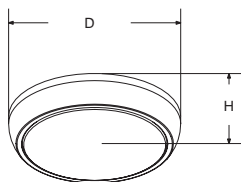
		D	H
R100LEDCCT3	10W	Ø330mm	118mm
R150LEDCCT3	15W	Ø330mm	118mm

Golf CCT3 selectable switches

	10W	15W
Standard	**R100LEDCCT3-01**	**R150LEDCCT3-01**
Emergency	**R100LEDCCT3E-01**	**R150LEDCCT3E-01**
Microwave Sensor	**R100LEDCCT3S-01**	**R150LEDCCT3S-01**
Emergency & Sensor	**R100LEDCCT3E-01S**	**R150LEDCCT3E-01S**
Comparable to 2D Fluorescent (W):	28W 2D	38W 2D
Total Power (W):	11 / 10.8 / 11	15.8 / 15.2 / 16
Total Light Output (lm):	840 / 990 / 950 standard 180 emergency	1,240 / 1,420 / 1,360 standard 180 emergency
Efficacy (lm / cctW):	76 / 92 / 86	78 / 93 / 85
Lifetime (hrs):	50,000	50,000
Illuminance at 1m (lx):	270 / 310 / 300 standard 60 emergency	390 / 450 / 430 standard 60 emergency
Beam Angle (deg):	110	110
CCT (K):	3000 / 4000 / 6500	3000 / 4000 / 6500
CRI (Ra):	80	80
Ingress Protection (IP):	65	65
Impact Rating (IK):	10	10
Power Factor (PF):	0.9	0.9
Diameter (mm):	330	330
Depth (mm):	118	118
Box Qty:	6	6
Weight (kg):	1.4 standard 1.6 emergency	1.4 standard 1.6 emergency

5 YRS 76–93 LmW

OP 220 240   IP 65   PHOTO METRICS   PART L1   PART L2

Manchester Student Village, United Kingdom

GOLF 10W & 15W SMD LED retrofit tray

- Universal Retrofit LED tray converts standard 2D fittings to low energy LED
- 50,000 hour average rated LED life
- Universal mounting – tray fits many existing fittings

- Actual photometric performance dependent on fitting and diffuser into which plate is installed
- R100LEDRETE provides 3 hour emergency duration. 220 lumens in emergency mode, 21% of maintained output

Neutral White

	R100LEDRET	R150LEDRET
Standard	**R100LEDRET**	**R150LEDRET**
Emergency	**R100LEDRETE**	
Microwave Sensor	**R100LEDRETS**	
Emergency Sensor	**R100LEDRETESEN**	
Comparable to:	28W 2D	38W 2D
Total Power (W):	10	15.9
Efficacy (lm/cctW):	105	101
Lifetime (hrs):	50,000	50,000
Total Light Output (lm):	1,050 standard	1,610 standard
	220 emergency	
Lux at 1m (lux):	300	550
Beam Angle (deg):	120	120
CCT (K):	4000	4000
CRI:	80	80
Power Factor:	0.9	0.9
Diameter (mm):	254	254
Depth (mm):	55	55
Box Qty:	1	1
Weight (kg):	0.7 standard	0.7 standard
	0.85 emergency	

254mm
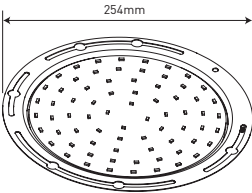
SURFACE FITTINGS
GOLF HF 2D

GOLF 2D high frequency

- Polycarbonate diffuser
- IP65 – suitable for indoor/outdoor use, fully resistant to the penetration of dust and water jets
- 3500K
- R162D+L complete with 16W 3500K 4 pin lamp
- R282D+L complete with 28W 3500K 4 pin lamp
- R282D+LE complete with 28W 4 pin lamp; has a 3 hour maintained emergency duration

- **Note:** Brass trim (R282TRIM-02) and Satin Silver trim (R282TRIM-15) must be ordered separately
- Ballast 50% more efficient than switch start. Improved starting and running of the lamp increases lamp life by up to 50%
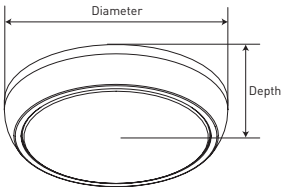
CODE	DIAMETER	DEPTH
R162D+L	272mm	90mm
R282D+L	330mm	118mm
R282D+LE	330mm	118mm

R282TRIM-02

R282TRIM-15
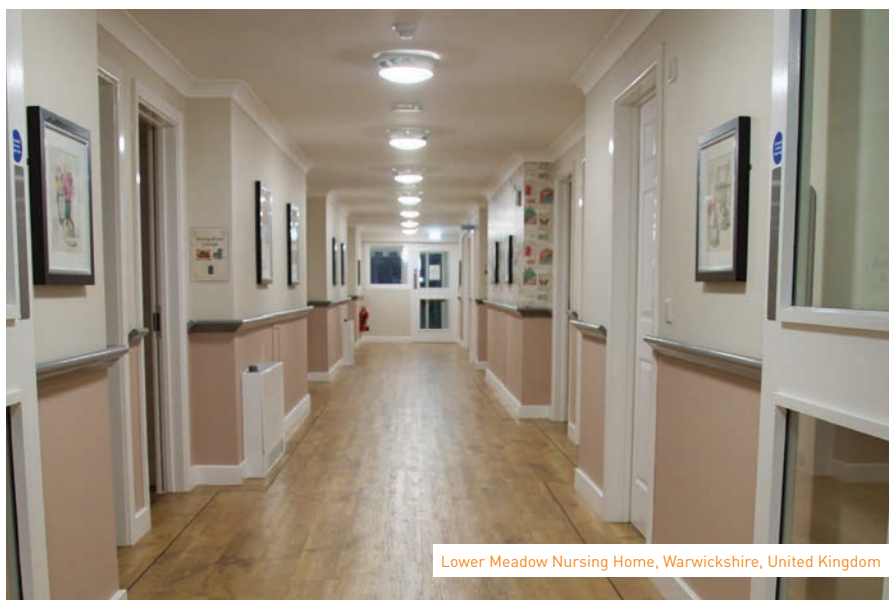
Lower Meadow Nursing Home, Warwickshire, United Kingdom

	16W	28W	28W Emergency
White Chrome	R162D+L-01HF R162D+L-03HF	R282D+L-01HF R282D+L-03HF	R282D+LE-01
Total Power (W):	16	28	28
IP:	65	65	65
Cap Type:	GR10q	GR10q	GR10q
Diameter (mm):	272	330	330
Depth (mm):	90	118	118
Box Qty:	6	6	4
Weight (kg):	1.18	2.25	3.5

Also Available:

GOLF 16W and 28W 2D switch start, IP65

16W	R162D+L-01	White
28W	R282D+L-01	White

COMPACT LED fitting

- Suitable for use in retail, public buildings, communal areas, sports centres, stairwells, corridors, walkways
- High efficiency Pro-diffuser allows maximum light transmission, provides low glare, creates even light distribution – no hot spots
- High efficacy of 89lm/W exceeding any foreseeable building regulations

- Impact resistant IK08
- Wide operating ambient temperature range of -20°C to +35°C
- Suitable for 24/7 use
- Suitable for switching by PIR, Microwave or Photocell

87mm

Ø 284mm
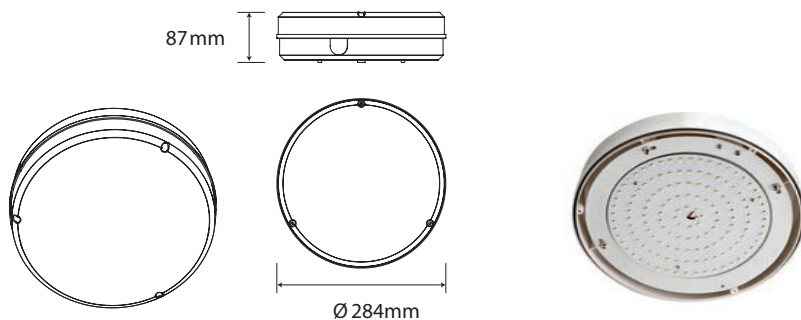
	10W
Standard	**RC100LEDN-01**
Emergency	**RC100LEDNE-01**
Microwave Sensor	**RC100LEDS-01**
Comparable to:	28W 2D
Total Power (W):	11.4
Total Light Output (lm):	1,020 standard
	140 emergency
Efficacy (lm/cctW):	89
Lifetime (hrs):	50,000
Beam Angle (deg):	110
Lux at 1m (lux):	250
CCT (K):	4000
CRI:	80
IP:	65
Power Factor:	0.75
Diameter (mm):	284
Depth (mm):	87
Box Qty:	6
Weight (kg):	1.0 standard
	1.3 emergency

3 YRS · 89 LmW · OP 220 240 · IP 65 · PHOTO METRICS · PART L1 · PART L2
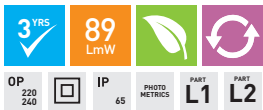
SURFACE FITTINGS
COMPACT HF 2D

Opal

COMPACT 2D surface fitting

- Robust and vandal resistant choice of polycarbonate opal or prismatic diffusers
- IP65, suitable for internal and external applications
- Impact resistant IK08

- C/w 4 Pin 3500K 16W or 28W lamp
- Integral high frequency ballast, flicker free start. Extends lamp life by approximately 50% compared to switch start

85mm

Ø204mm

16W

85mm

Ø283mm
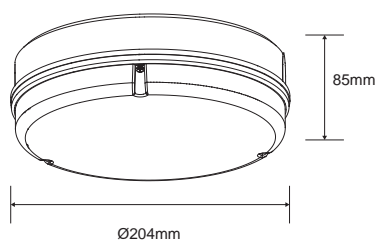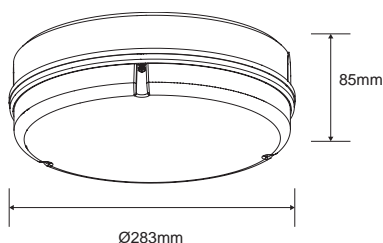
28W

Prismatic

	16W	28W
Opal White	**RC162DO-01**	**RC282DO-01**
Prismatic White	**RC162DP-01**	**RC282DP-01**
Emergency		**RC282DEPO-01**
Total Power (W):	16	28
IP:	65	65
Cap Type:	GR10q	GR10q
Diameter (mm):	204	283
Depth (mm):	85	85
Box Qty:	10	8
Weight (kg):	0.7	1.2

Emergency version

- C/w both Opal and Prismatic diffusers
- Maintained 3hr emergency operation
- Can be wired as non-maintained

RC282DEPO-01	White Base

SURFACE FITTINGS
LUSTRE LED CCT3 SELECTABLE

18W

LUSTRE LED CCT3 selectable

- Suitable for use in toilets, rest rooms, bathrooms or cloak rooms in domestic, commercial, entertainment or retail premises
- Colour temperature selectable: switch on the back of the fitting allows selection of 3000/4500/6500 Kelvin
- LED replacement for 28W / 38W 2D fluorescent fittings
- Pressed steel base with twist and lock type

PMMA diffuser
- High efficacy of 75-99lm/W
- Wide ambient operating temperature range of -20°C to +40°C
- Suitable for use 24/7
- Available in standard and with microwave sensor
- Suitable for switching by external PIR, Microwave or Photocell

H

D
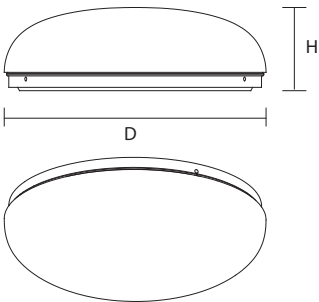
	18W	24W
D	322mm	372mm
H	97mm	107mm

	18W	24W
Standard	**RLU18X0-01**	**RLU24X0-01**
Microwave sensor	**RLU18X0S-01**	**RLU24X0S-01**
Comparable to:	28W 2D	38W 2D
Total Power (W):	19.4/18.1/19.3	25.7/24.1/25.9
Total Light Output (lm):	1,450/1,730/1,510	2,010/2,380/2,080
Efficacy (lm/cctW):	75/96/78	78/99/80
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	360/430/380	530/630/550
Beam Angle (deg):	120	120
CCT (K):	3000/4500/6500	3000/4500/6500
CRI:	80	80
IP:	20	20
Impact Rating (IK):	07	07
Power Factor:	0.9	0.9
Diameter (mm):	322	372
Depth (mm):	97	107
Box Qty:	1	1
Weight (kg):	0.7	0.9

2 YRS · 75-99 LmW · OP 220 240 · IP 20 · PART L1 · PART L2 · PHOTO METRICS

SURFACE FITTINGS
OYSTER LED

OYSTER LED fitting

- Suitable for use in retail shops, public buildings, communal areas, sports centres, stairwells, corridors, walkways, toilets, restrooms and bathrooms
- LED replacement for 28W & 38W 2D fluorescent fittings providing over 40% energy savings
- Pressed steel base with twist and lock PMMA diffuser

- 24W version providing 65lm/W meeting Part L2 requirements
- Wide ambient operating temperature range of -20°C to +40°C
- Suitable for use 24/7
- Suitable for wall and ceiling mounting
- Suitable for PIR, microwave or photocell switching

Neutral White

	18W	24W
Standard, White	**R18WLED40EU-01**	**R24WLED40EU-01**
Comparable to:	28W 2D	38W 2D
Total Power (W):	19.9	26.2
Total Light Output (lm):	1,060	1,710
Efficacy (lm/cctW):	53	65
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	300	400
Beam Angle (deg):	120	120
CCT (K):	4,000	4,000
CRI:	80	80
IP:	44	44
Power Factor:	0.9	0.9
Diameter (mm):	327	395
Depth (mm):	90	105
Weight (kg):	0.6	0.94

3 YRS | 53-65 LmW

OP 220 240 | IP 44

PHOTO METRICS | PART L1 | PART L2

LIA verified

SURFACE FITTINGS
VOGUE LED CEILING LIGHT

VOGUE 20W LED ceiling light

- Suitable for use in toilets, rest rooms, bathrooms or cloak rooms in domestic, commercial, entertainment or retail premises
- LED replacement for 28W 2D fluorescent fittings
- Polycarbonate base with acrylic diffuser

- Complete with detachable mounting plate
- Slim profile
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

Neutral White

	RVG02040-01
Total Power (W):	16.6
Total Light Output (lm):	1,570
Efficacy (lm/cctW):	95
Lifetime (hrs):	30,000
Lux at 1m (lux):	470
Beam Angle (deg):	120
CCT (K):	4000
CRI:	80
IP:	44
Power Factor:	0.9
Diameter (mm):	280
Height (mm):	53
Box Qty:	1
Weight (kg):	0.75

3 YRS · 95 LmW

OP 220 240 · IP 44

PHOTO METRICS · PART L1 · PART L2

Zone 2

53mm

Ø280mm

OUTDOOR

OUTDOOR
VEGA LED BULKHEAD

VEGA 14W LED bulkhead

- Suitable for use in apartment stairs & corridors, covered walkways, patios & decking areas, path & driveways, public toilets, changing rooms
- Fully polycarbonate construction providing resistance to corrosion and high impact rating of IK07
- C/w stainless steel tamper proof screws
- Suitable for wall and ceiling mounting
- Wide operating ambient temperature range of -20°C to +35°C

- Suitable for switching by PIR, Microwave or Photocell
- Microwave sensor version has adjustable time settings (10 seconds to 12 mins) and daylight to night lux level switching
- Emergency version provides 130lm output in emergency mode, 12% of maintained output

Neutral White

	Standard	Emergency	Microwave Sensor	Emergency Sensor
White	**RVE01440-01**	**RVE01440E-01**	**RVE01440DM-01**	**RVE01440DME-01**
Black	**RVE01440-04**	**RVE01440E-04**	**RVE01440DM-04**	**RVE01440DME-04**
Grey	**RVE01440-24**	**RVE01440E-24**	**RVE01440DM-24**	**RVE01440DME-24**
Comparable to:	28W 2D	28W 2D	28W 2D	28W 2D
Total Power (W):	14.3	15.7	14.3	15.7
Total Light Output (lm):	1,050	130	1,050	130
Efficacy (lm/cctW):	73	66	73	66
Lifetime (hrs):	30,000	30,000	30,000	30,000
Beam Angle (deg):	110	110	110	110
Lux at 1m (lux):	370	45	370	45
CCT (K):	4000	4000	4000	4000
CRI:	85	85	85	85
IP:	65	65	65	65
Impact Rating (IK):	07	07	07	07
Power Factor:	0.7	0.7	0.7	0.7
Depth (mm):	91	91	91	91
Diameter (mm):	300	300	300	300
Weight (kg):	1.35	1.35	1.35	1.35

3 YRS · 66–73 LmW

OP 220 240 · IP 65 · PART L1 · PART L2 · PHOTO METRICS

Triple E registered

RVECR-01

RVECR-04

RVECR-24

RVEEY-01

RVEEY-04

RVEEY-24

VEGA cross trim		**VEGA eyelid trim**	
RVECR-01	White	RVEEY-01	White
RVECR-04	Black	RVEEY-04	Black
RVECR-24	Grey	RVEEY-24	Grey

Trims supplied separately to fitting

91mm

300mm
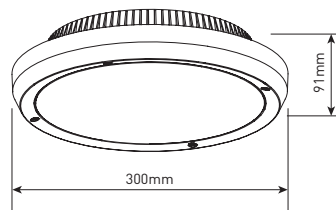
OHIO LED BULKHEAD

OHIO 8W LED bulkhead

- Complete with white and black trims
- LED replacement for 60W incandescent fittings
- 73 lumens per circuit watt
- 3000K warm white light output
- 30,000 hour rated LED life
- Polycarbonate construction
- Impact resistant (IK08)
- UV stabilized
- Wide operating ambient temperature range -20°C to +40°C

Circular	8W
	RHC0830-01
Comparable to:	60W Incandescent
Total Power (W):	8.8
Total Light Output (lm):	640
Efficacy (lm/cctW):	73
Lifetime (hrs):	30,000
Lux at 1m (lux):	180
Beam Angle (deg):	120
CCT (K):	3000
CRI:	80
IP:	54
Power Factor:	0.5
Diameter (mm):	176
Depth (mm):	55
Weight (kg):	0.3
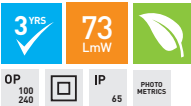
Triple E registered

OHIO 8W LED bulkhead

- Complete with white and black trims
- LED replacement for 60W incandescent fittings
- 75 lumens per circuit watt
- 3000K warm white light output
- 30,000 hour rated LED life
- Polycarbonate construction
- Impact resistant (IK08)
- UV stabilized
- Wide operating ambient temperature range -20°C to +40°C

Oval	8W
	RHV0830-01
Comparable to:	60W Incandescent
Total Power (W):	8.8
Total Light Output (lm):	660
Efficacy (lm/cctW):	75
Lifetime (hrs):	30,000
Lux at 1m (lux):	180
Beam Angle (deg):	120
CCT (K):	3000
CRI:	80
IP:	54
Power Factor:	0.5
Length (mm):	200
Width (mm):	100
Depth (mm):	55
Weight (kg):	0.3

Triple E registered

OHIO LED BULKHEAD

OHIO 12W LED bulkhead

- Complete with white and black trims
- LED replacement for 100W incandescent fittings
- 78-79 lumens per circuit watt
- 3000K warm white and 4000K neutral white light output
- 30,000 hour rated LED life
- Polycarbonate construction
- Impact resistance (IK08)
- UV stabilized
- Wide operating ambient temperature range -20°C to +40°C

Circular	12W
Warm White	**RHC1230-01**
Neutral White	**RHC1240-01**
Comparable to:	100W Incandescent
Total Power (W):	11.7/12.1
Total Light Output (lm):	Warm 910 / Neutral 950
Efficacy (lm/cctW):	Warm 78 / Neutral 79
Lifetime (hrs):	30,000
Lux at 1m (lux):	Warm 250 / Neutral 280
Beam Angle (deg):	120
CCT (K):	Warm 3000 / Neutral 4000
CRI:	80
IP:	54
Power Factor:	0.5
Diameter (mm):	211
Depth (mm):	55
Weight (kg):	0.4
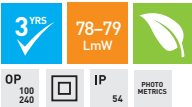
Triple E registered

OHIO 12W LED bulkhead

- Complete with white and black trims
- LED replacement for 100W incandescent fittings
- 71-77 lumens per circuit watt
- 3000K warm white and 4000K neutral white light output
- 30,000 hour rated LED life
- Polycarbonate construction
- Impact resistance (IK08)
- UV stabilized
- Wide operating ambient temperature range -20°C to +40°C

Oval	12W
Warm White	**RHV1230-01**
Neutral White	**RHV1240-01**
Comparable to:	100W Incandescent
Total Power (W):	12.1
Total Light Output (lm):	Warm 860 / Neutral 930
Efficacy (lm/cctW):	Warm 71 / Neutral 77
Lifetime (hrs):	30,000
Lux at 1m (lux):	Warm 250 / Neutral 280
Beam Angle (deg):	120
CCT (K):	Warm 3000 / Neutral 4000
CRI:	80
IP:	54
Power Factor:	0.5
Length (mm):	230
Width (mm):	105
Depth (mm):	55
Weight (kg):	0.3
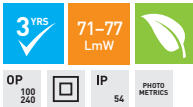
Triple E registered

OUTDOOR
WHITESTAR BULKHEAD

R60BHPIR

R60BHPC

WHITESTAR 60W bulkhead

- Suitable for use in sheltered outdoor common areas, gardens, hotel, pub and restaurant walkways
- Complete with ceramic E27 lamp holder
- Can be used with energy saving LED & CFL lamps and max 60W incandescent
- ABS UV-stabilised housing with polycarbonate diffuser
- Stainless steel screws

- Wide operating ambient temperature range of -20°C to +40°C
- PIR version: Has an all-round detection of 120°. Has an adjustable time delay (10secs – 4mins) and sensitivity 12m
- Photocell version: Switches light on automatically at dusk and remains on until daybreak. Comes on at 20 lux, goes off at 50 lux

	PIR	Photocell
	R60BHPIR-01 **R60BHPIR-04**	**R60BHPC-01** **R60BHPC-04**
Total Power (W):	60	60
IP:	44	44
Cap Type:	E27	E27
Depth (mm):	115	115
Width (mm):	115	115
Height (mm):	275	265
Box Qty:	4	4
Weight (kg):	0.62	0.53

excl.

2 YRS

OP 220 240   IP 44

115mm

275mm

R60BHPIR

115mm

265mm

115mm

R60BHPC

TOGA BULKHEAD

R4WLEDBH-01

R4WLEDBHE-01
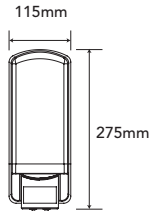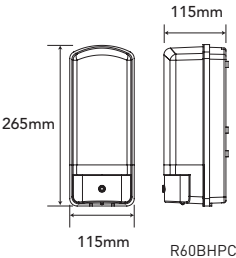
TOGA 4.5W LED bulkhead, 4000K, White

- Suitable for storage areas, corridors, stairways, wet rooms, garage lighting, covered walkways and paths around buildings
- Standard and emergency versions
- Strong and durable polycarbonate housing and prismatic outer diffuser with IK09 rating

- Polycarbonate Opal LED diffuser is low glare and provide even, diffused, shadow free light
- Sprung and hinged gear tray
- 200mm gland entry points on back and all 4 sides
- Rear screw mounting points moulded into base

	R4WLEDBH-01	R4WLEDBHE-01
Comparable to:	8W fluorescent	8W fluorescent
Total Power (W):	4.5	6.9
Total Light Output (lm):	440	460/120 emergency
Efficacy (lm/cctW):	98	67
Lifetime (hrs):	30,000	30,000
Beam Angle (deg):	150	150
Lux at 1m (lux):	120	160
CCT (K):	4000	4000
CRI:	80	80
IP:	65	65
Impact Rating (IK):	09	09
Power Factor:	0.5	0.5
Length (mm):	353	353
Width (mm):	110	130
Depth (mm):	66	58
Box Qty:	1	1
Weight (kg):	0.43	0.65

353mm · 65.5mm · 110mm

R4WLEDBH-01

353mm · 58mm · 130mm

R4WLEDBHE-01
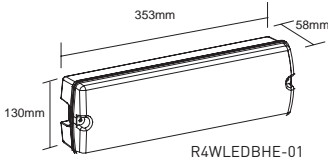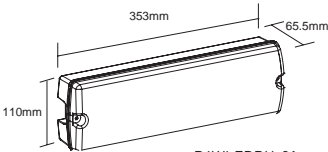
3 YRS · 67-98 LmW

OP 220 240 · IP 65

NEW!

30W

50W

100W

CHAMPION LED flood light

- Suitable for use in decking areas, drives, pathways, sign illumination, wall washing, atriums, patios, car parks, garages, and industrial units
- LED replacement for 50W – 300W Metal Halide/ 200W-1500W Halogen flood lights
- Die cast aluminium housing providing optimal heat dissipation and high resistance to weather conditions
- Pre-wired with 1m of rubber flex
- Tempered glass providing high impact rating of IK07

- Complete with stainless steel screws
- No warm up or cool down period required by LED
- High efficacy of 110-127 Lm/W
- Wide operating ambient temperature range of -20°C to 40°C
- 50,000 hour average lamp life
- Pre-drilled mounting bracket with 180° adjustable angle
- Suitable for switching by PIR, Microwave or Photocell

235.5mm
34.5mm
159mm
201mm
1000mm

RCM3040-04

277.5mm
41.5mm
191mm
262mm
1000mm

RCM5040-04

304mm
57.5mm
310.5mm
383.5mm
1000mm

RCM10040-04

487.5mm
59.5mm
348mm
418mm
1000mm

RCM15040-04
RCM20040-04

150W

200W
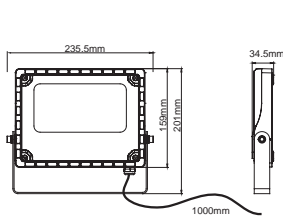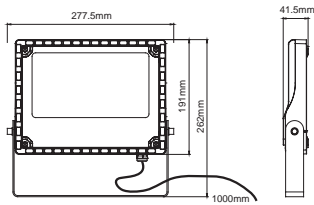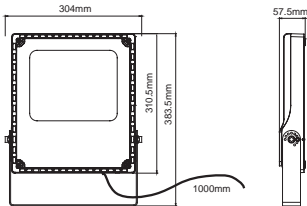
	30W	50W	100W	150W	200W
	RCM3040-04	**RCM5040-04**	**RCM10040-04**	**RCM15040-04**	**RCM20040-04**
Comparable to:	50W metal halide 200W halogen	80W metal halide 350W halogen	150W metal halide 800W halogen	220W metal halide 1200W halogen	300W metal halide 1500W halogen
Total Power (W):	28.8	47.8	94.6	146.7	196
Total Light Output (lm):	3,220	5,260	11,490	17,810	24,860
Efficacy (lm/cctW):	112	110	121	121	127
Lifetime (hrs):	50,000	50,000	50,000	50,000	50,000
Lux at 1m (lux):	1,200	1,900	4,200	6,300	9,080
Beam Angle (deg):	110	110	110	110	110
CCT (K):	4000	4000	4000	4000	4000
CRI:	80	80	80	80	80
IP:	65	65	65	65	65
Power Factor:	0.97	0.97	0.97	0.97	0.97
Height (mm):	201	262	383.5	418	418
Width (mm):	235.5	277.5	304	487.5	487.5
Depth (mm):	34.5	41.5	57.5	59.5	59.5
Box Qty:	1	1	1	1	1
Weight (kg):	1.1	1.6	3.5	5.9	5.9

5 YRS | 110–127 LmW

OP 220 240 | IP 65

Champion LED, 50W

OUTDOOR
MICRO ACTIVATE LED FLOOD LIGHT

10W White

10W Dark Grey

MICRO ACTIVATE LED flood light

- Suitable for use in decking areas, drives, pathways, sign illumination, wall washing, atriums, patios, car parks, garages, industrial units
- 10W & 20W True Driver-On-Board (DOB) mains operated ACTIVATE technology - no electrolytic capacitor
- Pre-wired with 1m of rubber flex
- C/w 180° adjustable bracket
- High impact resistant (IK09)

- Die-cast aluminium housing with durable high quality paint finish
- Suitable for use with PIRs. LED flood lights have no re-striking time associated with metal halide and SON fittings and can be switched on and off in quick succession
- PIR version has sensor with adjustable time 10 sec to 20 min and detection range of 1m to 8m
- IP65 rating for both standard and PIR versions

10W Standard

135mm

18mm

111mm

1m

20W Standard

190mm

23mm

145mm

1m

10W PIR

135mm

18mm

155mm

20W PIR

190mm

23mm

198mm
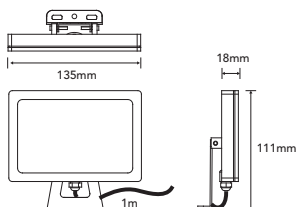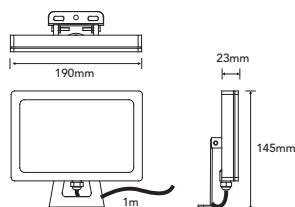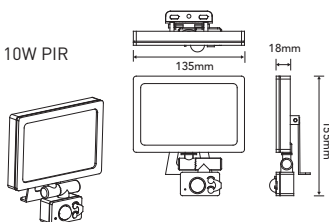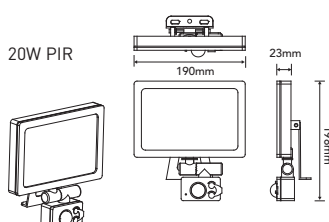
20W White

20W Dark Grey PIR

Neutral White

	10W	20W
Standard White	**RMA01040-01**	**RMA02040-01**
Standard Grey	**RMA01040-25**	**RMA02040-25**
PIR White	**RMA01040DG-01**	**RMA02040DG-01**
PIR Grey	**RMA01040DG-25**	**RMA02040DG-25**
Comparable to:	20W metal halide	35W metal halide
	75W halogen	150W halogen
Total Power (W):	9.5	18.8
Total Light Output (lm):	670	1,370
Efficacy (lm/cctW):	71	73
Lifetime (hrs):	35,000	35,000
Beam Angle (deg):	120	120
Lux at 1m (lux):	250	500
CCT (K):	4000	4000
CRI:	80	80
IP:	65	65
Power Factor:	0.9	0.9
Width (mm):	135	190
Height (mm):	111/115	145/198
Depth (mm):	18.5	23
Box Qty:	1	1
Weight (kg):	0.52	0.91

MICRO:AC:TIVATE

ACTIVATE
DOB
DriverOnBoard

MICRO ACTIVATE LED FLOOD LIGHT

30W White

50W Dark Grey

MICRO ACTIVATE flood light

- Suitable for use in decking areas, drives, pathways, sign illumination, wall washing, atriums, patios, car parks, garages, industrial units
- Energy efficient replacement for linear halogen and metal halide fittings
- Pre-wired with 1m of rubber flex
- C/w 180° adjustable bracket
- High impact resistant (IK09)

- Die-cast aluminium housing with durable high quality paint finish
- Suitable for use with PIRs. LED flood lights have no re-striking time associated with metal halide and SON fittings and can be switched on and off in quick succession
- PIR version has sensor with adjustable time 10sec to 20min and detection range of 1m to 8m
- IP65 rating for both standard and PIR versions

LED flood light signage arm, for use with OLYMPIC & MICRO ACTIVATE floods

- 600mm arm allows projected illumination for signage and other display purposes
- For use with 10W, 20W and 30W MICRO ACTIVATE flood lights

R10FSA-01	White
R10FSA-04	Black
R10FSA-24	Grey
Proj (mm):	600

	RMA03040	RMA04040
WIDTH	240mm	299mm
HEIGHT	165mm	210mm
DEPTH	29.5mm	36mm
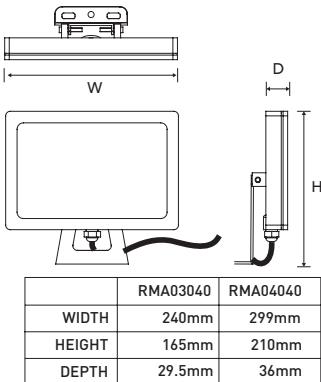
30W PIR Dark Grey

30W PIR white

Neutral White

	30W	50W
Standard White	**RMA03040-01**	**RMA05040-01**
Standard Grey	**RMA03040-25**	**RMA05040-25**
PIR White	**RMA03040DG-01**	
PIR Grey	**RMA03040DG-25**	
Comparable to:	50W metal halide	80W Metal Halide
	200W halogen	350W Halogen
Total Power (W):	29.4	48.6
Total Light Output (lm):	2,470	4,070
Efficacy (lm/cctW):	84	84
Lifetime (hrs):	35,000	35,000
Lux at 1m (lux):	750	1,250
Beam Angle (deg):	120	120
CCT (K):	4000	4000
CRI:	80	80
IP:	65	65
Power Factor:	0.95	0.95
Width (mm):	240	299
Height (mm):	165/269	210
Depth (mm):	29.5	36
Box Qty:	1	1
Weight (kg):	1.40	2.36

3 YRS · 84 LmW

OP 220 240 | IP 65 | PART L1 | PART L2 | 180° | PHOTO METRICS
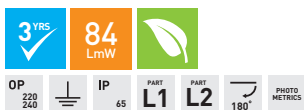
Triple E registered

OUTDOOR
REMY LED FLOOD LIGHT

Standard

PIR

REMY LED flood light

- Suitable for use in decking areas, drives, pathways, sign illumination, wall washing, atriums, patios, car parks, garages, industrial units
- Polycarbonate trim with tempered glass providing high impact rating of IK07
- Easy installation through 20mm PG gland and large connector block
- Pre-drilled, angled mounting bracket for fast and simple installation
- No warm up or cool down period required by LED
- Wide operating ambient temperature range of -20°C to 40°C

- Suitable for switching by PIR, Microwave or Photocell
- Manual override function on PIR

Time off delay:	10s - 10min
Lux settings:	10 - 2,000 lx
Mounting height range:	2.5 - 4m Max
Detection range:	7 - 10m Max
Detection angle:	120°
Ingress Protection (IP):	65

Accessory:
RMCSPIKE-04   Spike

LED flood light signage arm , for use with 10W, 20W and 30W REMY LED floods

- 600mm arm allows projected illumination for signage and other display purposes

R10FSA-01	White
R10FSA-04	Black
R10FSA-24	Grey
Proj (mm):	600
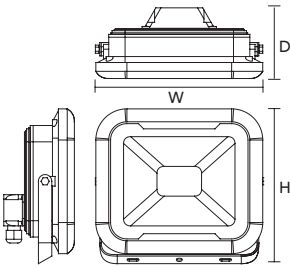
	RRE1030	RRE2030	RRE3030	RRE5030
W	148mm	148mm	173mm	225mm
H	150mm	150mm	170mm	220mm
D	73mm	73mm	85mm	85mm

