THORN LIGHTING

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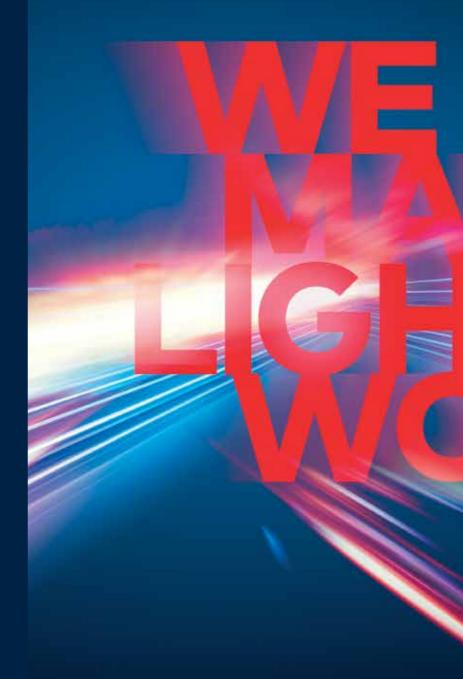
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Thorn Lighting is constantly developing and improving its products. All descriptions, illustrations, drawings and specifications in this publication present only general particulars and shall not form part of any contract. The right is reserved to change specifications without prior notification or public announcement. All goods supplied by the company are supplied subject to the company's General Conditions of Sale, a copy of which is available on request. All measurements are in millimetres and weights in kilograms unless otherwise stated.





CONTRACTOR GUIDE 2023/24

High performance product solutions for indoor and outdoor lighting

ZUMTOBEL Group

Zumtobel Group is an international supplier of lighting. We offer innovative, high-quality lighting solutions, components and associated services for our customers worldwide.

THORN

THORN is a globally trusted supplier of indoor and outdoor lighting with integrated controls. The Thorn brand stands for high-performing, efficient and reliable lighting solutions. Thorn luminaires can be found in many different applications such as: sport, road, tunnel, cityscape, office, education and industry.

This catalogue was supplied to you by:





5 YEAR WARRANTY Thorn Lighting is a leading global

luminaire manufacturer and provides a five year warranty for its complete product range.



Economical LED lighting

THORNeco is the economical answer for the wholesale market and OTC business. The functional and efficient product family is perfectly positioned to meet the current and future needs of electricians and installers.

All luminaires in the THORNeco family are available via wholesaler partners. They offer exceptional light quality, energy, efficiency and long life-span.

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VOYAGER TS2

SUSTAINABILITY COMMITMENT

Sustainability is part of our company's strategy

We value and respect the planet we inhabit.

The Zumtobel Group has set a goal to become climate-neutral by 2025. We aim to achieve this by:

- Reducing our energy consumption
- Switching to renewable energies and optimizing our mobility
- Establishing a circular economy by rethinking life cycles to give products a second, third or fourth life by recycling, refurbishing and reusing
- Working on sustainable procurement with our clients and supporting their sustainable activities



INCREASING THE SHARE OF RENEWABLE ENERGIES

REDUCING THE TOTAL WASTE VOLUME

VOYAGER IP65





As a commitment to sustainability, here at ZG Lighting (NZ) Ltd we now have the capability to offer our customers the ability to recycle used light fittings. We work with a variety of partners to recycle almost all types of interior commercial light fittings to a very high level including base metals, plastics, wiring and control gear and electronics including LED boards.

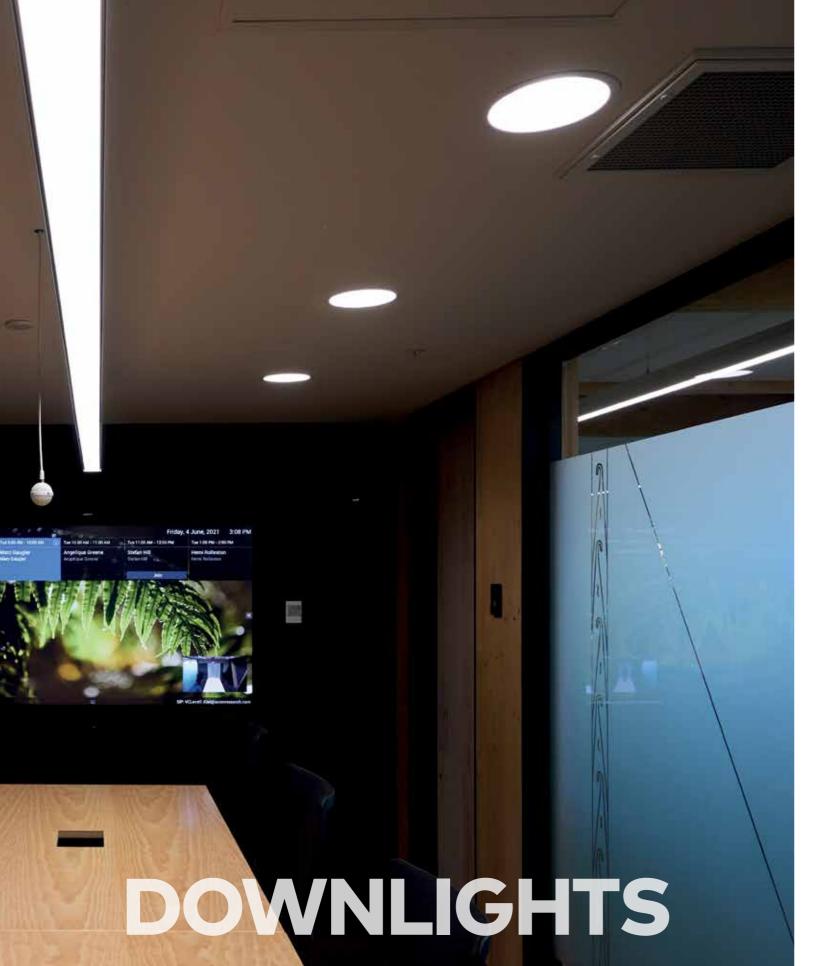
To find out more about this service contact chris.byrne@zumtobelgroup.com



REDUCING CO₂ **EMISSIONS**



REPORTING **EMISSIONS**

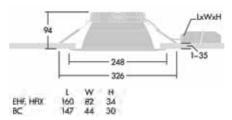


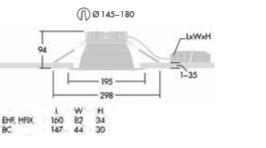
CETUS 3

A low height, recessed LED downlight



⑦Ø190-230







TECHNICAL DATA



DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
CETUS3 S LCS EHF RWH	14.3	0.43	1509	96635049
CETUS3 M LCS EHF RWH	26.9	0.69	3221	96635050
CETUS3 L LCS EHF RWH	26.9	0.81	3473	96635051
Inserts				
CETUS3 S UGR INSERT		0.03		96635243
CETUS3 M UGR INSERT		0.07		96635244
CETUS3 L UGR INSERT		0.1		96635245
CETUS3 M IP54 COVER		0.08		96635250
CETUS3 L IP54 COVER		0.13		96635251
NOTE: Emergency options available				

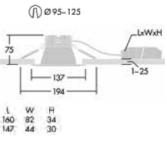
PRODUCT DETAILS

Lumen Colour Select (LCS) technology allows colour temperature and lumen output selection after installation by rotating the inner centre plate, where the preset values are embossed.

- Body: die-cast aluminium for thermal management
- Diffuser: polycarbonate, smooth reflector in white finish with wide beam.
- Reflector and trim: high quality, highly reflective polycarbonate.
- Tool-free spring clip installation, directly out of the box.
- Spring clips suitable for ceiling thicknesses from 1 to 35mm.
- 3-pole connection terminal with plug connection Allows for BESA box installation

APPLICATION

Office / Reception / Education / Corridor / Hospitality / Staircases / Meeting rooms



06	CE	3000K/ 3500K/ 4000K	L80 50,000HR @25℃	UP TO 129 LM/W	
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CHALICE

A high performance recessed LED downlight



PRODUCT DETAILS

Two sizes 150mm and 200mm with a wide range of accessories.

Direct replacement for CFL downlights

Body: Aluminium painted white (RAL9016)

Reflector: Satinbrite

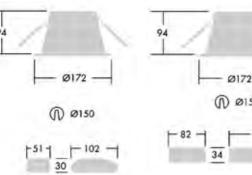
Suitable for mounting in ceiling thicknesses of 1-40mm in a 150Ø cut-out.

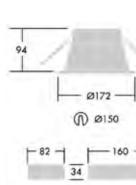
Surface mount housing available for spaces with exposed ceilings.

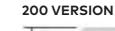
APPLICATION

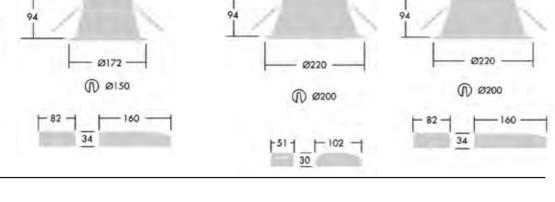
Office / Retail / Education / Hospitality / Transport hub

150 VERSION









TECHNICAL DATA



Ta25°C

DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
CHAL 150 LED1400-830 HF RSB	12.3	0.49	1400	96629023
CHAL 150 LED1400-840 HF RSB	12.3	0.49	1400	96629024
CHAL 150 LED2000-830 HF RSB	17.3	0.49	2000	96629025
CHAL 150 LED2000-840 HF RSB	17.3	0.49	2000	96629026
CHAL 150 LED3000-830 HF RSB	27.5	0.49	3000	96629027
CHAL 150 LED3000-840 HF RSB	27.5	0.49	3000	96629028
CHAL 200 LED1400-830 HF RSB	13.2	0.91	1400	96629019
CHAL 200 LED1400-840 HF RSB	13.2	0.91	1400	96629020
CHAL 200 LED2000-830 HF RSB	17.8	0.91	2000	96642304
CHAL 200 LED2000-840 HF RSB	17.8	0.91	2000	96642305
CHAL 200 LED3000-830 HF RSB	27.5	0.91	3000	96629021
CHAL 200 LED3000-840 HF RSB	27.5	0.91	3000	96629022

NOTE: Emergency options available



KATONA

A very slim surface mounted LED luminaire







TECHNICAL DATA

\D/ T_a-15+35°C

DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
Round				
KAT RD 1000-830 HF	8.3	0.94	1000	96631303
KAT RD 1000-840 HF	8.3	0.94	1000	96629365
KAT RD 2000-830 HF	16.3	0.98	2000	96631305
KAT RD 2000-840 HF	16.3	0.98	2000	96629367
Microwave Sensor				
KAT RD 2000-840 MWS	16.3	1.1	2000	96631745
Square				
KAT SQ 1000-830 HF	8.3	0.96	1000	96631306
KAT SQ 1000-840 HF	8.3	0.96	1000	96629368
KAT SQ 2000-830 HF	16.3	0.99	2000	96631308
KAT SQ 2000-840 HF	16.3	0.99	2000	96629370
Microwave Sensor				
KAT SQ 2000-840 MWS	16.3	1.07	2000	96631842
Side Entry				
KAT RD SE 1800-840 HF	16.3	1.5	1800	96631537
NOTE: Emergency options available				

PRODUCT DETAILS

IP65 rating for use in outdoor areas

IK10 rating for impact protection up to 20 joules

Two colour temperatures, three luminous flux levels and choice of round or square shape.

Deep body, side entry version for wiring capability up to Ø20mm surface mounted conduit.

Body, Bezel and Diffuser: White polycarbonate

Screws: Vandal-proof steel, zinc coated

Installation directly to walls or ceilings, indoors or outdoors.

Loop-in, loop-out is possible for cables up to 2.5mm². BESA compatible.

APPLICATION

Sports clubs / Public amenities / Building surrounds / Utility rooms / Staircases / Storage facilities / Ablution rooms / Entrances

		IP65	IK10	3000K & 4000K	CRI>80	L80 50,000HRS @35℃ 120 LN	0 1/W
	1						

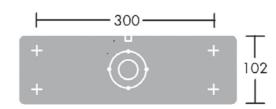
TECHNICAL DATA IP65 IK10 T_a25℃ DESCRIPTION ESCORT LED I-SLCT 800/1000-840 OP WH

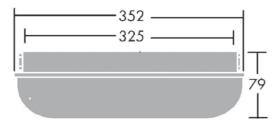
NOTE: Emergency options available

A self-contained, IP65, weatherproof bulkhead

ESCORT







PRODUCT DETAILS

- Durable, vandal-resistant materials for indoor/ outdoor applications.
- Complete with 4000K LED, lumen output selectable via internal switch.
- Body: Durable, white, stove-enamelled, die-cast aluminium.
- Diffuser: Opal polycarbonate with vandal resistant screw fixings ((Type T25 TORX screwdriver required).
- Control gear: Switch start
- Surface or wall mount. BESA compatible.
- Ø20mm cable entry at each end and 4 fixing points. 3-way terminal block 2 x 2.5mm² capacity.
- Cable gland and 2 blanking grommets supplied

APPLICATION

Social housing / Education / Public amenities / Industry

D	4000K	CRI>80	L70 50,000HRS @25°C	100 LM/W

CIRCUIT	WEIGHT	LUMEN	PART
POWER (W)	(KG)	OUTPUT	NO
8	1.2	800/1000	96630597

JEWEL

A compact surface mounted LED luminaire



PRODUCT DETAILS

Compact size with smooth lines

Fixed output, LED driver with switch for selection of colour temperature (3000K, 4000K, 5700K).