1. Enhanced frame provides a uniform aesthetic

2. Frosted glass produces a more even light effect

3. Polycarbonate trim for corrosion protection

4. Built-in junction box removes the need for a wall mounted junction box

5. Angled mounting bracket for easy installation

Standard	RRE1030-04 RRE1040-04	RRE2030-04 RRE2040-04	RRE3030-04 RRE3040-04	RRE5030-04 RRE5040-04
PIR	RRE1030P-04 RRE1040P-04	RRE2040P-04	RRE3040P-04	N/A
Comparable to MH (W):	20	35	50	80
Total Power (W):	9.7/9.6	19.7/19.6	28.9/28.7	46.6/46.7
Total Light Output (lm):	800/880	1,550/1,730	2,530/2,750	4,020/4,670
Efficacy (lm/cctW):	82/92	79/90	87/96	86/100
Lifetime (hrs):	30,000	30,000	30,000	30,000
Beam Angle (deg):	100	100	100	100
Lux at 1m (lux):	340/370	710/780	1,110/1,200	1,660/1,900
CCT (K):	3000/4000	3000/4000	3000/4000	3000/4000
CRI:	80	80	80	80
IP:	65	65	65	65
Impact Rating (IK):	07	07	07	07
Power Factor:	0.95/0.5	0.95/0.5	0.95	0.95
Width (mm):	148/148	148/148	173/173	225/NA
Height (mm):	150/200	150/200	170/233	220/NA
Depth (mm):	73/90	73/90	85/96	85/NA
Box Qty:	1	1	1	1
Weight (Kg):	0.49/0.6	0.63/0.7	0.83/0.9	1.1/NA

3 YRS • 79–100 LmW •

OP 220 240 • IP 65 • PART L1 • PART L2 • 90° • PHOTO METRICS

DINGLE LED LANTERN

With PIR

Without PIR

DINGLE 7W LED coach lantern

- Suitable for use in sheltered outdoor common areas, gardens, hotels, pubs and restaurants
- LED replacement for 60W incandescent bulkheads
- Fully polycarbonate UV-stabilised construction
- Stainless steel screws

- High efficacy of 61lm/W meeting Building Part L requirements
- Wide operating ambient temperature range of -20°C to +40°C
- PIR version: adjustable time settings from 5 seconds to 5 minutes and lux settings from day to night time

	With PIR	Without PIR
Neutral White	**RDN00740PIR-01**	**RDN00740-01**
	RDN00740PIR-04	**RDN00740-04**
Total Power (W):	6.7	6.7
Total Light Output (lm):	410	410
Lifetime (hrs):	30,000	30,000
CCT (K):	4000	4000
CRI:	85	85
IP:	44	44
Width (mm):	175	175
Height (mm):	380	380
Depth (mm):	240	240
Box Qty:	1	1
Weight (kg):	0.8	0.5

3 YRS

61 LmW

OP 220 240

IP 44

175mm

240mm

380mm

155mm

121.5mm
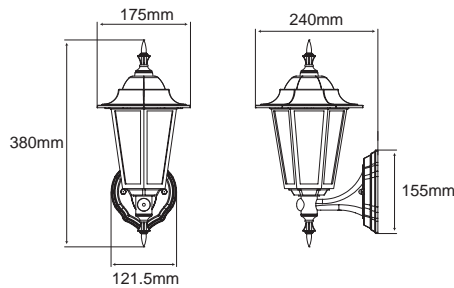
KERRY LED LANTERN

With PIR

Without PIR

KERRY 7W LED half lantern

- Suitable for use in sheltered outdoor common areas, gardens, hotels, pubs and restaurants
- LED replacement for 60W incandescent bulkheads
- Fully polycarbonate UV-stabilised construction
- Stainless steel screws

- Wide operating ambient temperature range of -20°C to +40°C
- PIR version: adjustable time settings from 5 seconds to 5 minutes and lux settings from day to night time

	With PIR	Without PIR
Neutral White	**RKE00740PIR-01**	**RKE00740-01**
	RKE00740PIR-04	**RKE00740-04**
Total Power (W):	6.8	6.8
Total Light Output (lm):	320	320
Lifetime (hrs):	30,000	30,000
CCT (K):	4000	4000
CRI:	85	85
IP:	44	44
Width (mm):	180	180
Height (mm):	360	360
Depth (mm):	100	100
Box Qty:	1	1
Weight (kg):	0.8	0.5
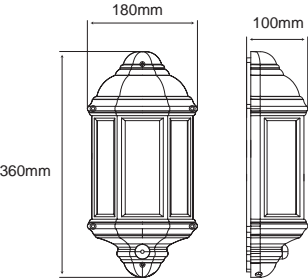
MONOLUME & BILUME ACTIVATE LED WALL LIGHTS

Monolume

Bilume

MONOLUME & BILUME ACTIVATE COB LED wall lights

- Suitable for use in domestic and commercial outdoor applications as wall mounted decorative lighting
- Die cast aluminium integrated fitting with glass front and dark grey painted finish to street lighting quality
- Metal mounting box features separate screw hole champers, IP65 seal, IP67 grommets, escape path for condensation water droplets and a spirit level for precision mounting

- High resistance to all weather conditions
- Salt spray tested to ISO9227
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

133mm   Ø60mm   96mm

161mm   Ø60mm   96mm

WALL BRACKET BOX

Mini spirit level built in

Separate screw hole chamber

Dual shot or bonded grommet to avoid installers discarding it and compromising IP rating

Mould hole at smallest cable diameter and allow grommet to flex open for wider cables to be pushed through

Robust terminal block that doesn't shatter when over tightened

Separate bottom screw hole chamber with slot to precisely align the box on the wall before fixing second screw

Exit hole for any water that collects in box

Moulded rubber seal

	6W Single	12W Double
	RAML7P53038-25	**RABL0153038-25**
Comparable to:	50W halogen	50W halogen
Total Power (W):	5.8	11.6
Total Light Output (lm):	510	1,070
Efficacy (lm/cctW):	89	93
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	1,090	1,120
Beam Angle (deg):	38	38
CCT (K):	3000	3000
CRI:	>80	>80
IP:	65	65
Power Factor:	0.9	0.9
Height (mm):	133	161
Diameter (mm):	60	60
Projection (mm):	96	96
Box Qty:	1	1
Weight (kg):	0.6	0.6

5 YRS

89-93 LmW

OP 220 240   IP 65

PHOTO METRICS   PART L1   PART L2

ZEBO LED WALL LIGHT

NEW!

ZEBO LED wall light

- Wall mounted decorative lighting for domestic pathways, hotel walkways, pub and restaurant outside table areas and commercial buildings
- Light output comparable to 60W incandescent
- Strong and durable grey finish ABS housing and trim with an impact rating of IK08
- Polycarbonate diffuser providing a low glare uniform lighting solution

- Two horizontally opposed aluminium PCB's providing good heat dissipation for long LED life with no lamp changes
- Easily accessible cover and diffuser screws and pre-formed drillable fixing points for fast and simple installation
- Suitable for switching by PIR, Microwave or Photocelll

170mm   46mm

80mm
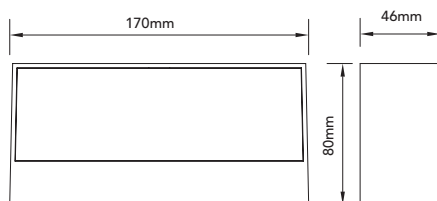
Standard	RZE940-24
Comparable to:	60W
Total Power (W):	9.3
Total Light Output (lm):	510
Efficacy (lm/cctW):	55
Lifetime (hrs):	30,000
Beam Angle (deg):	90
Lux at 1m (lux):	90
CCT (K):	4000
CRI:	85
IP:	65
Impact Rating (IK):	08
Power Factor:	0.5
Height (mm):	46
Width (mm):	170
Depth (mm):	80
Box Qty:	1
Weight (kg):	0.34

OUTDOOR
TRALEE WALL LIGHT

R135-13

R235-13

TRALEE 35W GU10 up/down wall light

- Suitable for use with halogen and selected LED and CFL lamps
- 304 stainless steel
- Corrosion resistant

- Complete with ceramic GU10 lamp holders
- IP44 sealing, for indoor & outdoor use
- Power consumption based on 35W halogen lamps

	Single	Double
B Chrome	**R135-13**	**R235-13**
Total Power (W):	35	2 x 35
IP:	44	44
Cap Type:	GU10	GU10
Diameter (mm):	62	65
Height (mm):	104	165
Proj (mm):	120	120
Box Qty:	4	4
Weight (kg):	0.45	0.75

ECLIPSE LED WALL LIGHT

ECLIPSE 6W and 12W LED wall light, IP54, Dark grey, 3000K

- Suitable for use in sheltered outdoor common areas, gardens, hotels, pubs and restaurants
- LED replacement for 11W CFL wall lights
- Die cast aluminium housing with polycarbonate diffuser
- High impact rating of IK08
- Powder coated using electrophoresis process for high corrosion resistance
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

Warm White

Dark Grey	REL0630-25	REL1230-25
Total Power (W):	6	12
Total Light Output (lm):	370	720
Efficacy (lm/cctW):	60	60
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	35	60
Beam Angle (deg):	120	120
CCT (K):	3000	3000
CRI:	80	80
IP:	54	54
Power Factor:	0.8	0.8
Width (mm):	160	249
Height (mm):	100	149
Depth (mm):	86	129
Box Qty:	1	1
Weight (kg):	0.58	1.10

	W	D	H
REL0630-25	160MM	100MM	86MM
REL1230-25	249MM	149MM	129MM
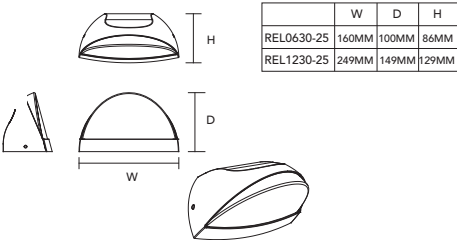
TWILIGHT LED WALL LIGHT

TWILIGHT 1W square

- LED replacement for 10W halogen
- Low energy consumption, high lumen output
- Weatherproof ABS housing
- Slim design surface mounted wall light, no cut holes required in the wall
- IP65 ideal for outdoor, lighting pathways
- Impact resistant (IK07)

	1W Square
	RTW0130SQ-24
Comparable to:	10W Halogen
Total Power (W):	1
Total Light Output (lm):	40
Efficacy (lm/cctW):	40
Lifetime (hrs):	30,000
CCT (K):	3000
IP:	65
Diameter (mm):	N/A
Width (mm):	125
Height (mm):	125
Depth (mm):	27
Box Qty:	1
Weight (kg):	0.18
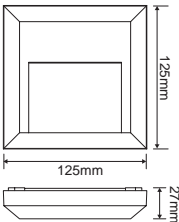
TWILIGHT 1W rectangle

- LED replacement for 10W halogen
- Low energy consumption, high lumen output
- Weatherproof ABS housing
- Slim design surface mounted wall light, no cut holes required in the wall
- IP65 ideal for outdoor, lighting pathways
- Impact resistant (IK07)

	1W Rectangle
	RTW0130RG-24
Comparable to:	10W Halogen
Total Power (W):	0.8
Total Light Output (lm):	20
Efficacy (lm/cctW):	25
Lifetime (hrs):	30,000
CCT (K):	3000
IP:	65
Diameter (mm):	N/A
Width (mm):	80
Height (mm):	200
Depth (mm):	27
Box Qty:	1
Weight (kg):	0.17
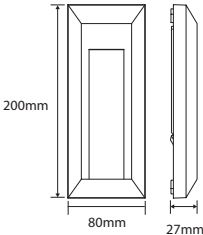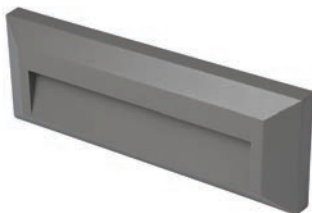
TWILIGHT 2W rectangle

- LED replacement for 15W halogen
- Low energy consumption, high lumen output
- Weatherproof ABS housing
- Slim design surface mounted wall light, no cut holes required in the wall
- IP65 ideal for outdoor, lighting pathways
- Impact resistant (IK07)

	2W Rectangle
	RTW0230RGL-24
Comparable to:	15W Halogen
Total Power (W):	1.8
Total Light Output (lm):	72
Efficacy (lm/cctW):	40
Lifetime (hrs):	30,000
CCT (K):	3000
IP:	65
Diameter (mm):	N/A
Width (mm):	230
Height (mm):	80
Depth (mm):	27
Box Qty:	1
Weight (kg):	0.22
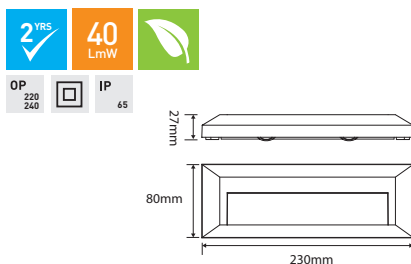
TWILIGHT 1W circle

- LED replacement for 15W halogen
- Low energy consumption, high lumen output
- Weatherproof ABS housing
- Slim design surface mounted wall light, no cut holes required in the wall
- IP65 ideal for outdoor, lighting pathways
- Impact resistant (IK07)

	2W Circular
	RTW0230C-24
Comparable to:	15W Halogen
Total Power (W):	1.4
Total Light Output (lm):	54
Efficacy (lm/cctW):	39
Lifetime (hrs):	30,000
CCT (K):	3000
IP:	65
Diameter (mm):	150
Width (mm):	N/A
Height (mm):	N/A
Depth (mm):	27
Box Qty:	1
Weight (kg):	0.19
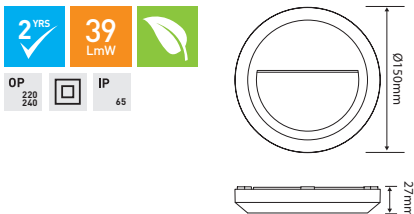
TWILIGHT 3W circle

- LED replacement for 30W halogen
- Low energy consumption, high lumen output
- Weatherproof ABS housing
- Slim design surface mounted wall light, no cut holes required in the wall
- IP65 ideal for outdoor, lighting pathways
- Impact resistant (IK07)

	3W Circular
	RTW0330C-24
Comparable to:	30W Halogen
Total Power (W):	2.9
Total Light Output (lm):	180
Efficacy (lm/cctW):	62
Lifetime (hrs):	30,000
CCT (K):	3000
IP:	65
Diameter (mm):	150
Width (mm):	N/A
Height (mm):	N/A
Depth (mm):	27
Box Qty:	1
Weight (kg):	0.21
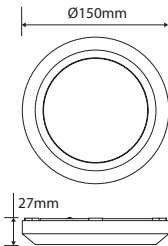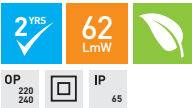
TWILIGHT 3W square

- LED replacement for 30W halogen
- Low energy consumption, high lumen output
- Weatherproof ABS housing
- Slim design surface mounted wall light, no cut holes required in the wall
- IP65 ideal for outdoor, lighting pathways
- Impact resistant (IK07)

	3W Square
	RTW033SQ-24
Comparable to:	30W Halogen
Total Power (W):	3.1
Total Light Output (lm):	190
Efficacy (lm/cctW):	61
Lifetime (hrs):	30,000
CCT (K):	3000
IP:	65
Diameter (mm):	N/A
Width (mm):	125
Height (mm):	125
Depth (mm):	27
Box Qty:	1
Weight (kg):	0.20
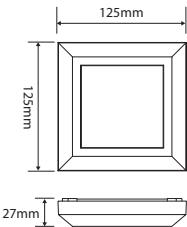
TWILIGHT 3W rectangle

- LED replacement for 30W halogen
- Low energy consumption, high lumen output
- Weatherproof ABS housing
- Slim design surface mounted wall light, no cut holes required in the wall
- IP65 ideal for outdoor, lighting pathways
- Impact resistant (IK07)

	3W Rectangle
	RTW0330RG-24
Comparable to:	30W Halogen
Total Power (W):	3.1
Total Light Output (lm):	170
Efficacy (lm/cctW):	55
Lifetime (hrs):	30,000
CCT (K):	3000
IP:	65
Diameter (mm):	N/A
Width (mm):	230
Height (mm):	80
Depth (mm):	27
Weight (kg):	0.23
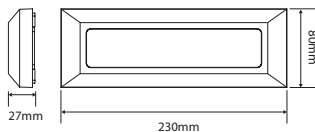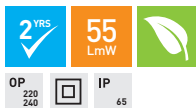
OUTDOOR
LUNAR LED WALL LIGHT

NEW!
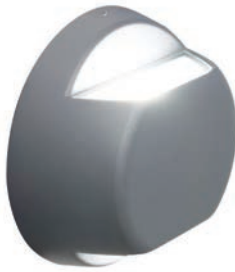
RLN7302W-25

LUNAR 7W LED wall light

- Suitable for use on patio and decking areas, either side of building entrances, apartment stairways and landings, paths and walkways around domestic houses, hotels, restaurants and offices
- Die-cast aluminium housing providing optimal heat dissipation and high resistance to weather conditions
- LED replacement for traditional Halogen providing high efficacy for energy savings
- Impact rating of IK08
- Includes integrated driver

- No infra-red or ultra-violet in light beam, cool to touch and does not attract most flying insects
- Wide operating ambient temperature range of -20°C to +40°C
- Mounting stand-offs integrated into base to allow fitting onto uneven, pebble dash or rendered walls

RLN7302W-25

63mm

145mm

RLN7303W-25

138mm

44mm

143mm
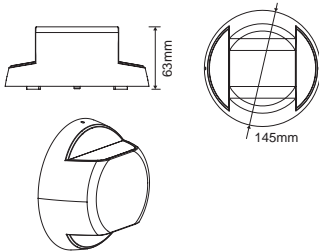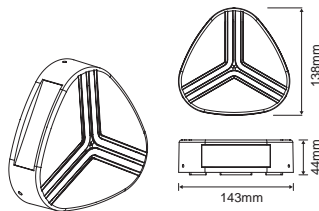
RLN7303W-25

Standard	**RLN7302W-25**	**RLN7303W-25**
Comparable to:	20W LV halogen	20W LV halogen
Total Power (W):	7.2	7.1
Total Light Output (lm):	310	310
Efficacy (lm/cctW):	43	44
Lifetime (hrs):	30,000	30,000
Beam Angle (deg):	110	360
CCT (K):	3000	3000
CRI:	80	80
IP:	54	54
Impact Rating (IK):	08	08
Power Factor:	0.9	0.9
Height (mm):	63	44
Width (mm):	NA	143
Diameter (mm):	145	NA
Depth (mm):	NA	138
Box Qty:	1	1
Weight (kg):	0.54	0.55

3 YRS · 43-44 LmW

OP 220 240 · IP 54

OUTDOOR
FALCON LED WALL LIGHT

FALCON LED wall light

- Suitable for use in indoor and outdoor parking areas, tunnels, walkways, building entrances, loading bays, fire assembly points
- LED replacement for 50-80W Metal Halide/ 200-350W Halogen
- Die cast aluminium housing providing optimal heat dissipation and high resistance to weather conditions
- Polycarbonate opal diffuser
- High impact rating of IK06

- Stainless steel screws
- Pre-wired with 1.5m of rubber flex
- Wide operating ambient temperature range of -25°C to 40°C
- Suitable for switching by PIR, Microwave or Photocell
- Microwave sensor version has adjustable time delay 10sec to 12 min and lux level settings 3-2000lx
- 3 hour emergency version available through Conversions

Daylight White

	30W	50W
Standard	**RFA03555-04**	**RFA05055-04**
Photocell	**RFA03555DH-04**	**RFA05055DH-04**
Total Power (W):	33.2	49.6
Total Light Output (lm):	2,380	3,380
Efficacy (lm/cctW):	72	68
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	300	650
Beam Angle (deg):	120	120
CCT (K):	5500	5500
CRI:	75	75
IP:	65	65
Power Factor:	0.95	0.95
Width (mm):	265	265
Height (mm):	300	300
Depth (mm):	180	180
Weight (kg):	3.0	3.0

Note: 50W available with back wire entry

RFA05055X-04	50W Standard with back wire entry
RFA05055DMX-04	50W Microwave Sensor with back wire entry
RFA05055DHX-04	50W Photocell with back wire entry
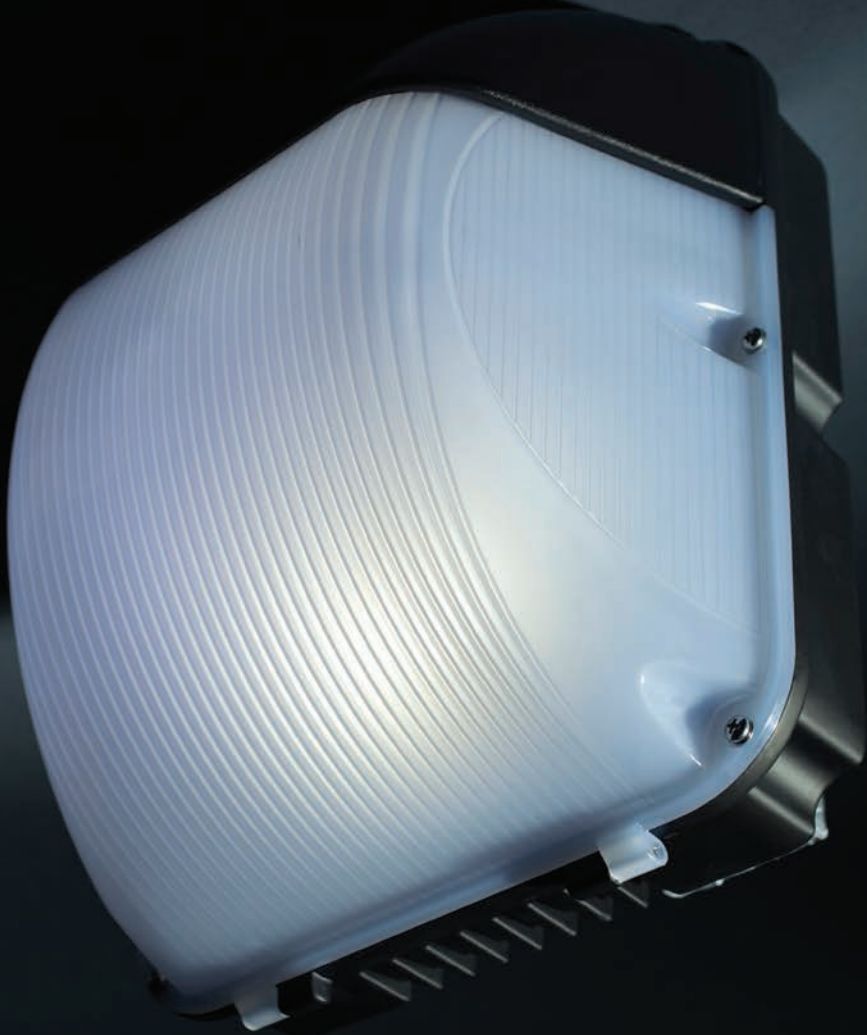
FALCON LED wall light

APEX LED Wall Light

OUTDOOR
APEX LED WALL LIGHT

WALL

SPIKE

APEX 4.5W LED wall or spike light

- Die cast aluminium housing with polycarbonate diffuser
- Powder coated using electrophoresis process for high corrosion resistance
- Head adjustable angle of 90°

- Complete with stainless steel screws
- Pre-wired with 1m rubber flex
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

	Neutral White	Warm White
Dark Grey	**RAX4540-25**	**RAX4530-25**
Comparable to:	30W Halogen	30W Halogen
Total Power (W):	4.5	4.5
Total Light Output (lm):	180	160
Efficacy (lm/cctW):	40	35
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	150	120
Beam Angle (deg):	25	25
CCT (K):	4000	3000
CRI:	80	80
IP:	65	65
Power Factor:	0.5	0.5
Length (mm):	100	100
Width (mm):	73	73
Height (mm):	70	70
Weight (kg):	0.5	0.5

3 YRS · 35–40 LmW · OP 220 240 · IP 65 · 90°

100MM

73MM

70MM

225MM
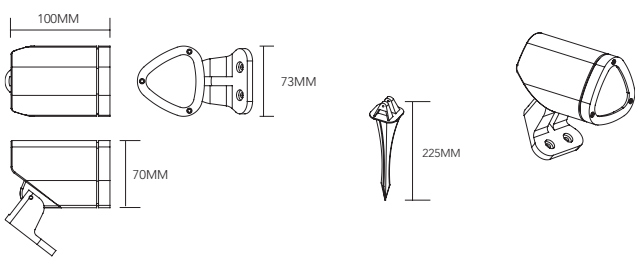
JUPITER LED WALL LIGHT

Standard

With PIR

JUPITER 7W LED wall light

- Die cast aluminium housing with polycarbonate diffuser
- Powder coated using electrophoresis process for high corrosion resistance
- High impact rating of IK08

- Complete with stainless steel screws
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

	Standard	PIR Version
	RJU0730-25	**RJU0730DG-25**
Comparable to:	40W Incandescent	40W Incandescent
Total Power (W):	7.1	7.1
Total Light Output (lm):	290	290
Efficacy (lm/cctW):	41	41
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	30	30
Beam Angle (deg):	120	120
CCT (K):	3000	3000
CRI:	80	80
IP:	54	54
Power Factor:	0.9	0.9
Width (mm):	70	70
Height (mm):	270	270
Depth (mm):	105	105
Weight (kg):	0.8	0.8

RJU0730DG-25

RJU0730-25
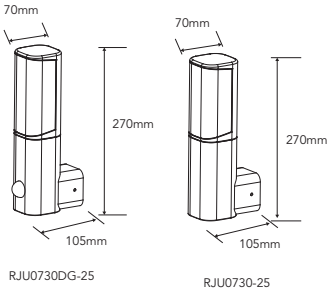
OUTDOOR
ORION LED WALL LIGHT

ORION 7W LED wall light

- Die cast aluminium housing with polycarbonate diffuser
- Powder coated using electrophoresis process for high corrosion resistance
- High impact rating of IK08
- Complete with stainless steel screws
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

	RON0730-25
Comparable to:	40W Incandescent
Total Power (W):	7
Total Light Output (lm):	180
Efficacy (lm/cctW):	25
Lifetime (hrs):	30,000
Lux at 1m (lux):	12
Beam Angle (deg):	120
CCT (K):	3000
CRI:	80
IP:	54
Power Factor:	0.8
Width (mm):	70
Height (mm):	226
Depth (mm):	105
Weight (kg):	0.8

3 YRS | 25 LmW

OP 220 240 | IP 54

70mm

226mm

105mm
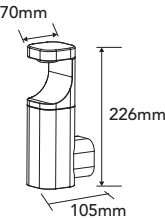
JUPITER LED BOLLARD

JUPITER 7W LED bollard

- Die cast aluminium housing with polycarbonate diffuser
- Powder coated using electrophoresis process for high corrosion resistance
- High impact rating of IK08

- Complete with stainless steel screws
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

Warm White

	500mm	800mm
Dark Grey	**RJU073050-25**	**RJU073080-25**
Comparable to:	40W Incandescent	40W Incandescent
Total Power (W):	7.1	7.1
Total Light Output (lm):	290	290
Efficacy (lm/cctW):	41	41
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	30	30
Beam Angle (deg):	120	120
CCT (K):	3000	3000
CRI:	80	80
IP:	54	54
Power Factor:	0.9	0.9
Width (mm):	70	70
Height (mm):	500	800
Depth (mm):	70	70
Weight (kg):	1.2	2.0

RJU073050-25   RJU073080-25

102mm

OUTDOOR
ORION LED BOLLARD

ORION 7W LED bollard

- Die cast aluminium housing with polycarbonate diffuser
- Powder coated using electrophoresis process for high corrosion resistance
- High impact rating of IK08

- Complete with stainless steel screws
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

Warm White

	500mm	800mm
Dark Grey	**RON073050-25**	**RON073080-25**
Comparable to:	40W Incandescent	40W Incandescent
Total Power (W):	7	7
Total Light Output (lm):	180	180
Efficacy (lm/cctW):	25	25
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	12	12
Beam Angle (deg):	120	120
CCT (K):	3000	3000
CRI:	80	80
IP:	54	54
Power Factor:	0.8	0.8
Width (mm):	70	70
Height (mm):	500	800
Depth (mm):	70	70
Weight (kg):	1.1	1.6
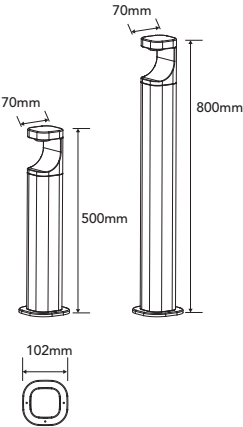
3 YRS

25 LmW

OP 220 240 | IP 54

BEACON BOLLARD

BEACON 60W aluminium bollard

- Suitable for use with 60W Incandescent or selected LED and CFL lamps
- Complete with ceramic E27 lamp holder
- Extruded aluminium base/main body with die cast dome

- Complete with stainless steel screws
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

	65cm	110cm
	L20065	**L200110**
Total Power (W):	60	60
IP:	44	44
Cap Type:	E27	E27
Diameter (mm):		
Base	170	170
Dome	150	150
Height (mm):	650	1,100
Box Qty:	2	2
Weight (kg):	1.3	3

excl. | 2 YRS ✓

OP 220 240 | ⏚ | IP 44

OUTDOOR
VITA CIRCULAR LED KIT

VITA LED circular kit

- Suitable for use in indoor and outdoor applications: bars, stair risers & strings, ceilings, restaurants, kitchen unit plinths, decking areas, patios, paths & walkways
- LED replacement for halogen decking lights
- Plug & Play kit containing 5 miniature fittings, each with 3 LEDs, 6W IP44 driver, cables and junction box

- Stainless steel cowl and spring clips
- Each fitting pre-wired with 5m cable
- Wide operating ambient temperature range of -20°C to +40°C

	5 fittings	10 fittings
White LEDs	**R3LED5S-01**	**R3LED10S-01**
Blue LEDs	**R3LED5S-07**	**R3LED10S-07**
Total Power (W):	1.8	3.6
IP:	68	68
Diameter (mm):	30	30
Depth (mm):	25	25
Cut-out (mm):	24	24
Box Qty:	6	8
Weight (kg):	1.4	1.8

Note: Warm white also available, R3LED10SWW-01

OP 220 240 | IP 68

2.0M
5.0M
5.0M
5.0M

Ø30mm
25mm
Ø22mm
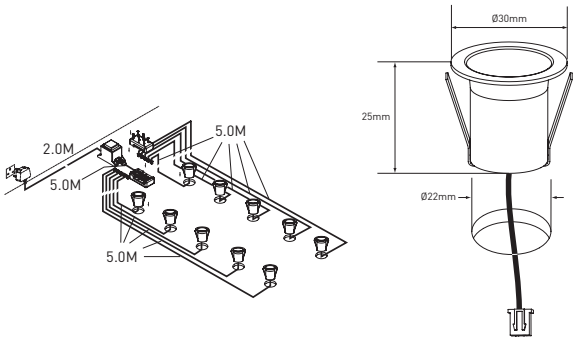
OUTDOOR
LED STEP LIGHTS

NEW!

TIBO LED brick light

- Suitable for internal and external use. Use in showers, kitchen plinths and stairs or garden walls, steps and walkways
- Dark grey powder coated high quality die-cast aluminium finish with minimal cleaning or maintenance
- Polycarbonate diffuser providing low glare and wide beam angle

- Complete with polycarbonate mounting sleeve
- Wide operating temperature of -20°C to +40°C
- High efficiency integral driver
- Double entry breakouts at both ends of sleeve to provide easy loop in/loop out cable function

Standard	RTI1330-25
Comparable to:	50W halogen
Total Power (W):	12.9
Total Light Output (lm):	540
Efficacy (lm/cctW):	42
Lifetime (hrs):	30,000
Beam Angle (deg):	100
Lux at 1m (lux):	220
CCT (K):	3000
CRI:	80
IP:	65
Impact Rating (IK):	08
Power Factor:	0.9
Cut Out (mm):	235/82/80
Length (mm):	250
Width (mm):	98
Depth (mm):	90
Box Qty:	1
Weight (kg):	0.85

3 YRS

42 LmW

OP 220 240   IP 65

PHOTO METRICS

BASE LED mains voltage step light

- Suitable for indoor and outdoor applications: bars, stair risers & strings, ceilings, restaurants, kitchen unit plinths, decking areas, patios, paths & walkways
- LED replacement for halogen step lights
- Stainless steel front plate with very high resistance to corrosion

- Complete with plastic sleeve for sitting into concrete and clips for mounting in wood or plaster boards
- Pre-wired with 0.45m rubber flex
- Wide operating ambient temperature range of -20°C to +40°C

	Grid	Plain
	RS4LEDS-01	**RS4LEDPS-01**
Total Power (W):	0.9	0.9
Total Light Output (lm):	25	25
Efficacy (lm/cctW):	28	28
IP:	65	65
Diameter (mm):	40	40
Width (mm):	83	83
Height (mm):	83	83
Cut-out (mm):	72 x 72	72 x 72
Box Qty:	1	1
Weight (kg):	0.3	0.3

2 YRS | 28 LmW

OP 220 240 | IP 65

OUTDOOR
ZERO LED GROUND LIGHT

ZERO LED circular drive-over ground light

- Suitable for use in walk ways, drive ways, paths and patios
- LED replacement for halogen drive-over lights
- Suitable for loads up to 3.5 tonnes
- 316 marine grade stainless steel front plate with very high resistance to corrosion
- 8mm hardened glass

- Die cast aluminium housing
- Complete with plastic sleeve for sitting into brickwork/concrete
- Sleeve depth 130mm
- 2 cable entry points for loop in/loop out wiring
- Wide operating ambient temperature range of -20°C to +40°C

	R21LEDS-01
Total Power (W):	4.2
IP:	67
Diameter (mm):	163
Depth (mm):	130
Cut-out (mm):	115
	Mounting sleeve 160
Box Qty:	4
Weight (kg):	2.2

2 YRS

OP 220 240   IP 67

OUTDOOR
ASYMMETRIC LED GROUND LIGHT

ASYMMETRIC LED drive-over ground light

- Suitable for use in walk ways, drive ways, paths and patios
- LED replacement for halogen drive-over lights
- 45° angle elevation, 25° beam width
- Suitable for loads up to 3 tonnes load at 15km/h
- Stainless steel front plate with very high resistance to corrosion
- 5mm hardened glass

- Die cast aluminium housing
- Complete with plastic sleeve for sitting into brickwork/concrete with depth of 110mm
- Complete with IP67 loop-in loop-out T connector and mounting sleeve
- 0.5m flex between fitting and junction box
- Wide operating ambient temperature range of -20°C to +40°C

6 x 3W LEDS	R18ASGL
Total Power (W):	14
Total Light Output (lm):	910
Efficacy (lm/cctW):	65
CCT (K):	3000
CRI:	65
IP:	67
Diameter (mm):	165
Depth (mm):	Fitting 90
	Sleeve 110
Cut-out (mm):	Fitting 120, 150 x 10
	Sleeve 196
Box Qty:	4
Weight (kg):	1.6

2 YRS

65 LmW

OP 220 240 | IP 67

PART L1 PART L2

Ø164 mm   Ø190 mm   121 mm   85 mm   500mm
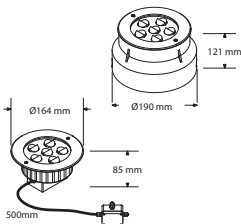
EWOK LED GROUND LIGHTS

R6LED240S

R10LED240S

EWOK LED mains ground light

- Suitable for indoor and outdoor applications: bars, stair risers & strings, ceilings, restaurants, kitchen unit plinths, decking areas, patios, paths & walkways
- LED replacement for halogen decking lights
- 316 marine grade stainless steel front plate with very high resistance to corrosion
- Die cast aluminium housing
- R6LED240S requires a 50mm PVC sleeve when installed in concrete

- R10LED240S requires a 100mm cut out, however it comes with mounting sleeve and when this is used, the cut out is 105mm. This product is Class 1 and requires an earth
- Suitable for walk-over application
- Pre-wired with 3m rubber flex
- Wide operating ambient temperature range of -20°C to +40°C

Daylight White

	6 LEDs	10 LEDs
	R6LED240S-01	R10LED240S-01
	R6LED240S-07	R10LED240S-07
Total Power (W):	0.7	1.5
Total Light Output (lm):	21	50
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	10	15
CCT (K):	6000	6000
CRI:	75	75
IP:	65	65
Diameter (mm):	60	118
Depth (mm):	88	122
Cut-out (mm):	50	100
Box Qty:	4	4
Weight (kg):	0.4	0.7

2 YRS

30 LmW

OP 220 240

IP 65

PHOTO METRICS

LED GARDEN SPIKES / SPOTLIGHTS

DUET 2IN1 LED spike and wall mount fitting

- LED replacement for 20W halogen
- Aluminium housing with polycarbonate lens
- Head adjustable angle of 180°
- Complete with stainless steel screws

- Pre-wired with 1.5m rubber flex
- Wide operating ambient temperature range of -20°C to +40°C

	R2IN13W
Total Power (W):	3.4
Total Light Output (lm):	140
Efficacy (lm/cctW):	42
CCT (K):	4000
CRI:	70
IP:	65
Diameter (mm):	42
Length (mm):	75
Box Qty:	1
Weight (kg):	1.3

2 YRS

42 LmW

OP 220 240   IP 65

90°   180°

75mm

ø42mm

50mm

176mm
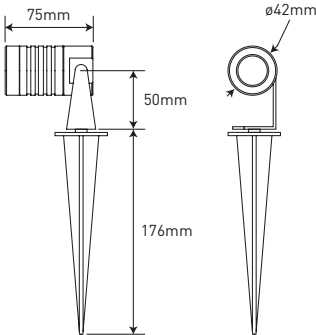
LED GARDEN SPIKES / SPOTLIGHTS

TRINITY 3IN1 LED spike and wall mount fitting

- LED replacement for 30W Halogen
- 316 marine grade stainless steel front plate with very high resistance to corrosion
- Die cast aluminium housing with hardened glass
- Complete with stainless steel screws
- Complete with plastic sleeve for sitting into brickwork/concrete
- Suitable for walk over applications
- Pre-wired with 1.5m rubber flex
- Wide operating ambient temperature range of -20°C to +40°C

	R3IN13W
Total Power (W):	4
Total Light Output (lm):	195
Efficacy (lm/cctW):	49
CCT (K):	3000
CRI:	70
IP:	65
Diameter (mm):	116
Length (mm):	110
Cut-out (mm):	Fitting 95
	Sleeve 105
Box Qty:	6
Weight (kg):	1.3

LEE garden spike

- Suitable for use with 50W Halogen or selected LED or CFL lamps
- Complete with ceramic GU10 lamp holder
- Die cast aluminium housing with glass front

- Complete with stainless steel screws
- Wide operating ambient temperature range of -20°C to +40°C
- Pre-wired with 1m rubber flex

	Mains Voltage
	LS50GU-04
Total Power (W):	50
IP:	65
Cap Type:	GU10
Diameter (mm):	98
Depth (mm):	135
Height (mm):	280
Box Qty:	10
Weight (kg):	0.5

135mm

Ø 98mm

290mm
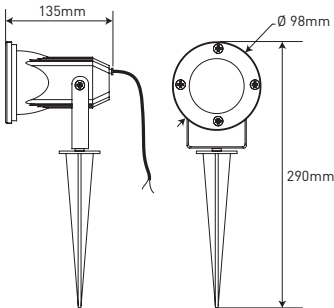
GARDEN SPIKES AND SPOTLIGHTS

CORK GU10 spike c/w adjustable sloped head

- Suitable for use with 50W Halogen or selected LED or CFL lamps
- Complete with ceramic GU10 lamp holder
- Die cast aluminium housing with glass front
- Complete with stainless steel screws
- Large terminal block and double cable entry allows loop-in/loop-out
- Wide operating ambient temperature range of -20°C to +40°C

Black	R5088S-04
Satin Silver	R5088S-15
Total Power (W):	50
IP:	65
Cap Type:	GU10
Diameter (mm):	70
Length (mm):	330
Width (mm):	65
Weight (kg):	0.6

INIS GU10 spike/wall light with adjustable tapered head

- Suitable for use with 50W Halogen or selected LED or CFL lamps
- Complete with ceramic GU10 lamp holder
- Die cast aluminium housing with glass front
- Complete with stainless steel screws
- Large terminal block and double cable entry allows loop-in/loop-out
- Wide operating ambient temperature range of -20°C to +40°C

	Spike	Wall
Black	R5082T-04	R5082TW-04
Satin Silver	R5082T-15	R5082TW-15
Total Power (W):	50	50
IP:	65	65
Cap Type:	GU10	GU10
Diameter (mm):	75	75
Width (mm):	78	75
Box Qty:	1	1
Weight (kg):	0.6	0.5

LED supply transformer 12W, IP44

- 2m cable
- Range 0-12W, 12V SELV output
- Thermal protection

	R12WLEDT
Total Power (W):	12
Box Qty:	4
Weight (kg):	0.75

CORK GU10 Spike

ROBUS®

DISPLAY & LED FLEXI-STRIP

VIBE 24VDC COMMERCIAL LED FLEXI-STRIP
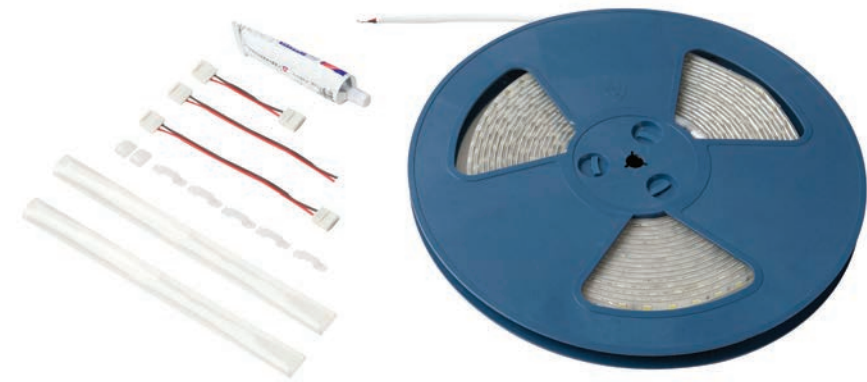
VIBE 24VDC 7.2W/m LED commercial flexi-strip

- 10m roll of IP65 7.2W/m flexi striplight
- Strip can be cut every 5 LED's and reconnected as required (Please refer to instruction guide on our website)
- Each roll c/w connector starter pack which includes: 1 x 250mm DC cable, 1 x double end connector 170mm, 1 x double end connector 100mm, 1 x single end connector 160mm, 2 x end caps, 6 x brackets, 2 x heat shrinks and 1x tube of glue
- Pack of extra connectors available to order (Single Colour: RVB5030-CONN, RGB: RVBRGB-CONN)

- Single colour strip can be used with controller (RVB3050-CRTL) to enable dimming
- RGB strip can be used with controller (RVBRGB-CRTL) to enable colour changing and dimming
- Single colour strip can be used with amplifier (RVB3050-AMP) to extend to lengths greater than 10m
- RGB strip can be used with amplifier (RVBRGB-AMP) to extend to lengths greater than 10m
- Choose from 60W, 100W or 200W power supply depending on length required (RVB060-PSU, RVB100-PSU, RVB200-PSU).

	10M	10M	10M
	Warm White	Cool White	RGB
	RVB0073010I65	**RVB0075010I65**	**RVB007RGB10I65**
Total Power (W):	7.2 p/m	7.2 p/m	7.2 p/m
Total Light Output (lm):	350p/m	400p/m	N/A
Lifetime (hrs):	30,000	30,000	30,000
Beam Angle (deg):	120	120	120
CCT (K):	3000	5000	N/A
CRI:	70	70	N/A
IP:	65	65	65
Length (mm):	10,000	10,000	10,000
Width (mm):	12	12	12
Height (mm):	4	4	4
Box Qty:	1	1	1
Weight (kg):	1.0	1.0	1.0

3 YRS

24DC IP 65

VIBE 24VDC COMMERCIAL LED FLEXI-STRIP
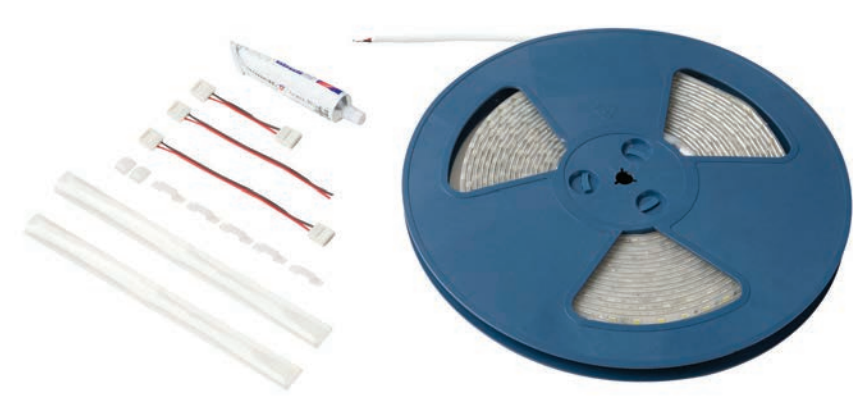
VIBE 24VDC 14.4W/m LED commercial flexi-strip

- 10m roll of IP65 14.4W/m flexi striplight
- Strip can be cut every 6 LED's and reconnected as required
- Each roll c/w connector starter pack which includes: 1 x 250mm DC cable, 1 x double end connector 170mm, 1 x double end connector 100mm, 1 x single end connector 160mm, 2 x end caps, 6 x brackets, 2 x heat shrinks and 1x tube of glue
- Pack of extra connectors available to order (Single Colour: RVB5030-CONN)

- Single colour strip can be used with controller (RVB3050-CRTL) to enable dimming
- Single colour strip can be used with amplifier (RVB3050-AMP) to extend to lengths greater than 10m
- Choose from 60W, 100W or 200W power supply depending on length required (RVB060-PSU, RVB100-PSU, RVB200-PSU)

	10M	10M
	Warm White	Cool White
	RVB0143010I65	**RVB0145010I65**
Total Power (W):	14.4 p/m	14.4 p/m
Total Light Output (lm):	700p/m	800p/m
Lifetime (hrs):	30,000	30,000
Beam Angle (deg):	120	120
IP:	65	65
CCT (K):	3000	5000
CRI:	70	70
Length (mm):	10,000	10,000
Width (mm):	12	12
Box Qty:	1	1
Weight (kg):	1.1	1.1

VIBE 24VDC COMMERCIAL LED FLEXI-STRIP
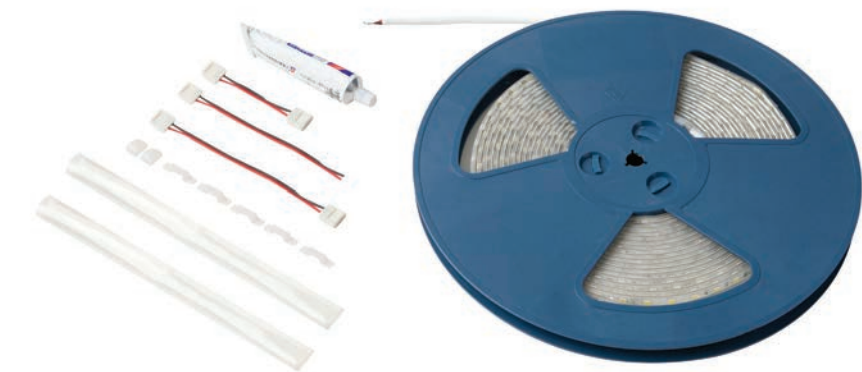
VIBE 24VDC 14.4W/m LED commercial flexi-strip

- 5m roll of IP65 14.4W/m flexi striplight
- Strip can be cut every 6 LED's and reconnected as required
- Each roll c/w connector starter pack which includes: 1 x 250mm DC cable, 1 x double end connector 170mm, 1 x double end connector 100mm, 1 x single end connector 160mm, 2 x end caps, 6 x brackets, 2 x heat shrinks and 1x tube of glue
- Pack of extra connectors available to order (RGB: RVBRGB-CONN)

- RGB strip can be used with controller (RVBRGB-CRTL) to enable colour changing and dimming
- RGB strip can be used with amplifier (RVBRGB-AMP) to extend to lengths greater than 5m
- Choose from 60W, 100W or 200W power supply depending on length required (RVB060-PSU, RVB100-PSU, RVB200-PSU)

	5M
RGB	**RVB014RGB05I65**
Total Power (W):	14.4 p/m
Total Light Output (lm):	N/A
Lifetime (hrs):	30,000
Beam Angle (deg):	120
CCT (K):	N/A
CRI:	N/A
IP:	65
Length (mm):	5,000
Width (mm):	12
Height (mm):	4
Box Qty:	1
Weight (kg):	1.1

3 YRS

24DC | IP 65

DISPLAY & LED FLEXI-STRIP
VIBE 24VDC COMMERCIAL LED FLEXI-STRIP

VIBE 24VDC 14.4W/m LED commercial flexi-strip, 5m, RGB

REMOTE CONTROL

RVBIP2

WIRE CONNECTORS

AC L (BLACK)
AC N (WHITE)
(GREEN/YELLOW)

V+(RED)
V-(BLACK)

DC+
DC-

V+
R/CH1
G/CH2
B/CH3

POWER SUPPLY UNIT
RVB100-PSU

RGB CONTROLLER
RVBRGB-CRTL

HEAT SHRINK

CLIP

END CAP

CLIP

CLIP

MAX LENGTH: 5M

VIBE 24VDC 14.4W/m LED commercial flexi-strip, 5m

PSU

DC+
DC-

V+
R/CH1
G/CH2
B/CH3

RGB CONTROLLER
RVBRGB-CRTL

MAX: 5M

PSU

MAX: 5M

DC+
DC-
V+
R/CH1
G/CH2
B/CH3

V+
R/CH1
G/CH2
B/CH3

RGB AMPLIFIER
RVBRGB-AMP

Max Distance between Amplifiers is 5M

Separate Power Unit required for each Amplifier
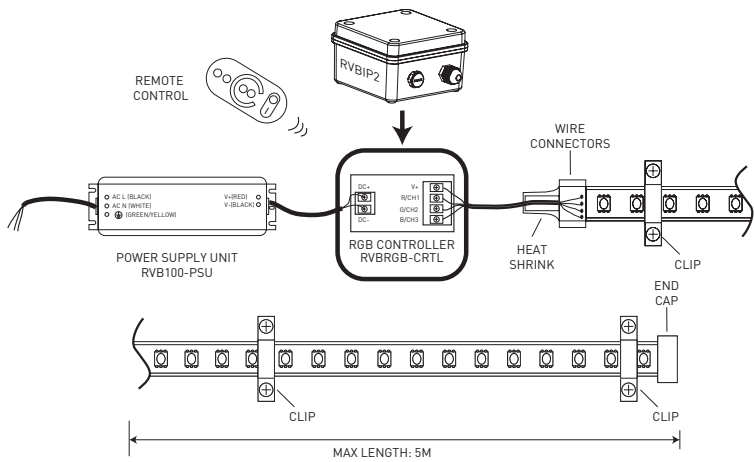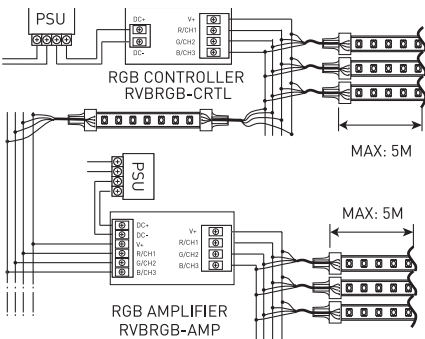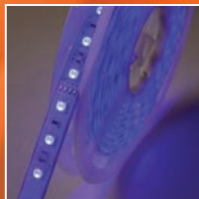
DRIVERS	1-5M	5-10M	10-20M
RVB060-PSU	N/A	N/A	N/A
RVB100-PSU	YES	N/A	N/A
RVB200-PSU	N/A	N/A	N/A

EXAMPLE INSTALLATION

CODE	1-20M	21-40M	41-60M	61-80M
RVB014RGB05I65	4x5M	8x5M	12x5M	16x5M
RVBRGB-CTRL	1	1	1	1
RVB100-PSU	4	8	12	16
RVBRGB-AMP	3	7	11	15
RVBIP1	1	1	1	1
RVBIP2	1	1	1	1

DISPLAY & LED FLEXI-STRIP
VIBE 24VDC COMMERCIAL LED FLEXI-STRIP

VIBE 24VDC 14.4W/m LED commercial flexi-strip, IP65, 10m, single colour

1. STANDARD
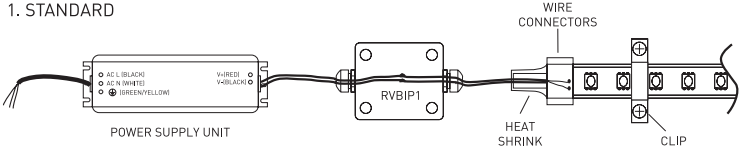
2. REMOTE CONTROLLABLE
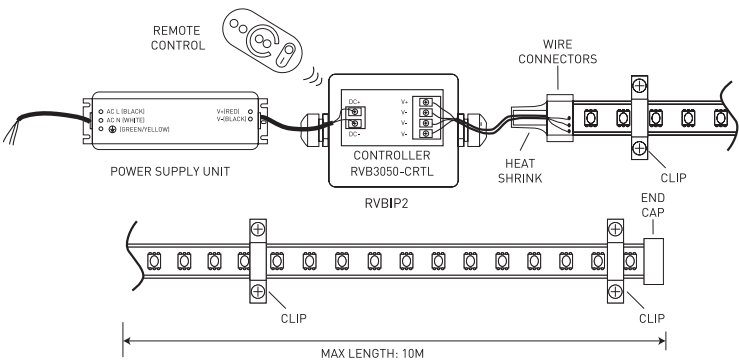
VIBE 24VDC 14.4W/m LED commercial flexi-strip, IP65, 10m
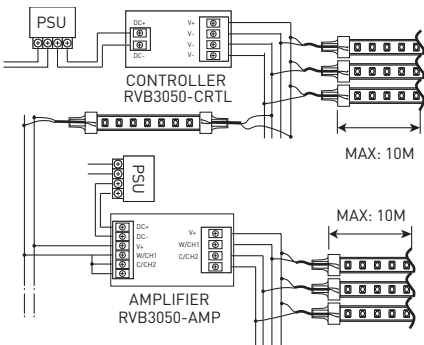
EXAMPLE INSTALLATION FOR 10M VIBE IP65

CODE	1-20M	21-40M	41-60M	61-80M
RVB014X010I65*	2x10M	4 x10M	6 x10M	8x10M
RVB3550-CTRL	1	1	1	1
RVB200-PSU	2	4	6	8
RVB3050-AMP	3	7	11	15
RVBIP1	1	1	1	1
RVBIP2	1	1	1	1

DRIVERS	1-5M	5-10M	10-20M
RVB060-PSU	YES	N/A	N/A
RVB100-PSU	N/A	YES	N/A
RVB200-PSU	N/A	N/A	YES

Separate Power Unit required for each Amplifier

VIBE 24VDC COMMERCIAL LED FLEXI-STRIP

VIBE power supply units

- 60W takes 8m of the 7.2W/m strip & 4m of the 14.4W/m strip
- 100W takes 14m of the 7.2W/m strip & 7m of the 14.4W/m strip
- 200W takes 28m of the 7.2W/m strip & 14m of the 14.4W/m strip

	60W	100W
	RVB060-PSU	**RVB100-PSU**
Total Power (W):	60	100
Voltage:	24VDC	24VDC
IP:	67	67
Length (mm):	216	195
Width (mm):	42	68
Height (mm):	30	40
Weight (kg):	0.7	0.9

	200W
	RVB200-PSU
Total Power (W):	200
Voltage:	24VDC
IP:	67
Length (mm):	216
Width (mm):	68
Height (mm):	40
Weight (kg):	1.1
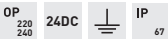
VIBE 432W controller - single colour

- Single colour dimming controller
- C/w hand held remote
- Hand held remote can operate from a distance of 8m
- Use with VIBE range of drivers (RVB060-PSU, RVB100-PSU & RVB200-PSU)
- IP rated enclosure available: RVBIP2
- Working voltage: 12-24VDC
- Current: 6A x 3Channel
- Connection mode: Common Anode

	RVB3050-CRTL
Total Power (W):	432
Voltage:	12-24VDC
IP:	20
Length (mm):	82
Width (mm):	83
Height (mm):	33
Weight (kg):	0.3

VIBE 432W controller – RGB

- Colour changing and dimming RGB controller
- C/w hand held remote
- Hand held remote can operate from a distance of 8m
- Use with VIBE range of drivers (RVB060-PSU, RVB100-PSU, AND RVB200-PSU)
- IP rated enclosure available: RVBIP2
- Working voltage: 12-24VDC
- Current: 6A x 3Channel
- Connection mode: Common Anode

	RVBRGB-CRTL
Total Power (W):	432
Voltage:	12-24VDC
IP:	20
Length (mm):	82
Width (mm):	83
Height (mm):	33
Weight (kg):	0.3

VIBE amplifier - single colour

- Signal amplifier for synchronous operation over long distances
- Use with VIBE range of drivers (RVB060-PSU, RVB100-PSU, AND RVB200-PSU)
- IP rated enclosure available: RVBIP2
- Required for lengths longer than 10m Single Colour, if dimming required
- Working voltage: 12-24VDC
  Working current: 6A x 2CH 12A max
  Channels: 2CH
  Output power: 144 / 288W
- Connection: Common Anode
- Output Control: Constant Voltage

	RVB3050-AMP
IP:	20
Length (mm):	80
Width (mm):	73
Height (mm):	34
Weight (kg):	0.1

VIBE amplifier- RGB

- Signal amplifier for synchronous operation over long distances
- Use with VIBE range of drivers (RVB060-PSU, RVB100-PSU, & RVB200-PSU)
- IP rated enclosure available: RVBIP2
- Required for lengths of longer than 5m RGB (14.4W p/m) or 10m RGB (7.2W p/m)
- Working voltage: 12-24VDC
  Working current: 6A x 2CH 12A max
  Channels: 2CH
  Output power: 144 / 288W
- Connection: Common Anode
- Output Control: Constant Voltage

	RVBRGB-AMP
IP:	20
Length (mm):	80
Width (mm):	73
Height (mm):	34
Weight (kg):	0.1

3 YRS

24DC   IP 20

VIBE IP rated box, large

	RVBIP2
IP:	65
Length (mm):	152
Width (mm):	153
Height (mm):	78
Weight (kg):	0.1

3 YRS

IP 65

VIBE 24VDC COMMERCIAL LED FLEXI-STRIP

VIBE IP rated box, small

	RVBIP1
IP:	65
Length (mm):	94
Width (mm):	65
Height (mm):	55
Weight (kg):	0.1

3 YRS ✓

IP 65

VIBE connector sets

Pack includes:

- 250mm UV protected heat shrink x 5
- Wire connector for Single Colour or RGB (10mm wide) 150mm wired between connector x 5
- Wire connector for Single Colour or RGB (10mm wide) 75mm wired between connector x 5
- Wire connector for Single colour or RGB (10mm wide) single side 150mm wire from connector x 5
- End caps x 5
- Clips x 5
- Silicone glue

Cool White / Warm White	**RVB5030-CONN**
RGB	**RVBRGB-CONN**

PULSE 12VDC LED FLEXI-STRIP

Driver

RGB - Hand Held Remote

RGB - Infra Red Receiver

PULSE 12VDC 24W LED flexi-strip

- Suitable for use in bars & clubs, restaurants, under counter displays, hotel/office receptions, showrooms, exhibition stands, step lighting, window dressing
- 5m roll of flexi striplight
- Strip can be cut every 3 LEDs
- Each kit c/w driver, flex & 3M double sided tape for easy installation
- RGB kit with receiver and hand held remote controller

	Warm White	Cool White	RGB
	R5MSIK-WW	**R5MSIK-CW**	**R5MSIK-RGB**
Total Power (W):	24	24	24
Total Light Output (lm):	1,250	1,500	N/A
Lifetime (hrs):	30,000	30,000	30,000
CCT (K):	3,500	5000	N/A
CRI:	70	70	N/A
IP:	20	20	20
Power Factor:	0.7	0.7	0.7
Length (mm):	5,000	5,000	5,000
Depth (mm):	10	10	10
Weight (kg):	0.5	0.5	0.5

Note: It is not recommended to join Pulse flexi-strip. Off-cuts cannot be re-used as power supply units are not available separately. VIBE flexi-strip should be used if joining or use of off-cuts with power supply units are required.
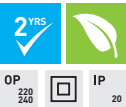
PULSE 12VDC LED FLEXI-STRIP

PULSE 12VDC 72W LED PIR

- Suitable for use with Pulse LED strip light kits
- Operating voltage of 12-24VDC
- Complete with mounting screws and 3M double sided adhesive

- Wide operating temperature range of -20°C to +40°C

	RPUPIR-01
Loading (W):	72
Time Settings:	10mins
Lux Settings:	15lx
Detection area:	100°
Motion Detection Range:	3m Diameter at 5m
Width (mm):	50
Depth (mm):	26
Length (mm):	50
Weight (kg):	0.1

PULSE – RGB

EXTRUSION, low profile, 8mm

- Surface mounted
- Low profile recessed extrusion with push on PC diffuser
- Anodised aluminium
- Supplied in 1m lengths complete with end caps and mounting clips

	REXS081-23
Height (mm):	8
Width (mm):	17.5
Length (m):	1
Box Qty:	1
Weight (kg):	0.12

EXTRUSION, recessed, 15mm

- Recessed extrusion with push on PC diffuser
- Anodised aluminium
- Supplied in 1m lengths complete with end caps

	REXR151-23
Height (mm):	15
Width (mm):	25
Length (m):	1
Box Qty:	1
Weight (kg):	0.23

EXTRUSIONS FOR LED FLEXI-STRIP

EXTRUSION, recessed / suspended, 52mm

- Recessed extrusion with push on PC diffuser
- Anodised aluminium
- Supplied in 1m lengths complete with end caps
- C/w suspension kit

	REXR521-23
Height (mm):	52
Width (mm):	35
Length (m):	1
Box Qty:	1
Weight (kg):	1.32

EXTRUSION, circular, 24mm

- Circular extrusion with push on PC diffuser. Suitable for suspension or surface mounting
- Anodised aluminium
- Supplied in 1m lengths complete with end caps, suspension wires and mounting clips
- C/w suspension kit

	REXC241-23
Diameter (mm):	24
Length (m):	1
Box Qty:	1
Weight (kg):	0.38

SPACEMAN 12VDC LED STRIPLIGHT KIT

SPACEMAN 14W LED strip pack

- Suitable for use in bars & clubs, restaurants, under counter display, hotel/office receptions, showrooms, exhibition stands, step lighting, window dressing
- 4pcs of 0.5m LED strips
- Complete kit with total plug and play connectivity
- Complete with driver, extension cables and 4 port distribution hub

Warm White		**R405MK-WW**
Neutral White		**R405MK-CW**
Total Power (W):		12.5/12.2
Total Light Output (lm):		540/700
Lifetime (hrs):		30,000
Beam Angle (deg):		120
CCT (K):	Warm White	3000
	Neutral White	4000
IP:		20
Power Factor:		0.5
Length (mm):		500
Width (mm):		10
Box Qty:		1
Weight (kg):		0.5

ROCKSTAR LED WALL WASHER

ROCKSTAR LED recessed wall washer

- Suitable for use in bars, clubs, retail, showrooms, exhibition centres, museums
- LED replacement for 50W and 70W metal halide
- Die cast aluminium housing with toughened glass
- High impact rating of IK08

- Wide operating ambient temperature range of -20°C to +40°C
- Adjustable tilt angle of 60°
- Suitable for switching by PIR, Microwave or Photocell

Neutral White

	36W	44W
	RRC03645-01	RRC04445-01
Comparable to:	50W	70W
Total Power (W):	36.5	45.3
Total Light Output (lm):	3,430	4,250
Efficacy (lm/cctW):	94	94
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	1,500	1,950
Beam Angle (deg):	90	90
CCT (K):	4500	4500
CRI:	85	85
IP:	20	20
Power Factor:	0.95	0.95
Cut-out (mm):	130 x 220	130 x 220
Length (mm):	250	250
Width (mm):	150	150
Depth (mm):	130	130
Box Qty:	1	1
Weight (kg):	1.5	1.6

3 YRS · 94 LmW

OP 220 240 · IP 20

PHOTO METRICS · 60° · PART L2

DOWNLIGHTS
WILSON LED WALL WASHER

13W

35W

WILSON LED circular wall washer

- Suitable for use in bars, clubs, retail, showrooms, exhibition centres, museums
- Die cast aluminium housing with toughened glass
- High impact rating of IK08
- Wide operating ambient temperature range of -20°C to +40°C

- 35W version incorporates fast-fix driver feature for ease of installation
- 13W has adjustable tilt of 45°, 35W version adjustable tilt angle of 70° and swivel of 350°
- Suitable for switching by PIR, Microwave or Photocell

Neutral White

	13W	35W
	RWL01340-01	RWL03540-01
Comparable to:	20W	50W
Total Power (W):	12.7	35 .2
Total Light Output (lm):	1,050	3,220
Efficacy (lm/cctW):	83	91
Lifetime (hrs):	50,000	50,000
Lux at 1m (lux):	1,070	2,250
Beam Angle (deg):	60	70
CCT (K):	4000	4000
CRI:	82	85
IP:	20	20
Power Factor:	0.95	0.95
Tilt/Swivel (deg):	45/NA	70/350
Cut-out (mm):	85	170
Diameter (mm:	98	195
Depth (mm):	70	175
Box Qty:	1	1
Weight (kg):	0.5	1.5

3 YRS

83–91 LmW

OP 220 240

IP 20

PHOTO METRICS

PART L2

45° 70°

LIA verified
Triple E registered

	RWL01340-01	RWL03540-01
Cut-out (mm)	85	170
Diameter (mm)	98	195
Depth (mm)	70	175

DEPTH

DIAMETER

CUT-OUT

TRACKS & PROJECTORS

TROY LED TRACK PROJECTOR

NEW!

TROY 10W LED track spot, IP20, 4000K

- Suitable for use in shops, hotels, pubs, restaurants, entertainment venues, showrooms, museum displays and many rooms in the home
- Comparable to 20W metal halide fittings
- Suitable for use with ROBUS single circuit tracks
- Die cast aluminium housing with polycarbonate reflector

- 30,000 hour rated LED life
- High efficacy of 99lm/W
- Wide operating ambient temperature range of -20°C to +40°C
- Adjustable rotation angle of 350° and tilt of 90°

White	RTY1040-01
Black	RTY1040-04
Comparable to:	20W metal halide
Total Power (W):	9.4
Total Light Output (lm):	930
Efficacy (lm / cctW):	99
Lifetime (hrs):	30,000
Illuminance at 1m (lx):	1,420
Beam Angle (deg):	40
CCT (K):	4000
CRI:	80
IP:	20
Power Factor:	0.9
Length (mm):	97
Width (mm):	65
Height (mm):	132
Weight (kg):	0.27

132MM
Ø65MM
Ø65MM
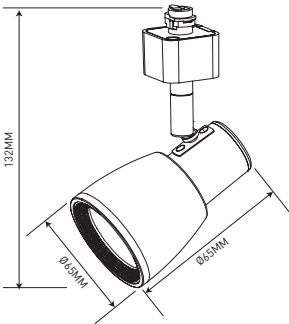
2 YRS
99 LmW

OP 220 240
IP 20
90°
350°

TREK LED TRACK PROJECTOR

NEW!

TREK 12W LED track spot, IP20, 4000K

- Suitable for use in shops, hotels, pubs, restaurants, entertainment venues, showrooms, museum displays and many rooms in the home
- Comparable to 25W metal halide fittings
- Suitable for use with ROBUS single circuit tracks
- Die cast aluminium and polycarbonate housing with polycarbonate reflector

- 30,000 hour rated LED life
- High efficacy of 106lm/W
- Wide operating ambient temperature range of -20°C to +40°C
- Adjustable rotation angle of 350° and tilt of 180°

White	**RTK1240-01**
Black	**RTK1240-04**
Comparable to:	25W metal halide
Total Power (W):	10.9
Total Light Output (lm):	1,150
Efficacy (lm / cctW):	106
Lifetime (hrs):	30,000
Illuminance at 1m (lx):	2,630
Beam Angle (deg):	38
CCT (K):	4000
CRI (Ra):	80
IP:	20
Power Factor:	0.95
Length (mm):	100
Width (mm):	62
Height (mm):	166
Weight (kg):	0.42

166MM
Ø62MM
100MM
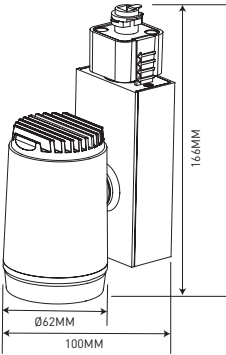
2 YRS
106 LmW

OP 220 240 · IP 20 · 180° · 350°

TREK LED Track Projector

TRAM LED TRACK PROJECTOR

NEW!