Suitable for indoor or outdoor use

Complete with tri-colour LEDs

Body: White or black polycarbonate

Diffuser: Opal polycarbonate

Wall or ceiling mount, vertical or horizontal, indoor or outdoor.

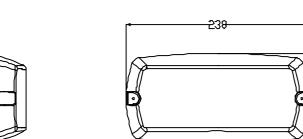
APPLICATION

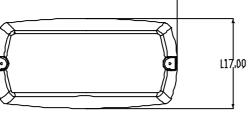
Schools / Garages / Public amenities / Light industry / Healthcare / Social housing / Sports clubs

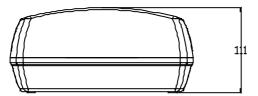


A round or square IP65 bulkhead LED luminaire









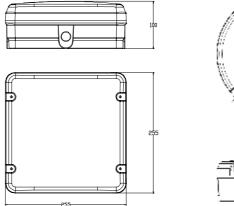
TECHNICAL DATA

L70 3000K/ 4000K/ 5700K CRI>80 025°C	SUP TO 105 LM/W
---	--------------------

T_a-20+40°C

DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
JEWEL 2 LED BULKHEAD OP WH TC	10	0.37	1050	96294620
JEWEL 2 LED BULKHEAD OP BK TC	10	0.37	1050	96294621

NOTE: Emergency options available









DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
PANTHER 1500 LED OP RD WHI TC	14	1.1	1400	96294648
PANTHER 1500 LED OP RD BLK TC	14	1.1	1400	96294649
PANTHER 1500 LED OP SQ WHI TC	14	1.1	1400	96294650
PANTHER 1500 LED OP SQ BLK TC	14	1.1	1400	96294651
PANTHER 1500 LED E3 OP RD WH TC	14	1.3	1400	96294675
PANTHER 1500 LED E3 OP RD BLK TC	14	1.3	1400	96294676
PANTHER 1500 LED E3 OP SQ WH TC	14	1.3	1400	96294677
PANTHER 1500 LED E3 OP SQ BLK TC	14	1.3	1400	96294678

PRODUCT DETAILS

- Options: Round or square, black or white
- Rated IP65, IK10 suitable for indoor and outdoor applications.
- Switchable tri-colour 3000K, 4000K, 5700K
- Body: White or black polycarbonate
- Diffuser: Opal polycarbonate
- Suitable for wall or ceiling mount
- Dimensions: Round Ø285mm x 100mm, Square 255mm x 255mm x 100mm.

APPLICATION

Education / Public amenities / Healthcare / Sports clubs / Garages / Light industry / Social housing

10	3000K/ 4000K/ 5700K	CRI>80	L80 50,000HRS @25°C	UP TO 100LM/W

LUNA VCT

A very slim, round wall or ceiling luminaire



PRODUCT DETAILS

High lumen efficiency

Optical lens design with more uniform light output.

Interchangeable CCT (3000/4000/5700K) with slide switch.

Light-weight, fire-rated materials ensure better heat and corrosion resistance.

Triac dimming

Internal driver

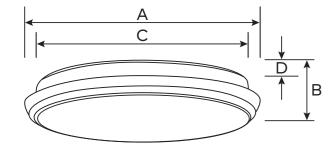
Body: White moulded polycarbonate

Diffuser: Opal polycarbonate

Supplied with quick mounting bracket

APPLICATION

Education / Garages / Sports clubs / Light industry / Healthcare / Hospitality / Public amenities



DIME	DIMENSIONS (MM)						
Α	В	С	D	Size (mm)			
250	48	221	15	ø250x48mm			
300	40	271	13	ø300x40mm			
350	40	321	12	ø350x40mm			

3000K/ 4000K/ 5700K







IP54 (OUTSIDE)

IK10

L70 40,000HRS CRI>80 @25°C



AS/NZS 60598

DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
LUNA VCT 250 1300 830/840/857	12	0.76	1300	96294951
LUNA VCT 300 2100 830/840/857	18	0.93	2100	96294952
LUNA VCT 350 2750 830/840/857	25	1.5	2750	96294953



COLLEGE

A curved linear surface or suspended luminaire



PRODUCT DETAILS

Surface or suspended mounting

Vandal/impact resistant (IK08) diffuser held in place by screwed on polycarbonate end caps.

Body: White painted steel

End caps: White polycarbonate

Diffuser: Curved, precision extruded clear prismatic polycarbonate.

Fitting supplied with sealing grommets and innovative 'quick fix' horseshoe and sliding washers for direct screw fixing to surface.

Standard BESA fixings

Can be suspended using wire suspension accessory kit (to be ordered separately). 3 x 2 x 2.5mm² piano key terminal block.

APPLICATION

Education / Offices / Commercial / Interiors

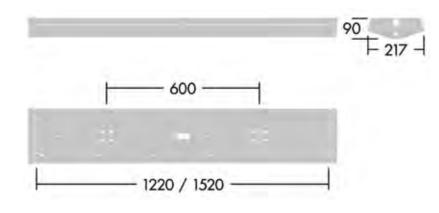
IQ WAVE

__68

Surface or suspended luminaire with MV Tech optic



- 1140/1440



TECHNICAL DATA								
			IP44	IK05	4000K	CRI>80	L80 50,000HRS @25°C	

T_a-10+25°C

DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
COLLEGE LED4200-840 HF L1200	33	3.63	4200	96628932
COLLEGE LED2900-840 HF L1500	23	4.44	2900	96628922
COLLEGE LED4650-840 HF L1500	37	4.44	4650	96628918
COLLEGE LED6500-840 HF L1500	64	4.44	6500	96628877

NOTE: Emergency, dimming and control options available

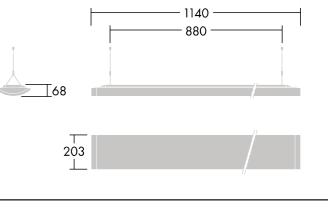
203	203 		/	
ECHNICAL DATA				
	SUSPENDED SURFACE	CE	4000K	CRI>80
L90 50,000HRS UP TO @25°C 121 LM/W T _a -20+25°C DESCRIPTION	CIRCUIT	WEIGHT	LUMEN	PART
	POWER (W)	(KG)	OUTPUT	NO
Surface				
	22	4	2600	9662926
Q SURF S LED2600-840 HF WH		4	2600 4250	
IQ SURF S LED2600-840 HF WH IQ SURF S LED4250-840 HF WH	22			9662926
IQ SURF S LED2600-840 HF WH IQ SURF S LED4250-840 HF WH IQ SURF L LED4250-840 HF WH	22 40	4	4250	9662926 9662927
Surface IQ SURF S LED2600-840 HF WH IQ SURF S LED4250-840 HF WH IQ SURF L LED4250-840 HF WH IQ SURF L LED4900-840 HF WH IQ SURF L LED6700-840 HF WH	22 40 35	4 4.9	4250 4250	9662926 9662927 9662927
IQ SURF S LED2600-840 HF WH IQ SURF S LED4250-840 HF WH IQ SURF L LED4250-840 HF WH IQ SURF L LED4900-840 HF WH IQ SURF L LED6700-840 HF WH	22 40 35 42	4 4.9 4.9	4250 4250 4900	9662926 9662926 9662927 9662927 9662927
IQ SURF S LED2600-840 HF WH IQ SURF S LED4250-840 HF WH IQ SURF L LED4250-840 HF WH IQ SURF L LED4900-840 HF WH	22 40 35 42	4 4.9 4.9	4250 4250 4900	9662926 9662927 9662927

PRODUCT DETAILS

- Lighting for the task, space and face
- Thorn patented MV tech optic offers excellent uniformity and glare control.
- Body, diffuser, frame and endcaps: polycarbonate (Tpa) white (close to RAL9016).
- Gear tray: Pre-coated white steel
- Y suspension kit and pre-assembled power cord included.
- Direct surface or BESA mounting, central or end-cap cable entries.
- Standard products can be connected via optional continuous-run kit.
- Ceiling rose to be ordered separately

APPLICATION

Education / Offices / Libraries



PUNCH 3

Surface or suspended luminaire with slim, classic lines



PRODUCT DETAILS

Classic, linear design made of high quality materials.

Direct light distribution can also be combined with indirect light to create a comfortable atmosphere with excellent glare control.

Available in two lengths, L1200 and L1500

Body: Sheet steel, powder coated white (close to RAL9016).

Endcaps: Sheet steel powder coated white (close to RAL 9016).

Louvre: Glossy aluminium, double parabolic

Surface: Suitable for direct surface mounting

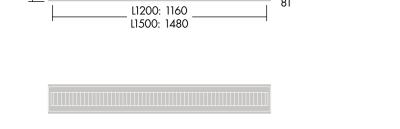
Suspended direct/indirect: Slideable suspension components for easy mounting, suspensions to be ordered separately (22171581), pre-installed power cord.

Continuous row & infills: Optional accessories to link individual suspended luminaires together.

Electrical connection via piano key terminal block

APPLICATION

Education / Offices / Libraries / Retail / Commercial interiors



TECHNICAL DATA

114 LM/W

162

		IP20	ІКОЗ	CE	4000K	CRI>80	L80 50,000HRS @25°C
UP TO 114 L M/W	T _a 0+25℃						

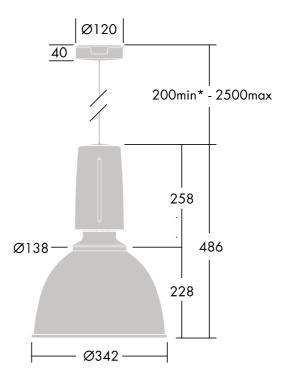
PART NO DESCRIPTION CIRCUIT WEIGHT LUMEN POWER (W) OUTPUT (KG) Surface PUNCH 3 4000-840 MSC HF L12 35 3.5 4000 96630507 3.8 52 6000 96667223 PUNCH 3 6000-840 MSC HF L15

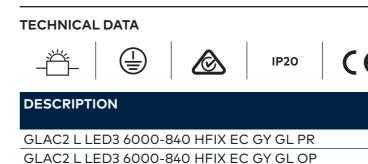
NOTE: Emergency, asymmetric wall mounting and dimming control options available

GLACIER II

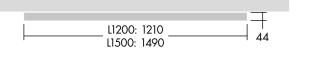
An efficient, versatile, pendant luminaire







NOTE: Emergency and control options available



PRODUCT DETAILS

DALI dimmable as standard

Choice of two reflectors

Chip-on-board LED light source provides uniform light with no visible shadows on the reflector.

Optional ceiling rose to be ordered separately

Housing: Die-cast aluminium with satin grey finish.

Reflector: Prismatic or Opal glass

Suspended via adjustable quick-lock 2.5m single wire suspension (supplied).

Pre-wired with braided, flame retardent silicone cable, 5 x 0.75mm².

APPLICATION

Education / Offices / Libraries / Retail / Commercial interiors / Hospitality / Public buildings

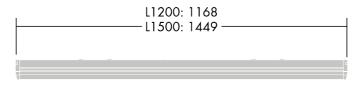
E	4000K	CRI>80	L80 50,000HRS @25℃	133-134 LM/W
	RCUIT /ER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
	45	6.8	6000	96632416
	45	6.5	6000	96632428

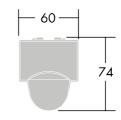


POPPACK LED

Efficient LED Batten







TECHNICAL DATA				
	коз СЕ	4000K	CRI>80	L80 50,000HRS @25°C
UP TO 143LM/W Τ _α -20+25°C <u>F</u> E3 24W-63W				
DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
DESCRIPTION POPPACK LED3000-840 HF L1200				
	POWER (W)	(KG)	OUTPUT	NO
POPPACK LED3000-840 HF L1200	POWER (W) 23.5	(KG) 1.4	OUTPUT 3350	NO 96631538

NOTE: Dimming, controls, integral PIR sensor options and emergency version available

PRODUCT DETAILS

The perfect one-for-one replacement for single and twin fluorescent battens.

A simple, efficient solution for new installations

Suits office, industry and retail applications where corridors, storage, service rooms, general circulation and other functional rooms can be found.

PopPack's click-in system enables fast and simple installation.

Complete with 4000K LED

Electronic, fixed output control gear

Body: Coated, formed steel, white (RAL9016)

End caps: Injection moulded polycarbonate, white

Diffuser: textured opal acrylic

Suitable for direct surface mounting, BESA mounting or wire suspension.

Multiple cable entries and terminal blocks with capacity for loop-in/loop-out 2.5mm² wires.

Optional screws can be added to end caps to lock the housing, restricting access to components for security.