TRAM 25/35W LED track spot, dimmable, IP20, 4000K

- Suitable for use in shops, hotels, pubs, restaurants, entertainment venues, showrooms, museum displays and many rooms in the home
- Comparable to 35W/50W metal halide fittings
- Suitable for use with ROBUS single circuit tracks
- Die cast aluminium and polycarbonate housing with polycarbonate reflector
- 30,000 hour rated LED life

- High efficacy of 89-90lm/W
- Wide operating ambient temperature range of -20°C to +40°C
- Adjustable rotation angle of 350° and tilt of 210°
- Dimmable range of 10-100%, adjustable via knob on driver's housing. Compatibility list available on the website

White	**RTM2540-01**	**RTM3540-01**
Black	**RTM2540-04**	**RTM3540-04**
Comparable to:	35W metal halide	50W metal halide
Total Power (W):	25	34.1
Total Light Output (lm):	2,220	3,060
Efficacy (lm / cctW):	89	90
Lifetime (hrs):	30,000	30,000
Illuminance at 1m (lx):	5,490	7,580
Beam Angle (deg):	38	38
CCT (K):	4000	4000
CRI (Ra):	80	80
IP:	20	20
Power Factor:	0.95	0.95
Length (mm):	146	161
Width (mm):	90	105
Height (mm):	186	190
Weight (kg):	0.79	0.79

186MM

Ø90MM
146MM

2 YRS

89–90 LmW

OP 220 240   IP 20   210°   350°

PETITE track kit

- Suitable for use in shops, hotels, pubs, restaurants, entertainment venues, showrooms, museum displays and many rooms in the home
- Track pack comprises 1m track, live and dead ends and 3 x GU/GZ10 die-cast aluminium spotlights
- Suitable for use with GU10 halogen and LED lamps
- Die cast aluminium housing
- Polycarbonate track adaptor
- 90° adjustable tilt and 350° rotation angle
- Wide ambient temperature range of -20°C to +40°C

White	RS806GZ3-01
B Chrome	RS806GZ3-13
IP:	20
Cap Type:	GU10
Length (mm):	1,000
Width (mm):	35
Height (mm):	160
Box Qty:	1
Weight (kg):	1.7

PETITE 50W track spotlight

- Suitable for use in shops, hotels, pubs, restaurants, entertainment venues, showrooms, museum displays and many rooms in the home
- Suitable for use with GU10 halogen and LED lamps
- Die cast aluminium housing
- Polycarbonate track adaptor
- 90° adjustable tilt and 350° rotation angle
- Wide ambient temperature range of -20°C to +40°C

White	RS806GZ-01
B Chrome	RS806GZ-13
Maximum Power (W):	50
IP:	20
Cap Type:	GU10
Box Qty:	6
Length (mm):	120
Width (mm):	52
Diameter (mm):	45
Height (mm):	18
Weight (kg):	0.4

ACORN SINGLE CIRCUIT SPOTS & KITS
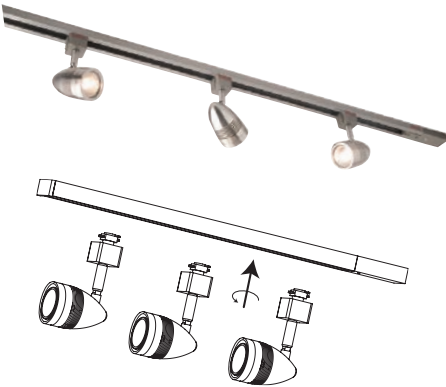
ACORN track kit

- Suitable for use in shops, hotels, pubs, restaurants, entertainment venues, showrooms, museum displays and many rooms in the home
- Suitable for use with GU10 halogen and LED lamps
- Die cast aluminium housing
- Polycarbonate track adaptor
- 90° adjustable tilt and 350° rotation angle
- Wide ambient temperature range of -20°C to +40°C

White	**R888GZ3-01**
B Chrome	**R888GZ3-13**
IP:	20
Cap Type:	GU10
Length (mm):	1,000
Width (mm):	35
Height (mm):	160
Box Qty:	1
Weight (kg):	1.6
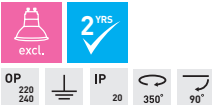
ACORN 50W track spotlight

- Suitable for use in shops, hotels, pubs, restaurants, entertainment venues, showrooms, museum displays and many rooms in the home
- Suitable for use with GU10 halogen and LED lamps
- Die cast aluminium housing
- Polycarbonate track adaptor
- 90° adjustable tilt and 350° rotation angle
- Wide ambient temperature range of -20°C to +40°C

White	**R888GZ-01**
B Chrome	**R888GZ-13**
Maximum Power (W):	50
IP:	20
Cap Type:	GU10
Length (mm):	116
Width (mm):	35
Proj (mm):	130
Box Qty:	6
Height (mm):	18
Weight (kg):	0.3

MAINS VOLTAGE TRACK

ACCESSORIES

TRACK single circuit mains 16 amp

- Polyester painted extruded aluminium alloy
- 16 Amp rated conductors for single phase operation (L, N, E)
- C/w live and dead ends

	1m	2m	3m
White	**R1T-01**	**R2T-01**	**R3T-01**
Black	**R1T-04**		
B Chrome	**R1T-13**		
S Silver	**R1T-15**	**R2T-15**	**R3T-15**
Length (mm):	1,000	2,000	3,000
Height (mm):	18	18	18
Width (mm):	35	35	35
Box Qty:	1	1	1
Weight (kg):	0.6	1.2	1.7

L joiner

- Injection moulded plastic power connection and blanking off piece for use with mains voltage track, single phase
- Accessible screw terminals

White	**RL-01**
Black	**RL-04**
S Silver	**RL-15**
Width (mm):	108
Length (mm):	108
Height (mm):	18

Adaptor

- Injection moulded plastic adaptor with accessible screw terminals for mating fittings to single phase track

White	**RTA-01**
Black	**RTA-04**
S Silver	**RTA-15**
Width (mm):	35
Length (mm):	35
Height (mm):	38

Coupler

- In line connector for single circuit track
- 20mm knock out allows for wiring point into coupler
- Accessible screw terminals

White	**RC-01**
Black	**RC-04**
B Chrome	**RC-13**
S Silver	**RC-15**
Width (mm):	35
Length (mm):	178
Height (mm):	18

Live and dead ends

- Power connection constructed from injection moulded plastic
- Can only be attached from the right side
- 20mm knock out at rear
- Accessible screw terminals

White	**RLE-01**
Black	**RLE-04**
B Chrome	**RLE-13**
S Silver	**RLE-15**
Width (mm):	35
Length (mm):	108
Height (mm):	18

T joiner

- Power connection constructed from injection moulded plastic
- 20mm knock out at rear
- Accessible screw terminals

White	**RT-01**
Black	**RT-04**
S Silver	**RT-15**
Width (mm):	108
Length (mm):	178
Height (mm):	18

KITCHEN & FURNITURE

KITCHEN & FURNITURE
COMMODORE LED CABINET LIGHT

NEW!

COMMODORE 2.5W LED mains voltage cabinet light

- Suitable for use in cabinet displays, under or on top of wall cabinets, kitchen kick boards, bedroom wardrobes, reception desk lighting, recessed in stair strings or risers
- LED replacement for 20W Halogen cabinet lights
- No UV or infrared content, ensuring suitability for sensitive display items

- Pressed stainless steel housing with polycarbonate diffuser
- Can be surface mounted or semi recessed
- Mains voltage supply with integrated driver
- Complete with 0.3m supply cable

	Warm White	Neutral White
White	**RCD2P530-01**	**RCD2P540-01**
Brushed Chrome	**RCD2P530-13**	**RCD2P540-13**
Comparable to:	20W Halogen	20W Halogen
Total Power (W):	2.5	2.5
Total Light Output (lm):	166	166
Efficacy (lm / cctW):	66	66
Lifetime (hrs):	30,000	30,000
Beam Angle (deg):	125	125
CCT (K):	3000	4000
CRI (Ra):	>85	>85
IP:	20	20
Power Factor:	0.9	0.9
Diameter (mm):	71	71
Depth (mm):	30	30
Cut-out (mm):	55	55
Box Qty:	1	1
Weight (kg):	0.13	0.13

2 YRS   66 LmW

OP 220 240   IP 20

CAPTAIN LED CABINET DOWNLIGHTS

CAPTAIN 2W LED mains voltage cabinet light

- Suitable for use in cabinet displays, under or on top of wall cabinets, kitchen kick boards, bedroom wardrobes, reception desk lighting, recessed in stair strings or risers
- No UV or infra-red content, ensuring suitability for sensitive display items

- Fully polycarbonate construction
- Can be surface mounted or semi recessed – remove outer cowl for semi recessed option
- Mains voltage supply with integrated driver
- Complete with 1.5m supply cable

WW White	**R2CLED240-01**
WW Satin Silver	**R2CLED240-15**
CW White	**R2CLED240CW-01**
CW Satin Silver	**R2CLED240CW-15**
Comparable to:	10W Halogen
Total Power (W):	1.6
Total Light Output (lm):	83 Warm White
	90 Neutral White
Efficacy (lm / cctW):	52 Warm White
	56 Neutral White
Lifetime (hrs):	20,000
Beam Angle (deg):	120
CCT (K):	3300 Warm White
	4200 Neutral White
IP:	20
Diameter (mm):	64
Depth (mm):	32 Surface
	18 Recessed
Cut-out (mm):	47
Box Qty:	1
Weight (kg):	0.1

Ø64mm
1.5m Cable
32mm

Surface

Ø64mm
1.5m Cable
32mm
18mm

Recessed

2 YRS

52-56 LmW

OP 220 240

IP 20
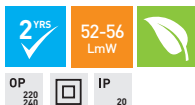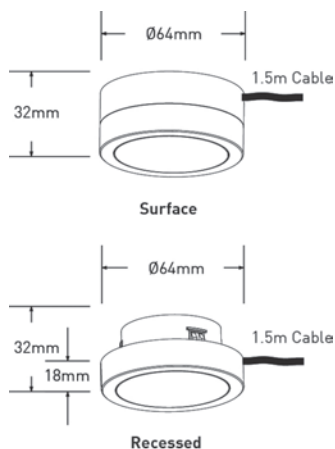
ROYAL LED CABINET DOWNLIGHT

NEW!

ROYAL 2.5W LED mains voltage cabinet light

- Suitable for use in cabinet displays, under or on top of wall cabinets, kitchen kick boards, bedroom wardrobes, reception desk lighting, recessed in stair strings or risers
- LED replacement for 20W Halogen cabinet lights
- No UV or infrared content, ensuring suitability for sensitive display items

- Pressed stainless steel housing with polycarbonate diffuser
- Can be surface mounted or semi recessed
- Mains voltage supply with integrated driver
- Complete with 0.3m supply cable

	Warm White	Neutral White
Brushed Chrome	**RYA2P530-13**	**RYA2P540-13**
Comparable to:	20W Halogen	20W Halogen
Total Power (W):	2.5	2.5
Total Light Output (lm):	166	166
Efficacy (lm / cctW):	66	66
Lifetime (hrs):	30,000	30,000
Beam Angle (deg):	125	125
CCT (K):	3000	4000
CRI (Ra):	>85	>85
IP:	20	20
Power Factor:	0.9	0.9
Diameter (mm):	124	124
Depth (mm):	45	45
Cut-out (mm):	125	125
Box Qty:	1	1
Weight (kg):	0.15	0.15

2 YRS | 66 LmW

OP 220 240 | IP 20

PRISM LED CABINET DOWNLIGHT

PRISM LED mains voltage cabinet light

- Suitable for use in cabinet displays, under or on top of wall cabinets, kitchen kick boards, bedroom wardrobes, reception desk lighting, recessed in stair strings or risers
- No UV or infra-red content, ensuring suitability for sensitive display items

- Pressed stainless steel housing with polycarbonate diffuser
- Mains voltage supply with integrated driver
- Complete with 1.5m supply cable

WW B Chrome	**R3011LED240-13**
NW B Chrome	**R3011LED240CW-13**
Comparable to:	10W Halogen
Total Power (W):	2
Total Light Output (lm):	80 Warm White
	95 Neutral White
Efficacy (lm / cctW):	40 Warm White
	48 Neutral White
Lifetime (hrs):	20,000
Beam Angle (deg):	120
CCT (K):	3300 Warm White
	4200 Neutral White
IP:	20
Width (mm):	120
Depth (mm):	44
Height (mm):	140
Box Qty:	10
Weight (kg):	0.3

2 YRS

40-48 LmW

OP 220 240   IP 20

140mm

44mm

120mm
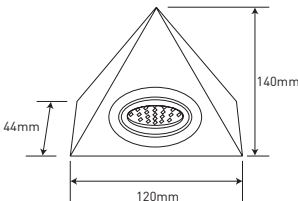
SPEAR LED linkable striplight

- Suitable for use in cabinet displays, kitchen wall units, workbench lighting, wardrobe lighting, under counter, bed headboard
- Energy savings of up to 50% compared with traditional T4 striplights
- Complete kit includes: fitting with male and female butt connectors; 1850mm plug-in power cord; 600mm linking cables; vertical and horizontal mounting clips
- Link up to 15 fittings using linking cable supplied or by plugging fittings directly together

- Integral LED driver makes a fast and neat installation
- Ultra slim with integral switch. Switch all fittings on with main switch or can be individually switched
- Wide operating ambient temperature range of -20°C to +40°C
- ***Note:** The SPEAR LED strip light range will be upgraded to CCT selectable versions in Q2 2018. One fitting can either be 3000K or 4000K, selected by a switch on the side of the fitting, all other performance details remain the same.

SPEAR LED Striplight

*CCT selectable versions, 3000/4000K

RLEDSTR3X-01 SPEAR 3W, IP20, 275mm, White
RLEDSTR4X-01 SPEAR 4W, IP20, 395mm, White
RLEDSTR8X-01 SPEAR 8W, IP20, 520mm, White
RLEDSTR10X-01 SPEAR 10W, IP20, 620mm, White
RLEDSTR14X-01 SPEAR 14W, IP20, 815mm, White

Warm White

	RLEDSTR3W	RLEDSTR4W	RLEDSTR8W	RLEDSTR10W	RLEDSTR14W
Comparable to:	6W T4	8W T4	16W T4	20W T4	30W T4
Power Consumption (W):	3.4	4.6	6.9	9.4	13.3
Total Light Output (lm):	360	510	750	990	1420
Efficacy (lm/cctW):	106	111	109	105	107
Lifetime (hrs):	30,000	30,000	30,000	30,000	30,000
Lux at 1m (lux):	70	100	140	190	280
Beam Angle (deg):	130	130	130	130	130
CCT (K):	3000	3000	3000	3000	3000
CRI:	80	80	80	80	80
IP:	20	20	20	20	20
Power Factor:	0.5	0.5	0.5	0.5	0.5
Length (mm):	275	395	520	620	815
Width (mm):	25	25	25	25	25
Depth (mm):	43	43	43	43	43
Box Qty:	10	10	10	10	10
Weight (kg):	0.1	0.1	0.2	0.2	0.3

Neutral White

	RLEDSTR3W-CW	RLEDSTR4W-CW	RLEDSTR8W-CW	RLEDSTR10W-CW	RLEDSTR14W-CW
Comparable to:	6W T4	8W T4	16W T4	20W T4	30W T4
Power Consumption (W):	3.3	4.5	6.6	9.3	12.9
Total Light Output (lm):	370	530	780	1,060	1,510
Efficacy (lm/cctW):	112	118	118	114	117
Lifetime (hrs):	30,000	30,000	30,000	30,000	30,000
Lux at 1m (lux):	75	110	150	210	300
Beam Angle (deg):	130	130	130	130	130
CCT (K):	4000	4000	4000	4000	4000
CRI:	80	80	80	80	80
IP:	20	20	20	20	20
Power Factor:	0.5	0.5	0.5	0.5	0.5
Length (mm):	275	395	520	620	815
Width (mm):	25	25	25	25	25
Depth (mm):	43	43	43	43	43
Box Qty:	10	10	10	10	10
Weight (kg):	0.1	0.1	0.2	0.2	0.3

KITCHEN & FURNITURE
SWORD HF STRIPLIGHTS

LSTR6W

LSTR8W

LSTR16W

LSTR20W

LSTR30W

SWORD T4 linkable striplight

- C/w 185cm power cord, 60cm linking cable, mounting clips, integral switch and warm white T4 tube
- Up to 6 fittings may be linked together in series, using linking cable supplied or by plugging fittings directly together
- Ultra slim design, extruded plastic body and triphosphor tubes
- Flicker free instant start

	6W	8W	16W	20W	30W
	LSTR6W	**LSTR8W**	**LSTR16W**	**LSTR20W**	**LSTR30W**
Total Power (W):	6	8	16	20	30
IP:	20	20	20	20	20
Cap Type:	T4	T4	T4	T4	T4
Depth (mm):	36	36	36	36	36
Length (mm):	275	395	520	620	815
Width (mm):	18	18	18	18	18
Box Qty:	10	10	10	10	10
Weight (kg):	0.2	0.3	0.4	0.5	0.8

T4 LAMP

- Triphosphor tube provides higher luminous output than normal fluorescent tubes
- For overall lamp length add 17mm for pins

Warm White 2700K		
Code	W	Length
LFT46	6W	205mm
LFT48	8W	330mm
LFT416	16W	440mm
LFT420	20W	550mm
LFT430	30W	750mm

LT58W

LT513W

LT518W

LT524W

SPIRE T5 linkable striplight

- C/w diffuser, power cord, butt connector, 60cm linking cord, integral switch & T5 tube
- Energy saving high frequency electronic control gear, with styrene diffuser

- Up to 6 fittings may be linked together in series, using linking cable supplied or by plugging fittings together using butt connector

	8W	13W	18W	24W
	LT58W	LT513W	LT518W	LT524W
Total Power (W)	8	13	18	24
IP:	20	20	20	20
Cap Type:	T5	T5	T5	T5
Depth (mm):	42	42	42	42
Length (mm):	345	572	640	950
Width (mm):	22	22	22	22
Box Qty:	10	10	10	10
Weight (kg):	0.2	0.4	0.4	0.6

T5 LAMP

- Triphosphor tube provides higher luminous output than normal fluorescent tubes
- For overall lamp length add 13mm for pins

Warm White 2700K

Code	W	Length
LFT58	8W	286mm
LFT513	13W	516mm
LFT518	18W	585mm
LFT524	24W	895mm

BATHROOM

VOGUE 20W LED ceiling light

- Suitable for use in toilets, rest rooms, bathrooms or cloak rooms in domestic, commercial, entertainment or retail premises
- LED replacement for 28W 2D fluorescent fittings
- Polycarbonate base with acrylic diffuser
- Complete with detachable mounting plate
- Slim profile
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

Neutral White

	RVG02040-01
Total Power (W):	16.6
Total Light Output (lm):	1,570
Efficacy (lm/cctW):	95
Lifetime (hrs):	30,000
Lux at 1m (lux):	470
Beam Angle (deg):	120
CCT (K):	4000
CRI:	80
IP:	44
Power Factor:	0.9
Diameter (mm):	280
Height (mm):	53
Box Qty:	1
Weight (kg):	0.75

GLOBE ceiling light

- Base diameter 100mm
- IP44 suitable for bathrooms and damp areas, sealed lamp compartment ensures lamp is safe from splashes & prevents corrosion of electrical contacts
- Bakelite resin base
- Pre-wired terminal block connection
- Porcelain BC lamp holder
- Triple layer blow moulded opal glass globe
- 75mm flying lead
- Suitable for low energy lamps

	60W	100W
	R60SB	R100SB
IP:	44	44
Cap Type:	B22	B22
Base Diameter (mm):	100	100
Globe Diameter (mm):	145	175
Height (mm):	175	210
Box Qty:	16	10
Weight (kg):	0.6	0.8

BATHROOM
SHOWER DOWNLIGHTS

ROBIN SHOWER low voltage
12V downlight

- Recessed downlights with pressed steel body and die cast aluminium front bezel
- Sealed to protect ceiling from moisture ingress

White	**RS10165-01**
Chrome	**RS10165-03**
B Chrome	**RS10165-13**
Total Power (W):	50
IP:	65
Cap Type:	G5.3
Diameter (mm):	83
Depth (mm):	105
Cut-out (mm):	72
Box Qty:	10
Weight (kg):	0.3

excl. | 2 YRS

| OP 12V AC | | IP 65 | Zone 1 |

| -01 White | -03 Chrome | -13 B Chrome |

ROBIN Shower mains voltage
GU10 downlight

- Recessed downlights with pressed steel body and die cast aluminium front bezel
- Sealed to protect ceiling from moisture ingress
- GZ10 lamp holder for 230/240V 50W halogen lamps

White	**RS10165GZ-01**
Chrome	**RS10165GZ-03**
B Chrome	**RS10165GZ-13**
Total Power (W):	50
IP:	65
Cap Type:	GU10
Diameter (mm):	83
Depth (mm):	105
Cut-out (mm):	72
Box Qty:	10
Weight (kg):	0.3

excl. | 2 YRS

| OP 220 240 | | IP 65 | Zone 2 |

STARLING GU10 mains voltage shower downlight

- Recessed downlights with pressed steel body and die cast aluminium front bezel
- Sealed to protect ceiling from moisture ingress
- GZ10 lamp holder for 230/240V 50W halogen lamps

White	**RSF20165-01**
Chrome	**RSF20165-03**
B Chrome	**RSF20165-13**
Total Power (W):	50
IP:	65
Cap Type:	GU10
Diameter (mm):	83
Depth (mm):	105
Cut-out (mm):	72
Box Qty:	10
Weight (kg):	0.3

excl. | 2 YRS ✓

| OP 220 240 | ▣ | IP 65 | Zone 2 |

| -01 White | -03 Chrome | -13 B Chrome |

STARLING Shower

DIVA LED over mirror light

- Suitable for use in toilets, rest rooms, bathrooms or cloak rooms in domestic, commercial, entertainment or retail premises
- LED replacement for >60W halogen mirror lights
- Extruded aluminium base, polycarbonate diffuser with ABS chrome-coated end caps

- On/off switch included on end of the fitting
- Wide operating ambient temperature range of -20°C to +40°C

	RDA1530-03	RDA2030-03
Comparable to:	60	60
Total Power (W):	15.2	20.8
Total Light Output (lm):	1,190	1,680
Efficacy (lm/cctW):	78	81
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	350	430
Beam Angle (deg):	130	130
CCT (K):	3000	3000
CRI:	80	80
IP:	44	44
Power Factor:	0.5	0.5
Length (mm):	600	900
Width (mm):	53	53
Depth (mm):	65	65
Box Qty:	1	1
Weight (kg):	0.5	0.9

3 YRS | 78–81 LmW

OP 220 240 | IP 44 | Zone 2 | PART L1 | PART L2 | PHOTO METRICS

DIVA LED DUAL VOLTAGE SHAVER LIGHT

DIVA 8W LED Dual Voltage Shaverlight

- Suitable for use in toilets, rest rooms, bathrooms or cloak rooms in domestic, commercial, entertainment or retail premises
- LED replacement for 60W incandescent mirror lights
- Polycarbonate housing and diffuser
- C/w dual voltage 110V/240V shaver socket and on/off switch

- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell
- Available in white and chrome

White	RDA0830S-01
Chrome	RDA0830S-03
Comparable to:	60W Incandescent
Total Power (W):	9.6
Total Light Output (lm):	780
Efficacy (lm/cctW):	81
Lifetime (hrs):	30,000
Lux at 1m (lux):	170
Beam Angle (deg):	130
CCT (K):	3000
CRI:	>80
IP:	44
Power Factor:	0.5
Length (mm):	488
Width (mm):	56
Depth (mm):	66
Box Qty:	1
Weight (kg):	0.5

3 YRS   81 LmW

OP 110 240   IP 44   PART L1   PART L2   PHOTO METRICS

ESTONE 7W LED dual voltage shaver light

- Suitable for use in toilets, rest rooms, bathrooms or cloak rooms in domestic, commercial, entertainment or retail premises
- LED replacement for 60W incandescent mirror lights
- Polycarbonate housing and diffuser

- Dual voltage: 115V & 230V shaver socket
- Wide operating ambient temperature range of -20°C to +40°C
- Suitable for switching by PIR, Microwave or Photocell

White	RSH7LED-01
Chrome	RSH7LED-03
Total Power (W):	7.1
Total Light Output (lm):	410
Efficacy (lm/cctW):	58
Lifetime (hrs):	30,000
Beam Angle (deg):	120
CCT (K):	4000
CRI:	87
IP:	20
Power Factor:	0.6
Length (mm):	490
Height (mm):	60
Depth (mm):	70
Box Qty:	1
Weight (kg):	1.1

3 YRS · 58 LmW

OP 220 240 · IP 20 · PHOTO METRICS · PART L1

BATHROOM
CANON WALL LIGHTS

Single CANON

CANON G9 single/twin/swan neck bathroom wall light

- Mains voltage
- C/w 1 or 2 x 25W Osram G9 lamps & pull cord
- Sealed decorative frosted glass enclosed screw-on shades

RG9125P

118 mm

Ø76 mm

139 mm

Single

RG9225P

118 mm

Ø76mm

192 mm

Twin

RG9225SP

120 mm

185mm

200mm
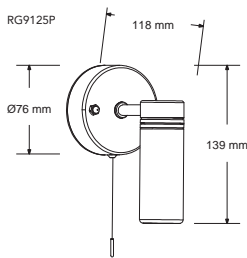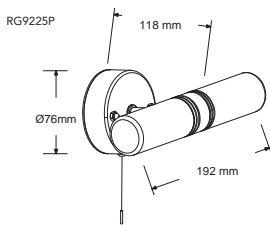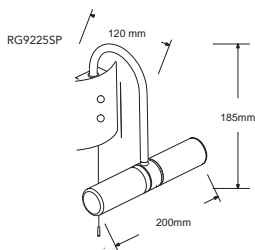
Swan Neck

Twin CANON

Swan Neck CANON

	Single	Twin	Swan Neck
	RG9125P-03	**RG9225P-03**	**RG9225SP-03**
Total Power (W):	25	50	50
IP:	44	44	44
Cap Type:	G9	G9	G9
Diameter (mm):	76	76	N/A
Width (mm):	N/A	192	200
Height (mm):	139	N/A	185
Proj (mm):	118	118	120
Box Qty	4	4	4
Weight (kg):	0.3	0.5	0.5

incl.

2 YRS

OP 220 240 | IP 44 | Zone 2

TOILET ALARM kit

- Contains: over-door light and sounder, one toilet reset switch, one main control module, ceiling pull unit with pull cord and disabled WC sticker
- Simply pull cord to activate sound alarm & over-door light outside room
- System can be extended with 2 additional pull cords or one additional pull cord and sounder

- Pull cord length 275cm
- Monitored 24hr backup battery ensures system works in the event of power failure
- Test facility of alarm sounders and lights provides safety for users
- Parts also sold separately as accessories

White	RDPTA-01
IP:	20
Box Qty:	4

OP 220 240 **IP** 20

Note:
Spare parts available, codes are as follows:
RDPTA indicator
RDPTA pull cord
RDTPA reset panel

HAIR DRYER

HAIR DRYER, wall mounted

- Automatic cut out after 18mins
- Adjustable temperature setting (40-80°)
- 1,500W heat

- ABS body
- Flexible air nozzle

White	LHD1500-01
Total Power (W):	1,500
IP:	20
Depth (mm):	110
Width (mm):	210
Height (mm):	275
Box Qty:	2
Weight (kg):	2.8

2 YRS

| OP 220 240 | | IP 20 |

AIB Bank Centre, Dublin, Ireland

HELM high speed hand dryer

- Warm air
- Up to 50% energy consumption compared to other dryers of similar performance
- High speed, high efficiency
- Streamlined air duct and nozzle design combine to produce a concentrated stream of high speed air to dry hands in under 10 seconds

- PIR activated. Starts immediately when hands are placed within 15cm of the drying nozzle and stops 1 second after hands are removed ensuring energy is not wasted
- Aluminium main body
- Noise level = 84dB

White	**R1350HSD-01**
Satin Silver	**R1350HSD-15**
Total Power (W):	1,350
IP:	22
Depth (mm):	195
Width (mm):	267
Height (mm):	225
Box Qty:	4
Weight (kg):	3.8
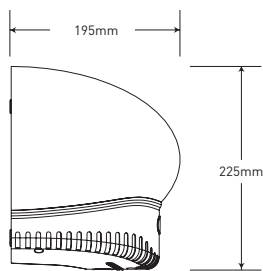
EMERGENCY

EMERGENCY
DYNAMO LED

DYNAMO 2W LED non-maintained emergency downlight, recessed

- Suitable for use in offices, public buildings, health centres, hospitals, schools, hotels, pubs, clubs and restaurants, shops and stores
- Complete kit pre-wired with plug & play connectors comprising LED downlight, controller and driver pack, battery pack
- Includes manual-test button and LED status indicator

- Complete with extension bezel allowing mounting in cut outs of 75-110mm
- Provides 3 hour emergency discharge duration
- Maximum spacing of 12m for mounting height of 2.8m
- Emergency spacing details in back section of catalogue

Daylight White

	R2WLEDNME-01
Total Power (W):	1.6
Total Light Output (lm):	200
Lux at 1m (lux):	55
Lifetime (hrs):	30,000
Beam Angle (deg):	150
CCT (K):	6500
CRI:	75
IP:	20
Depth (mm):	21
Diameter (mm):	130
Box Qty:	1
Weight (kg):	0.71

Cut Out Ø 75mm - 110mm

Battery 3.6V3.0Ah

2W Emergency LED

Ø130mm
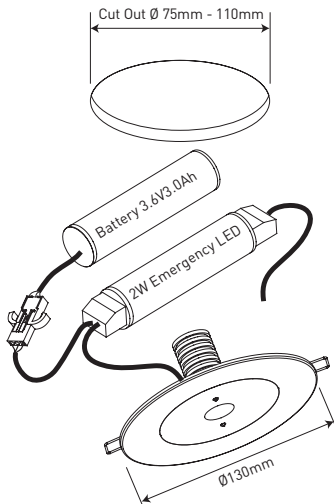
EMERGENCY
ORMOND LED

ORMOND LED non-maintained emergency downlight, recessed

- Suitable for use in offices, public buildings, health centres, hospitals, schools, hotels, pubs, clubs and restaurants, shops and stores
- Complete kit pre-wired with plug & play connectors comprising LED downlight, control gear and battery pack
- Includes LED status indicator
- Provides 3-hour emergency discharge duration

- Wide operating ambient temperature range of -10°C to +40°C
- Detailed dimensions: Downlight: Ø45mm x 32mm, Control Gear: Ø27mm x 186mm, Battery Pack: Ø27mm x 143mm
- Emergency spacing details in back section of catalogue

	R1WNME-01
Total Power (W):	1.4
Total Light Output (lm):	120
Illuminance at 1m (lux):	43
Rated Life (hrs):	20,000
Beam Angle (deg):	120
CCT (K):	6500
CRI:	70
IP:	20
Depth (mm):	33
Diameter (mm):	45
Cut-out (mm):	40
Box Qty:	1
Weight (kg):	0.32

2 YRS

OP 220 240 | IP 20 | PHOTO METRICS

Battery 3.6V1.5Ah
1W Emergency LED
33mm
Ø45mm
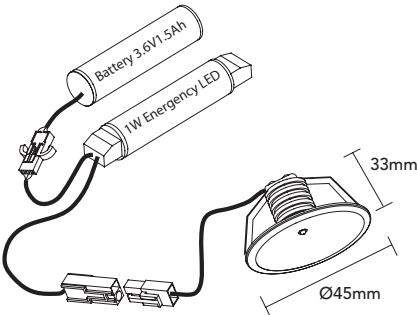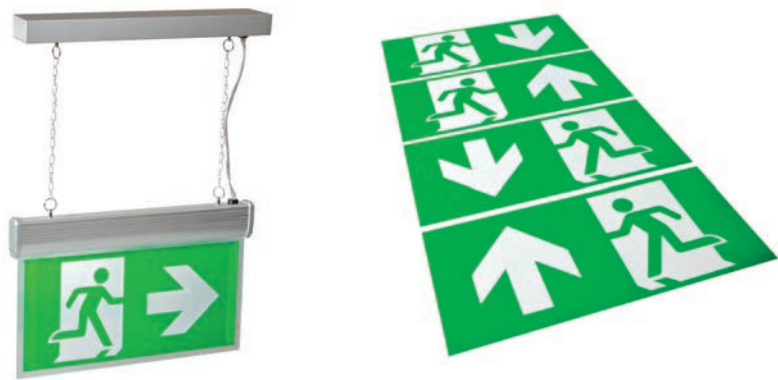
BLADE 4W LED exit light

- Suitable for use in offices, public buildings, hotels, bars & clubs, restaurants, schools, health centres, hospitals
- LED replacement for T4 fluorescent illuminated exit signs
- Maintained
- Exit sign illuminated by 11 LEDs

- NiCad battery providing 3 hour emergency discharge duration
- Max viewing distance of 48m
- Surface mounted
- Complete with 6 legends set

Satin Silver	**RBL4P0E-15**
Total Power (W):	4
IP:	20
Power Factor:	0.9
Width (mm):	400
Height (mm):	475
Depth (mm):	55
Box Qty:	6
Weight (kg):	1.2
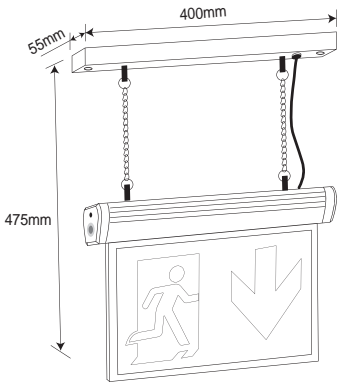
EMERGENCY
FINCH LED TWINSPOT

FINCH 5W LED twinspot

- Suitable for use in industrial units, workshops, warehouses, showrooms, shops and stores, schools, gymnasiums, health centres, hospitals, churches
- LED replacement for 2x20W halogen twin spots
- Fully polycarbonate IP20 housing

- 20mm conduit entries in side and back key hole mounting slots
- 3 hour emergency operation
- Non-maintained
- C/w LED status indicators