APPLICATION

Office / Education / Industry



ROYAL PANEL

An ultra slim ceiling recessed LED modular luminaire



 	1195
295	
11 +=	
11 7-	

TECHNICAL DATA

595

11 +



IP20 FROM ABOVE IP40 FROM BELOW

UGR<19

AS/NZS 60598

DESCRIPTION

Panel Kit ROYAL-PAN 940 12X6 MPO CON IP40 ROYAL-PAN 940 12X3 MPO CON IP40 ROYAL-PAN 940 6X6 MPO CON IP40

DESCRIPTION

Driver Control

ROYAL-DRV TR-FIX 4500 1050mA CON FP ROYAL-DRV TR-FIX 3500 800mA CON FP ROYAL-DRV TR-FIX 2700 600mA CON FP

NOTE: DALI, BasicDim, 3000K and IP54 versions also available

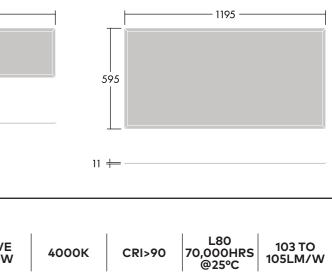
PRODUCT DETAILS

Recess LED modular luminaire with high performance design and good glare control. Panel and driver to be specified separately Body: white painted aluminium frame Diffuser: high uniformity microprismatic Suitable for recessed mounting in T-bar Supplied with flex and plug

- Surface mounted frame
- Plaster kit, suspension kit sold separately

APPLICATION

Office / Retail / Education / Healthcare



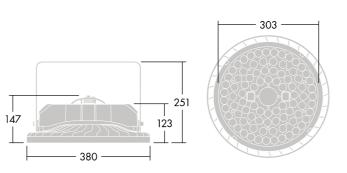
CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
41.9	7.0	4500	96649217
23.1	4.0	2700	96649147
22.9	2.0	2700	96649218
	DRIVER CONTROL		PART NO
F	-ixed Output		96648562
F	- ixed Output	2	96648560



HIPAK LED

Third generation innovative High Bay









TECHNICAL DATA				
-È- E k IP65	ков СЕ	4000K	CRI>80	L85 50,000HRS @25°C
L85 50,000HRS @50°C 165LM/W (WITH REFRACTOR)	10000LM TO 35000LM			
DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
HIPAK LED10000-840 HFI-X WD GEN3 HE	65	3.15	10736	96634331
HIPAK LED15000-840 HFI-X WD GEN3 HE	95	3.15	15207	96634332
HIPAK LED20000-840 HFI-X WD GEN3 HE	125	3.15	19137	96634333
HIPAK LED25000-840 HFI-X WD GEN3 HE	160	4.8	25592	96634334
HIPAK LED30000-840 HFI-X WD GEN3 HE	190	4.8	28753	96634335
HIPAK LED35000-840 HFI-X WD GEN3 HE	220	4.8	33097	96634336
Refractor				
HIPAK REFRACTOR GEN3 LARGE		0.53		96620822
HIPAK REFRACTOR GEN3 SMALL		0.45		96630821
Sensor				
SENSOR MWS HIPAK GEN3				96630823
Stirrup				
HIPAK STIRRUP L MCE/MWA (1pc.) G3				96631860
HIPAK STIRRUP S MCE/MWA (1pc.) G3				96631534
NOTE: DALI standard on all versions, Emergency versions available				

PRODUCT DETAILS

- One-for-one replacement for conventional High Bays.
- Choice of two sizes and six lumen outputs
- Miltiple light distributions and specially designed reflectors mean HiPak is also suitable for retail.
- Aluminium housing
- Polycarbonate lens
- Stirrup for wall/ceiling mounting to be ordered separately.
- Rod for pendant mounting
- Wire suspension 1m/2m/5m
- Chain suspension
- Catenary suspension

APPLICATION

Industrial / Logistics / Exhibition halls / Retail / High mounting locations / Warehouse

FORCE LED

Compact, vandal resistant, IP66 luminaire

AQUAFORCE PRO

Moisture and dust resistant LED luminaire



PRODUCT DETAILS

Compact IP66 luminaire with unique prismatic diffuser and wireless integrated controls.

Highly efficient LEDs (~120lm/W) reduce energy consumption and costs.

Integrated, presence-based dimming controls for further energy savings.

IP66 rated waterproof seal

Robust, fully recyclable aluminium bodies

Canopy: Aluminium

Diffuser: UV stabilised polycarbonate with linear prisms.

Gasket: Silicone sponge

Toggles: Stainless steel

Quick fix bracket: Stainless steel

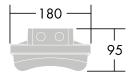
Quick-fix installation brackets are supplied with each luminaire for surface mounting and optional accessory kits are available to assist with other mounting options.

APPLICATION



Car parks / Hospitality / Public amenities / Food handling / Hospitality / Industrial / Factory / Washrooms / Outdoor canopied areas

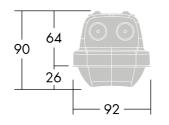


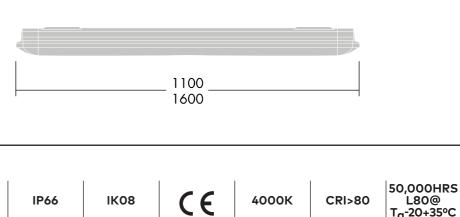


TECHNICAL	DATA								
-Ö-			IP66	IK10	50,000HRS ل70@T _a -20+35°C			T	
DESCRIPTI	ON				RCUIT /ER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO	
FORCELED	4000 HF L	840			34	2.61	4000	96617235	
FORCELED					53	2.65	6000	96242061	

NOTE: Emergency, DALI dimmable and MWS versions available







TECHNICAL DATA

-Ö-			IP66	IKO8
UP TO 141 LM/W	2900LM TO 8000LM	21W-62W	T	

DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
AQFPRO S LED2900-840 PC WB HF	21.7	1.7	2900	92901967
AQFPRO S LED4300-840 PC WB HF	35.2	1.7	4300	92901916
AQFPRO L LED6400-840 PC WB HF	52.7	2.1	6400	92901898
AQFPRO L LED8000-840 PC WB HF	62.6	2.5	8000	92901918
AQFPRO L LED6400-840 PM WB HF	52.7	2.1	6400	92910476

NOTE: DALI, BasicDim, Sensor, Corridor and Emergency versions available



PRODUCT DETAILS

- Unique drip edge effect prevents moisture and dirt build-up on luminaire.
- Refraction prisms provide smooth light effect
- Easy installation
- Complies with International Food Standards requirements.
- Canopy: light grey polycarbonate
- Diffuser: high transmission opal polycarbonate with refraction prisms.
- Patented snap-on mechanism EasyClick for clipless mounting of diffuser. For surface or suspended mounting.
- Quick-fix brackets supplied for surface mounting. Suitable for ceiling or wall (both vertically and horizontally). Mounting kits for conduit, chain suspension and catenary suspension are available as accessories. Suitable for through wiring with H05VV or NYM cable (rated 10A).

APPLICATION

Factory / Car parks / Logistics / Education / Food handling / Hospitality / Warehouse / Workshop / Outdoor canopied areas



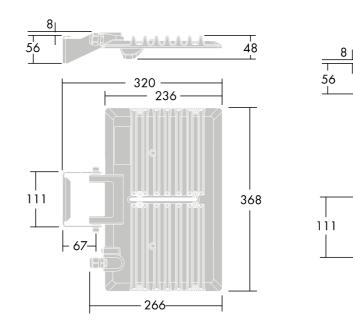
FLOODLIGHTING

Epsom Girls Grammar School, NZ Product: Champion. Photographer: Karla Farrar.

LEDFIT

A simple, reliable and efficient LED Floodlight





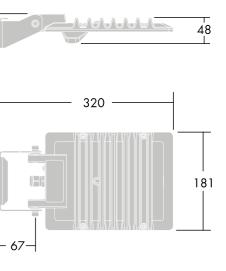
TECHNICAL DATA -Č- \oplus IP66 IK07 $\langle \! \! \rangle$ DESCRIPTION LEDFIT M 90W A/S CL1 L840 LEDFIT S 45W A/S CL1 L840

PRODUCT DETAILS

- Lightweight, compact design with minimal aesthetic impact.
- True asymmetric optic provides light distribution and excellent light control with no need to tilt.
- LEDFIT can reduce overall costs by more than 65% when replacing conventional installations.
- Body: Die-cast aluminium light grey 150 sanded textured (close to RAL9006).
- Stirrup: Aluminium
- Visor: Polycarbonate with external surface powder coated light grey 150 sanded texture (close to RAL9006).
- Pre-wired with 60cm cable etc.
- Stirrup can be fixed by one M10 and/or two M8 fixation points.
- Reversible allowing different mounting positions

APPLICATION

Area lighting / Car parks / Building surrounds / Façade

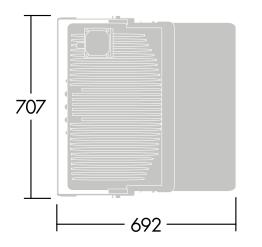


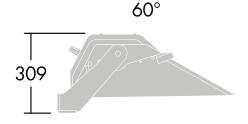
·· CE	4000K	L70 50,000HR @25°C	SUP TO 100 LM/W
CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
90	3	9000	96628333
45	1.7	4500	96628332

CHAMPION

A high performance LED Floodlight







PRODUCT DETAILS

High performance provided by 60° asymmetrical light distribution from 264 LEDs.

Excellent spill light control

Three different light distribution positions (V1, V2, V3) to provide high quality illuminance and uniformity.

Choice of two different visor types: (VSP) for Lambertian reflectance or (VSR) for specular reflection.

Low flicker operation <1% - suitable for HDTV broadcasting.

External control gear to be ordered separately

Body: Die-cast aluminium, powder coated textured anthracite (close to RAL7043).

Enclosure: 4mm thick, toughened flat glass

Visor: Matt (powder coated, anthracite)

Luminaire fixed by single bolt through Ø22mm central hole, or twin bolts through Ø15mm holes at 200mm centres.

Aiming via simple aiming device (to be ordered separately).

APPLICATION

Apron spaces / Areas for controlled spill light / Transportation & Industrial areas / Recreational sports / Multi-sports halls

TECHNICA	L DATA						
		IP66	IK08	CE	4000K	CRI>70	L80 50,000HRS @25°C
UP TO	ISO 9223						

UP TO 123 LM/W C5

CIRCUIT POWER (W) WEIGHT (KG) PART NO DESCRIPTION LUMEN OUTPUT CHAMPION 264L-740 V2 VSP ANT 935 22.4 115030 96633302 **External Control Gear** ALTISLEDG3 GB 264L120 200-264 DA 5.4 96635750



t: Flexity, Photographer: Thorn Lighting



FLEXITY

Discreet and versatile LED lantern for city space lighting



PRODUCT DETAILS

Modern, discreet and versatile post top LED lantern.

LED light source, dedicated optics and integrated Bi-power dimming for energy savings.

Compatible with DALI, 1-10V, RF, Power Line, Minicell, Nema, Presence Detection.

100,000 hour maintenance free lifetime

Smart lantern with Zhaga interface. Zd4i certified.

Canopy and base: Die-cast aluminium (EN AC-46100) powder coated dark grey (close to RAL7043).

Enclosure: Clear polycarbonate. Complete with 4000K LED.

Post top mounting to Ø76mm column, maximum spigot length 75mm.

Pre-wired with 5m cable

Surge protection: 10kV single pulse common mode and 8kV multipulse common mode and 6kV multipulse differential mode.

If permanent DALI system is connected, 6kV multipulse common and differential mode.

APPLICATION

Cityscape / Residential



UP TO 3600-6550 ISO 9223 T_a-20+25°C 116 LM/W LM C3

DESCRIPTION	CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
FLEX 24L50-740 WSC-S CL2 W5 T76 ANT	40	4.7	3600	96270782
FLEX 24L105-740 WSC-S CL2 W5 T76 ANT	84	4.7	6550	96271114
FLEX 24L105-740 WSC-S CL2 WS 176 ANT	84	4./	0550	90271114

NOTE: DALI version available

428 369 51 231

CHARTOR

A Bollard offering moderate visual guidance with low glare



TECHNICAL DATA



DESCRIPTION

Head with Fresnel Lens
CHARTOR HEAD LF LED2000-840 BK
CHARTOR HEAD LF LED800-840 LUC SATIN
Post
CHARTOR POST MGR BK

NOTE: Other colours available on request

PRODUCT DETAILS

Suitable for any application thanks to high specs and two mounting types: base plate (MPL) and ground (MGR).

Simply order one post and one head, for a complete bollard.

Semi-opal, anti-UV diffuser

The LED head can be easily connected to all Chartor Bollard types for refurbishment to a low power, low maintenance luminaire. Simply connect the LED driver directly to the mains.

Head: Die-cast aluminium powder coated black

Diffuser: Semi-opal anti-UV polycarbonate

Lens: Clear polycarbonate

Base plate or buried mounting, latter option embeds 450mm into the ground.

250mm base plate version fixes via four Ø15mm holes at 200mm centres.

Ø60mm central hole for wiring. Three way terminal block for 2 x 4mm² cable.

APPLICATION

Footpaths / Walkways / Parks / Public spaces

	1	1		
9	4000K	CRI>80	L90 50,000HRS @25°C	26-79 LM/W

WEIGHT (KG)	LUMEN OUTPUT	PART NO
2.3	2216	96646244
2.3	720	96649333
10		96018951
	(KG) 2.3 2.3	(KG) OUTPUT 2.3 2216 2.3 720

D-CO BOLLARD

A timeless LED bollard



PRODUCT DETAILS

Comfortable white light with no glare provided by a semi-opal anti-UV PC diffuser.

Suitable for any application thanks to high specs and two heights.

Top and body: Aluminium powder coated grey 900.

Diffuser: Semi-opal anti-UV polycarbonate

Suitable for flange mounting or with root spike (ordered separately). Bolts not supplied.

L80

@25°C

3000K

& 4000K

CE

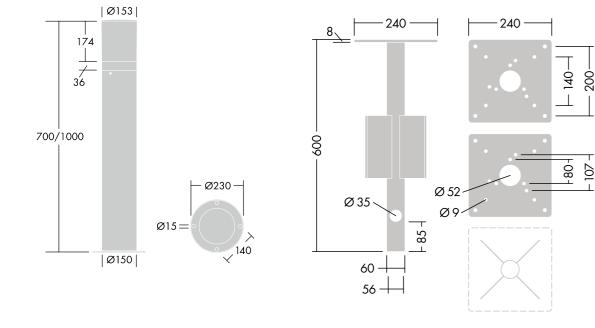
L80 50,000HRS @25°C 36 LM/W & 42 LM/W

APPLICATION

Parks / Plazas / Urban landscapes / Public spaces

PIAZZA A robust, wall mounted luminaire





IP65



Ta50°C

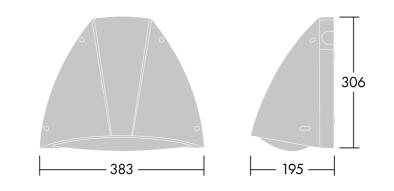
-ř~-

C3

ISO 9223

DESCRIPTION WEIGHT LUMEN PART CIRCUIT POWER (W) (KG) OUTPUT NO D-CO LED BOLLARD 1000 30L50 830 CL1 14 5.45 507 96262100 D-CO LED BOLLARD 1000 30L50 840 CL1 14 5.45 583 96262145 D-CO LED BOLLARD 700 30L50 840 CL1 14 4.15 583 96262146 MGR SPIKE BOL RAZE/DCO/THOR 10 96634409

IK10



TECHNICAL DATA -ř IP65 IK10 \otimes 116 TO 120 T_a-20+40°C LM/W DESCRIPTION PIAZZA II LED 1690-840 HF ANT PIAZZA II LED 2700-840 HF ANT Photocell

PIAZZA II LED 2700-840 HF P ANT

NOTE: DALI and photosensor versions available

PRODUCT DETAILS

Precise and directional light source with very low upward light throw.

Casts wide beam light to each side allowing 12 metre spacing at 3 and 4 metre mounting heights.

Back plate: Die-cast aluminium painted anthracite.

Body: Anthracite polycarbonate

Wall mounted Ø20mm cable entry via rear or side conduit entries, BESA compatible.

Recommended 3-4 metre mounting height

APPLICATION

Path lighting / Building perimeter / Public amenities

0	CE	4000K	CRI>80	L70 60,000HRS @25°C

CIRCUIT POWER (W)	WEIGHT (KG)	LUMEN OUTPUT	PART NO
15.4	2.8	1690	96666256
25	2.8	2700	96666261
25	2.8	2700	96666264

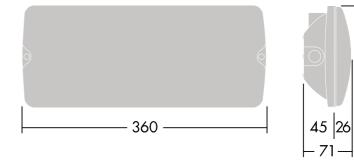


Archbishop Lanfranc Academy, England, UK Product: Voyager. Photographer: Thorn Lighting.

VOYAGER SOLID

LED bulkhead for easy emergency lighting





TECHNICAL DATA



IP65 IK07

DESCRIPTION

VOYAGER SOLID L MS E3T-S WH

NOTE: Internal ISO Legends available for 26m viewing distance (96629768, to be ordered separately)

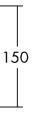


PRODUCT DETAILS

- Supplied with robust, long-life batteries (three year guarantee subject to manufacturer's terms & conditions).
- The luminaire can be wall or ceiling mounted
- Self test emergency lighting circuit
- 3 hour, electronic, fixed output control gear
- Flexible switch allows luminaire to be installed maintained or non-maintained.
- Bulkhead emergency luminaire for use without decals.
- Body: Large, white polycarbonate
- Diffuser: Transparent polycarbonate
- Easy installation with hinged electronics and big wiring space.

APPLICATION

Industrial / Car parks / Commercial / Education / Damp environments / Warehouses / Coastal areas /Production facilities





VOYAGER WALL

LED wall mount exit light



PRODUCT DETAILS

Low 3W standby power consumption

One Box solution: Single Running Man pictograph and EXIT decal included.

Energy efficient long life 50,000 hour LED

Maintained, manual test switch

24m viewing distance

Lithium-ion battery (3 year warranty)

Body and Diffuser: Polycarbonate white finish

Simple installation with large terminal block and cable entry.

Wall, ceiling single-sided and ceiling double-sided

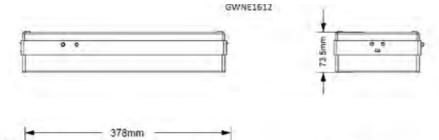
APPLICATION

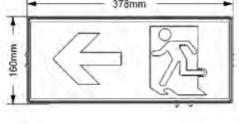
Commercial / Education / Retail / Hospitality / Apartments

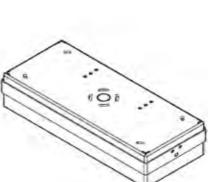
VOYAGER WIDE

Wide body LED emergency exit light 24m

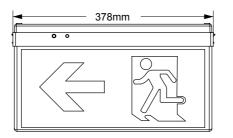








TECHNICAL DATA					
	IP40	ІК07	T _a -0+40°C	AS/NZS 2293	*
DESCRIPTION			CUIT ER (W)	WEIGHT (KG)	PART NO
VOYAGER WALL EXIT 24M E2M			3	1.1	96294581





TECHNICAL DATA						
	\Diamond	IP40	IK07	T _a -0+40°C	AS/NZS 2293	*
DESCRIPTION				RCUIT /ER (W)	WEIGHT (KG)	PART NO
VOYAGER WIDE EXIT 24M E2M				3	1.35	96294580

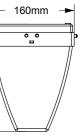


PRODUCT DETAILS

- Low 3W standby power consumption
- One box solution: includes both single and double-sided decals in running man pictograph and the exit decal.
- Easy installation
- Energy efficient long life 50,000 hour LED
- Maintained, manual test switch
- 24m viewing distance
- Lithium-ion battery (3 year warranty)
- Body and Diffuser: Polycarbonate
- Terminal block and cable entry
- Wall, ceiling single-sided and ceiling double-sided

APPLICATION

Commercial / Education / Retail / Hospitality / Apartments / Theatres / Cinemas



VOYAGER BLADE RECESSED

Universal LED escape sign luminaire



PRODUCT DETAILS Slim blade for enhanced design aesthetics Suitable for 24m viewing distance Low 3W standby power consumption One box solution: comes with both single and double-sided decals in running man pictograph and the exit decal. Energy efficient long life 50,000 hour LED Easy installation Maintained, manual test switch 24m viewing distance Lithium-ion battery (3 year warranty) Body and Diffuser: Polycarbonate white finish Simple installation with flex and plug Recessed

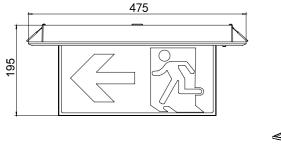
APPLICATION

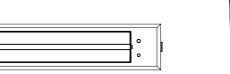
Commercial / Education / Retail / Hospitality / Apartments / Theatres / Cinemas

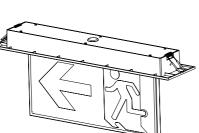
VOYAGER BLADE SURFACE

LED slimline escape sign luminaire

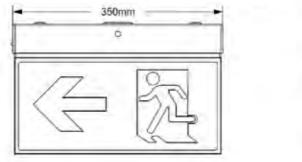




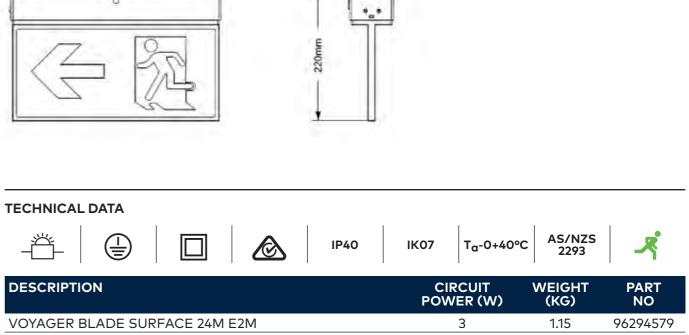




TECHNICAL DATA								
-Ö-				IP40	IK07	T _a -0+40°C	AS/NZS 2293	*
DESCRIPTI	ON					CUIT ER (W)	WEIGHT (KG)	PART NO
VOYAGER BLADE RECESSED 24M E2M				3	1.3	96294582		







73mm

PRODUCT DETAILS

Energy efficient low 3W standby power consumption.

One box solution: comes with both and single and double-sided decals in running man pictograph and the exit decal.

Maintained manual test switch

24m viewing distance

50, 000 hour LED

Lithium-ion battery (3 year warranty)

Body and Diffuser: Polycarbonate white finish

Simple installation with large terminal block and cable entry.

For surface, ceiling or wall mounting

APPLICATION

Commercial / Education / Retail / Hospitality / Apartments / Theatres / Cinemas

VOYAGER IP65

LED weatherproof exit light



PRODUCT DETAILS

For single sided installations

Low 3W standby power consumption

One box solution: Single Running Man pictograph

and EXIT decals included.

Maintained manual test switch

24m viewing distance

50,000 hour LED

Lithium-ion battery (3 year warranty)

Body and Diffuser polycarbonate in white finish with aluminium mounting bracket.

Simple installation with large terminal block and cable entry.

Wall or ceiling mount

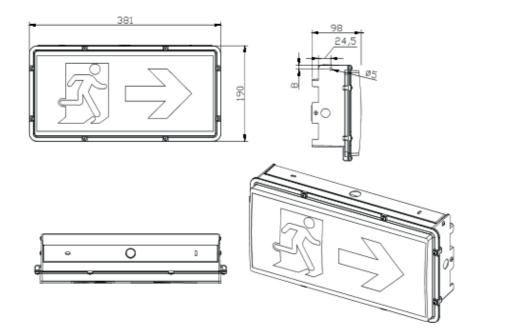
APPLICATION

Industrial / Car parks / Commercial / Education / Damp environments / Warehouses / Coastal areas / Production facilities



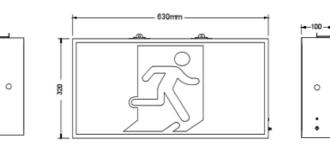
Highly visible LED 40m exit light

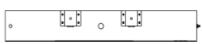




TECHNICAL DATA								
- <u>Č</u> - (IP65	IK07	T _a -0+40°C	AS/NZS 2293	*
DESCRIPTION						CUIT ER (W)	WEIGHT (KG)	PART NO
VOYAGER IP65 EXIT 24M E2M				3	1.53	96294584		











VOYAGER JUMBO EXIT 40M E2M



PRODUCT DETAILS

- 40m viewing distance
- One box solution: comes with both single and double sided decals in running man pictograph and exit decal.
- Easy installation
- Energy efficient long life 50,000 hour LED
- Maintained, manual test switch
- Lithium-ion battery (3 year warranty)
- Powder coated metal frame with polycarbonate diffuser in white finish.
- Simple installation with large terminal block and cable entry.
- Wall single-sided
- Ceiling single and double-sided

APPLICATION

Commercial / Education / Retail / Hospitality / Apartments / Theatres / Cinemas



VOYAGER SURFACE

A high performance LED emergency light



PRODUCT DETAILS

Suitable for open areas

With energy efficient LED lamps and reliable lithium-ion battery, the Voyager Surface delivers superior light output allowing greater spacing.

Low 0.5W standby power consumption

Retrofitting is easy with an adapter plate to suit older applications included in the box.

Tamper resistant with no dome required

Suitable for most emergency lighting applications

50,000 hour LED

Non-maintained manual test switch

Lithium-ion battery (3 year warranty)

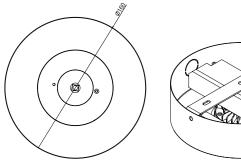
Powder coated steel housing with polycarbonate inner disc in white finish.

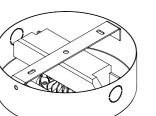
Aluminium heat sink

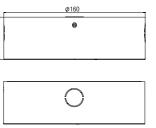
Large terminal block for easy electrical connection.

APPLICATION

Commercial / Open areas / Malls / Hospitality / Convention Centres / Theatres / Cinemas / Halls





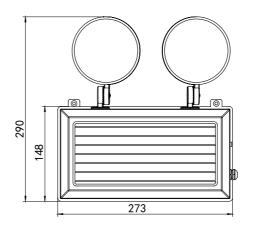


TECHNICAL DATA								
-Ö-			IP20	IK07	T _α -0+40°C	AS/NZS 2293	*	
DESCRIPTI	ON				CIR(POWE	CUIT ER (W)	WEIGHT (KG)	PART NO
VOYAGER SURFACE DISK D40 E2NM			0	.5	0.05	96294578		

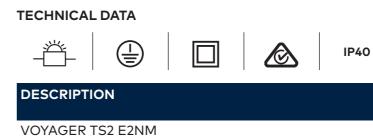
VOYAGER TS2

Adjustable twin spot LED emergency luminaire





68		



PRODUCT DETAILS

- Wide distribution for large emergency escape coverage suits open areas.
- Adjustable heads in the horizontal and vertical planes.
- 2 x 3W energy efficient LED
- Low 1.0W standby power consumption
- Light weight for easy wall mounting
- Supplied with flex and plug with adjustable heads
- Long life LED in non-maintained mode
- Useful in areas where it is difficult to mount conventional emergency luminaires.
- Polycarbonate housing in white finish
- Light weight and with flex and plug for simple installation.