White	RFN00560I20-01
Total Power (W):	4.2
Total Light Output (lm):	440
Beam Angle (deg):	60
Lux at 1m (lux):	90
Lifetime (hrs):	30,000
CCT (K):	6000
CRI:	70
IP:	20
Power Factor:	0.9
Width (mm):	285
Height (mm):	305
Depth (mm):	60
Box Qty:	1
Weight (kg):	1.1

OP 220 240   IP 20   PHOTO METRICS

FINCH LED twinspot

8W LED maintained emergency bulkhead

- Suitable for use in offices, public buildings, hotels, bars & clubs, restaurants, schools, health centres, hospitals
- Fully flush mounted
- Pressed steel durable housing with polycarbonate diffuser
- C/w white and chrome bezels
- 20mm pre-formed knockouts in rear and all 4 sides

- Large 4 terminal connector block allow loop-in/loop-out
- NiCad battery providing 3 hour emergency discharge duration
- Complete with green LED charging indicator
- Emergency spacing details in back section of catalogue

White & B Chrome	R8MLED3-01+13
Total Power (W):	8
IP:	20
Cap Type:	G5
Depth (mm):	60
Length (mm):	385
Width (mm):	170
Cut-out (mm):	375 x 150
Box Qty:	4
Weight (kg):	1.6
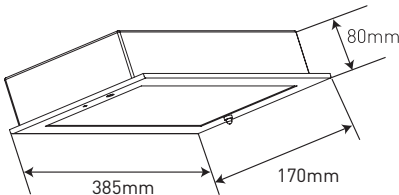
EMERGENCY
BULKHEADS

UNIVERSAL LED, self-test, maintained

- Suitable for use in offices, public buildings, hotels, bars & clubs, restaurants, schools, health centres, hospitals
- LED replacement for T5 emergency bulkheads
- No UV or IR content
- Surface or semi-recessed mounted
- Fully polycarbonate housing
- Automatic self-test function: once a week – test lasts 15mins. Twice a year – test lasts 3 hours
- Complete with 4 piece legend set
- Large 4 terminal connector block
- Complete with NiCad battery providing excess of 3 hour emergency discharge duration
- Green, amber and red LED's indicating battery, LED output, charge and test status of the unit
- Emergency spacing details in back section of catalogue

	R8MUSTLED-01
Total Power (W):	6.9
Total Light Output (lm):	260 standard
	140 emergency
Efficacy (lm/cctW):	38
Lux at 1m (lux):	65
CCT (K):	4000
IP:	20
Power Factor:	0.5
Cap Type:	LED
Depth (mm):	80
Length (mm):	350
Height (mm):	175
Cut-out (mm):	275 x 130
Box Qty:	6
Weight (kg):	1.0

2 YRS | 38 LmW

OP 220 240 | IP 20

PHOTO METRICS

UNIVERSAL EMERGENCY dropped legend

- For use with R8MUSTLED
- Polycarbonate body, acrylic sign
- Spring retained drop down sign
- C/w 8 piece legend set
- Mounted flexible clips
- Emergency spacing details in back section of catalogue

Satin Silver	R8MULK-15
Length (mm):	350
Box Qty:	6

EMERGENCY LED BULKHEAD, maintained

- Suitable for use in offices, public buildings, hotels, bars & clubs, restaurants, schools, health centres, hospitals
- LED replacement for T5 emergency bulkheads
- Fully polycarbonate construction
- High impact rating of IK07
- Hinged gear tray allowing for ease of wiring and installation
- R8MLEDTS-01 complete with test switch on the side of the fitting

- Only 3W in maintained mode
- No UV or IR content
- 3 hour emergency operation
- Double sided exit accessory available allowing removal of existing diffuser and conversion to double sided exit (R8MLEDDE)
- Emergency spacing details for R8MLED in back section of catalogue

	Standard	Test Switch
	R8MLED-01	**R8MLEDTS-01**
Total Power (W):	3.7	2.6
Total Light Output (lm):	140 standard	60
	110 emergency	N/A
Lux at 1m (lux):	45 standard	25
	38 emergency	N/A
CCT (K):	6500	6000
CRI:	85	>65
IP:	65	65
Power Factor:	0.55	0.55
Impact Rating (IK):	07	07
Length (mm):	352	352
Depth (mm):	66	57
Width (mm):	110	110
Weight (kg):	0.6	0.6

OP 220 240   IP 65   PHOTO METRICS

EMERGENCY
BULKHEADS

R8MLED with
R8MLEDDE bulkhead

BULKHEAD accessory for R8MLED

- Comes with running man 'down' legend

	R8MLEDDE
IP:	65
Length (mm):	350
Depth (mm):	120
Width (mm):	200
Box Qty:	1
Weight (kg):	1

BULKHEAD legend kit

- For use with R8MLED / R8MLEDTS-01

	RBULKLEG
Length (mm):	265
Width (mm):	219
Box Qty:	10

Recessed box for R8MLED

- For use with R8MLED / R8MLEDTS-01

	R8MLEDRSB-01
Length (mm):	161
Depth (mm):	35
Width (mm):	391
Weight (kg):	0.6

EMERGENCY
BULKHEADS

EXIT BOX 3W LED maintained

- Suitable for use in offices, public buildings, hotels, bars & clubs, restaurants, schools, health centres, hospitals
- LED replacement for T5 emergency exit signs
- Pressed steel housing with polycarbonate diffuser
- C/w running man with arrow facing up legend
- Max viewing distance of 30m
- Left, right and up running man legend panels available (RCXR3, RCXL3 and RCXU2)
- No UV or IR content
- 3 hour emergency operation
- Only 3W in maintained mode
- Can be wired as maintained and non-maintained fitting

White	R8EMLED-01
Total Power (W):	3.7
Total Light Output (lm):	40
IP:	20
Width (mm):	390
Depth (mm):	60
Length (mm):	190
Weight (kg):	1.4

Spare running man legend for R8EMLED

	Direction
RCXR3	Right
RCXL3	Left
RCXU2	Up
Box Qty:	1

Note: All Emergency Legends have been updated in accordance with ISO 7010

NEW!

3 hour Emergency Pack, with Swift Connector for use with Space & Atmos Panels & Eternity downlights

- Suitable for use with SPACE and ATMOS LED panels and ETERNITY LED downlights
- Completely plug & play with SPACE and ETERNITY
- Low power consumption
- Provides 3-hour emergency discharge duration
- Wide operating temperature range of -10°C to +40°C

	R3EMPK-PSU
Total Power (W):	3
IP:	20
Power Factor (PF):	0.9
Length (mm):	160
Width (mm):	38
Depth (mm):	28
Box Qty:	1
Weight (kg):	0.23
Charging Time (hrs):	24
Discharge Time (hrs):	3

3 YRS

OP 220 240   IP 20

Basildon Hospital, Basildon, United Kingdom

EMERGENCY
CONVERSION KITS

UNIVERSAL emergency gear tray

- Universal Tray for 2D Fittings
- 3 hour maintained or non-maintained
- External 1 amp fuse on permanent supply
- High frequency
- Low energy
- Easy mounting
- Multi-fixing points to adapt to most 2D fittings
- Centre fixing points 228mm
- Extension brackets included for extra mounting points
- **Not to be used in IP66 fittings indoors**
- **Not suitable for locations with ambient air temperature above 25°C**
- Emergency spacing details in back section of catalogue

	R282DEPK-CU
Total Power (W):	28
IP:	20
Cap Type:	GR10Q
Depth (mm):	36
Length (mm):	240
(Bth) Width (mm):	165
Box Qty:	4
Weight (kg):	1.2

EMERGENCY CONVERSION KIT 1X3W

- 3W LED conversion kit, can be used in standard fittings. As the control gear and battery are slim, it also suits shallow profile fittings
- C/w 3-cell battery and green charging indicator LED
- 3 hour emergency operation
- Push and lock LED connection for easy installation
- Can also be used as an alternative to normal conversions
- Emergency spacing details in back section of catalogue

	R13LEDME-CU2
Total Power (W):	3
Total Light Output (lm):	200
IP:	20
Diameter (mm):	28
Height (mm):	23
Cut-out (mm):	17
Box Qty:	1
Weight (kg):	0.1

EMERGENCY
CONVERSION PARTS

NCD24SS
NCD34SS
NCD44SS

RNC4B

RNC5D
RNC6D

Batteries

Code	Description
NCD24SS	2 cell 2.4v 4Ah Ni-Cd Stick used for example in Exit Signs
NCD34SS	3 cell 3.6v 4Ah Ni-Cd Stick used for example in Exit Signs
NCD44SS	R4 cell 4.8v 4Ah Ni-Cd Stick used for example in PL Remote Packs
RNC4B	4 cell 4.8v 4Ah Ni-Cd Bulk used for example in 28W 2D
RNC5D	5 cell 6v 4Ah Ni-Cd battery (2&3 cell)
RNC6D	6 cell 7.2v 4Ah Ni-Cd battery

HRN/4
HRN/T5
NED/3/240

Modules/Chargers/Inverters

Code	Description
HRN/4	T8 and PL Emergency Module
	3hr duration, operates lamps from 18/36/58W T8 lamps and 13/18/26W PLC
HRN/T5	T5 Emergency Module
	3hr duration, operates lamps from 24/35/49/54W T5 lamps
NED/3/240	240V

Sensors

Code	Description
HC009-KD	2 part microwave sensor
	Sensor operates 10/30/90 seconds; 6/20/30m detection area.
	10/25/50/75/100% can be customised. Mounting height 6m.

HC009-KD

EMERGENCY
CONVERSION PARTS

Ballasts

Code	Description
10097544	1x18W/2x18W PLC HF Ballast
	240V High Frequency Ballast for 1x18W
	or 2x18W downlights
10097546	1x26W/2x26W PLC HF Ballast
	240V High Frequency Ballast for 1x26W
	or 2x26W downlights

PLC emergency packs

- All of 3hr duration including emergency module, battery, HF ballast, lamp holder, LED indicator and remote box.

Code	Description
R118MCE	1x18W HF emergency remote pack
R218MCE	2x18W HF emergency remote pack
R126MCE	1x26W HF emergency remote pack
R226MCE	2x26W HF emergency remote pack

R900MM-CU

R13LEDME-CU2

Non-maintained LED conversion kits

Code	Description
R900MM-CU	5W 900mm strip
	3hr duration, can be retrofit to
	convert fittings to emergency
R13LEDME-CU2	3W LED spot
	3hr duration, can be retrofit to
	convert fittings to emergency

LAMPS

SMD AFFORDABILITY

The DIAMOND range of LED lamps utilises SMD technology. SMD's (Surface Mounted Devices) are a recent generation of LED lighting and are largely responsible for the adoption of LED as a viable alternative to many traditional light sources.

- Suitable for use in shop displays, retail showrooms, hotel function rooms & receptions, bars & restaurants, dining room, kitchen, bedrooms in the home
- Suitable for use in fire rated downlights
- 38° beam angle
- No UV or infra-red content
- Die cast aluminium, plastic coated housing and polycarbonate lens
- GU10 cap type
- High quality, high brightness SMD LEDs providing high efficacy of 73-87lm/W
- Wide operating ambient temperature range of -10°C to +30°C
- 5W LED version is dimmable with selected leading and trailing edge dimmers
- Dimmer compatibility list available on website

54MM

50MM
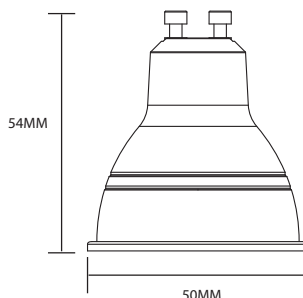
DIAMOND 4.5W non-dimmable

	RDM4P530	RDM4P540
Comparable to (halogen):	50W	50W
Total Power (W):	4.8	4.5
Total Light Output (lm):	350	370
Efficacy (lm/cctW):	73	82
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	600	650
Beam Angle (deg):	38	38
CCT (K):	3000	4000
CRI:	80	80
IP:	20	20
Power Factor:	0.5	0.5
Height (mm):	54	54
Diameter (mm):	50	50
Box Qty:	1	1
Weight (kg):	0.1	0.1

DIAMOND 5W dimmable

	RDM5P030DU	RDM5P040DU
Comparable to (halogen):	50W	50W
Total Power (W):	5.3	5.3
Total Light Output (lm):	420	460
Efficacy (lm/cctW):	79	87
Lifetime (hrs):	30,000	30,000
Lux at 1m (lux):	675	700
Beam Angle (deg):	38	38
CCT (K):	3000	4000
CRI:	80	80
IP:	20	20
Power Factor:	0.5	0.5
Height (mm):	54	54
Diameter (mm):	50	50
Box Qty:	1	1
Weight (kg):	0.1	0.1
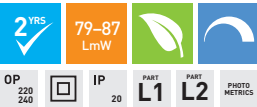
COB QUALITY

The EMERALD range of LED lamps utilises chip-on-board (COB) technology to provide energy efficient and long life solutions to replace inefficient short life halogen lamps. COB LED's produce more light and less heat, inevitably having a longer life with less performance depreciation than a single larger LED of the same input power.

- Suitable for use in shop displays, retail showrooms, hotel function rooms & receptions, bars & restaurants, dining room, kitchen, bedrooms in the home
- Suitable for use in fire rated downlights
- 38° beam angle
- No UV or infra-red content
- Die cast aluminium, plastic coated housing and polycarbonate lens
- GU10 cap type
- High quality, high brightness SMD LEDs providing high efficacy of 80-91lm/W
- Wide operating ambient temperature range of -10°C to +30°C
- 5W LED version is dimmable with selected leading and trailing edge dimmers
- Dimmer compatibility list available on website

55MM

50MM
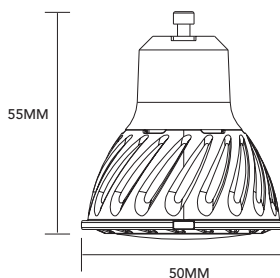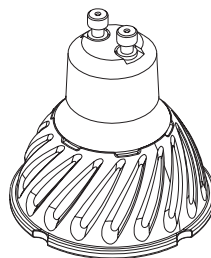
EMERALD 3.5W, 4.5W non-dimmable

	Warm White	Neutral White	Warm White	Neutral White
	3.5W	3.5W	4.5W	4.5W
	R35GU10-WW	**R35GU10-CW**	**R45GU10-WW**	**R45GU10-CW**
Comparable to (halogen):	35W	35W	50W	50W
Power Consumption (W):	3.5	3.5	4.5	4.5
Total Light Output (lm):	300	320	380	400
Efficacy (lm/cctW):	86	91	84	89
Lifetime (hrs):	30,000	30,000	30,000	30,000
Lux at 1m (lux):	580	650	730	750
Beam Angle (deg):	38	38	38	38
CCT (K):	3000	4000	3000	4000
CRI:	80	80	80	80
IP:	20	20	20	20
Power Factor:	0.5	0.5	0.5	0.5
Length (mm):	55	55	55	55
Diameter (mm):	50	50	50	50
Box Qty:	10	10	10	10
Cap Type:	GU10	GU10	GU10	GU10
Weight (kg):	0.3	0.3	0.3	0.3

EMERALD 5W dimmable

	Warm White	Warm White	Neutral White
	5W	5W	5W
	R50GU10D-27	**R50GU10D-WW**	**R50GU10D-CW**
Comparable to (halogen):	50W	50W	50W
Power Consumption (W):	4.9	4.9	4.9
Total Light Output (lm):	400	390	420
Efficacy (lm/cctW):	80	81	86
Lifetime (hrs):	30,000	30,000	30,000
Lux at 1m (lux):	750	750	780
Beam Angle (deg):	38	38	38
CCT (K):	2700	3000	4000
CRI:	80	80	80
IP:	20	20	20
Power Factor:	0.5	0.5	0.5
Length (mm):	55	55	55
Diameter (mm):	50	50	50
Box Qty:	10	10	10
Cap Type:	GU10	GU10	GU10
Weight (kg):	0.3	0.3	0.3

LIA verified

LAMPS
ECO-GLS LED LAMPS

ECO-GLS 6.5W, 10W, 12W LED lamps

- Suitable for use in shop window displays, bars & restaurants, commercial office buildings, hotel function rooms & receptions, dining rooms, kitchen, bedrooms in the home
- LED replacement for 40-100W incandescent lamps
- Die cast aluminium, plastic coated housing with polycarbonate diffuser
- Wide operating ambient temperature range of -20°C to +40°C
- Dimmable versions compatible with selected leading and trailing edge dimmers. Compatibility list available on website

Dimmable

	REG01027DUE27	REG01027DUB22	REG01227DUE27	REG01227DUB22
Warm White	10W E27	10W B22	12W E27	12W B22
Total Power (W):	10.8	10.8	11	11
Total Light Output (lm):	860	860	970	970
Efficacy (lm/cctW):	80	80	89	89
Lifetime (hrs):	25,000	25,000	25,000	25,000
Lux at 1m (lux):	80	80	100	100
Beam Angle (deg):	230	230	230	230
CCT (K):	2700	2700	2700	2700
CRI:	80	80	80	80
Power Factor:	0.8	0.8	0.8	0.8
Cap Type:	E27	B22	E27	B22
Length (mm):	110	110	125	125
Diameter (mm):	60	60	60	60
Box Qty:	6	6	6	6
Weight (kg):	0.1	0.1	0.2	0.2

| 2 YRS | 80–88 LmW | | | OP 220 240 | IP 20 | PART L1 | PART L2 | PHOTO METRICS |

Non-Dimmable

	REG6P527E27	REG6P527B22	REG01227E27	REG01227B22
Warm White	6.5W E27	6.5W B22	12W E27	12W B22
Total Power (W):	6.1	6.1	12.5	12.5
Total Light Output (lm):	450	450	1160	1160
Efficacy (lm/cctW):	74	74	93	93
Lifetime (hrs):	25,000	25,000	25,000	25,000
Lux at 1m (lux):	50	50	100	100
Beam Angle (deg):	230	230	230	230
CCT (K):	2700	2700	2700	2700
CRI:	80	80	80	80
Power Factor:	0.5	0.5	0.6	0.6
Cap Type:	E27	B22	E27	B22
Length (mm):	110	110	120	120
Diameter (mm):	60	60	60	60
Box Qty:	6	6	6	6
Weight (kg):	0.1	0.1	0.1	0.1

| 2 YRS | 71–93 LmW | | OP 220 240 | IP 20 | PART L1 | PART L2 | PHOTO METRICS |

LAMPS
ECO-CANDLE LED LAMPS

ECO-CANDLE 4W, 4.5W LED lamps

- Suitable for use in shop window displays, bars & restaurants, commercial office buildings, hotel function rooms & receptions, dining rooms, kitchen, bedrooms in the home
- LED replacement for 25W incandescent lamps
- Unique inverted conical lens mimics the beam pattern of traditional candle incandescent lamps
- Die cast aluminium, plastic coated housing with polycarbonate diffuser
- Wide operating ambient temperature range of -20°C to +40°C
- Dimmable versions compatible with selected leading and trailing edge dimmers. Compatibility list available on website

Dimmable

	REC4P527DUE14	REC4P527DUE27	REC4P527DUB22	REC4P527DUB15
Warm White	4.5W E14	4.5W E27	4.5W B22	4.5W B15
Total Power (W):	4.7	4.7	4.7	4.7
Total Light Output (lm):	320	320	320	320
Efficacy (lm/cctW):	68	68	68	68
Lifetime (hrs):	25,000	25,000	25,000	25,000
Lux at 1m (lux):	25	25	25	25
Beam Angle (deg):	230	230	230	260
CCT (K):	2700	2700	2700	2700
CRI:	80	80	80	80
Power Factor:	0.5	0.5	0.5	>0.5
Cap Type:	E14	E27	B22	B22
Length (mm):	100	100	100	100
Diameter (mm):	36	36	36	36
Box Qty:	8	8	8	8
Weight (kg):	0.1	0.1	0.1	0.1

2 YRS | 68 LmW | OP 220 240 | IP 20 | PART L1 | PART L2 | PHOTO METRICS

Non-Dimmable

	REC4P527E14	REC4P527E27	REC4P527B22	REC4P527B15
Warm White	4W E14	4W E27	4W B22	4W B15
Total Power (W):	3.9	3.9	3.9	3.9
Total Light Output (lm):	260	260	260	260
Efficacy (lm/cctW):	67	67	67	67
Lifetime (hrs):	25,000	25,000	25,000	25,000
Lux at 1m (lux):	25	25	25	25
Beam Angle (deg):	230	230	230	230
CCT (K):	2700	2700	2700	2700
CRI:	80	80	80	80
Power Factor:	0.5	0.5	0.5	>0.5
Cap Type:	E14	E27	B22	B22
Length (mm):	98	98	98	98
Diameter (mm):	36	36	36	36
Box Qty:	8	8	8	8
Weight (kg):	0.1	0.1	0.1	0.1

2 YRS | 67 LmW | OP 220 240 | IP 20 | PART L1 | PART L2 | PHOTO METRICS

2D Fluorescent lamps

- CCT 3500K
- 10,000 hour average rated LED life
- Non dimmable

L16W235	135mm	16W 2 Pin
L16W435	135mm	16W 4 Pin
L28W235	200mm	28W 2 Pin
L28W435	200mm	28W 4 Pin
L38W435	200mm	38W 4 Pin
Box Qty:		10
Cap Type:		2 Pin: GR8
		4 Pin: GR10q

LIGHTING CONTROLS

NEW!

PROTON 360° PIR with easy access controls

- Passive infra red ensures light is switched on when sensor detects movement of heat, switched off when area is vacated. Minimises false / unwanted triggering
- Manual over ride with automatic reset after 8 hours
- Large terminals accept 2 x 1.5mm² conductors in each terminal. Facility for loop in loop out
- Earth terminal included
- 3 wire - multiple sensors can be wired in parallel

- Easy access to adjust time and lux controls once PIR installed
- High load contact rating, allows numerous fittings to be switched
- No minimum load requirements
- Complies with requirements of the Energy Technology Criteria List. Enhanced Capital Allowances may be claimed on the cost of the luminaires, installation and transport to site

	RPR360PIRR-01
Detection Area:	360º
Motion Detection Range:	6m diameter at 2.8M
Loading:	Max 400W fluorescent
	Max 400W LED
	Max 800W incandescent
Time Settings:	10 seconds to 15 minutes adjustable
Lux Settings:	3-2,000lx
IP:	20
Diameter (mm):	80
Depth (mm):	78
Cut-out (mm):	75
Box Qty:	1
Weight (kg):	0.11

5 YRS

OP 220 240   IP 20

ECA Eligible

360°
2.8m
6m

INTERNAL PIRS

NEW!
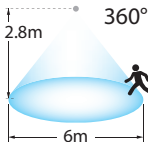
Proton 360º with shield accessory

PROTON 360° PIR with flush front

- Passive infra red ensures light is switched on when sensor detects movement of heat, switched off when area is vacated. Minimises false / unwanted triggering
- Manual over ride with automatic reset after 8 hours
- Large terminals accept 2 x 1.5mm² conductors in each terminal. Facility for loop in loop out
- Earth terminal included

- 3 wire - multiple sensors can be wired in parallel
- Unobtrusive flush face design
- High load contact rating, allows numerous fittings to be switched
- No minimum load requirements
- Complete with accessory shield to narrow beam angle

	RPR360PIRF-01
Detection Area:	360º
Motion Detection Range:	5m diameter at 2.8M
Loading:	Max 300W fluorescent
	Max 300W LED
	Max 1,200W incandescent
Time Settings:	10 seconds to 15 minutes adjustable
Lux Settings:	3-2,000lx
IP:	20
Diameter (mm):	76
Depth (mm):	66
Cut-out (mm):	69
Box Qty:	1
Weight (kg):	0.1

5 YRS OP 220 240 IP 20

ECA Eligible

360°
2.8m
5m
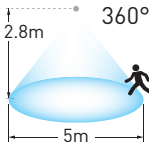
Surface

Recessed

UNIVERSAL 360° PIR Presence Detector

- Suitable for both surface and recessed indoor applications
- Injection moulded ABS body providing high impact resistance of IK10
- Plug in terminal block and sensor module
- Large terminals accept 2 x 1.5mm² conductors in each terminal; facility to loop in/loop out to parallel sensors or multiple fittings

- Passive infra-red; ensures light is switched on when sensor detects movement of heat, therefore lighting is switched off when the area is vacated and minimize false/unwanted triggering
- Adjustable passive photocell; inhibits switching where natural light is sufficient
- High load contact rating; allows numerous fittings to be switched
- 3 wire- multiple sensors can be wired in parallel
- No minimum load requirements

Surface /Recessed	RU360-01
Detection Area:	360º
Motion Detection Range:	10m diameter at 2.8m
Occupancy Detection Range:	6m diameter at 2.8m
Loading:	Max 600W fluorescent Max 300W LED Max 2,000W incandescent
Time Settings:	10 seconds to 40 minutes adjustable
Lux Settings:	10-2000lx
IP:	20
Diameter (mm):	106
Depth (mm):	57/66
Cut-out (mm):	84
Box Qty:	1
Weight (kg):	0.2

5 YRS

OP 220 240

IP 20

ECA Eligible

2.8m 360°

6m

10m
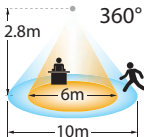
INTERNAL PIRS

MOTION DETECTOR 360°, recessed

- Suitable for recessed indoor applications
- Injection moulded ABS body providing high impact resistance of IK10
- Clear terminal cover, integral clamp and large mains terminals for 2 x 1.5mm² conductors
- Terminations are safe and visible and enables loop-in/loop-out for supply to other sensors

- Passive infra-red; ensures light is switched on when sensor detects movement of heat, therefore lighting is switched off when the area is vacated and minimize false/unwanted triggering
- 3 wire- multiple sensors can be wired in parallel
- No minimum load requirements
- Adjustable passive photocell; inhibits switching where natural light is sufficient

	RR360-01
Detection Area:	360°
Motion Detection Range:	9m diameter at 2.8m
Loading:	Max 600W fluorescent
	Max 300W LED
	Max 2,000W incandescent
Time Settings:	5 Seconds to 15 minutes adjustable
Lux Settings:	2-2000lx
IP:	20
Diameter (mm):	75
Depth (mm):	60
Cut-out (mm):	62
Box Qty:	10
Weight (kg):	0.1

ECA Eligible

2.8m 360°

9m
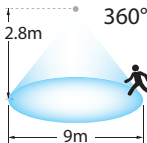
MOTION DETECTOR 360°, surface

- Suitable for surface applications
- Injection moulded ABS body providing high impact resistance of IK10
- Rear and side entry knockouts, integral cable clamp and large mains terminals for 2 x 1.5mm² conductors
- Large terminals accept 2 x 1.5mm² conductors in each terminal; facility to loop in/loop out to parallel sensors or multiple fittings

- Adjustable passive photocell; inhibits switching where natural light is sufficient
- Passive infra-red; ensures light is switched on when sensor detects movement of heat, therefore lighting is switched off when the area is vacated and minimize false/unwanted triggering
- High load contact rating; allows numerous fittings to be switched
- 3 wire- multiple sensors can be wired in parallel
- No minimum load requirements

White	R360N-01
Detection Area:	360º
Motion Detection Range:	9m diameter at 2.8m
Loading:	Max 300W fluorescent
	Max 150W LED
	Max 1,000W incandescent
Time Settings:	5 seconds to 15 minutes adjustable
Lux Settings:	2-2000lx
IP:	20
Diameter (mm):	110
Depth (mm):	40
Projection (mm):	45
Box Qty:	10
Weight (kg):	0.2
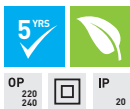
ECA Eligible
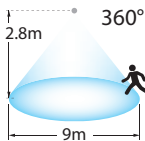
EXTERNAL PIRS

MOTION DETECTOR 180°

- Suitable for surface indoor and outdoor sheltered applications
- Weatherproof housing
- Injection moulded ABS body providing high impact resistance
- Manual override facility with automatic reset after 8hrs

- High load contact rating allows numerous fittings to be switched
- Suitable for loop-in/loop-out to parallel sensor or multiple fittings
- No minimum load requirements
- 3 wire- multiple sensors can be wired in parallel

White	**R180-01**
Black	**R180-04**
Detection Area:	180°
Motion Detection Range:	12m diameter at 2.5m
Loading:	Max 300W fluorescent
	Max 150W LED
	Max 1,000W incandescent
Time Settings:	10 seconds to 15 minutes adjustable
Lux Settings:	2-2000lx
IP:	44
Depth (mm):	130
Width (mm):	75
Height (mm):	85
Box Qty:	30
Weight (kg):	0.4

ECA Eligible

NEW!

PROTON multi-directional 180° PIR, IP65

- Suitable for outdoor applications
- Manual over ride with automatic reset after 8 hours
- Passive infra red ensures light is switched on when sensor detects movement of heat, switched off when area is vacated. Minimises false / unwanted triggering
- Large terminals accept 2 x 1.5mm² conductors in each terminal. Facility for loop in loop out
- Earth terminal included

- 3 wire - multiple sensors can be wired in parallel
- High load contact rating, allows numerous fittings to be switched
- No minimum load requirements
- Complete with accessory shield to reduce detection angle
- Corner mounting bracket available as accessory - code: RPRBRK-01

White	**RPR180PIR-01**
Black	**RPR180PIR-04**
Detection Area:	180º
Motion Detection Range:	12m diameter at 2.5m
Loading:	Max 300W fluorescent
	Max 300W LED
	Max 1,200W incandescent
Time Settings:	10 seconds to 15 minutes adjustable
Lux Settings:	3-2000lx
IP:	65
Depth (mm):	118
Width (mm):	80
Height (mm):	51
Box Qty:	1
Weight (kg):	0.16
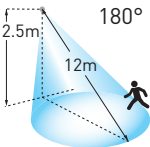
Accessories:

RPRBRK-01   Corner mount accessory, white
RPRBRK-04   Corner mount accessory, black

PROTON 180° PIR

LIGHTING CONTROLS
EXTERNAL PIRS

NEW!

PROTON 180º PIR, IP44, wall mounted

- Suitable for outdoor sheltered applications
- Manual over ride with automatic reset after 8 hours
- Passive infra red ensures light is switched on when sensor detects movement of heat, switched off when area is vacated. Minimises false / unwanted triggering
- Large terminals accept 2 x 1.5mm² conductors in each terminal. Facility for loop in loop out

- Earth terminal included
- 3 wire - multiple sensors can be wired in parallel
- High load contact rating, allows numerous fittings to be switched
- No minimum load requirements
- Corner mounting bracket available as accessory - code: RPRBRKW-01

	RPR180PIRW-01
Detection Area:	180º
Motion Detection Range:	12m diameter at 2.5m
Loading:	Max 300W fluorescent
	Max 300W LED
	Max 1,200W incandescent
Time Settings:	10 seconds to 15 minutes adjustable
Lux Settings:	3-2000lx
IP:	44
Depth (mm):	28
Width (mm):	78
Height (mm):	120
Box Qty:	1
Weight (kg):	0.13
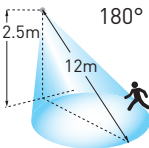
5 YRS

OP 220 240   IP 44

2.5m   180º   12m

Accessory:
RPBRKW-01   Corner mount accessory, white

NEW!

RADAR 360° MW Sensor, with 3 step dimming, IP65, White

- Can be used on high ceilings, with a maximum mounting height of 15m. Suitable for use in warehouses, indoor and outdoor applications
- Weatherproof IP65 polycarbonate housing with nickel plated stainless steel mount
- High impact rating of IK10
- Surface mounted
- Power consumption of <0.7W
- Wide operating ambient temperature range of -20°C to +40°C

This sensor's primary function is to save energy when the detection area is not occupied. It requires the fitting to have a 1-10VDC dimmable driver and can control up to 800W of LED load. Parameters are selected via dip-switches on the sensor.

These sensors provide a 3-step control function where:

I. Detection triggers light output to 100%

(May be inhibited by lux setting)

II. After time-out it reduces light output to a selectable standby level for a standby time (this may be indefinite) before:

III. Turning the output to the driver off

90mm

71.5mm

97mm

61mm
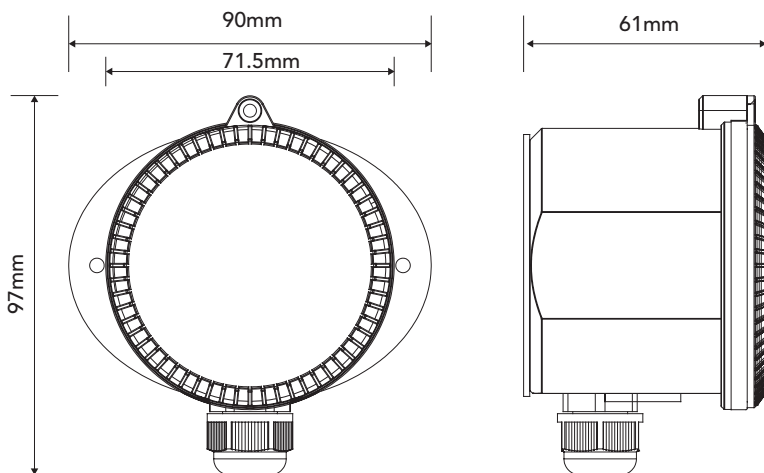
	RRD360MW-01
Detection Area:	360°
Min/Max mounting height (m):	4m to 15m
Detection zone diameter at Min/Max mounting height (m):	8m to 20m
Detection Angle (deg):	360
Sensitivity (%):	50/100
Loading:	Max 800W fluorescent Max 800W LED Max 1,200W incandescent
Hold Times:	5s/30s/90s/3min/5min/10min/20min/30min
Lux Switching Levels (lx):	2/10/50/Full Daylight
Default Standby Level Before Off (%):	10/20/30/50
Standby Times Before Off (min):	0s/10s/60s/5min/10min/30min/60min/∞
IP:	65
Impact Rating (IK):	10
Length (mm):	97
Width (mm):	90
Depth (mm):	61
Box Qty:	1
Weight (kg):	0.3

5 YRS

OP 220 240   IP 65

DAYLIGHT HARVEST SENSOR

NEW!
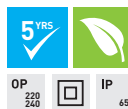
Daylight Harvest Sensor, 1-10V Dimming, IP65, Surface Mount

- Suitable for indoor and outdoor applications
- Weatherproof IP65 housing
- Surface mounted
- Maximum mounting height of 15m
- Power consumption of <0.5W

This sensors primary function is to save energy by taking natural light into account and only adding as much additive light as required to attain a set point lux level.

It requires the fitting to have a 1-10VDC dimmable driver and can control up to 800W of LED load. Parameters are selected via a 16-position rotating function wheel on the sensor or using the optional remote control (HRC-11) which provides single button programming.