APPLICATION

Interior / Loading docks / Car parks / Evacuation assembly points



0	IK07	T _a -0+40°C	AS/NZS 2293	*
		CUIT ER (W)	WEIGHT (KG)	PART NO
		1	0.85	96294585



STANDARDS

REGULATORY COMPLIANCE MARK (RCM)

All luminaires and lighting equipment which are to be sold in Australia and New Zealand must be permanently marked with the Regulatory Compliance Mark (RCM). The RCM tick indicates compliance to:

• Electrical Safety

- Electrical Regulatory Authorities Council (ERAC)
- Australian and New Zealand State Regulators e.g.
 NSW Fair Trading
- Australian and New Zealand Standards
- Electromagnetic Compatibility and Radio Frequency Operation
- Australian Communications and Media Authority (ACMA)
- Australian and New Zealand Standard

Most Australian and New Zealand Standards (AS/ NZS) used for RCM compliance are based on similar EN or IEC Standards with similar numbering. The AS/NZS requirements are similar to the equivalent EN or IEC standard although some additional requirements are also prescribed.



ELECTRICAL SAFETY

AS/NZS 60598.1:2017 Luminaires – General requirements and tests (IEC 60598–1, Ed. 8.0 2014). AS/NZS 60598.2.2:2016 Recessed luminaires (IEC 60598–2–2, Ed. 3.0 2011). AS/NZS 60598.2.3:2015 Luminaires for road and street lighting (IEC 60598–2–3, Ed. 3.1 2011). AS/NZS 60598.2.5:2002 Luminaires – Particular requirements – Floodlights (IEC 60598.2.5:1998). AS/NZS 60598.2.22:2005 Luminaires for emergency lighting (IEC 60598–2–22, Ed. 3.1 2002).

AS 2293.3–2005 Emergency escape luminaires and exit signs (Australia Specific with 2 Hour requirement).

ELECTROMAGNETIC COMPATIBILITY

AS CISPR 15:2017 Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

(CISPR 15:2013+AMD1 :2015 ED.8.1).

AS/NZS 4268:2017 Radio equipment and systems – Short range devices – Limits and methods of measurement.

LED QUALITY CRITERIA

There is LED and there is LED

Various LED types are available on the market, performing different tasks with respect to service life, lighting quality and thermal management, depending on the application involved. So far there are only few standards enabling objective comparison.

TEMPERATURES

In the data sheets provided by LED manufacturers, the temperature at the semiconductor (Tj = T junction) is generally determined to be 25°. The Tc temperature, however, is indicated for a measuring point on the LED board. If the temperature defined by the board manufacturer is observed, the service life stated in the data sheet and/or the luminous flux of the module will be achieved.

As this information in part substantially differs from the temperature levels given directly on the chip, this may easily cause some confusion with respect to reference values.

LUMINOUS FLUX LEVELS AND EFFICIENCY

The light emanating from the LED chip or the LED board is called luminous flux. In LED lighting we talk about the luminous flux of the luminaire instead of the lamp lumen factor. The luminous flux of the luminaire designates the light actually emanating from the luminaire. Efficiency is indicated in lumens per watt (Im/W). It designates the ratio of luminous flux to power supplied.

COLOUR TEMPERATURE

Whether the LED and/or the luminaire has warm or fairly cool light can be derived from the colour temperature indicated. The higher the colour temperature, the cooler the lighting effect. A colour temperature of 3000 K is generally called warm. 4000 – 4200 K is perceived as intermediate and >5500 K as cool white.

SERVICE LIFE

Usually, details regarding the service life of LEDs at specific temperatures are indicated by LED manufacturers in/on the LED chip (see diagram). To achieve these, reliable thermal management must absolutely be ensured in the luminaires. For this purpose, Zumtobel Group uses various methods explained in greater detail under "Thermal management". The service lives of the LED chips/boards are indicated in the ZG catalogues and specifications. Product specific features, such as more favourable thermal conditions, e.g. lower temperatures than required by the manufacturer, have already been taken account of.

Another important question is which luminous flux level may be expected at the end of service life. A level of 70% is normally assumed. Some manufacturers, however, indicate a luminous flux of 50%. These specific features should be observed when selecting and comparing products.

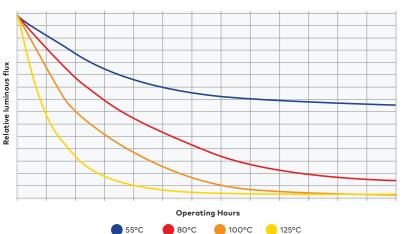
LUMINOUS FLUX LEVELS OF LUMINAIRES

One critical aspect in comparing LED luminaires of different suppliers is the comparison of luminous flux levels, as mentioned above. In the catalogues of many manufacturers, you will find details regarding the luminous flux and efficacy of individual LEDs at ambient temperature of 25°C, details regarding the luminous flux levels of the LED board used at a specific Tc temperature, but also details regarding the luminous flux levels of luminaires and luminaire efficacy levels, including the power loss of drivers and any potential loss of efficacy through lighting optics, such as lenses, reflectors or mixing chambers.

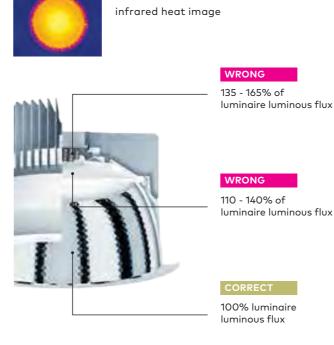
The indication of the luminous flux of the luminaire and of the system efficacy in catalogue data and specifications certainly is the most meaningful as it indicates the actually available luminous flux emanating from the luminaire. These levels are indicated in Zumtobel Group's catalogues and specifications.

The diagram shows an example of possible efficacy losses within a luminaire. The levels may vary depending on changing materials and thermal conditions. In case of doubt, we recommend comparing the photometric data by means of lighting design software.

PANOS INFINITY 200



The luminous flux of an LED depreciates faster at higher temperatures. Efficient thermal management extends the life of LEDs. Please consider the definition of life as stated by the LED manufacturer.



THERMAL MANAGEMENT

Efficient thermal management is indispensable in order to achieve a long service life and to operate LEDs as efficiently as possible.

Not only will higher temperatures in the LED chip reduce service life; the efficiency of the LED chip, too, will decrease as temperature increases.

For reliable products with top efficiency levels – an absolute must for providing a 5-year guarantee – Zumtobel Group uses both highly efficient passive surface cooling, e.g. with PANOS INFINITY, and active systems with ventilator and SynJet[™] membrane cooling. Yet reliable and efficient thermal management starts at an earlier point: during the development process, that is – which includes comprehensive tests and simulations in Zumtobel Group's own laboratories.

A large heat sink alone cannot generally be considered a sufficient quality criterion for optimal thermal management. A thermal connection between board and heat sink must also be ensured. For this purpose, Zumtobel Group uses thermal pads or compounds as required.

Within the scope of quality processes, thermal connection of the LED chips to the boards is checked as well and compared with the LED manufacturer's specifications.

This know-how available within the Zumtobel Group and at the individual plants, has enabled the Group to develop the 5-year guarantee. It emphasises the consistent principle of quality observed throughout the entire development and production processes of products.

The LDT files reveal the truth!

Luminous flux of individual LEDs (specifications from LED data sheet)

The data sheet specifications relate to 25°C Tj (Tj = junction temperature) in the LED chip – between the junctions in the LED. However, the data sheets also include permissible Tj temperatures of 150°C in some cases. During operation, high-performance LEDs get very hot. Heat however has a negative effect on both luminous flux and the service life of the LED.

Luminous flux of the LED module (without optic etc.)

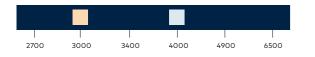
In this case, the LED module is assumed to be similar to a lamp. The LED module thus has 100% luminous flux. This value, however, has yet to be reduced by the loss in light output ratio.

Luminaire luminous flux (incl. light output ratio losses) This information refers to the actual luminous flux of the luminaire, including any losses, for instance in the reflector etc.

ZUMTOBEL GROUP "STABLE WHITE"

"Stable White" is a Zumtobel Group quality label for mixing chamber systems. In the LED sphere it comprises e.g. a maximum admissible colour drift of 5 MacAdams in the course of the service life of the LED. This makes the criteria somewhat more stringent than for fluorescent lamps, for instance, where even 5 MacAdams and more are possible when using different batches.

"Stable White" also stands for fixed colour temperatures of warm (e.g. 3000 K) and intermediate (e.g. 4000 K).



ZUMTOBEL GROUP "TUNABLE WHITE"

"Tunable White" describes the option to dynamically change the light of the LED in the white light range, colour temperatures of e.g. 2700 K to 6500 K can be variably adjusted. In the process, the LED luminaires achieve a high colour rendering index of at least Ra 80 to Ra > 90.



COLOUR RENDERING

Today LED lighting solutions achieve high colour rendering in excess of Ra 90, and hence are more sophisticated than many solutions using fluorescent lamps. Even the colour rendering levels of discharge lamps are achieved, as are other technical lighting properties.

For its high-quality products, Zumtobel Group collaborates closely, sometimes exclusively, with other manufacturers of LEDs and LED modules, which guarantees integration of the latest technologies at an early stage of any new product development.

As regards the colour rendering of LEDs, the following indications are of key importance: normative colour rendering in the warmer colour temperature range is usually higher with single-chip-LEDs with a blue dye and yellow phosphor. Colours should be rendered as naturally as possible by choosing the corresponding phosphor mixes. For a cooler colour temperature, the phosphor mix is changed. LEDs with cooler light colours are normally more efficient, but their colour rendering index is also lower.

By mixing white light through LEDs of different light colours, excellent colour rendering can be achieved at simultaneously high efficiency.



QUALITY

Thorn Lighting is committed to providing its customers with products and services that are of the highest quality. All Thorn Lighting products are designed and manufactured to ensure safety, reliability and performance.

Our expertise in meeting these goals is recognised internationally. Thorn Lighting is an active participant in developing International product (IEC), European (EN) and lighting (CIE, ISO) Standards, as well as local AS/ NZ Standards.

QUALITY ASSURANCE (AS/NZS ISO 9001)

All activities associated with providing a quality product - design, development, testing, production, despatch, customer service - are covered by each Thorn operation achieving compliance to an internationally recognised Quality System, ie AS/NZS ISO 9001, BSEN ISO 9000, EN ISO 9000 or ISO 9000.

All Thorn products from European design and production sites (in Austria, France, Germany, Sweden and UK) are manufactured to the highest standard. Each site is registered and operated under the quality management system EN ISO 9001 standard.

THIRD PARTY PRODUCT APPROVALS

Third party approval requires independent endorsement that product design is in accordance with published standards, and that controls to maintain quality in manufacture are applied.

Thorn Lighting holds many third party approvals, such as the BSI Kitemark for luminaires and components. Many of our products carry other European Test House approvals. NATA test reports are internationally recognised and are considered as independent - third party test certification.

Thorn UK, under the BSI "Supervised Manufacturer's Testing Laboratory" system contract number BSI 001, carries out compliance testing to BSEN ISO/IEC 17025 - "Operation of testing laboratories". Furthermore Thorn UK photometric laboratory is a listed registered member of the BSI Registered Photometric Laboratory Scheme (No 003) and this ensures high quality of photometry measurement and production of data for all products.

Thorn Lighting selects and uses independent and/or in-house test facilities to provide the necessary level of compliance coverage for all aspects of lighting product performance and safety.

EUROPEAN MADE PRODUCTS

For European made luminaires and lighting components, European harmonisation of national approval marks has been achieved through introduction of the ENEC mark.

The ENEC mark can be awarded by any of the recognised European approval authorities, such as BSI, VDE, SEMKO, in the same way as a national approval mark. ENEC is important because it indicates that the product is suitable for use throughout Europe and that all of the most onerous special national conditions of test standards have been complied with.



- In the case of lighting components such as ballasts, transformers, emergency lighting units etc. the ENEC mark indicates that both safety and performance standards have been complied with.
- Thorn Lighting supported the introduction of the ENEC mark as a major advance in product certification and was the first UK Company to secure approvals under this demanding scheme.
- The CE mark signifies that a product conforms to the requirements of relevant EEC directives. The prime purpose of the mark is to assist customs and market inspectors in facilitating the free trading and movement of products within the EEC. At this time the directives appropriate to general lighting products are the Low Voltage Directive (LVD), the Electromagnetic Compatibility (EMC) Directive and the Energy Efficiency (Ballasts for Fluorescent Lighting) Directive. CE marking is compulsory declaration of conformity to indicate that the products meet all relevant directives and requirements, eg. LVD, EMC and Ballast Efficiency.
- The ENEC and CE mark has no legal standing within New Zealand other than as "an assurance of safety". Thorn Lighting's comprehensive compliance with all relevant standards, and implementation of systems to meet them, means its products comply with these European directives and the standards on which they are based.

ASSURANCE OF SAFETY

- New Zealand has various "Electrical Safety Acts" and Australian Standard AS/NZS 3280
- "Essential safety requirements for low voltage equipment" makes it unlawful to make, hold, or offer for sale any electrical appliance that is unsafe.