This sensor provides a range of dimming functionality for:

I.   Detection sensitivity
II. Daylight threshold (set point)
III. Hold time
IV. Standby time and light level
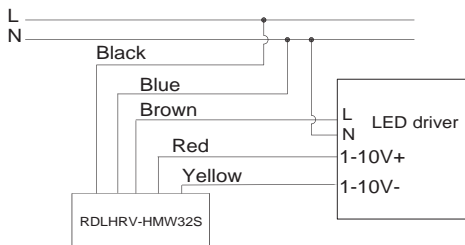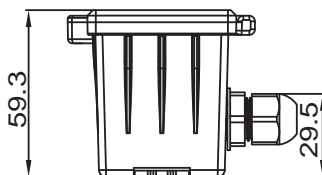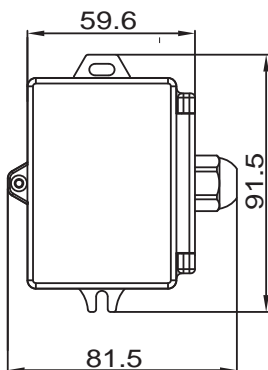
	RDLHRV-HMW32S
Detection Area:	360º
Mounting Height:	4m to 15m
Detection Range:	4m to 15m
Loading:	Max 800W fluorescent
	Max 800W LED
	Max 1,600W incandescent
Time Settings:	10 seconds to 15 minutes adjustable
Lux Settings:	3-2,000lx
Stand-by level:	10% - 50%
IP:	65
Impact Rating (IK):	10
Length (mm):	91.5
Diameter (mm):	N/A
Depth (mm):	61
Width (mm):	81.5
Height (mm):	59.3
Box Qty:	1
Weight (kg):	0.2

LED GRID DIMMER

LOADPRO 200W LED grid dimmer

- Suitable for use with MK (logic and grid plus), MEM, Wandsworth or Crabtree grid systems
- Trailing edge electronic dimmer optimised for LED loads
- Suitable for 2-way switching with standard switch
- Min LED load of 3W

- Max LED load of 133W
- Max resistive load of 200W
- Soft start
- Push on/off operation
- Overload protection
- Fits standard 41mm depth box

	RLA200DTG-01	
Height (mm):		62
Width (mm):		24
Depth (mm):		46
Box Qty:		1
Load Ratings	**Min**	**Max**
LED:	3W	133W
CFL:	20W	150W
Resistive Halogen / GLS:	20W	200W

LIGHTING CONTROLS
UNI-GRID DIMMER

UNI GRID DIMMER 500W

- Suitable for use with MK (logic and grid plus), MEM, Wandsworth or Crabtree grid systems
- Leading edge
- Push on/off operation
- Fits standard 41mm depth box
- Min LED load 11W
  Max LED load 50W
- Min LV Halogen 40W
  Max LV Halogen 400W
- Min CFL load 11W
  Max CFL load 66W

	RUNI500
Total Power (W):	500
Loading:	Max. 50W LED
	Max. 66W Fluorescent
	Max. 400W Incandescent
IP:	20
Length (mm):	60
Width (mm):	26
Depth (mm):	46.6
Box Qty:	1
Weight (kg):	0.1

DIMMER SWITCHES

1 Gang 2 Way
2 Gang 2 Way
3 Gang 2 Way

- Push on/off operation
- Bakelite resin front plates in white RAL9010 finish
- Leading edge dimmer
- Min Load 40W
- Max Load 250W
- De-rating for LED 50%, CFL 50%, LV Halogen 25% and Mains Halogen 50%

1 gang 2 way	L2501G2W	250W
	L4001G2W	400W
	L10001G2W	1,000W
2 gang 2 way	L2502G2W	250W
	L4002G2W	400W
3 gang 2 way	L2503G2W	3x250W
Box Qty:		6

DIMMABLE ELECTRONIC TRANSFORMERS
FOR 12V DOWNLIGHTS

ELECTRONIC TRANSFORMER
20-60W, 12V

- C/w 250mm flying leads
- Dimmable with standard dimmers
- Integral thermal fuse enhancing safety of the transformer

	LEB60D
Total Power (W):	60
IP:	20
Length (mm):	98
Width (mm):	38
Height (mm):	32
Box Qty:	10
Weight (kg):	0.1

ELECTRONIC TRANSFORMER 35–150W,
12V, IP20, 172mm, dimmable

- Flat profile, suitable for furniture
- Dimmable with standard dimmers
- Large mains terminal for loop in & loop out – no need for junction box
- Integral thermal fuse enhancing safety of the transformer

	LDT150N
Total Power (W):	150
IP:	20
Length (mm):	172
Width (mm):	55
Height (mm):	33
Box Qty:	10
Weight (kg):	0.2

LIGHTING CONTROLS
DIMMABLE ELECTRONIC TRANSFORMERS FOR 12V DOWNLIGHTS

ELECTRONIC TRANSFORMER 105W, 12V

- 12V power supply for MR16 lamps
- Pre-heat soft-start function for input voltage surge protection. Suitable for 2-way switching with standard switch
- Integral in-line fuse to ensure complete safety at end of life

- Thermal fuse – ensures safe failure if in excess of ambient temperature
- Large mains terminals for loop in/ loop out, suitable for up to two 1.5mm^2 T&E cables

	RM105DN
Total Power (W):	70/105
IP:	20
Diameter (mm):	45
Length (mm):	120
Box Qty:	30
Weight (kg):	0.1
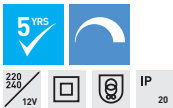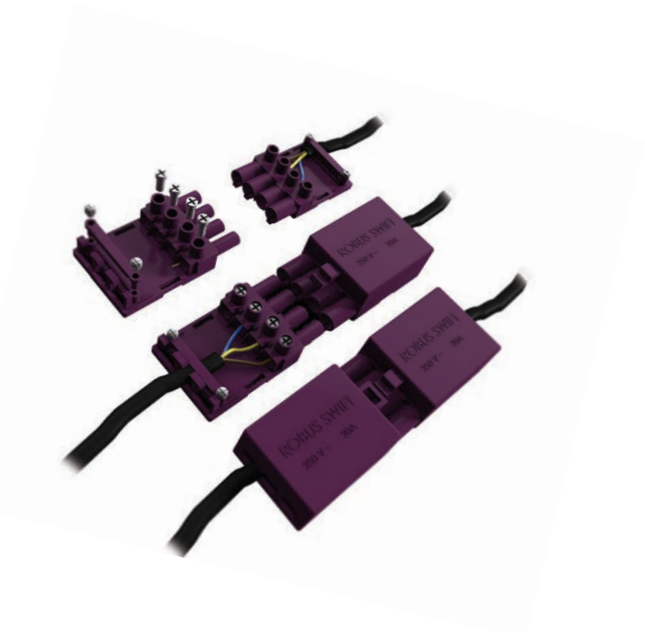
SWIFT CONNECTOR

SWIFT 4-pin pluggable connector

The Swift connector system saves time and money by providing a fast and simple method of connecting an infinite number of standard and emergency fittings to the wiring infrastructure

It utilises 4 poles, each of which is able to accept 3 x 1.5mm² or 2 x 2.5mm² conductors on the supply (female side) and has cable restraint for 3 x 4 core cables. These would typically consist of:

Cable 1: Permanent live, earth & neutral

Cable 2: Earth, live & switched live to/from switch

Cable 3: Loop out permanent live, neutral, earth and switched live to additional fittings

• 4-pole connector with spare live - eliminates junction box in wiring light fittings with a switched live
• 4-pole male connector allows in line emergency power supplies to be connected to DOB LED downlights

• Large terminals accept 3 x 1.5mm² multi-strand or solid conductors

	RSW44-P
Width (mm):	43
Height (mm):	22.5
Length (mm):	122
Box Qty:	54
Weight (kg):	0.1

ACCESSORIES

SCGZ1050 / RBRGZ10 / RBRGZ10SC

GZ1050 lamp holder c/w 250mm leads

- Lamp holder for GU10 lamps
- Ceramic with silicon insulated wire

	SCGZ1050
Box Qty:	10
Weight (kg):	0.03

Bracket & lamp holder c/w terminal block housing for GU/GZ10 fittings

- Lamp holder for GU10 lamps
- C/w terminal block & support

	RBRGZ10
Total Power (W):	50
Cap Type:	GU10
Box Qty:	10
Weight (kg):	0.06

Lamp retention spring clip

• Spare retention clip for R101/R108 downlight

	TLSC
Box Qty:	100

Lamp retention circular clip

• Spare circular retention clip for RS201E/RS208E

TLSCRS20XE	
Box Qty:	100
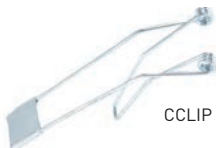
CCLIP

Spare ceiling clips for recessed fitting

• Spare retention clip for R101/R108 downlight

Clip	**CCLIP**
Box Qty:	100
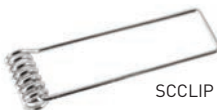
SCCLIP

Single Clip	**SCCLIP**
Box Qty:	100

Metric cable glands, IP68

• Water-proof cable glands, can also be used as cable clamps
• C/w lock nut
• Constructed from flame retardant UL94V-2 plastic moulding
• IP68 liquid tight seal
• Rubber seal with integral ridges to grip cable securely
• Easy and safe installation
• Protects cables both indoors and outdoors

	RAG20	**RAG25**
Knock out hole diameter (mm):	20	25
Cable diameter range (mm):	7-14	10-18
IP:	68	68
Box Qty:	36	20

IP 68

IP68 Connector

• IP68 connector for outdoor applications
• Suitable to use for mains and low voltage circuits
• Max. conductor size of 2.5mm^2

Black	**RCONIP68-04**
Length (mm):	78
Width (mm):	26
Height (mm):	26
Box Qty:	20
Weight (kg):	0.31
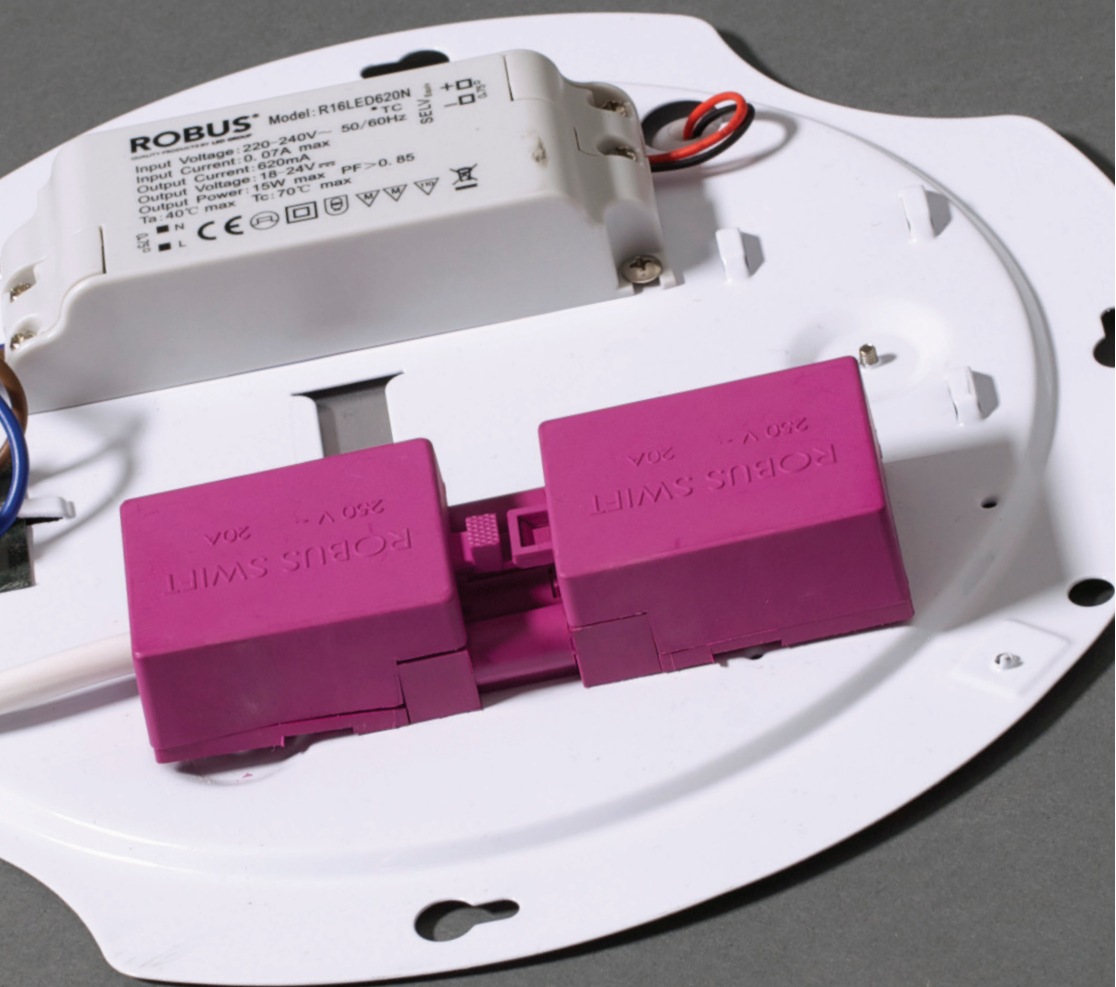
3 YRS

OP 220 240   IP 68

CUSTOMISED CONVERSIONS
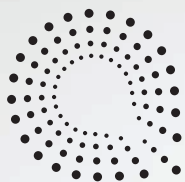
CUSTOMISED CONVERSIONS

CUSTOMISED CONVERSIONS provide bespoke product solutions – converting light fittings to suit individual project requirements. This enables ROBUS customers to reduce lead times and offer alternative product solutions.

We have been carrying out this service for 15 years for electrical wholesalers. Our highly experienced team are based in Dublin, and site visits are available by appointment.

We invest in stock holding of conversion equipment components to ensure we provide a fast and efficient turnaround. We can convert any light fitting, regardless of light source. All converted products are supplied with CE classification in accordance with EN50598-2-22. We also commission sites and provide certificates of compliance of emergency lighting.

THE MOST REQUESTED CONVERSIONS ARE EMERGENCY WITH OPTIONS AROUND:

- Self Test
- 3 Step Dimming
- Analogue Dimming
- Dual Power
- Sensor
- DALI Dimming
- Switch Dimming
- Photocell

We can also adapt or modify fittings; add an extra cable; add male, female connectors; add swift connectors to reduce labour time on sites and/or provide a pre-wiring service.

We also convert older fitting technologies to existing emergency standards e.g. with battery, module or ballast conversion.

BEFORE

AFTER

We can ship direct to the end user if required. They receive a delivery note and we can track these details as proof of delivery.

We also hold stock for draw down; this is a great service for a wholesaler who requires "customised conversions" for project fittings.

QUALITY	SERVICE
CE classification issued	Established since 2002
LIA certified	Expert technical advice
EN60598-2-22 compliance	Speedy quotation
ISO 9001 certified	Colour coded wiring
	72 hour turnaround
	Direct delivery
	After sales service

CONTACT US TODAY ON +353 1 709 9000 - ASKING FOR CUSTOMISED CONVERSIONS

OUR GUARANTEE

All converted luminaires are subject to rigorous test procedures and guaranteed for 12 months. All conversions meet the relevant requirements of:

BS EN 60598-1
(Luminaires Part 1: General requirements and tests) and BS EN 60598.2.22 (Luminaires for emergency lighting).

CONVERSIONS:
A STEP BY STEP GUIDE

Conversion is the process of taking a standard light fitting and adding a modification to enhance it's functionality. Whether it is adding a battery pack to allow a fitting become an emergency fitting or, adding sensors to a fitting to enhance the energy savings a fitting can deliver, we provide a superior conversion.

All **CUSTOMISED CONVERSIONS** modifications use top of the range components from industry leaders such as HYTRONIK, LITEPLAN & ONELUX. This offers peace of mind to our customers and industry leading warranties on our modifications.

We adapt and modify fittings, for example:

- Add extra cable
- Add ROBUS SWIFT Connectors
- Add male/female connectors
- We can also provide a pre-wiring service

On the next page, we will show you step-by-step how we would convert a 15W ROBUS GOLF LED fitting into an easier and faster to install fitting by adding a SWIFT connector.

CASE STUDY: CREATE A MODIFIED PRODUCT TO REDUCE LABOUR & INSTALLATION TIME

Frequently, when a project has hundreds of fittings to be installed and the contractor would like to bring down the installation time of the fitting to allow them to complete the project in a shorter time frame, we are asked to perform the following conversion.

The example below is a step by step guide converting a 15W ROBUS GOLF LED (R150LED-01) into a 15W ROBUS GOLF LED with SWIFT CONNECTOR (R150LED-01WC).

STEP 1

We take a standard 15W GOLF LED

STEP 2

We add flex to the terminal block

STEP 3

We strip the flex to desired length of cable

STEP 4

We add a SWIFT Connector to cable

STEP 5

We mount the SWIFT connector to gear tray ensuring we do not damage any other components on the fitting

STEP 6

The modified 15W GOLF plate is ready to go back in the base. Ready for installation.

The benefits of a conversion like this are:

- **Cost Saving**
- **Ease of replacing lamp**

- **Time/Labour cost reduction**
- **No need to turn off the power which means a day to day operation can still run smoothly**

CUSTOMISED CONVERSIONS
INTRODUCING OUR TEAM

CONVERSIONS TEAM
The CUSTOMISED CONVERSIONS team has over 50 years of combined experience in the conversions industry, with most members working here for over 10 years.

Members include:
Left to Right: Robbie O'Neill, Patrick Dunne, John Lynch, Anthony Nolan, Jason Kennedy, Denislav Martinov, Michael Buggy, Joe Wall and Brian Stewart

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CUSTOMISED CONVERSIONS
HOW TO ORDER YOUR PRODUCT?

Category
e.g. Downlights

Product Family
e.g. Eternity LED

Product Description
e.g. Eternity LED downlight

Product Codes
Grouped together by the types of conversion available

Conversions Available
Selection of conversions options available for these product codes. These abbreviated codes get added to the end of a product code when ordering.
e.g. **R18230DL-013SD** is the conversion code should you wish to order the Eternity LED Downlight with Three Step Dimming.

Emergency Spacing Table
provide maximum distances between luminaires
in order to provide Escape Route (1 lux) or Open Area (0.5 lux) emergency lighting at various mounting heights.

CUSTOMISED CONVERSIONS
DOWNLIGHTS

ETERNITY LED
ETERNITY LED downlight

| R18230DL-01 | 18W 4000K |
| R25230DL-01 | 25W 4000K |

Conversions Available:

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
R18230DL-01	4	17.5	17.5	15	15
R25230DL-01	4	18	18	16	16

The Island House Restaurant, Wolverhampton, United Kingdom

ORDERING MADE EASY

R18230DL-01 + **3SD** = **R18230DL-013SD**

It is really simple to order from CUSTOMISED CONVERSIONS, simply use the Product Code you require converted, select one of the abbreviated Customised Conversion Codes (detailed explanation of CC codes are on the page overleaf) to create your order code.

Add this code to your ROBUS order to set the wheels in motion!

3SD — 3 Step Dimming

Similar to the Microwave Sensor, the 3SD Driver + Sensor also detects motion. The advantage of the 3SD is that the unit in question will Dim to a select-ed output (example 10%) for a selected time before switching totally off.

AD — Analogue Dimming

Analogue dimming is usually referred to as 1 - 10v dimming. In this case, a dc voltage is sent to the driver, which dims the LEDs in response to the voltage.

CC — Customised Conversion

This is a specific request from a customer: example, pre-wiring a product and adding a swift connector to save on installation time. Each CC request will need to be provided with clear instructions of what is required from the customer before commencing the project.

DAE — DALI Addressable Emergency

Converted units connected to a DALI bus are immediately visible to your DALI command centre. Unless programmed by the DALI controller, the fitting will enter a self-commissioning phase. Once a DALI command is received the fitting enters DALI mode and will perform functional and duration tests according to chosen DALI settings.

DD — DALI Dimming

Digital Addressable Lighting Interface (DALI) is a trademark for network-based systems that control lighting in building automation that can be controlled from one central point.

DLS — Day Light Sensor

The DLS can be connected to a 1-10v Dimming Driver, when natural light enters the DLS, a signal is sent to the dimming driver allowing the light source to decrease when there is natural light present and increase when natural light decreases. e.g. available in Disk High Bays

DP — Dual Power

The Dual Power Driver can operate a unit at a reduced light output (example 10%) and can be controlled by either Microwave Sensor or manual switches.

E — Emergency

An emergency converted product operates in Emergency Mode when the Mains Power fails for a minimum of 3hr duration; this is to allow adequate safe escape lighting within an area.

MD

Mains Dimming

Mains dimming is a simple way of dimming an LED product that can be controlled by a normal 240V dimmer. No additional control cables are required. This can help in areas that cannot be re-wired with additional cables.

PC

Photocell

Photocells are basically sensors that are controlled by natural light. During the day, the light source will be **OFF**, at dusk, the light source switches **ON**. At dawn, the light source switches **OFF** again.

RCD

Remote Controlled Dimming

In conjunction with the HRC-05 Handset, we can supply a range of Remote Dimming Options. These include Manual, Preset, Motion Detection and Auto Dimming.

SEN

Sensor (Microwave)

A Microwave Sensor detects motion in an area and allows the product to switch on to illuminate the area for a desired time. The maximum mounting height for Sensor products is 6M.

STE

Self Test Emergency

Self-Test fittings perform a self-commissioning test at first power on. After charging for 24 hours a full duration test (3 hours) is performed. Initial function and duration tests are randomly generated reducing the costs of manual testing.

SWD

Switch Dimming

With Switch Dim it is possible to create lighting systems that can be easily switched and dimmed at low cost.

COMBINED CODES

3SDE	3 step Dimming & Emergency
3SDSTE	3 step Dimming & Self Test Emergency
ADE	Analogue Dimming & Emergency
ADSTE	Analogue Dimming & Self Test Emergency
DDDAE	DALI Dimmable & DALI Addressable
DDE	DALI Dimmable & Emergency
DDSTE	DALI Dimmable & Self Test Emergency
DPE	Dual Power & Emergency
DPSENSTE	Dual Power & Sensor & Self Test Emergency
DPSTE	Dual Power & Self Test Emergency
PCE	Photocell & Emergency
PCSTE	Photocell & Self Test Emergency
RCDE	RC Dimming & Emergency
RCDSTE	RC Dimming & Self Test Emergency
SENE	Sensor & Emergency
SENSTE	Sensor & Self Test Emergency
SWDE	Switch Dimming & Emergency
SWDSTE	Switch Dimming & Self Test Emergency

INSPIRE
ACTIVATE™
Downlights

EXIT Box
Emergency

SPACE LED Panel Light
Commercial

TRIUMPH **AC**TIVATE™
Downlights

EAGLE LED
Surface Fittings

UNIVERSAL
EMERGENCY
Emergency

BLADE LED
Emergency

DOCK HIGH-BAY
Surface Fittings

GOLF LED
Surface Fittings
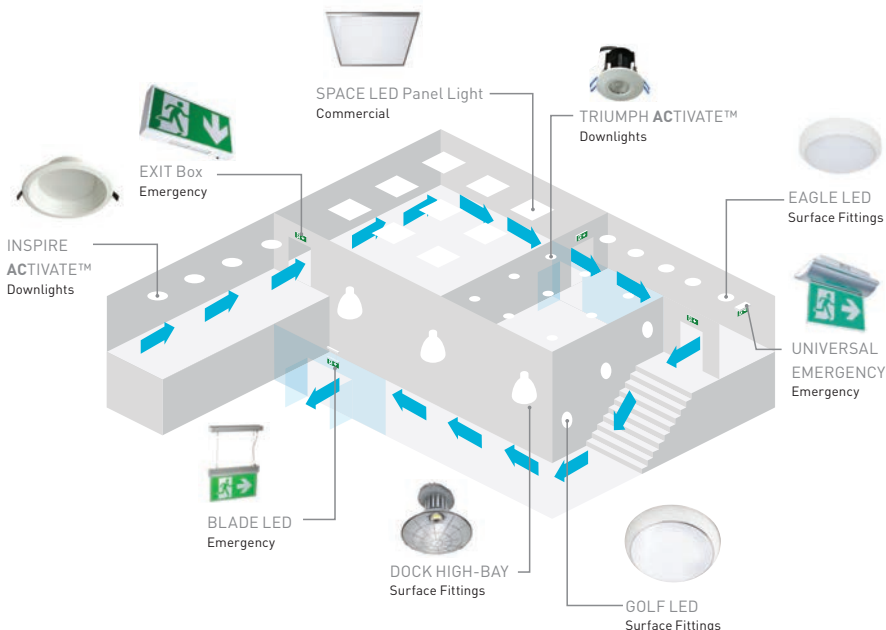
An emergency light is a lighting device with a battery pack that switches on automatically when a building suffers a power cut.

An emergency fitting's battery pack is required to power the light fitting for a minimum of 3 hours. To maintain power, the light output from the emergency light fitting is reduced usually to 10% of the regular light output.

Maintained fittings operate and are controlled as normal light fittings with all the other light fittings in the area. When power fails however, the maintained emergency light fitting continues to operate at a reduced light output.

Non-maintained fittings are usually switched off, with their batteries being continuously charged and a green LED showing fully charged. When power fails, non-maintained fittings switch on using the battery power supply. Non-maintained emergency fittings are not part of the general lighting but are more specific functional lighting such as emergency exit signs.

LIGHT LEVELS DURING AN EMERGENCY:

OPEN AREAS
The safest, quickest escape route without obstruction should be lit to a minimum of 1 lux during an emergency. Should the open area be less than 60m2 and is not part of an escape route then emergency lighting is not required. However, the exit doors for the emergency escape route must have signs or an emergency bulkhead.

DESIGNATED CORRIDORS
An escape route should not be obstructed and lit to a minimum of 1 lux during an emergency.

STAIRWELLS
Stairwells have increased hazards, therefore these areas should be lit to a minimum of 2 lux during an emergency.

CUSTOMISED CONVERSIONS
SPACING TABLES EXPLAINED

ROBUS emergency spacing tables provide the installer with the information to decide the number of luminaires required for the emergency lighting scheme.

The tables provide maximum distances between luminaires in order to provide Escape Route (1 lux) or Open Area (0.5 lux) emergency lighting at various mounting heights.

Escape Route / Corridor
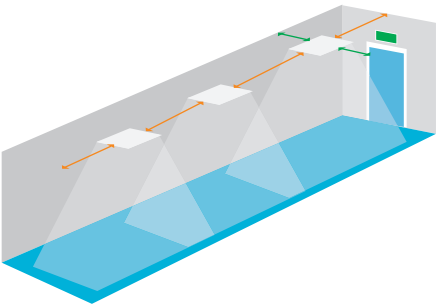
Open Area
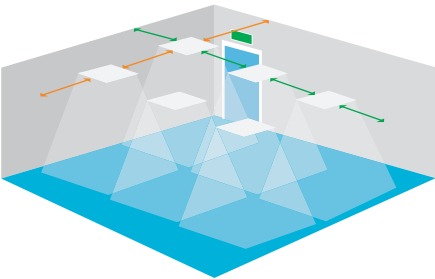
TRANSVERSE is the spacing measurements for between the walls and emergency light fittings at right angles to the escape route.

AXIAL refers to the spacing measurement between the walls and emergency light fittings that run parallel to the escape route.

Code	Mounting Height (M)	Escape Route		Open Area	
		Transverse	Axial	Transverse	Axial
RSP32406060G-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
RSP32506060G-01	2.4	14.5	14.5	16.5	16.5
	4	18	18	20	20

TYPES OF DIMMING CONTROL PROTOCOLS

Selecting the proper dimmer was once a simple task with a few choices for your home or business lighting systems. With all the changes over recent years, selecting the proper dimmer now has many new considerations such as type of lighting, wattage load, single/multi-location and style. Dimmer Control Protocols are the method of transmitting information to the light fittings.

Switch Dimming

Standard Retractable Switch

240 AC
240V Input
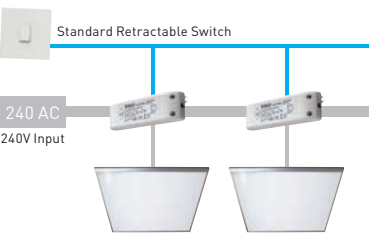
With Switch Dimming it is possible to create lighting systems that can be easily switched and dimmed at low cost. It involves using standard mains retractable switch for lighting controls.

The different switching and dimming functions are performed depending on the operating status at the time and how long the switch is pressed.

A **short press** on the switch, switches the connected driver to turn the fitting on or off.

A **long press** on the switch will dim the connected driver up or down depending on its current operating status.

1-10V analogue

1 -10V Dimmer

1 -10V Input   1 -10V Input

240 AC
240V Input
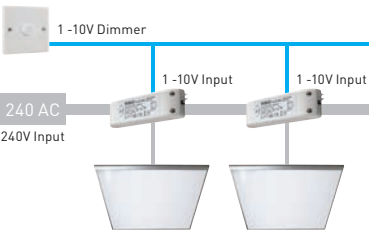
Analogue dimming uses a separate control wire to notify the driver that the power of the LEDs should be changed . The separated control signal is a DC (direct current) and can be adjusted from 1 up to 10 volts, the voltage level is interpreted by the driver to set the LED power.

The 1-10V method of control is a low current system (typically 1mA) meaning it can be run along relatively thin cables with little voltage drop and depending on dimmer manufacturer recommendations. This allows for up to 50 LED dimmable drivers on one wall mounted dimmer.

100%

50%

0%

0V   5V   10V

DALI Dimmable
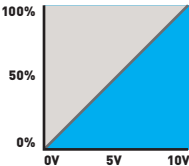
What is DALI?

Digital Addressable Lighting Interface

It is a testing and control system, programmed by the DALI controller/system. The fitting will enter a self-commissioning phase; DALI Units also offer status feedback reports to the system. Once the module has received a valid DALI command, the module enters DALI mode and adopts default settings for test pre-programmed.
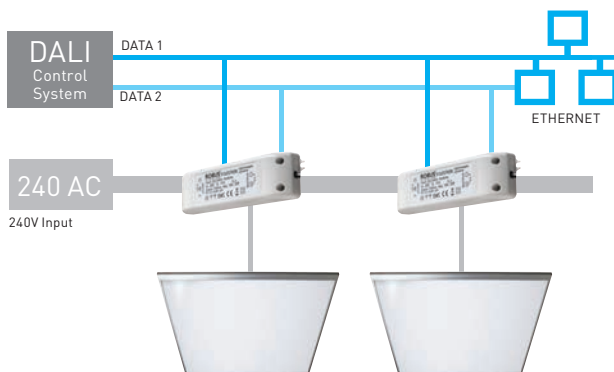
DALI is a digital communications protocol that was developed for the lighting industry. A separate control wire of BUS is used to send digital information to light fittings and allows the individual light fittings and sensors to communicate with an advanced lighting control system. Although DALI is a standard protocol beware of mixing components between manufacturers with our testing first. Along with the correct LED Driver the DALI system requires additional control equipment including DALI BUS controllers, power supplies, sensors and user interfaces.

SPACE UGR<19 LED panel, 600x600mm, White

RSP32406060G-01	32W Neutral White 4000K
RSP32506060G-01	32W Cool White 5000K

Conversions Available:

AD · ADE · ADSTE · DAE · DD · DDDAE · DDE · DDSTE · E · SEN · SENE · SENSTE · STE · SWD · SWDE · SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
RSP32406060G-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
RSP32506060G-01	2.4	14.5	14.5	16.5	16.5
	4	18	18	20	20

ATMOS LED panel, 600x600mm, White

RAM40306060-01	40W Warm White 3000K
RAM40406060-01	40W Neutral White 4000K
RAM40506060-01	40W Cool White 5000K

Conversions Available:

AD · ADE · ADSTE · DAE · DD · DDDAE · DDE · DDSTE · E · SEN · SENE · SENSTE · SWD · SWDE · SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
RAM40306060-01	2.4	13	13	15	15
	4	16	16	18	18
RAM40406060-01	2.4	13	13	15	15
	4	16	16	18	18
RAM40506060-01	2.4	13.5	13.5	15.5	15.5
	4	16.5	16.5	18.5	18.5

ATMOS LED panel, 300x1200mm and 600x1200mm, White

RAM40403012-01	40W 300x1200mm Neutral White 4000K
RAM60406012-01	60W 600x1200mm Neutral White 4000K

Conversions Available:

AD · ADE · ADSTE · DAE · DD · DDDAE · DDE · DDSTE · E · SEN · SENE · SENSTE · STE · SWD · SWDE · SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
RAM40403012-01	2.4	13	12	15	14
	4	15	14	18	17
RAM60406012-01	2.4	15	14.5	16	15.5
	4	18	17.5	21	20

Ammeon, Dublin, Ireland
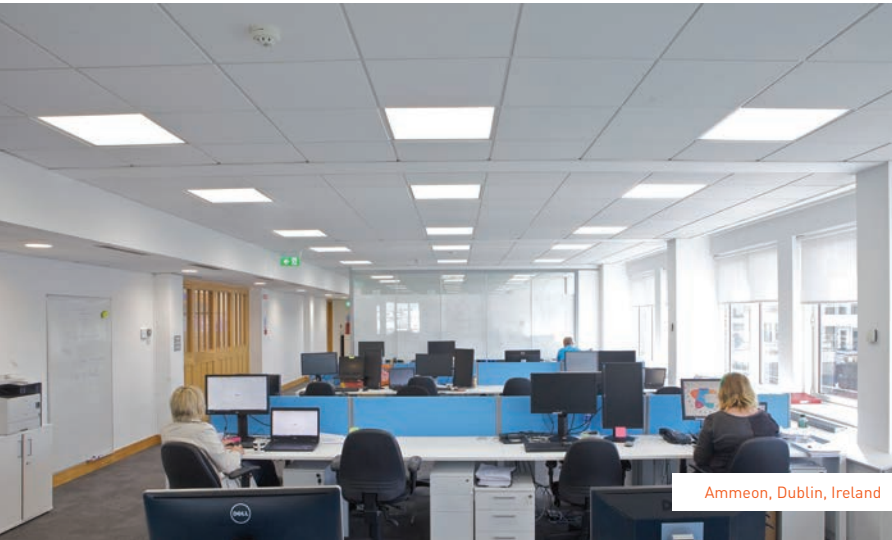
SUN LED circular panels, White

R120LEDC30-01	6W 3000K
R120LEDC40-01	6W 4000K
R150LEDC30-01	9W 3000K
R150LEDC40-01	9W 4000K
R170LEDC30-01	12W 3000K
R170LEDC40-01	12W 4000K
R225LEDC30-01	18W 3000K
R225LEDC40-01	18W 4000K
R300LEDC40-01	25W 4000K

Conversions Available:

AD ADE ADSTE DD DDDAE DDE DDSTE E STE SWD SWDE SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
R120LEDC30-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
R120LEDC40-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
R150LEDC30-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
R150LEDC40-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
R170LEDC30-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
R170LEDC40-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
R225LEDC30-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
R225LEDC40-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
R330LEDC40-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5

VULCAN LED corrosion proof, White

RVUF486FT-01*	1.8M 1 x 48W standard
RVUF966FT-01*	1.8M 2 x 48W standard
RVUF405FT-01*	1.5M 1 x 40W standard
RVUF805FT-01*	1.5M 2 x 40W standard
RVUF244FT-01	1.2M 1 x 24W standard
RVUF484FT-01*	1.2M 2 x 24W standard
RVUF242FT-01	0.6M 2 x 12W standard

Conversions Available:

3SD 3SDE AD ADE ADSTE DD DDE DDSTE DP DPE DPSENSTE DPSTE E

PC PCE PCSTE RCD RCDE RCDSTE SEN SENE SENSTE STE SWD SWDE SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
RVUF486FT-01	2.4	14	14	16	16
	4	17.5	17.5	19.5	19.5
	6	17.5	17.5	19.5	19.5
RVUF966FT-01	2.4	14	12.5	14.5	12.5
	4	18.5	15.5	16.5	14.5
	6	19.5	18	18	16
RVUF405FT-01	2.4	18	14.5	17	14
	4	21.5	18	19	17
	6	24	21	21	19
RVUF805FT-01	2.4	18	15	17	14.5
	4	21	18	19.5	17
	6	23.5	21	21	19.5
RVUF244FT-01	2.4	18	14.5	18	13.5
	4	21	18	20	17
	6	24.5	21.5	21.5	18
RVUF484FT-01	2.4	18	14.5	17	14
	4	21.5	17.5	19	16.5
	6	24.5	20	20.5	18.5
RVUF242FT-01	2.4	15	12	17	14
	4	18.5	15	20	17
	6	21	18	22.5	20

* 3DS & 3DSE Not available

VULCAN LED corrosion proof 2ft, Grey

RVUF122FT-24   0.6M 1 x 12W standard

Conversions Available:

(3SD) (E) (PC) (SEN)

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
RVUF122FT-01	2.4	15	13	15	12
	4	18	15.5	18	15
	6	20	17.5	20	17

Marston's Brewery, Wolverhampton, UK

SULTAN LED corrosion proof, Grey

RSUF244FT-24	1.2M 1 x 24W standard
RSUF484FT-24*	1.2M 2 x 24W standard
RSUF405FT-24*	1.5M 1 x 40W standard
RSUF805FT-24*	1.5M 1 x 80W standard

Conversions Available:

3SD 3SDE AD ADE ADSTE DD DDE DDSTE DP DPE DPSENSTE DPSTE E
PC PCE PCSTE RCD RCDE RCDSTE SEN SENE SENSTE STE SWD SWDE SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	**Axial**	**Trans-verse**	**Axial**
RSUF244FT-24	2.4	15	13	14	12.5
	4	18	15.5	17	15
	6	20	18	18	16.5
RSUF484FT-24	2.4	15	13	14	12.5
	4	18	15.5	17	15
	6	20	18	18	16.5
RSUF405FT-24	2.4	15	13	14	13
	4	17.5	16	16.5	14.5
	6	20	18.5	17.5	16.5
RSUF805FT-24	2.4	15	13	14	13
	4	17.5	16	16.5	14.5
	6	20	18.5	17.5	16.5

* 3DS & 3DSE Not available

CAESAR LED batten, White

RCA244006-01	0.6M 24W standard

Conversions Available:

E SEN SENE SENSTE STE

RCA484012-01	1.2M 48W standard
RCA484015-01	1.5M 48W standard
RCA804015-01	1.5M 80W standard
RCA604018-01	1.8M 60W standard
RCA964018-01	1.8M 96W standard

Conversions Available:

AD ADE ADSTE DD DDE DDSTE E SEN SENE SENSTE STE SWD
SWDE SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
RCA244006-01	2.4	15	13	14	13
	4	17.5	16	16	15
	6	19.5	18.5	18	17
RCA484012-01	2.4	15	13	14	12.5
	4	18	15.5	17	15
	6	20	18	18	16.5
RCA484015-01	2.4	15	13	14	12.5
	4	18	15.5	17	15
	6	20	18	18	16.5
RCA804015-24	2.4	15	13	14	13
	4	17.5	16	16.5	14.5
	6	20	18.5	17.5	16.5
RCA604018-01	2.4	15	13	14	13
	4	17.5	16	16.5	14.5
	6	20	18.5	17.5	16.5
RCA964018-01	2.4	15	13	14	13
	4	17.5	16	16.5	14.5
	6	20	18.5	17.5	16.5

SCHOLAR LED batten, White

| RSC504012-01 | 2 x 25W standard |
| RSC604015-01 | 2 X 30W standard |

Conversions Available:

AD ADE ADSTE DD DDE DDSTE E SEN SENE SENSTE STE SWD SWDE SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
RSC504012-01	2.4	13	12	13	11.5
	4	15.5	14.5	15	14
RSC604015-01	2.4	13.5	12	13.5	12
	4	16	14.5	15	14

CASEY 120W LED low bay, White

| RCY12055-01 | 120W standard |

Conversions Available:

AD ADSTE DD DDSTE RCD RCDSTE SEN SENSTE SWD SWDSTE

| RCY12055E-01 | 120W emergency |

Conversions Available:

AD DD RCD SEN SWD

DISK LED high bay, Black

| RDS16050DA-04 | 160W |
| RDS20050DA-04 | 200W |

Conversions Available:

DD DDE DDSTE DLS DLSE DLSSTE E SEN SENE SENSTE STE

TRIUMPH ACTIVATE™ LEDCHROIC downlight

RATR6P03038-01	6W 3000K 38° Beam Angle
RATR6P04038-01	6W 4000K 38° Beam Angle
RATR8P03038-01	8W 3000K 38° Beam Angle
RATR8P04038-01	8W 4000K 38° Beam Angle
RATR113060-01	11W 3000K 60° Beam Angle
RATR114060-01	11W 4000K 60° Beam Angle

Conversions Available:

E

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
RATR6P03038-01 /	2.4	8.5	8.5	8	8
RATR6P04038-01	4	10	10	9.5	9.5
RATR6P03038-01 - 60° /	2.4	9	9	8.5	8.5
RATR6P04038-01 - 60°	4	10.5	10.5	10	10
RATR6P03038-01 /	2.4	6.5	6.5	6	6
RATR6P04038-01	4	8.5	8.5	8	8
RATR6P03038-01 - 60° /	2.4	7.5	7.5	7	7
RATR6P04038-01 - 60°	4	9.5	9.5	9	9
RATR113060-01 - 38° /	2.4	11.5	11.5	11	11
RATR114060-01 - 38°	4	13	13	12.5	12.5
RATR113060-01 /	2.4	9	9	8.5	8.5
RATR114060-01	4	10.5	10.5	10	10

CAVAN 8W COB LED CCT3 selectable

RC8CCT3-01	White
RC8CCT3-13	Brushed Chrome

Conversions Available:

E

ETERNITY LED downlight

R18230DL-01	18W 4000K
R25230DL-01	25W 4000K

Conversions Available:

3SD　3SDE　3SDSTE　AD　ADE　ADSTE　DD　DDE　DDSTE　DP　DPE　DPSTE　E
SEN　SENE　SENSTE　SWD　SWDE　SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
R18230DL-01	4	17.5	17.5	15	15
R25230DL-01	4	18	18	16	16

The Island House Restaurant, Wolverhampton, United Kingdom

EAGLE LED surface fitting

REES7P040-01	7W 4000K
Conversions Available:	

3SD · PC · SEN

REEM01040-01	10W 4000K
REEM01540-01	14W 4000K
REEL02440-01*	24W 4000K
Conversions Available:	

3SD · 3SDSTE · AD · ADSTE · DD · DDSTE · MD · PC · PCSTE · SEN · SENSTE · STE

REES7P040E-01	7W 4000K emergency
Conversions Available:	

3SD

REEM01040E-01	10W 4000K emergency
REEM01540E-01	14W 4000K emergency
REEL02440E-01*	24W 4000K emergency
Conversions Available:	

3SD · AD · DD · MD · PC · SEN · STE · SWD

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
REES7P040-01	2.4	9.5	9.5	9	9
	4	11	11	10.5	10.5
REEM01040-01	2.4	13.5	13.5	13	13
	4	16	16	15.5	15.5
	6	19	19	18.5	18.5
REEM01540-01	2.4	11.5	11.5	11.5	11.5
	4	14	14	13.5	13.5
	6	17	17	16.5	16.5
REEL02440-01	2.4	13.5	13.5	13	13
	4	16	16	15.5	15.5
	6	19	19	18.5	18.5

* Mains Dimming not available

HAWK LED surface fitting

RHKM01040-01	10W 4000K
RHKM01540-01	15W 4000K

Conversions Available:

3SD 3SDSTE AD ADSTE DD DDSTE MD PC PCSTE SEN SENSTE STE SWD SWDSTE

RHKM01040E-01	10W 4000K emergency
RHKM01540E-01	15W 4000K emergency

Conversions Available:

3SD AD DD MD PC SEN STE SWD

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
RHKM01040-01	2.4	13.5	13.5	13	13
	4	16	16	15.5	15.5
	6	19	19	18.5	18.5
RHKM01540-01	2.4	11.5	11.5	11.5	11.5
	4	14	14	13.5	13.5
	6	17	17	16.5	16.5

HAWK vs EAGLE

GOLF LED with Pro-diffuser

R075LED-01	7.5W 4000K
R075LEDE-01	7.5W 4000K emergency

Conversions Available:

3SD PC SEN

R100LED-01	10W 4000K
R100LEDWW-01	10W 3000K
R150LED-01	15W 4000K

Conversions Available:

3SD 3SDSTE AD ADSTE CC DD DDSTE MD PC PCSTE SEN SENSTE STE SWD

R100LEDE-01	10W 4000K emergency
R150LEDE-01	15W 4000K emergency

Conversions Available:

3SD AD DD MD PC SEN SWD

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
R075LED-01	2.4	11	11	11.5	11.5
	4	13	13	13	13
R100LED-01	2.4	11	11	11	11
	4	13	13	13	13
R150LED-01	2.4	11	11	11	11
	4	13	13	13	13

GOLF 10W & 15W SMD LED retrofit tray

R100LEDRET	10W 4000K
R150LEDRET	15W 4000K

Conversions Available:

3SD　3SDSTE　AD　ADSTE　DD　DDSTE　DP　DPSTE　MD　MDSTE　SEN　SENSTE　SWD　SWDSTE

R100LEDRETE	10W 4000K emergency
R150LEDRETE	15W 4000K emergency

Conversions Available:

3SD　AD　DD　DP　MD　SEN　SWD

Code	Mounting Height (M)	Escape Route		Open Area	
		Transverse	Axial	Transverse	Axial
R100LEDRET	2.4	11	11	11	11
	4	13	13	13	13
R150LEDRET	2.4	11	11	11	11
	4	13	13	13	13

COMPACT LED fitting

RC100LEDN-01	10W standard

Conversions Available:

3SD　3SDSTE　AD　ADSTE　DD　DDSTE　DP　DPSTE　MD　MDSTE　PC　PCSTE　SEN　SENSTE　STE　SWD　SWDSTE

RC100LEDNE-01	10W emergency

Conversions Available:

3SD　AD　DD　DP　MD　PC　SEN　SWD

OYSTER LED fitting

R18WLED40EU-01   18W 4000K White

Conversions Available:

3SD E SEN SENE

R24WLED40EU-01   24W 4000K White

Conversions Available:

3SD 3SDSTE AD ADE ADSTE DD DDE DDSTE DP DPE DPSENSTE E SEN
SENE SENSTE SWD SWDE SWDSTE

Code	Mounting Height (M)	Escape Route		Open Area	
		Trans-verse	Axial	Trans-verse	Axial
R18WLED40EU	2.4	9	9	9	9
	4	10	10	9.5	9.5
R24WLED40EU	2.4	13.5	13.5	13	13
	4	15.5	15.5	15	15

Mirage Inks, Frome, United Kingdom

FALCON LED wall light

RFA03555-04	30W 5500K Standard
RFA05055-04	50W 5500K Standard

Conversions Available:

AD · ADE · ADSTE · DD · DDE · DDSTE · E · PC · PCE · PCSTE · SEN · SENE · SENSTE · STE · SWD · SWDE · SWDSTE

RFA03555DH-04	30W 5500K Photocell
RFA05055DH-04	50W 5500K Photocell

Conversions Available:

AD · ADE · ADSTE · DD · DDE · DDSTE · E · STE · SWD · SWDE · SWDSTE

RFA05055DMX-04	30W 5500K Microwave Sensor Back Wire Entry

Conversions Available:

AD · ADE · ADSTE · DD · DDE · DDSTE · E · PC · PCE · PCSTE · SENSTE · STE · SWD · SWDE · SWDSTE

Welsh Air Ambulance. Swansea, Wales

Luminaire Spacing (m) On Emergency Escape Routes									
		Transverse Distance to Wall		Transverse to Transverse		Axial Distance to Wall		Axial to Axial	
Product Code	Mounting Height (m)	0.5 Lux	1.0 Lux	0.5 Lux	1.0 Lux	0.5 Lux	1.0 Lux	0.5 Lux	1.0 Lux
SPACE									
RSP32406060GE-01	2.5	8	6.4	15.5	12.5	8	6.4	15.5	12.5
	3	8.7	6.9	17	13.5	8.7	6.9	17	13.5
	4	9.7	7.7	19	15	9.7	7.7	19	15
ATMOS									
RAM40406060E-01	2.5	7.2	5.6	14	11	7.2	5.6	14	11
	3	7.7	6.1	15	12	7.7	6.1	15	12
	4	8.2	6.6	16	13	8.2	6.6	16	13
RAM40506060E-01	2.5	7.2	5.6	14	11	7.2	5.6	14	11
	3	7.7	6.1	15	12	7.7	6.1	15	12
	4	8.2	6.6	16	13	8.2	6.6	16	13
VULCAN									
RVUF405FTE-24	2.5	7.1	5.6	14	11	7.6	6.1	15	12
	3	7.6	5.8	15	11.5	8.3	6.4	16.5	12.5
	4	8.6	6.1	17	12	9.1	6.6	18	13
RVUF805FTE-24	2.5	7.1	5.6	14	11	7.6	6.1	15	12
	3	7.6	5.8	15	11.5	8.3	6.4	16.5	12.5
	4	8.6	6.1	17	12	9.1	6.6	18	13
SULTAN & SULTAN 110V									
RSUF484FTE-24	2.5	7.7	5.8	15	11.5	8.2	6.4	16	12.5
	3	8.2	6.4	16	12.5	8.7	6.9	17	13.5
	4	8.7	7.2	17	14	9.7	7.6	19	15
RSUF405FTE-24	2.5	7.1	5.6	14	11	7.6	6.1	15	12
	3	7.6	5.8	15	11.5	8.3	6.4	16.5	12.5
	4	8.6	6.1	17	12	9.1	6.6	18	13
RSUF805FTE-24	2.5	7.1	5.6	14	11	7.6	6.1	15	12
	3	7.6	5.8	15	11.5	8.3	6.4	16.5	12.5
	4	8.6	6.1	17	12	9.1	6.6	18	13
RSUF244FTE-24	2.5	7.7	5.8	15	11.5	8.2	6.4	16	12.5
	3	8.2	6.4	16	12.5	8.7	6.9	17	13.5
	4	8.7	7.2	17	14	9.7	7.6	19	15
CAESAR									
RCA484012E-01	2.5	6.7	4.6	13	9	8.2	6.1	16	12
	3	7.2	5.4	14	10.5	8.7	6.6	17	13
	4	7.7	6.1	15	12	9.1	7.2	18	14
RCA484015E-01	2.5	6.7	4.6	13	9	8.2	6.1	16	12
	3	7.2	5.4	14	10.5	8.7	6.6	17	13
	4	7.7	6.1	15	12	9.1	7.2	18	14
RCA804015E-01	2.5	6.7	4.6	13	9	8.2	6.1	16	12
	3	7.2	5.4	14	10.5	8.7	6.6	17	13
	4	7.7	6.1	15	12	9.1	7.2	18	14

Luminaire Spacing (m) In Anti Panic Open Areas (Incl 0.5m Border Area)				
	Transverse Distance to Wall	Transverse to Transverse	Axial Distance to Wall	Axial to Axial
Product Code	0.5 Lux	0.5 Lux	0.5 Lux	0.5 Lux
SPACE				
RSP32406060GE-01	7.6 8.3 9.5	15 16.5 18.5	7.6 8.3 9.5	15 16.5 18.5
ATMOS				
RAM40406060E-01	6.8 7.3 7.5	13.5 14.5 15.5	6.8 7.3 7.5	13.5 14.5 15.5
RAM40506060E-01	6.8 7.3 7.5	13.5 14.5 15.5	6.8 7.3 7.5	13.5 14.5 15.5
VULCAN				
RVUF405FTE-24	6.8 7.3 8.3	13.5 14.5 16.5	7.3 8 8.8	14.5 16 17.5
RVUF805FTE-24	6.8 7.3 8.3	13.5 14.5 16.5	7.3 8 8.8	14.5 16 17.5
SULTAN & SULTAN 110V				
RSUF484FTE-24	7.3 7.8 8.3	14.5 15.5 16.5	7.8 8.3 9.5	15.5 16.5 18.5
RSUF405FTE-24	6.8 7.3 8.3	13.5 14.5 16.5	7.3 8 8.8	14.5 16 17.5
RSUF805FTE-24	6.8 7.3 8.3	13.5 14.5 16.5	7.3 8 8.8	14.5 16 17.5
RSUF244FTE-24	7.3 7.8 8.3	14.5 15.5 16.5	7.8 8.3 9.5	15.5 16.5 18.5
CAESAR				
RCA484012E-01	6.5 6.8 7.3	12.5 13.5 14.5	7.5 8.3 8.8	15.5 16.5 17.5
RCA484015E-01	6.5 6.8 7.3	12.5 13.5 14.5	7.5 8.3 8.8	15.5 16.5 17.5
RCA804015E-01	6.5 6.8 7.3	12.5 13.5 14.5	7.5 8.3 8.8	15.5 16.5 17.5

Luminaire Spacing (m) On Emergency Escape Routes									
		Transverse Distance to Wall		Transverse to Transverse		Axial Distance to Wall		Axial to Axial	
Product Code	Mounting Height (m)	0.5 Lux	1.0 Lux	0.5 Lux	1.0 Lux	0.5 Lux	1.0 Lux	0.5 Lux	1.0 Lux
CASEY									
RCY12055E-01	2.5	6.7	5.1	13	10	7.7	6.1	15	12
	3	7.2	5.6	14	11	8.2	6.6	16	13
	4	7.7	6.1	15	12	9.1	7.7	18	15
DISK									
RDS16050DA-04E	2.5	8.2	6.7	16	13	8.2	6.7	16	13
	3	8.7	7.2	17	14	8.7	7.2	17	14
	4	9.7	7.7	19	16	9.7	8.2	19	16
RDS20050DA-04E	2.5	6.6	5.6	13	10.5	6.6	5.6	13	10.5
	3	7.2	5.8	14	11.5	7.2	5.8	14	11.5
	4	8.2	6.6	16	13	8.2	6.6	16	13
EAGLE									
REES7P040E-01	2.5	5.2	4.1	10	8	5.2	4.1	10	8
	3	5.7	4.3	11	8.5	5.7	4.3	11	8.5
	4	6.2	4.6	12	9	6.2	4.6	12	9
REEM01040E-01	2.5	5.2	4.1	10	8	5.2	4.1	10	8
	3	5.7	4.3	11	8.5	5.7	4.3	11	8.5
	4	6.2	4.6	12	9	6.2	4.6	12	9
REEM01540E-01	2.5	5.2	4.1	10	8	5.2	4.1	10	8
	3	5.7	4.3	11	8.5	5.7	4.3	11	8.5
	4	6.2	4.6	12	9	6.2	4.6	12	9
REEL02440E-01	2.5	6.3	5.2	12.5	10	6.3	5.2	12.5	10
	3	6.9	5.4	13.5	10.5	6.9	5.4	13.5	10.5
	4	7.2	6.1	14.5	12	7.2	6.1	14.5	12
HAWK									
RHKM01040E-01	2.5	5.2	4.1	10	8	5.2	4.1	10	8
	3	5.7	4.3	11	8.5	5.7	4.3	11	8.5
	4	6.2	4.6	12	9	6.2	4.6	12	9
RHKM01540E-01	2.5	5.2	4.1	10	8	5.2	4.1	10	8
	3	5.7	4.3	11	8.5	5.7	4.3	11	8.5
	4	6.2	4.6	12	9	6.2	4.6	12	9
GOLF									
R075LEDE-01	2.5	6.2	4.8	12	9.5	6.2	4.8	12	9.5
	3	6.8	5.2	13	10	6.8	5.2	13	10
	4	7.2	5.4	14	10.5	7.2	5.4	14	10.5
R100LEDE-01	2.5	6.2	4.8	12	9.5	6.2	4.8	12	9.5
	3	6.8	5.2	13	10	6.8	5.2	13	10
	4	7.2	5.4	14	10.5	7.2	5.4	14	10.5
R150LEDE-01	2.5	6.2	4.8	12	9.5	6.2	4.8	12	9.5
	3	6.8	5.2	13	10	6.8	5.2	13	10
	4	7.2	5.4	14	10.5	7.2	5.4	14	10.5

Luminaire Spacing (m) In Anti Panic Open Areas (Incl 0.5m Border Area)				
	Transverse Distance to Wall	Transverse to Transverse	Axial Distance to Wall	Axial to Axial
Product Code	0.5 Lux	0.5 Lux	0.5 Lux	0.5 Lux
CASEY				
RCY12055E-01	6.5 6.8 7.3	12.5 13.5 14.5	7.3 7.5 8.8	14.5 15.5 17.5
DISK				
RDS16050DA-04E	7.5 8.3 9.5	15.5 16.5 18.5	7.5 8.3 9.5	15.5 16.5 18.5
RDS20050DA-04E	6.5 6.8 7.5	12.5 13.5 15.5	6.5 6.8 7.5	12.5 13.5 15.5
EAGLE				
REES7P040E-01	5 5.5 6	9.5 10.5 11.5	5 5.5 6	9.5 10.5 11.5
REEM01040E-01	5 5.5 6	9.5 10.5 11.5	5 5.5 6	9.5 10.5 11.5
REEM01540E-01	5 5.5 6	9.5 10.5 11.5	5 5.5 6	9.5 10.5 11.5
REEL02440E-01	6.1 6.8 7.1	12.1 13 14	5.2 5.4 6.1	12.1 13 14
HAWK				
RHKM01040E-01	5 5.5 6	9.5 10.5 11.5	5 5.5 6	9.5 10.5 11.5
RHKM01540E-01	5 5.5 6	9.5 10.5 11.5	5 5.5 6	9.5 10.5 11.5
GOLF				
R075LEDE-01	6 6.5 7	11.5 12.5 13.5	6 6.5 7	11.5 12.5 13.5
R100LEDE-01	6 6.5 7	11.5 12.5 13.5	6 6.5 7	11.5 12.5 13.5
R150LEDE-01	6 6.5 7	11.5 12.5 13.5	6 6.5 7	11.5 12.5 13.5

Luminaire Spacing (m) On Emergency Escape Routes								
Product Code	Mounting Height (m)	Transverse Distance to Wall		Transverse to Transverse		Axial Distance to Wall		Axial to Axial	
		0.5 Lux	1.0 Lux	0.5 Lux	1.0 Lux	0.5 Lux	1.0 Lux	0.5 Lux	1.0 Lux
DYNAMO									
R2WLEDNME-01	2.5	7	5.5	14	11	7	5.5	14	11
	3	7.3	5.8	14.5	11.5	7.3	5.8	14.5	11.5
	4	7.5	6	15	12	7.5	6	15	12
ORMOND									
R1WLEDNME-01	2.5	5.3	4.5	10.5	9	5.3	4.5	10.5	9
	3	5.8	4.7	11.5	9.5	5.8	4.8	11.5	9.5
	4	6.3	5.3	12.5	10.5	6.3	5.3	12.5	10.5
8W LED									
R8MLED3-01+13	2.5	3.8	2.7	7.5	5.3	4.2	2.8	8	5.5
	3	4.1	2.9	8	5.8	4.5	3.1	8.5	6
	4	4.3	3.1	8.5	6.3	4.8	3.4	9	6.5
LED BULKHEAD									
R8MLED-01	2.5	4.2	3.2	8	6	4.2	3.2	8	6
	3	4.5	3.4	8.5	6.3	4.5	3.4	8.5	6.3
	4	4.7	3.6	9	6.5	4.7	3.6	9	6.5
UNIVERSAL GEAR TRAY									
R8MUSTLED-01	2.5	5.8	4.5	11	8.5	6.3	5	12	9.5
	3	6	4.7	11.5	9	6.5	5.2	12.5	10
	4	6.2	4.9	12	9.5	6.7	5.4	13	10.5
CONVERSION KIT									
R13LEDME-CU2	2.5	5.2	4.3	10	8.5	5.2	4.3	10	8.5
	3	6.4	4.8	11	9.2	6.4	4.8	11	9.2
	4	7	5.2	12.5	10	7	5.2	12.5	10

Luminaire Spacing (m) In Anti Panic Open Areas (Incl 0.5m Border Area)				
	Transverse Distance to Wall	Transverse to Transverse	Axial Distance to Wall	Axial to Axial
Product Code	0.5 Lux	0.5 Lux	0.5 Lux	0.5 Lux
DYNAMO				
R2WLEDNME-01	6 7 7.3	13 14 14.5	6 7 7.3	13 14 14.5
ORMOND				
R1WLEDNME-01	5 5.5 6	10 11 12	5 5.5 6	10 11 12
8W LED				
R8MLED3-01+13	3.8 4.1 4.5	7.2 7.8 8.2	4.1 4.5 4.9	7.8 8.2 8.8
LED BULKHEAD				
R8MLED-01	4.1 4.4 4.6	7.8 8.2 8.8	4.1 4.4 4.6	7.8 8.2 8.8
UNIVERSAL GEAR TRAY				
R8MUSTLED-01	6 6.3 6.6	10.5 11 11.5	5 5.3 5.8	9.5 10 10.5
CONVERSION KIT				
R13LEDME-CU2	5 6.2 6.8	9.7 10.8 12.2	5 6.2 6.8	9.7 10.8 12.2

GENERAL
INFORMATION

SYMBOLS GUIDE

Indicates x years warranty

Lumens per Watt

Energy Saving

Fire Rated Symbol

Suitable for Customised Conversion

Dimmable

Bathroom Zone 1
Suitable for use in indicated bathroom zone*

Bathroom Zone 2
Suitable for use in indicated bathroom zone*

Rotation Angle

Adjustment Angle (tilt)

High Frequency Electronic Control Gear included

Photometrics available

Ingress Protection against dust and water (see technical information)

Operating Voltage – 12V AC

Operating Voltage – 220V / 230V - 12V
Step down transformer included

Operating Voltage – 220V / 240V

COLOUR APPEARANCE

Summer Sunlight (Northern Hemisphere)	5,500	Daylight White
	5,000	Cool White
	4,500	
	4,000	Neutral White
	3,500	
	3,000	Warm White
	2,500	
Candle	2,000	
	1,500	

| | **Operating Voltage – 12V DC** |

12V DC Operating Voltage – 12V DC

Pull Switch

Integral Switch

Safety Class I
Electrically insulated and earthed. In the event of a basic insulation failure, exposed metal parts that could become live are protected by the earth

Safety Class II
Live parts are equipped with additional insulation protection such as reinforced or double insulation and do not require an earth

Safety Class III
Safety extra low voltage (SELV), requires no additional protection less than 24V AC or 55V DC

Safety Isolating Transformer

L1 Compliance with Part L1 of Building Regulations

L2 Compliance with Part L2 of Building Regulations

SWIFT Connector — **Swift Connector**

COB ChipOnBoard — **Chip on Board**

ACTIVATE **DOB** DriverOnBoard — **Driver on Board**

LEDCHROIC™

COLOUR ABBREVIATIONS

-01 White

-02 Brass

-03 Chrome

-04 Black

-07 Blue

-09 Yellow

-10 Matte Black

-11 Matte White

-13 Brushed Chrome

-14 Antique Brass

-15 Satin Silver

-23 Aluminium

-24 Grey

-25 Dark Grey

-CW Cool White LEDs

-WW Warm White LEDs

-RGB Colour Changing LEDs

WHAT IS IP RATING?

The resistance offered by the fixture to the penetration of solids and liquids is indicated by the IP (Ingress Protection) rating. This is a two digit number, the first number identifies the degree of protection against the ingress of solids and the second number against liquids e.g. IP65 indicates total protection against dust and protection against low pressure jets of water

First Digit
Protection against solids

0 No protection
1 Protected against solid objects greater than 50mm (e.g. accidental contact with the hand)
2 Protected against solid objects greater than 12mm (e.g. accidental contact with finger)
3 Protected against solid objects greater than 2.5mm (e.g. tools and wires)
4 Protected against solid objects greater than 1mm (e.g. fine tools and wires)
5 Protected against dust
6 Total protection from dust

Second Digit
Protection against liquids

0 No protection
1 Protection against vertical water drops (e.g. condensation)
2 Protection against direct sprays of water, up to 15° from vertical
3 Protection against direct sprays of water, up to 60° from vertical
4 Protection against water spray from all directions
5 Protection against low pressure jets of water from all directions
6 Protection against jets of water of similar force to heavy seas
7 Protection against immersion between 15–100cm
8 Protection against submersion

BATHROOM ZONES

Zone 0:
Is the area inside the bath or shower basin. A minimum rating of IPX7 is required (protection against immersion in water) and only SELV (max 12v AC) equipment may be used in this zone.

Zone 1:
Is the area directly above Zone 0 to a height of 2.25m above finished floor level or the top of the highest fixed water outlet, whichever is higher. A minimum of IPX4 is needed in this zone. If there is a possibility of water jets then IPX5 is required. 17th edition IEC regulations allow for the use of certain 240v electrical equipment in zones 1 and 2 if controlled by the appropriate RCD.

Zone 2:
Is the area 60cm external to zone 1 and to a height of 2.25m above fixed floor level or the top highest fixed water outlet, whichever is higher. A minimum of IPX4 is needed in this zone. If there is a possibility of water jets then IPX5 is required. 17th edition IEC regulations allow for the use of certain 240v electrical equipment in zones 1 and 2 if controlled by the appropriate RCD.

Zone 3 is no longer used. There is no minimum IP rating area external to zones 0, 1 and 2.
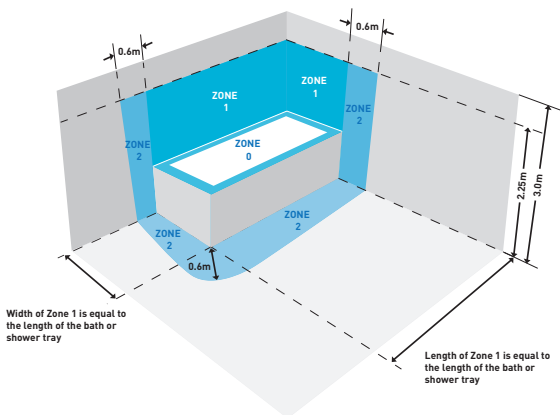
WHAT DOES IK RATING MEAN?

The IK rating of a fixture indicates the level of impact protection the fixture has. This is a two digit rating after the letters 'IK' that identifies the degree of protection against harsh impacts to the body of a fixture. The higher the number equates to a higher level of protection.

IK RATING	DEGREE OF PROTECTION
IK00	No protection
IK01	Protected against 0.14 joules impact. Equivalent to impact of 0.25 kg mass dropped from 57mm above impacted surface.
IK02	Protected against 0.2 joules impact. Equivalent to impact of 0.25 kg mass dropped from 80mm above impacted surface.
IK03	Protected against 0.35 joules impact. Equivalent to impact of 0.25 kg mass dropped from 140mm above impacted surface.
IK04	Protected against 0.5 joules impact. Equivalent to impact of 0.25 kg mass dropped from 205mm above impacted surface.
IK05	Protected against 0.7 joules impact. Equivalent to impact of 0.25 kg mass dropped from 285mm above impacted surface.
IK06	Protected against 1 joules impact. Equivalent to impact of 0.25 kg mass dropped from 405mm above impacted surface.
IK07	Protected against 2 joules impact. Equivalent to impact of 5 kg mass dropped from 400mm above impacted surface.
IK08	Protected against 5 joules impact. Equivalent to impact of 5 kg mass dropped from 100mm above impacted surface.
IK09	Protected against 10 joules impact. Equivalent to impact of 5 kg mass dropped from 200mm above impacted surface.
IK10	Protected against 20 joules impact. Equivalent to impact of 5 kg mass dropped from 405mm above impacted surface.