WORKING TO PREVENT LIGHT POLLUTION

- Glare: the uncomfortable brightness of a light source and light trespass, the spilling of light beyond the boundary of a property, are other forms which can also cause physiological and ecological problems.
- Thorn Lighting is committed to the application of better quality lighting. Properly designed luminaires and lighting schemes can substantially improve the quality of life.
- Thorn uses efficient light sources and computeroptimised optics in its products in order to maximise the light output and enable precise control of the direction of the light. Thorn Lighting will continue to contribute to all learned bodies, ie. IES, The Lighting Society, CIE, working in favour of better lighting and to advise all its clients of the contribution that reducing glare and spill light makes towards better quality lighting and improving the lit environment.

EXPLANATION OF CLASSIFICATIONS

EMERGENCY LIGHTING

Emergency lighting is provided when the supply to the mains lighting fails. It helps people avoid panic, restores their confidence and guides them quickly and safely out of the building. Thorn Lighting offers a wide range of emergency lighting luminaires. These may be integrated standard luminaires or separate dedicated emergency units.

The requirements and operation of emergency lighting is governed by legislation, the Building code of New Zealand and Australian/New Zealand Standard AS/NZS2293. Operational performance to the standard is achieved by the thermal and photometric test to Appendix C & D. All "standard emergency products"

INGRESS PROTECTION

The ingress protection (IP) code denotes the protection against dust, solid objects and moisture provided by the luminaire enclosure. If no code is marked the luminaire is deemed to be IP20.

INGRESS PROTECTION (IP) CODE

(i) First digit of code denotes protection against dust and solid objects

IP2X. No entry of standard test finger to live parts

IP3X. No entry of >2.5mm Ø probe to live parts

IP4X. No entry of >1mm Ø probe to live parts

IP5X. Dust proof. (No dust deposit around live parts) IP6X. Dust tight (no dust entry)

(ii) Second digit of code denotes protect against moisture IPXO.No special protection

IPX1. Protection against drops of condensed water

IPX2. Drip-proof (vertical falling drops of liquid)

- IPX3. Rain-proof (rain up to angles of 60°)
- IPX4. Splash proof (spray from any angle)

IPX5. Water jet

IPX6. Strong water jet IPx7. Temporary immersion up to 1m IPX8. Long-term immersion to declared depth

IMPACT RESISTANCE

The use of Joules (Newton metres - Nm) has been common for many years. More recently an IK rating normally used for electrical enclosures and cabinets (EN 50102:1995) has emerged as manufacturers apply it to their luminaires. The following chart compares both ratings.

Impact Resistance Rating Comparison

IK01	0.15j	IK06	1j
IK02	0.23j	IK07	2ј
IK03	0.35j	IK08	5j
IK04	0.5j	IK09	10j
IK05	0.7j	IK10	20j

SAFETY CLASSIFICATIONS

Class I

Luminaires in this class are electrically insulated and provided with a connection to earth. Exposed metal parts that could become live in the event of basic insulation failure are protected by earthing.

Class II

These luminaires are designed and constructed so that protection against electric shock does not rely on basic insulation only. This can be achieved by means of reinforced or double insulation. No provision for earthing is provided.

OUR WARRANTY

ZG Lighting (NZ) Ltd five year product warranty against defects (New Zealand only)

We warrant that, if used in accordance with their intended purpose, the products marketed under the trademarks "Zumtobel", "Thorn" and "Thorneco" are free from manufacturing defects and/or defective material for the warranty period of five (5) years from the invoice date (or date of manufacture if invoice date is not known or available). This guarantee shall apply only to products delivered on or after October 1, 2015.

The warranty applies to all products sold by ZG Lighting (NZ) Ltd.

The warranty covers the products detailed above, provided that:

- The product is properly installed, and installation is consistent with the manufacturer's instructions, and is installed by a suitably trained and qualified installer
- The product is not subjected to any unauthorised modifications
- The product is only used for the purpose of illumination, in line with its designated purpose or the designated purpose of a luminaire of its general type
- There is evidence that the agreed maintenance and operating conditions have been met as per manufacturer's instructions and specifications
- Any faults or defects attributable to the misuse, abuse, accident or non-observance of the manufacturer's instructions on the part of the user are specifically excluded

If a claim is made under this warranty and this warranty applies then we may, at our own discretion repair the product, replace the product with identical or equivalent product or refund the original purchase price of the product.

The warranty also covers reasonable labour cost and equipment hire incurred with removing, repairing and replacing defected products or components. The cover of labour will be only during normal business hours 7am - 4pm. The company will cover costs of necessary equipment that may be required such as scaffolding or lifts. The electrical contractor will be chosen by ZG Lighting (NZ) Ltd. In exceptional cases electrical contractors may be chosen by the customer in which case labour cost and equipment hire will only be covered by ZG Lighting (NZ) Ltd after a quote has been received and approved in writing.

The warranty does not apply to:

- Any other ancillary costs incurred in connection with remedying the defects (such as, for instance, disposal of faulty or replaced product, mileage, travel time, callouts, third party supervisors and security personnel; such costs shall be borne by the customer
- Parts subject to wear, such as, for instance, all standard lamps, batteries and starters for luminaires with magnetic ballasts and hard drives; computers and





servers containing either hard discs or mechanical parts subject to wear

- Likewise, software defects, bugs or viruses
- Third party components or products which ZG Lighting (NZ) Ltd sells separately (for instance, OEM lamps, ballasts or other componentry that are not fixed to or installed in the luminaire)
- Settings and/or parameterisations on facilities that vary on account of wear, fatigue, or dirt
- Logistics claims where damages are reported more than 3 months after despatch date from ZG Lighting (NZ) Ltd warehouses
- Products that have been shipped to and installed in a country other than Australia or New Zealand

In the event of the goods being replaced during the warranty period, the warranty on the replacement goods will expire on the same date as the warranty period of the original goods they are replacing.

All claims or enquiries made under this warranty shall be processed as follows:

- 1. Within 14 working days of becoming aware of an alleged fault, the customer must contact the company as detailed below.
- 2. The customer must provide a proof of purchase from the Supplier as well as photographic evidence of the reported fault.
- 3. If accepted as a valid warranty claim within the terms described in this document, ZG Lighting (NZ) Ltd will make suitable repairs, provide equivalent replacement product or refund the original purchase price of the product.
- 4. ZG Lighting (NZ) Ltd may request the customer to have goods returned for repair or further investigation.
- 5. In such cases (as item 4 above), the customer will be provided with a Goods Return Authority (GRA) number and ZG Lighting (NZ) Ltd will make arrangements for collecting the goods from the customer at a predetermined date/time.
- 6. If, after review of claim or further inspection of goods, the claim is rejected, the customer will be provided with a full explanation, and if requested, the goods will be returned.

Our goods come with guarantees that cannot be excluded under the New Zealand Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

ENSURING LEGAL COMPLIANCE

When you purchase Thorn Lighting Products you can rest assured that every effort has been made to ensure that the quality product complies with all current New Zealand legislation. Combined with Zumtobel Group's 5 year warranty on all Thorn Lighting products, you can be assured that your lighting will be safe, compliant and provide quality lighting for years to come.

CREDIT RETURN POLICY

Customer Services Line 0800 800 834

ERROR WITH YOUR INVOICE

- 1. Should you find an error with your invoice, call our Customer Services line within 24 hours of receipt of the invoice.
- 2. Explain the error, detailing the invoice number and Thorn order number.
- 3. We will arrange a credit/debit adjustment to your invoice immediately.

DAMAGED GOODS

- 1. Phone our Customer Services line within 7 days of receipt of goods.
- 2.We will:
- a) have the goods inspected
- b) authorise the return for repair or replacement
- 3.We will prepare the goods return documentation and send to you within 24 hours.
- 4.If the goods are to be returned, please make sure the original Thorn Lighting packaging is still intact, with the correct documentation and our address.

ERROR WITH YOUR DELIVERY

- 1. Call our Customer Services line within 7 days of receipt of goods.
- 2.Explain the discrepancy in your delivery, quoting the packing slip and Thorn order number.
- 3.We will arrange to recover any incorrectly supplied product and supply the correct item.

STOCK RETURNS

Our conditions of sale are:

- 1. Goods specially made to order or indented for your purposes ARE NOT returnable. (See the relevant statement on your invoice/packing slip).
- 2. Where it is agreed that goods may be returned for credit, these may be subject to a restocking fee of up to 20%.
- 3. You must obtain a Goods Return Authorisation (GRA) from Customer Services before any goods can be returned. No credit will be issued without a GRA number.
- 4. Your returned goods must be accompanied by the GRA and will be credited after they have been received back into a Thorn branch and are confirmed to still be in a saleable condition.



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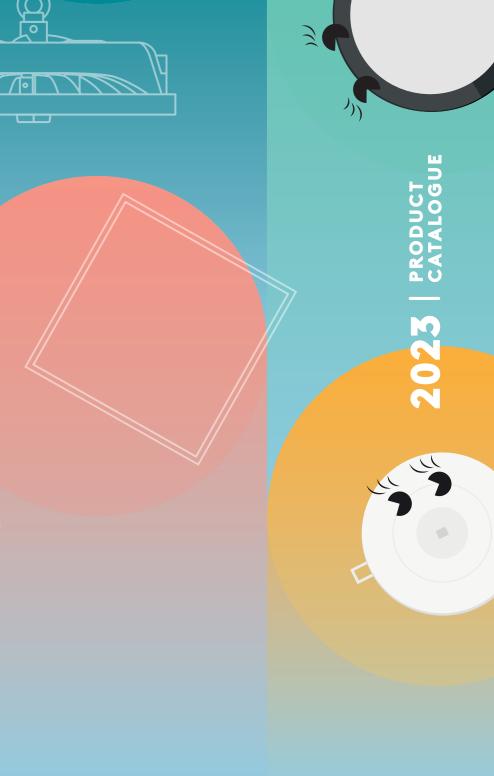
Contact.

Auckland – Headquarters ZG Lighting (NZ) Limited T. 0800 800 834

ZG Lighting (NZ) Limited T. 0800 800 834



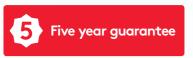






Great quality and great price

As part of the Zumtobel Group, our expertise and experience goes back decades. We offer you an economic range of LED luminaires for the replacement market.

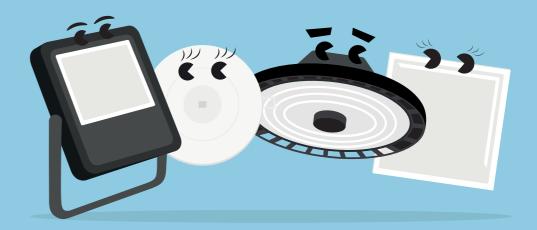


THORNeco completes the THORN Brand portfolio with a portfolio dedicated and specified for wholesalers and installers following European quality standards. www.thorneco.com



Hi, we are THORNGCO

A range of best in class, economical LED luminaires. Ideal for like-for-like replacements for all light sources – from industrial environments, to offices and outdoors. Easy to install, longer lasting and energy saving, we'll be friends in no time.



\bigotimes

EASY TO INSTALL

With standardised fittings and adaptable accessories, we'll be up and running in minutes



Get up to 50000 hours active lifetime – over 13 years – with our long lasting LED technology



Saves time with onsite installation and helps the environment

BATTENS



Barry



Julie Henry Vario

10

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IP65





Poppy Vario LED Batten



Elsa Vario Flex LED Bathroom

BULKHEADS



Lara Vario Flex Circular IP65 LED Bulkhead

AROUND THE HOUSE

FLOODLIGHTS



Leonie

Vario Flex





Leo Flex **High Power**





Boris

DOWNLIGHTS



Amy Vario Downlight

ХШ XШ

PANELS

Anna **LED Panel**

EMERGENCY







Wall-mounted LED

Change the colour temperature with the flick of a switch.

We proudly present

33

111,

THE VARIOs

With our Vario range you can easily choose between different colour temperatures to suit your application. Switch from warm white to neutral white (3000K, **4000 K & 5**700 K) in one product.

ARIO

Plugged in the THORNeco STUDIOS

THE FLEXIBLES

Define your lighting intensity by up to 4 steps directly on site, adaptable to your needs - easy and comfortable via switch directly on the luminaire.





LED Batten



BARRY LED 1200 4000 840

Calm and composed, Barry blends perfectly into a range of indoor settings

- Direct replacement for conventional battens in terms of light performance and length
- Reliable integrated LED technology, ensuring maintenance-free installation and a long lifetime
- Homogeneous illumination
- High efficacy of 100 lm/W
- Choose between cool white (4000K) and daylight (6500 K) to suit application use



2400, 4000 and 50 000 hours 6000 lumens, lifetime 100 lm/W



600 mm (2400 lm), 1200 mm (4000 lm) and 1500 mm (6000 lm)

Save up to 60% energy compared with fluorescent battens

Warehouses

Ideal for ...



Workshops



×

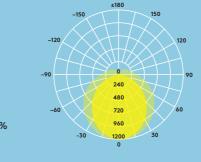
version

available

2h emergency

Lighting distribution





Light source information

- 2400lm (24W), 4000lm (40W) and 6000lm (60W), 100lm/W
- 4000K cool white LED or 6500K daylight LED
- 50000 hours rated life (@L80B50, Ta 25 °C)
- CRI 80
- Beam angle: 120°
- MacAdam (initial): 5 step

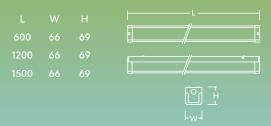
Installation/Mounting

- Surface mounting (screws included)

Material/Finish

Body: steel, powder coated, white (RAL 9003) Diffuser: PC, IP40, opal white End caps: PC, white





Ordering guide

Description	SAP Code
BARRY LED 600 2400 840	96631215
BARRY LED 1200 4000 840	96630490
BARRY LED 1500 6000 840	96630491
BARRY LED 1200 4000 865	96631439
BARRY LED 1500 6000 865	96631440
Emergency versions	
BARRY LED 600 2400 840 EL2*	96631216
BARRY LED 1200 4000 840 EL2*	96630492
BARRY LED 1500 6000 840 EL2*	96630493
BARRY LED 1500 6000 865 EL2*	96631441

*AS 2293 Emergency Classification Barry 600mm: C0 = D50, C90 = C80 Barry 1200/1500mm: C0= D80, C90 = D32 2 hours maintained LED emergency luminaire

Specification

- Class I electrical
- IP20
- IK08
- Ambient operating temperature: -20 to +40 °C Std (E2 0 to 25 °C)



JULIE 600 LED IP65 2200 JULIE 1200 LED IP65 4200

With a tough exterior, Julie is the optimal choice for industrial and commercial applications

- High quality, low energy lighting in wet and dusty environments
- High quality opal diffuser for uniform lighting
- Ideal for replacement and refurbishment projects
- 2200 lm (19 W), 4200 lm (38 W), 6300 lm (55 W) up to 116 lm/W
- Colour temperature 4000 K and 6000 K



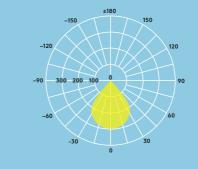
1K 08 1 P 65 G IP65: Save up to IK08 rated Dust tight and 60 % energy impact water resistant compared to resistance **T8** fluorescent Lengths of 50 000 hours 3h emergency 1232 mm and version lifetime 1532 mm available Ideal for ...





Lighting distribution





Light source information

- 50 000 hours rated life (@L70B50, Ta 25 °C)
- 2200 lm (19 W), 4200 lm (38 W), 6300 lm (55 W) up to 116 lm/W
- Colour temperature 4000K and 6000K
- CRI80
- MacAdam (initial): 4 step

Installation/Mounting

Suitable for surface mounting. 4×10 mm stainless steel selftapping screws (not included) can be applied to prevent unauthorised opening of the luminaire.

Material/Finish

Canopy: Polycarbonate Diffuser: Opal polycarbonate (UV stabilised)

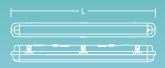
Bracket: Stainless steel

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	W	н
632	103	78
1232	103	78
1532	103	78





Ordering guide

Description	SAP Code
JULIE 600 LED IP65 2200 840	96628548
JULIE 1200 LED IP65 4200 840	96665577
JULIE 1200 LED IP65 4200 865	96628546
JULIE 1500 LED IP65 6300 840	96665580
JULIE 1500 LED IP65 6300 865	96628547
JULIE 1500 LED IP65 6300 840 COR MWS	96630236
Emergency versions	
JULIE 1200 LED IP65 4000 840 EL2	96646833
JULIE 1500 LED IP65 6000 840 EL2	96646927
JULIE 1500 LED IP65 6300 865 E3	96631130
Spare parts	
JULIE LED Spare Mount Kit	96628409

MWS: microwave presence sensor $\mbox{COR:}$ corridor function $\mbox{TW:}$ through-wired CONNECT: with quick connector

*AS/NZS 2293 Emergency Classification Julie 1200mm: C0 = D40, C90 = D25 Julie 1500mm: C0 = D50, C90 = D32 2 hours maintained LED emergency luminaire

Specification

- Class I electrical
- IP65
- IK08
- Ambient operating temperature: -20 to +40 °C Std (E3 0 to 25 °C)

Henry Vario

Wide body LED batten

With stylish, curved, wide body design, Henry Vario is the ideal solution for any refurbishment job

- Switchable light colour: choose between cool white (4000K) or daylight (5700K) to suit the application
- Direct replacement for conventional wide body battens in terms of light performance and length
- Wide body design is ideal for refurbishment projects, no need for paint touch ups
- High efficacy up to 105 lm/W

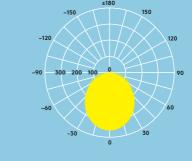






Lighting distribution





Light source information

- 4200lm (40W), 6000lm (58W), up to 105lm/W @ 4000K
- Switchable colour temperature: $4000\,K$ and $5700\,K$
- 50 000 hours rated life (@L70, Ta 25 °C)
- CRI 80
- Beam angle 120°
- McAdam (initial): 5

Installation/Mounting

Surface mounting (screws included)

Material/Finish

Body: steel, powder coated white (RAL 9016) Diffuser: PC, reeded opal white End caps: PC, white



SAP Code



Ordering guide

Description

· · ·	
HENRY VAR LED 1200 4000 840/57	96650023
HENRY VAR LED 1500 6000 840/57	96650024
HENRY VAR LED 1200 4000 840/57 E2	96650258
HENRY VAR LED 1500 6000 840/57 E2	96650259

E2: 2h emergency (AS/NZS 2293) spacing classifications 96650256, C0 - D25, C90 - D20 96650257, C0 - D25, C90 - D16

- ClassI electrical
- IP40
- IK06
- Ambient operating temperature:
- -20°C to 40°C for standard, 0°C to 30°C for E2

Poppy Vario

LED Batten



Tactful and Timeless, Poppy blends into a wide range of indoor settings

- An easy to install and versatile IP20 batten
- Switchable light colour: choose between cool white (4000K) or daylight (6500K) to suit the application
- Direct replacement for conventional battens in terms of light performance and length
- Reliable integrated LED technology, ensuring maintenance-free installation and a long lifetime
- Homogeneous illumination
- Quick opening and installation thanks to press release buttons
- Piano-key terminals, enabling loop-in loop-out
- Suspended LED tray for easy installation
- PIR sensor option available



VARIO	Ø	(B)
Switchable light colour	5800–6900 Iumens, 125 Im/W	IK08 rate impact resistanc
PIR Sensor optional	50000h lifetime before luminous flux is reduced to 80% of the initial value	







Light source information

- 6000lm (48W), 6900lm (55W), up to 125lm/W
- Lifetime 50000 hours (@L80, Ta 25°C)
- Colour temperature 4000K or 6500K
- CRI 80
- MacAdam (initial): 5

Installation/Mounting

 Suitable for surface mounting and suspended installation

- Rear and side entry possible

- BESA fixing points

- Material/Finish
 Body: sheet metal,
 white finish (RAL 9002)
- Diffuser: polycarbonate, opal
- End caps: polycarbonate, white (RAL 9002)

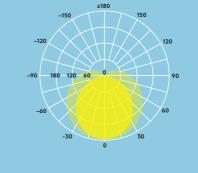
Light distribution



Poppy 6600 lm

DLOR: 85 % LOR: 100 %

cd/klm ULOR: 15 %



PIR sensor

Poppy's infrared sensor option will ensure that light is only delivered when needed. This sensor is a motion switch, which turns on the light on detection of movement, and turns off after a pre-selected hold-time when there are no people around. A daylight sensor is also built-in to prevent the light switching on when there is sufficient natural light.

Sensor range

at 100 % sensitivity



Specification

Class I electrical
IP20

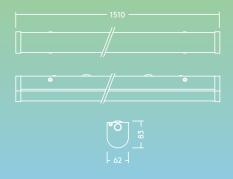
- IK08
- ENEC certified driver
- Ambient operating
- temperature: -20 to +40 °C

Controllability

Sensitivity	min, max
🚯 Time	5s, 30s, 1min, 3min, 5min, 8min
Working light selection	in any natural light, only works at night



with PIR senso



Ordering guide

Description	SAP Code
POPPY LED 1200 5000 840/65	96651737
POPPY LED 1500 6500 840/65	96651738
POPPY LED 1500 6500 840/65 E2	96651740
POPPY LED 1500 6500 840/65 PIR	96651739

Elsa Vario Flex

LED Bathroom Mirror Luminaire



Splash resistant, practical and appealing at the same time, Elsa Vario Flex takes care of your looks

- FLEX Feature (Lumen switch): Decide on your lumen package per lumen switch directly on site for two sizes (450 mm and 600 mm)
- VARIO Feature (Colour temperature switch): 3000K (warm white), 3500K or 4000K (neutral white)
- Colour Rendering ≥90 for your best look in front of the mirror
- Bathroom mirror luminaire with an elegant and timeless design
- Opal diffuser ensuring visual comfort and a fully homogeneous illumination
- Integrated on/off switch or sensor option (daylight & presence) available
- Tool-free wiring for quick installation







IP44 splash resistant and IK08 rated impact resistance

presence

Daylight and 50000h lifetime before luminous flux is reduced to 70% of the initial value

Material/Finish

– Body: Aluminium, white finish (RAL 9016)

- Diffuser: PC, opal

white finish (RAL 9016)

– End cap: PC,

High CRI for a

more accurate

and natural

feel

Ideal for ...

Sanitary rooms

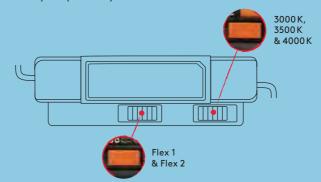
Installation/Mounting

- Suitable for surface mountina
- Tool-free wiring with push terminal
- Sufficient space at the back of the batten for excess cable

Facilitating life

VARIO & FLEX Feature

There is no need to worry about lumen packages or colour temperatures anymore – it's always the same product that can be easily adapted for your needs onsite:



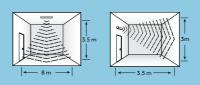
And of course your morning smile will be presented in the best light with CRI≥90 – no matter which colour temperature you choose.

Presence and daylight detection

Elsa Vario Flex's microwave sensor option will ensure that light is only delivered when needed. This sensor is a motion switch, which turns on the light on detection of movement, and turns off after a pre-selected hold-time when there are no people around. This leaves the luminaire with a clean finish, as no on/ off switch is used. A daylight sensor is also built-in to prevent the light switching on when there is sufficient natural light.

Sensor range

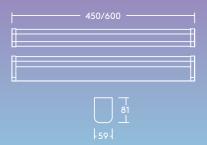
at 100% sensitivity



Controllability (default)

.atl	Sensitivity	25 %, <mark>50 %</mark> , 75 %, 100 %
\odot	Time	10 s, 1 min , 5 min, 10 min, 15 min, 20 min, 25 min, 30 min
*	lux	101ux, 201ux, 501ux, 1001ux, 3001ux, 5001ux, <mark>disable</mark>



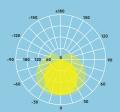


Ordering guide

Description	SAP Code
ELSA VARIOFLEX 450 800 930/35/40	96635659
ELSA VARIOFLEX 450 800 930/35/40 MWS	96635660
ELSA VARIOFLEX 600 1200 930/35/40	96635661
ELSA VARIOFLEX 600 1200 930/35/40 MWS	96635662

MWS: microwave presence sensor

Portfolio overview





Light source information Specification

- Flex @4000K:	450 mm	600mm
	800 lm	1200 lm
	600 lm	900lm

- Vario: 3000K, 3500K & 4000K temperature: -20 to +40 °C
- Efficiency up to 100 lm/W
- Life time 50000 hours (@L70, Ta 25°C)
- MacAdam (initial): 4
- CRI≥90

- Class II electrical
- IP44
- IK08
- Ambient operating

Boris

LED High Bay





Efficient and powerful, Boris is the expert for high ceilings

- Boris is the ideal choice for replacing a conventional lighting solution one-for-one and offering an energy-saving by more than 50%
- Boris PLUG&PLAY MWS and PIR sensors for detecting presence and daylight make Boris even more efficient
- Lower maintenance costs as there is no need for costly and disruptive lamp replacements due to 50 000 hours operation life time
- New design provides a broader light distribution for an homogenous illumination of the ground level and prevention of hot-spots
- Ready for Quick and easy conversion of Boris for emergency operation thanks to the PLUG&PLAY E2 kit





water resistant luminous flux value

1 P 65

impact is reduced to 80% of initial



4 lumen packages from Kit available 13000 lm up to separately 30000 lm

Ideal for ...



PLUG&PLAY E2



Production



Presence & Daylight sensors (MWS and PIR)

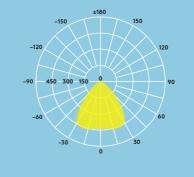
- Easy to install: Simply plug sensor onto ZHAGA Socket connector in the middle of the luminaire
- Easy to control: Adjustable via remote control (mandatory for installation)
- Easy to use: The light is generated automatically wherever it is needed

IK08 rated resistance

1K 08

Light distribution





Light source information Specification

- 4000 K
- 13000lm (95W), 19000lm (140W), 25000lm (185W), 30000lm (230W)
- Efficiency: up to 136lm/W
- 50000 hrs @ L80 / Ta 25°
- CRI 80
- MacAdam (intial): 5

Installation/Mounting

- Single point for suspension or surface mounting (mounting

Material/Finish

- Class I electrical

- IK08 (IK03 for PIR)

- Ambient operating

(E3: 0 to +25 °C)

temperature: -30 to +45 °C

– IP65

- Body: Aluminium die-cast,
 - black (RAL 9017) - Lens: PC
- hook supplied with luminaire) - Stirrup for wall/ceiling mounting (available as

accessory)

Presence & Daylight sensors

Boris' PLUG&PLAY sensor options will ensure that light is only delivered when needed by detecting motion and daylight via microwave or infrared technology. All parameters need to be adjusted by using the remote control (available as accessory).