SYMBOL	TYPE	LUMINOUS EFFICACY (lm/w)	LUMEN OUTPUT (lm)	CCT (k)	CRI	AVERAGE LIFE (Hours)	CAP TYPE
	Fluorescent U shape 2 pin	50 – 80	250 – 900	4000	56 – 90	6000	G23/-2G7
	Fluorescent Double U shape	40 – 70	600 – 1800	4000	56 – 90	8000	G24d/-q
	Fluorescent U shape 4 pin		600 – 2900	4000	56 – 90	8000	2G11
	3 U Dulux Fluorescent	40 – 76	300 – 3200	4000	65 – 90	8000	G24d/-q
	Dichroic	12 – 19	240 – 975	3000	100	3000	G5.3
	CFL	40 – 65	400 – 1500	3000	65 – 90	8000	E27/B22
	Fluorescent	65 – 71	1050 – 2700	3500	65 – 90	8000	GR10q
	Fluorescent tube	66 – 100	430 – 3150	3000	65 – 90	5000 – 1200	G5/G13
	G9 Capsule lamp	8 – 9	190 – 370	2700	100	1500	G9
	Halogen lamp	15 – 29	350 – 1450	3000	100	3000	G4/G6.35
	Halogen linear lamp	16 – 20	3520 – 9900	3000	100	2000	R7S
	AR111	10 – 12	3000	3000	100	2000	G53
	GU10 lamp	7 – 8	250 – 600	2700	100	2000	GU10
	MBF	45 – 50	2000 – 5600	2000 – 3500	40 – 49	8000	E27
	HPS	70 – 130	3500 – 130,000	2000	25	12,000	E27/E40
	Incandescent	6 – 12	150 – 3150	2700	100	1000	E27/B22

SYMBOL	TYPE	LUMINOUS EFFICACY (lm/w)	LUMEN OUTPUT (lm)	CCT (k)	CRI	AVERAGE LIFE (Hours)	CAP TYPE
	Reflector incandescent	6 –12	200 – 500	2700	100	1000	E27/B22
	Quartz metal halide 1 end	60 – 80	3400 – 1350	4200	65 – 85	6000	G12
	Quartz metal halide 2 end	60 – 80	5000 – 11000	4200	65 – 85	6000	R7S
	Metal Halide	60 – 80	3400 – 13,500	3000	65 – 85	9000	G12
	CFL GX53	28	260	2700 – 4000	80 – 90	10,000	GX53
	CFL GU10	31	350	2700 – 4000	80 – 90	10,000	GU10 CFL
LED	**LED**	80 – 150+	10 – 10,000	2700 – 6500	65 – 95	50,000	LED

Luminance = amount of light emitted from a particular area (cd/m²)

Luminous Flux = total energy emitted by a light source in the visible spectrum (lm)

Luminous Efficacy = amount of light emitted per unit of energy consumed (lm/w)

CCT - Correlated Colour Temperature = a measure to describe the appearance of white light (warm 3,000K, cool 4,000K etc) by comparing to a black body at a certain temperature (K)

CRI - Colour Rendering Index = a measure to describe the ability of a light source to reproduce colours accurately with reference to an ideal source

Note: LED lamp/luminaire lifetime is based on the definition from Annex II of COMMISSION REGULATION (EU) No 1194/2012

PRODUCT INFORMATION DOCUMENT

The majority of our products are supported with a more detailed Product Information Document which is available to download online – simply browse to the 'Downloads' option at the end of each product page online.

DOWNLIGHTS
RAMADA IP65 FIRE RATED DOWNLIGHTS

ROBUS®

This attractive looking dimmable Fire and IP65 rated downlight uses, high quality components and materials to provide an exceptionally versatile long-life downlight solution for Domestic or Commercial installations. It replaces inefficient traditional Halogen or Compact Fluorescent light sources to make huge energy cost savings to reduce carbon emissions

Applications:

- Domestic dining, living, bathroom and bedroom spaces
- Hotel & Office reception areas
- Shops and other retail premises
- Pubs, clubs and restaurants
- Complimentary lighting in meeting or function rooms

Construction:

White powder coated die-cast aluminium trim

Die-cast aluminium body

Clear toughened glass cover

Pressed steel insulation stand-off

Spring steel ceiling fixing springs

Features:	Benefits:
White powder coated die-cast aluminium trim as standard, complete with brushed chrome clip on trim accessory	Quality materials provide great aesthetics and alternative colour finish to match or contrast with décor, door, or other furniture
Optional polished chrome clip-on trim– RRATRIM-03	Ideal for matching to polished chrome bathroom fittings
Die-cast Aluminium body	Conducts heat away from LED's and driver to ensure cool-running and long life
Available in 3,000K or 4,000K options	Provides a warm or neutral white light colour choice depending on use of the lit space
High quality single LED and driver technology provide: • Comparable light output to 50W LV Halogen • Low power consumption of only 8.5 watts • Cool running • Long life	Provides a one for one replacement for LV Halogen, particularly useful as retro-fit where all cut-outs can be utilised Compared to many lower performing LED alternatives available reduces the number of fittings and therefore the solution cost Wide ambient operating temperature range for hot environments No maintenance costs or inconvenient lamp failures in commercial, entertainment or retail installations
Solid state technology	Suitable for switching by most sensor or control systems, with long or short time delays, without detriment to life time Life is not affected by on/off heating/cooling cycles as are many traditional light sources
Integral driver compatible with many leading/trailing edge dimmers	Provides selectable light levels suitable for task or subtle lighting Driver location choice is not an issue
60 degree LEDchroic optic	Wide, uniform light beam provides the star-like twinkle of Halogen without bright or dark rings and patches often associated with it
Integrated insulation stand-off	Allows mineral insulation to be loosely laid over the fitting to reduce cold spots in the void space without overheating issues
130mm 2 core flex to remote, large terminal connector block	Allows for 1.5mm² solid or stranded, loop in/out termination
Independently tested for compliance with parts B, C & E of Building Regulations	Retains the integrity of traditional 30, 60 & 90-minute fire rated ceiling and floor joist combinations Complies with regulatory acoustic and air-flow requirements
Ingress Protection of IP65	The same fitting is suitable for installation in most areas of a property to provide a common aesthetic

LEDGROUP

PLEASE NOTE: INFORMATION IN THIS DOCUMENT MAY BE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.
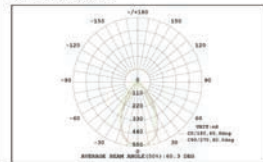
IRE: TEL: +353 1 709 9000   WEB: WWW.LEDGROUPROBUS.COM
AUS: TEL: +61 7 3890 5444   WEB: WWW.LEDGROUPROBUS.COM.AU

Category
e.g. Downlights

Product Description
e.g. RAMADA IP65 Fire Rated Downlights

Product Introduction

Where can I use this fitting
e.g. Domestic dining, living, bathroom & bedroom spaces, hotel & office reception areas

Construction Materials

Product Photograph

Features & resulting benefits
Outlines the products individual features and resulting benefits
e.g. Die-cast aluminium body; Conducts heat away from LED's and driver to ensure cool running and long life

Technical Details

Product Dimensions

Accessories Available

Quality Compliance

Applicable Symbols

Polar Diagram

Cone Diagram

Ledgrouprobus.com

Our website is fully optimised for use on mobiles, tablets and desktops. Focusing on user experience, our site is easy to navigate with in-depth product information included in the online catalogue.

Our sites also include case study galleries and an energy saving calculator.

Recognised as the best online ordering system in the industry – for stockists only.

Facebook: Search ROBUS Lighting

Youtube: Search LED Group ROBUS

ROBUS®

ACCREDITED SUPPLIER FOR THE CARBON TRUST GREEN BUSINESS FUND

ROBUS have been approved by The Carbon Trust as an Accredited Supplier for the Green Business Fund.

It is an independent validation and recognition of the skills and services of Robus to supply high quality energy efficient lighting solutions - a much needed and trusted quality standard in a crowded and fast-growing market place.

To gain Accredited Supplier status Robus have shown that they meet or exceed criteria set by the Carbon Trust designed to examine their capability to deliver thoughtful, well-designed,

energy efficient and renewable energy solutions.

The Carbon Trust Green Business Fund provides direct funded support through energy assessments, training workshops, equipment procurement support and up to £5,000 capital contribution (none repayable) per company towards energy saving equipment purchases for small and medium size businesses.

The Green Business fund is estimated to be available until the summer of 2018. If other funding is obtained, the scheme will be extended.

GREEN BUSINESS FUND ELIGIBILITY

Where are current GBF services available?

England, Scotland & Wales

Who is eligible for current GBF services?

Small & medium sized businesses	✓
Schools	✓
Sole Traders	✓
Charities	✓
Domestic properties	✗
Public Sector	✗
New builds	✗

How does the GBF define an SME?

Business which meets any **two** of the following criteria:

No more than **250** employees;

Annual turnover not in excess of **£25.9M**; or

Annual balance sheet not in excess of **£12.9M**

AND not more than **25%** owned by an entity which does not meet the criteria

CAPITAL CONTRIBUTION

- 15% towards the purchase of energy saving equipment for projects £5,000 to £33,333
- Upper limit - £5,000 contribution for projects ≥£33,333
- Lower limit - £750 contribution for projects of £5,000 (£0 for projects <£5,000
- Projects should 'payback' in 5 years
- Projects should be delivered by Carbon Trusts Accredited Suppliers

- Evidence required prior to transfer of funds
- Can't retrospectively fund projects

(A wholesaler or installing contractor can supply a quotation for Robus products and should clearly state the Robus products being used/quoted, together with Product Information Documents for them)

Customers should consult the Carbon Trust Green Business Fund Website for more information
www.carbontrust.com

CARBON TRUST | ACCREDITED **SUPPLIER**

#GreenBusinessFund

Below is an extract from the Carbon Trust Green Business Fund Website for the eligibility criteria. If this is met, the application process can be instigated with the Carbon Trust Green Business Fund team.

Before applying to the scheme, you need to check if your business is eligible;

Is your business a small to medium sized business?

Is your business based in England, Scotland or Wales?

Are you considering a project that will deliver on site fossil fuel energy savings?

If you can answer 'yes' to the above, then please gather the following information:

- **Organisation Details:** Number of full time employees, annual turnover, total value of gross assets, trading period, and knowledge of whether a large enterprise has more than a 25% controlling interest in your business.

- **Project Details:** Brief details of the equipment being replaced and installed. It is necessary to provide details of existing energy consumption, hours of operation, unit prices for each fuel type, your current use in kWh, and projected usage after the equipment has been installed.

- **Total Project Cost:** This can include both the cost of capital expenditure and installation.

- **Accredited Supplier Details:** The name of your chosen accredited supplier from the Green Business Directory or BESA's accredited supplier list.

- **Energy Saving:** A completed Energy Savings Assessment Template, which captures information about the projected energy savings relating to the project. Your accredited supplier will assist you in completing this.

- **Supplier's quote:** An electronic copy of your supplier's quotation. This quotation must meet our requirements, which are shown in the sample documentation guide 'Getting it Right First Time - supplier documentation'.

- **Existing Capital Contribution:** Details of any previous capital contributions received from the Green Business Fund.

- **Bank Details:** Your business bank details into which funds will be transferred.

- **Additional information:** Depending on whether your business is incorporated or unincorporated, you will need to provide additional information as shown on our guide 'Green Business Fund - What We Need'.

ROBUS®

CARBON TRUST | ACCREDITED **SUPPLIER**

QUALITY **ROBUS** PRODUCTS BY **LED GROUP**

ENHANCED CAPITAL ALLOWANCES

Businesses are often tempted to opt for products with the lowest purchase price but such immediate cost savings often prove to be a false economy. Take advantage of the Enhanced Capital Allowance scheme for energy-saving technologies by installing ROBUS ETCL (Energy Technology Criteria List) approved products.

Enhanced Capital Allowances (ECAs) are a straightforward way for a business to improve its cash flow through accelerated tax relief on the cost of lighting products, transport to site and cost of installation.

Example:

NON-ETCL APPROVED LIGHTING		ROBUS ETCL APPROVED LIGHTING	
For a business installing Non-ETCL approved lighting to the value of £8,500 and paying tax @ 20%		For a business installing ROBUS ETCL approved lighting to the value of £8,500 and paying tax @ 20%	
Write down allowed Year 1 18%	= £1,530	Write down allowed Year 1 100%	= £8,500
Tax relief @ 20%	= £306	Tax relief @20%	= £1,700
So, for every £8,500 spent, the tax bill is reduced by £306 in Year 1		So, for every £8,500 spent, the tax bill is reduced by £1,700 in Year 1	
Net cost in Year 1	= £8,194	Net cost in Year 1	= £6,800

For more information visit **www.carbontrust.com**

SEAI

Investing in SEAI Triple E registered products improves energy efficiency results, reducing energy bills and shorter payback periods.

Use ROBUS Triple E registered products to reduce future operating costs and see utility bills dramatically lowered.

All products on the Triple E Products Register meet a minimum set of stringent efficiency criteria and typically will be of a best in class efficiency standard.

Public Procurement Regulations
The EUROPEAN UNION (ENERGY EFFICIENT PUBLIC PROCUREMENT) REGULATIONS 2011 state that a public body shall only procure equipment or vehicles which
(a) are listed on the Register*, or
(b) satisfy the published SEAI energy efficiency criteria for the equipment or vehicle concerned,and the public body shall specify this requirement in any documentation describing its procurement requirements.

LIA

Considering the future operating cost of lighting before investing can help make the right investment decision – the LIA Verified Scheme covers products designed to replace existing / old technologies and new innovations. LED luminaires covered by the scheme are those with built-in non-replaceable LED modules designed to be used for household and commercial purposes as the primary light source of an environment.

Use ROBUS products tested and approved by the LIA Verified Scheme which references EN/IEC/CIE standards and European Directives outlined below. ROBUS also test in-house using an integrated sphere measurement system – approved by the LIA.

For more information visit **www.lialabcert.org.uk**

DIRECTIVES:

2009/125/EC
Ecodesign requirements for directional lamps, light emitting diode lamps and related equipment

2006/95/
EC Low Voltage Directive

SAFETY STANDARDS:
60598: Luminaires. General requirements and tests

62031: LED Modules for general lighting-safety specifications.

62560: Self-ballasted LED-lamps for general lighting services >50V-Safety specification

61347: Lamp control gear. General and safety requirements

61347-2-13: Particular requirements for DC or AC supplied electronic control gear for LED modules. Safety requirements

62471:2006. CIE S 009:2006: Photo biological safety of lamps and lamp systems.

60061: Lamp caps and holders together with gauges for the control of interchangeability and safety.

61195: Double-capped fluorescent lamps. Safety specifications

PERFORMANCE STANDARDS:
61341: Method of measurement of centre beam intensity and beam angle(s) of reflector lamps.

62612: Self-ballasted LED-lamps for general lighting services. Performance requirements

62384: DC and AC supplied electronic control gear for LED modules. Performance requirements

MEASUREMENT STANDARDS:
CIE 127: Measurement of LEDs

CIE 13.3: Method of measuring and specifying colour rendering

CIE 1960: Uniform Colour space

QUALITY APPROVALS

 C E

CE Approval

All ROBUS products carry the CE mark. CE mark is a statement that the product complies with all relevant European directives and standards. CE marking indicates compliance with the requirement of:

1. Low voltage directive for electrical safety (73/23/EEC as amended by 93/96/EEC)

2. EMC directive for electro magnetic compatibility (89/336/EEC as amended 92/31/EEC)

Installation

All ROBUS products are supplied with installation instructions. ROBUS will not be held responsible for failure of products due to installations not in accordance with supplied installation instructions or in an unsuitable environment.

Unless stated otherwise, products contained within this catalogue are for installation in 'normal' environments. Ambient temperature, control methods and environmental conditions have an influence on the suitability of many products for installation in some areas. IP ratings of products should be considered relative to the environmental conditions in which they are to be installed – ingress protection. Life expectancy of some light sources and control gear may be reduced significantly by short time delay switching, particularly PIR and time lag switches. Time delay off should be set to 30 minutes to minimise premature failure of some fluorescent light sources. Where shorter time delay periods are required to make optimum energy savings, LED products should be considered, as although more expensive initially, they will pay back in relatively short periods of time. Please contact technical support if you are in any doubt about the suitability of products for specific operating conditions.

All performance data listed are subject to tolerances of +/- 10% unless otherwise stated.

GENERAL INFORMATION
QUALITY & RELIABILITY

LED Lighting boasts many advantages; energy efficiency, low maintenance, long life and ease of installation to name a few. But all LED Lighting is not the same.

The upfront investment in LED technology is higher, and easily justified; but how do you know if the LED's you are buying are good quality or suitable for purpose? What LED brands are you investing in and what do you know about their quality assurances?
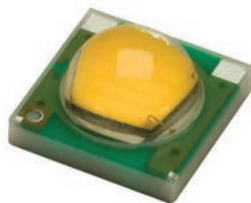
Questions you should ask your LED lighting supplier

QUESTION 1:
What LED is used in the product?

The supplier should know the LED used as the quality of an LED product can depend strongly on this.

Lower tier LEDs can exhibit significant reductions in light output and shifts in colour after only a short operating period. Datasheets and LM-80 data should be available for the LEDs in question, which can be used to determine if they are being driven at the correct current and temperature and what the expected lifetime will be.

QUESTION 2:
What lifetime is claimed for the product and what is the warranty period?

Lifetime claims can be greatly exaggerated and reflect LEDs operating under ideal conditions rather than the actual product as a whole.

A fitting is only as good as its weakest link.

Lifetime and warranty periods are not the same!

Warranty period is most applicable for energy saving and return on investment calculations.

Be very wary of any warranty period offered that is longer than the supplier has been in business.

Consider the level of support available if there are any future issues with the product.

QUESTION 3:
Are full photometric files (.LDT, .IES, etc.) available for the product?

Lumen output and efficacy claims may be exaggerated by basing values on LEDs operating under optimum conditions, rather than on the complete fitting.

In general, products must be sent to an independent test lab to generate the photometric files.

These files are a very useful means to verify product performance.

Photometric files are also essential for lighting designers to model lighting installations in Relux or Dialux lighting design software.

QUESTION 4:
What is the colour binning range for the product (e.g. 4000K +/- 5%) and what are the specific colour bins used?

LED products can vary significantly in colour from batch to batch unless the supplier understands and controls the binning range.

The supplier should be able to provide this binning information and ensure that there is the minimum of colour variation (MacAdam Ellipses) between batches.

QUESTION 5:
Does the product have the relevant certification approvals for the application?

Certification is best practice to ensure a product meets Safety, EMC and Environmental requirements.

For this reason, and since it is expensive for suppliers to obtain, evidence of certification is a useful way to determine product and supplier quality.

CE Marking also carries with it obligations with respect to meeting minimum product performance levels as defined by ERP Directives.

It is the responsibility of the supplier to be able to prove that a product is inherently safe and fit for purpose – there are sanctions for not meeting this.

QUESTION 6:
If it is a dimmable product, what dimmers is the product compatible with?

LED products are suitable for dimming if properly specified.

The supplier should be able to provide a list of compatible dimmers that can be used with the product.

QUESTION 7:
What is the CRI (Colour Rendering Index) of the product?

Light quality is measured by CRI, which is important for many illumination applications, as it indicates how realistic colours may appear.

Most internal lighting applications should use CRI of 80 or above, whereas CRI of 65 or above is acceptable for external lighting applications.

QUESTION 8:
What is the Power Factor of the product?

Poor power factor results in inefficient use of power from the electrical grid.

This is important for larger installations as electricity providers can sometimes impose penalties for this.

For fittings of 25W or greater, power factor must exceed 0.9.

QUESTION 9:
What is the THD (Total Harmonic Distortion) of the product?

High levels of THD can result in voltage and current spikes when a product is switched on, resulting in circuit breakers tripping.

This is important for larger installations as the effect is increased for increased fittings.

PART L1 AND L2 REQUIREMENTS – APRIL 2014

The April 2014 lighting compliance guide provides guidance on the specification of fixed internal and external lighting for new and existing dwellings to meet relevant energy efficiency requirements in the Building Regulations.

PART L1

Limits remain unchanged (>45lm/cctW and >400lm).

Light fittings LESS THAN 5W do not count towards the total number of light fittings so performance is irrelevant. This would apply to lamps less than 5W.

PART L2

Limits increased (>60lm/cctW).

This is MINIMUM 60lm/cctW. Displaying lighting products should be MINIMUM 22lm/cctW

DOMESTIC BUILDING SERVICES COMPLIANCE

Recommended minimum standards for fixed internal and external lighting

Lighting	New and existing systems	Supplementary Information
Fixed internal lighting	a. In the areas affected by the building work, provide low energy light fittings (fixed lights or lighting units) that number not less than three per four of all the light fittings in the main dwelling spaces of those areas (excluding infrequently accessed spaces used for storage, such as cupboards and wardrobes). b. Low energy lighting fittings should have lamps with luminous efficacy greater than 45 lamp lumens per circuit-watt and a total output greater than 400 lamp lumens. c. Lighting fittings whose supplied power is less than 5 circuit-watts are excluded from the overall count of the total number of light fittings.	Lighting fittings may be either: • dedicated fittings which will have separate control gear and will take only low energy lamps (e.g. pin based fluorescent or compact fluorescent lamps); or • standard fittings supplied with low energy lamps with integrated control gear (e.g. bayonet or Edison screw base compact fluorescent lamps). Light fittings with GLS tungsten filament lamps or tungsten halogen lamps would not meet the standard. The Energy Saving Trust publication GIL20, Low energy domestic lighting, gives guidance on identifying suitable locations for fixed energy efficient lighting. A single switch should normally operate no more than six light-fittings with a maximum total load of 100 circuit-watts.
Fixed internal lighting	Where fixed external lighting is installed, provide light fittings with the following characteristics: a. Either: i. lamp capacity not greater than 100 lamp-watts per light fitting; and ii. all lamps automatically controlled so as to switch off after the area lit by the fitting becomes unoccupied; and iii. all lamps automatically controlled so as to switch off when daylight is sufficient. b. Or: i. lamp efficacy greater tan 45 lumens per circuit-watt; and ii. all lamps automatically controlled so as to switch off when daylight is sufficient; and iii. light fittings controllable manually by occupants.	

NON – DOMESTIC BUILDING SERVICES COMPLIANCE

There are two alternative approaches, applicable both to systems in new buildings and to replacement systems in existing buildings. The guidance applies to a) general interior lighting and b) display lighting.

Recommended minimum lighting efficacy with controls in new and existing buildings

		Initial luminaire lumens/circuit-watt
General lighting in office, industrial and storage spaces		**60**
Controls	**Control factor**	**Reduced luminaire lumens/circuit-watt**
a daylit space with photo-switching with or without override	0.90	54
b daylit space with photo-switching and dimming with or without override	0.85	51
c unoccupied space with auto on and off	0.90	54
d unoccupied space with manual on and auto off	0.85	51
e space not daylit, dimmed for constant illuminance	0.90	54
a + c	0.80	48
a + d	0.75	45
b + c	0.75	45
b + d	0.70	42
e + c	0.80	48
e + d	0.75	45
General lighting in other types of space		The average initial efficacy should be not less than 60 lamp lumens per circuit-watt
Display lighting		The average initial efficacy should be not less than 22 lamp lumens per circuit-watt

Recommended minimum standards for metering of general and display lighting in new and existing buildings

	Standard
Metering for general or display lighting	a. kWh meters on dedicated lighting circuits in the electrical distribution; or b. local power meter copuled to or integrated in the lighting controllers of a lighting or building management system; or c. a lighting management system that can calculate the consumed energy and make this information available to a building management system or in an exportable file format. (This could involve logging the hours run and the dimming level, and relating this to the installed load).

Note: The LENI (Lighting Energy Numerical Indicator) method is an alternative to complying with the efficacy standards set out in the tables above. The LENI method calculates the performance of lighting in terms of energy per square metre per year (kWh/m²/year), based on BS EN 15193:2007, Energy performance of buildings.

GENERAL INFORMATION
PART L1 AND L2

KEY TERMS

Circuit-watt means the power consumed in lighting circuits by lamps and, where applicable, their associated control gear (including transformers and drivers) and power factor correction equipment.

Light fitting means a fixed light or lighting unit that can comprise one or more lamps and lampholders, control gear and appropriate housing. The control gear may be integrated in the lamp or located elsewhere in or near to the fixed light.

Fixed external lighting means lighting fixed to an external surface of the dwelling supplied from the occupier's electrical system. It excludes lighting in common areas of blocks of flats and in other communal accessways.

Office area means a space that involves predominantly desk-based tasks – e.g. a classroom, seminar or conference room.

Daylit space means any space:
a. Within 6m of a window wall, provided that the glazing area is at least 20% of the internal area of the window wall
b. Below rooflights, provided that the glazing area is at least 10% of the floor area

The normal transmittance of the glazing should be at least 70%; if the light transmittance is below 70%, the glazing area should be increased proportionately for the space to be defined as daylit.

Local manual switching means that the distance on plan from any local switch to the luminaire it controls should generally be not more than six metres, or twice the height of the light fitting above the floor if this is greater. Where the space is a daylit space served by side windows, the perimeter row of lighting should in general by separately switched.

Photoelectric control is a type of control which switches or dims lighting in response to the amount of incoming daylight.

Presence detection is a type of control which switches the lighting on when someone enters a space, and switches it off, or dims it down, after the space becomes unoccupied.

Absence detection is a type of control which switches the lighting off, or dims it down, after the space becomes unoccupied, but where switching on is done manually.

Lamp lumens means the sum of the average initial (100 hour) lumen output of all the lams in the luminaire.

Lamp lumens per circuit-watt is the total lamp lumens summed for all luminaires in the relevant areas of the building, divided by the total circuit-watts for all the luminaires.

LOR is the light output ratio of the luminaire, which means the ratio of the total light output of the luminaire under stated practical conditions to that of the lamp or lamps contained in the luminaire under reference conditions.

Luminaire lumens per circuit-watt is the (lamp lumens x LOR) summed for all luminaires in the relevant areas of the building, divided by the total circuit-watts for all the luminaires.

1. Definitions
1.1 'Buyer' means the person who agrees to buy the goods from the Seller in the course of their business, trade or profession.

1.2 'Consumer' means a person who agrees to buy the goods from the Seller and who has rights under current Irish Consumer legislation including the Sale of Goods Act 1893, the Sale of Goods and Supply of Services Act 1980, the Consumer Credit Act 1995 and the Consumer Protection Act 2007.

1.3 'Goods' means the articles which the Buyer or Consumer agrees to buy from the Seller.

1.4 'Seller' means LED Lighting and Electrical Distribution Group of Western Retail Park, Nangor Road, Dublin 12, Ireland.

1.5 'Price' means the price for the Goods including carriage and packaging costs, but excluding VAT unless otherwise stated. Please note that a price quotation for orders for European and Worldwide destinations (excluding Ireland & UK) does not include the carriage fee.

2. Conditions, Order Confirmation and Cancellation
2.1 Any variation of these Conditions (including any special terms and conditions agreed between the parties) shall be inapplicable unless agreed in writing by Seller.

2.2 An order is deemed to be confirmed once a valid purchase order is received from Buyer or Consumer. Buyer and Consumer acknowledge that they have read and understood these terms and conditions as they appear in our current catalogue from which the Goods have been selected and/or our website (in the case of internet orders) and/or prior to sending a purchase order and in all applicable cases, agree to be bound by them.

2.3 Cancelled Delivery: An order may be cancelled up to the point of it being despatched with no additional charges. If the Goods have left Seller's premises, then Buyer or Consumer shall pay the cost of carriage for shipping back to Seller. The local Area Sales Manager will issue a return authorisation to be sent with Buyer or Customer's debit note. This only applies to orders cancelled within 24 hours of the order being placed. After this, the Goods can only be returned as a stock cleanse or Goods not required, under clause 8.2 or 8.3 below.

2.4 All orders for Goods shall be deemed to be an offer by Buyer or Consumer to purchase Goods from Seller and Seller's delivery of the Goods ordered shall constitute acceptance of such offer.

3. Price and Payment
3.1 Prices are in Euro (€) or Pound Sterling (£) or US Dollars ($) exclusive of VAT unless otherwise stated

3.2 Payment of the Price (and VAT unless otherwise stated) by Buyer shall be due strictly within the prior negotiated period of 30, 60 or 90 days as agreed between the parties from the date of the invoice and on approved accounts and in the case of Consumer or unapproved Buyer account sales, at the point of purchase.

3.3 If payment is not received from Buyer on the due date then without prejudice to any of the Seller's other rights Seller may:
3.3.1 suspend or cancel deliveries of any Goods due to Buyer; and/or without prior notice
3.3.2 appropriate any payment made by Buyer to such Goods (or made under any other contract with Buyer) that Seller may in its sole discretion think fit: and/or
3.3.3 treat this contract as repudiated by Buyer.

3.4 Buyer or Consumer may not withhold payment of any invoice or other amount due to Seller by reason of any right of set-off or counterclaim which Buyer or Consumer may assert for any reason whatsoever.

4. Risk and Loss or Damage to Goods
4.1 The risk in respect of all Goods supplied by the Seller shall pass to the Buyer or Consumer upon delivery to the Buyer or Consumer or dispatch by Seller in accordance with Buyer or Consumer's delivery instructions. It is Buyer or Consumer's responsibility to inspect the Goods prior to acceptance. Signature of a delivery docket by or on behalf of Buyer or Consumer shall be deemed acceptance of the Goods in the condition in which they are delivered and release Seller from all liability in respect of damage in transit or shortages.

4.2 Where damage or loss or shortages occur to the Goods prior to risk passing to the Buyer or Consumer, it shall be Buyer or Seller's responsibility to note such damage or loss or shortages on the delivery docket and, within 2 working days from the date of delivery, notify Seller in writing of the particulars in order to validate a claim, quoting the delivery docket reference.

4.3 Buyer or Consumer must return all Goods damaged in transit that have not been accepted to Seller properly packaged within one month of inspection

5. Retention of Title
5.1 Ownership of the Goods shall remain the property of Seller until such a time as Buyer or Consumer has paid the Price (including VAT) in full, and no other sums whatever shall be due from Buyer or Consumer to Seller whether in respect of those Goods or delivered Goods the subject of any other order from Buyer or Consumer.

5.2 If Buyer or Consumer fails to make a payment for the Goods in accordance with the terms and conditions of this Contract or commits any other breach of this contract, or commits an act of bankruptcy or if Buyer or Consumer being a company is the subject of a winding up petition or resolution or a receiver shall be appointed over Buyer's or Consumer's assets all sums due in respect of the Goods shall become payable immediately and Seller may in its absolute discretion and without prejudice to any other rights which it may have, exercise its rights pursuant to clause 3.3

6. Remedies and Liabilities
6.1 The entire liability of Seller to Buyer or Consumer arising out of this contract shall be limited to repayment of the Price.

6.2 Seller shall not be liable for any loss, costs, damages, charges or expenses caused, directly or indirectly, by any delay in the delivery of the Goods.

6.3 The statutory rights of Consumer under current Irish legislation remain unaffected.

7. Alteration of Order
7.1 Prior to delivery Buyer and Consumer have the right to alter the order. Any changes to the order will be deemed a cancellation of the original order. A revised order confirmation will be issued by Seller. Seller reserves the right to alter the Price as a result of any change to an order requested by Buyer and Consumer.

8. Returns Policy
8.1 Faulty Goods: Goods that are faulty (for reasons other than damage in transit) must be inspected by Seller's local Area Sales Manager who will provide a return authorisation number to be included with Buyer or Consumer's debit note. Without these documents the return will be refused and returned to Buyer or Consumer with a charge made for carriage and an administration charge of £45. Any Goods that are subsequently found not to be faulty will be returned to Buyer or Consumer, with no credit being issued and the carriage costs will be charged to Buyer or Consumer.

8.2 Goods Not Required: Any Goods purchased that are no longer required, incorrectly ordered or unwanted may be returned to Seller. On such occasions a handling charge of 25% plus the carriage to return the Goods will be applied. All Goods must be in resalable condition with the boxes undamaged and intact and be part of Seller's current catalogue offer. Any Goods not required must be inspected by the local Area Sales Manager who will provide a return authorisation number to be included with Buyer or Consumer's debit note.

8.3 Stock Cleanse: An annual stock cleanse is available to non-Consumer stockists. The value of the replacement order is a minimum of two for one. The following criteria must be adhered to:
- All Goods must be in box quantities.
- All Goods must be in our current catalogue.
- The stock cleanse cannot exceed 10% of that Buyer's branch turnover from the previous trading year.
- The stock cleanse must be authorised by the local Area Sales Manager, who will provide a return authorisation number for the Goods.
- The stock cleanse must be inspected by the local Area Sales Manager before the Goods are returned.
- Buyer is responsible for the return of the Goods along with any shipping costs. Collections are available and are chargeable. The local Area Sales Manager can provide costings for this service.
- Stock cleanse cannot be authorised between 1 November and 31 December of any trading year.

8.4 Returns: Buyers and Consumers shall ensure that any Goods being returned are packed/wrapped sufficiently to prevent cartons being damaged. If Goods are damaged and not fit for resale, credit will not be issued for these Goods. Goods will be returned and a carriage charge to return will be applied.

8.5 Short Delivery: Buyer or Consumer must notify Seller's Sales Office within 3 working days of receipt of delivery if there is a shortfall of Goods to invoice/delivery note. Requests received after 3 working days cannot be entertained.

9. Law
9.1 This Contract is subject to the law of the Republic of Ireland and the parties submit to the non-exclusive jurisdiction of the Irish Courts sitting in Dublin

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Warehouse Team
Left to Right: Jason McCabe, Ronan Hyland, Paul Cunningham, Mark Scannell, Viliam Sirohman,
Keith Butler, John Hoare, Liam Mahady, Jamie Rooney, Tom Keely, Pavel Simian,
Stephen Kinch, Sean Hoare.

Internal Sales Team
Left to Right: Verenna Lawson, Peter Leeson, Jenny Byrne, Paul Maguire, Laura Lawlor, Colm O'Brien,
Valerie Carron, Stephen O'Brien.

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SALES ORDER PLACEMENT

Email: fasttrackmyorder@led.ie
Simply email your order to this address and upon receipt, a member of our internal sales team will input your order. You will receive email confirmation of your order placement.

SALES OFFICE

Based alongside our distribution facility and field sales team; our busy sales office provides a central point of contact for all customer service requirements. The skills and knowledge of our internal sales team enables us to provide the high standard of service that we know our customers expect. Our on-line ordering facility **www.robusdirect.com** adds further to this.

FIELD SALES

Across Ireland and the UK we provide both a Regional Director and an Area Sales Manager for each region; to ensure we are servicing our accounts. This gives us the ability to have a focussed approach to our business development plans.

STOCKISTS

The ROBUS brand is stocked in over 2,000 wholesalers across Ireland and the UK, providing a comprehensive network. These are a combination of Independent Wholesalers and National Wholesale Groups. Wherever you are in the UK or Ireland you are never far from a ROBUS stockist.

Grant Thornton, Dublin, Ireland

SALES ORDER PLACEMENT

Email: fasttrackmyorder@led.ie

Simply email your order to this address displaying all the details you would usually place on a faxed sales order:
• your company name and branch
• your desired products and quantity thereof
• your purchase order number

Upon receipt of your order, a member of our internal sales team will input your order. You will receive an email confirmation of your order placement.

Tel: + 353 1 709 9050
UK Freephone: 0800 973 220

Fax: + 353 1 709 9060
UK Freefax: 0800 973 221

ONLINE ORDERING
ROBUSdirect allows stockists direct access to our warehouse!
www.robusdirect.com

GENERAL ENQUIRIES
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Email: info@ledgrouprobus.com

TECHNICAL ENQUIRIES
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Visit our website for up to date news, new product information, PDF versions of our product brochures and much more. **www.ledgrouprobus.com**

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ROBUS®

1. **n.** stronghold, position of strength

2. **n.** mainstay, source of strength

3. effectiveness, fastness, hardiness, heart, purpose, resolve, robustness, solidity, strength, main strength, stronghold, strongest element, toughness, tough core, vigor

LED GROUP CATALOGUE

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