Ordering guide

Description	SAP Code
BORIS 300 13000 840	96634055
BORIS 300 19000 840	96634056
BORIS 375 25000 840	96634057
BORIS 375 30000 840	96634058
Accessories	
BORIS PLUG&PLAY E2 Kit	96652073
BORIS PLUG&PLAY MWS SENSOR GEN2	96635768
BORIS PLUG&PLAY PIR SENSOR GEN2	96635769
BORIS SENSOR REMOTE CONTROL GEN2	96635770
BORIS STIRRUP S	96634426
BORIS STIRRUP L	96634427

MWS: microwave presence sensor PIR: infrared sensor

Sensor range

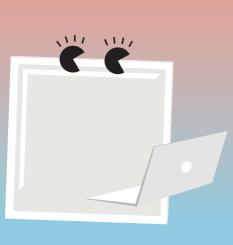
at 100% sensitivity





Recessed LED Panel

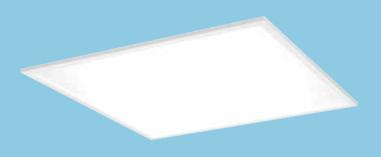
Anna



 \bigcirc

Low glare and calm, Anna is the universal talent for desk space environments

- Gentle, soft and glare free lighting (UGR < 19) with high uniformity micro-prismatic diffuser
- Back-lit LED panel with lightweight design and low installation depth
- Even surface and IP44 (from below) for hassle-free cleaning
- Supplied with remote driver, pre-wired with 2 pin FLEX&PLUG (1.2 m length) for tool-free installation
- Suitable for recessed mounting in T-bar ceiling grids



4800, 3600, 1196 × 596 mm 1800 lm, 1196 × 296 mm up to 109 lm/W 596 × 596 mm 596 × 296 mm

/

1P 44

IP44

cleaning

UGR < 19: gentle, soft and glarefree lighting for office applications (from below): Splash resistant luminous flux for hassle-free initial value

Ideal for ...

meeting rooms



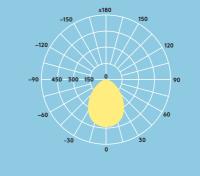
50 000 h lifetime before is reduced to 80% of the



universities

Lighting distribution





Light source information Specification

- 1196×596: 4800 lm/44W - 1196×296: 3600 lm/36W - 596×596: 3600 lm/36W
- 596×296: 1800 lm/18W
- 50000 hours rated life (@L80, Ta 25°C)
- CRI80
- MacAdam (initial): 4 step
- UGR < 19

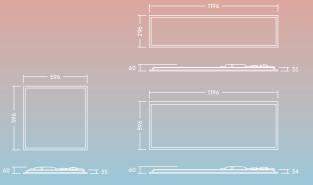
- 4000K

- ClassII electrical - IP44 (from below), IP20 (from above)
 - IK03
- RCM certified driver
- Ambient operating temperature: -20 to +40 °C

20



SAP Code



Ordering guide

Description

ANNA LED 1200×600 4800 840 FP	96650512
ANNA LED 1200×300 3500 840 FP	96650513
ANNA LED 600×600 3500 840 FP	96650514
ANNA LED 600×300 1800 840 FP	96650515

Installation/Mounting

- Lay-in installation in T-bar ceiling grids

Material/Finish

Frame: Aluminium, white (RAL 9003)

Diffuser: High uniformity PS micro-prismatic diffuser

Backplate: Steel sheet

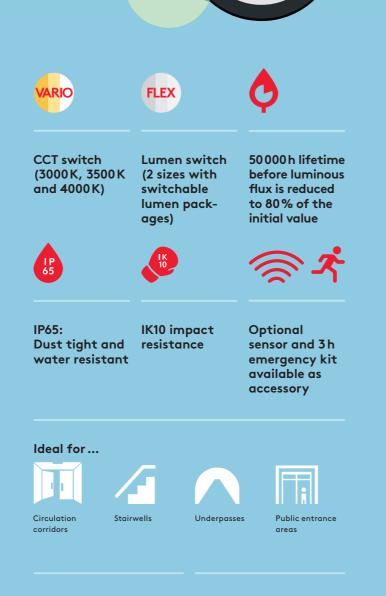
Lara Vario Flex

Circular IP65 LED Bulkhead

Sporting many different looks, Lara is the ultimate choice for a range of indoor and outdoor settings

- FLEX Feature (Lumen switch): Decide on your lumen package per lumen switch directly on site for two sizes (250 mm and 300 mm)
- VARIO Feature (Colour temperature switch): 3000K (warm white), 3500K or 4000K (neutral white)
- Opal diffuser for homogeneous light effect and visual comfort
- Sealed to IP65 for protected exterior applications
- Robust construction up to IK10 impact resistance
- White Body with optional trim or eyelid (both in black or white)
- Optional with 3h emergency kit and sensor option
- Compatible with BESA Box





Light source information Specification

- 250mm 800lm 1000lm 1200lm IP65
- 300mm 1200lm 1800lm 2200lm IK10
- Vario: 3000K, 3500K & 4000K ENEC certified driver
- Efficiency up to 115 lm/W

- Flex (Lumen switch):

- Lifetime 50000 hours
- (@L80, Ta 25 °C) - CRI80

- Class II electrical

- Ambient operating
- temperature: -20 to +40 °C (E3: 0 to +25 °C)



Facilitating life

A sensor to fulfill all your needs and requirements

Easy to program via dip switches directly on the sensor itself to suit various indoor and outdoor applications.

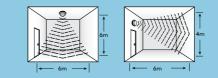


Controllability (default)

~		
2	Detection Area	100 % / 50 %
S.	Hold Time	5s(testing)/5min/15min/30min
ᠿ	Standby level corridor function	10 %
ഹ്ര	Standby period	0s/5min/15min/never off
÷Ó,	Daylight Sensor	OFF: MWS only
		5 on/7,5 off lux: external pedestrian walkway
		100 on/150 off lux: Internal Circulation Areas (corridors and stairs), Stockrooms and Storerooms
		200 on/300 off lux: Internal Washrooms, Toilets and Cloakrooms
MODE	Mode	Microwave Sensor + Daylight/Photocell only

Sensor range

at 100% sensitivity



Installation/Mounting

- Suitable for wall or ceiling
- mountina - Quick and easy installation
- Suitable for BESA fixing

Material/Finish

Body & Diffuser: UV Stabilized Polycarbonate



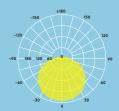


Ordering guide

Description		SAP Code
LARA VARIOFLEX 250 1200 BEZEL TRIM WH		96635288
LARA VARIOFLEX 250 1200 MWS BEZELTRIM WH		96635289
LARA VARIOFLEX 300 2200 BEZEL TRIM WH		96635290
LARA VARIOFLEX 300 2200 MWS BEZELTRIM WH		96635291
Accessories	WH	BLK
LARA VARIOFLEX 250 BEZEL TRIM	96635293	96635294
LARA VARIOFLEX 300 BEZEL TRIM	96635297	96635298
LARA VARIOFLEX 250 EYELID TRIM	96635295	96635296
LARA VARIOFLEX 300 EYELID TRIM	96635299	96635300
LARA E3 KIT SELFTEST LIFEPO4	96635292	

MWS: microwaye presence sensor WH· white· BI K· black

Portfolio overview





Amy Vario

Recessed LED Downlight



VARIO



With a pleasing aesthetic, Amy Vario is the ideal solution for a vast range of applications

- Three colour temperatures in one product simply select 3000K (warm white), 3500K or 4000K (neutral white) to suit the application use
- Consistent light output with no shadowing
- Supplied with flex & plug for quick and easy installation
- Replacement for traditional 1×18 W, 1×26 W, 2×18W or 2×26W compact fluorescent downlights
- Suitable for use with phase-cut dimmer switches from approved manufacturers



Ø 120 - 250 mm

CCT switch (3000K, 3500K and 4000K)	700–2000 lumens, up to 100 lm/W	100, 150 and 200–240 mm cut-outs
	0	¢
IP44: splash resistant	Dimmable	Save up to 80% energy compared to compact fluorescent downlights

 \square

Ideal for ... Corridors Reception Offices and Schools and areas meeting rooms universities

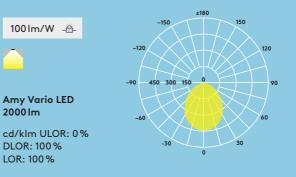
Light distribution



Amy Vario LED 2000 lm

DLOR: 100 %

LOR: 100 %



Light source information

- Lifetime 50000 hours (@L80, Ta 25°C)
- 700lm (7W), 1000lm (10W), 1500lm (15W), 2000lm (20W), up to 100 lm/W
- Colour temperature 3000K, 3500K and 4000K in one product
- CRI80
- MacAdam (initial): 4

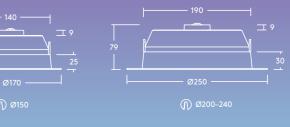
Installation/Mounting

Amy Vario can be installed into a wide range of ceiling types of 2–20 mm thickness.

Material/Finish

- Body: Steel, white finish (RAL 9003)
- Diffuser: Polycarbonate





Ordering guide

Description	SAP Code
AMY VAR 100 LED DL 700 830/35/40 FP	96651253
AMY VAR 150 LED DL 1000 830/35/40 FP	96651254
AMY VAR 150 LED DL 1500 830/35/40 FP	96651255
AMY VAR 200 LED DL 2000 830/35/40 FP	96651256

- Class II electrical
- IP44
- IK03
- Ambient operating temperature: -20 to +40 °C
- Insulation Coverable luminaire and driver (IC-F)

Leonie Vario Flex



LED Floodlight



Small yet extremely powerful, Leonie Vario Flex lights up dark outdoor areas

- FLEX Feature (Lumen switch): Decide on your lumen package per lumen switch directly on site for two sizes (16 W and 40 W)
- VARIO Feature (Colour temperature switch): 3000K (warm white), 4000K or 5700K (neutral white or daylight)
- Very light-weight, compact and streamline design
- Tilted universal mounting bracket allows easy surface mounting
- Compatible with the "LEONIE VARIO FLEX PLUG&PLAY MWS" presence sensor (available as accessory)



CCT switch Lumen switch (3000K, 4000K (2 sizes with and 5700K) switchable lumen packages)

VARIO



IP65 splash resistant and IK08 rated impact resistance

Ideal for ...



facades

Installation/Mounting

- Suitable for wall or ceiling mounting - Pre-wired with a 55 cm long
 - Body: Aluminium, powder grey)
- mains cable and open cable - Bracket: Carbon steel,
- Wall bracket available as

Light source information

- Flex @ 4000K:

ends

accessory

- 50000 hours rated life (@L80, Ta 25 °C) 16W 1000lm 1500lm 2000lm MacAdam (initial): 5
- 40W 3300lm 4000lm 5000lm Beam angle: 100±5°
- Vario: 3000K, 4000K & 5700K CRI 80
- Efficiency up to 143 lm/W

50000 h lifetime before luminous flux is reduced to 80% of the initial value



FLEX

Optional presence sensor





Gardens

Material/Finish

coated, RAL 7016 (anthracite

- RAL 7016 (anthracite grey)
- Front cover: glass

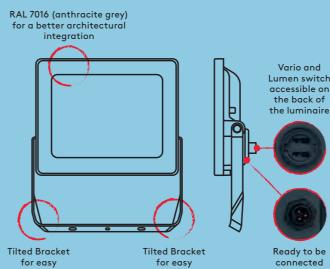


- IP65

_	IK08	(IK07	for	sens

2 lux, 10 lux, 50 lux, -¥- lux disable

Facilitating life



for easy mounting Ready to be connected

Presence sensor

mounting

The optional sensor will ensure that light is only delivered when needed. The motion detection range and time duration is fully adjustable, with the additional benefit of a daylight sensor for illuminance levels between 2 and 50 lux.

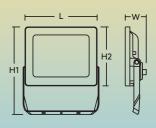


MWS Sensor range at 100% sensitivity

- Ambient operating temperature: -30 to +40 °C



L	W	H1	H2	
64	48	199	134	
77	56	214	148	



Ordering guide

Description	SAP Code
LEONIE VARIOFLEX IP65 16W 830/40/57	96652074
LEONIE VARIOFLEX IP65 40W 830/40/57	96652075
Accessories	
LEONIE VARIOFLEX PLUG&PLAY MWS	96635648
LEONIE VARIOFLEX WALL BRACKET	96635746

MWS: microwave presence senso



Leonie Vario Flex 16 W

Leonie Vario Flex 40 W

Anthracite grey colour with lumen switch

Leo Flex

High Power LED Floodlight



Extremely powerful and resilient, Leo Flex adds safety in dark areas

- Asymmetrical light distribution ideal for building facades and area lighting
- 5 different sizes available
- FLEX Feature: Decide on your lumen package per size directly on site
- Integrated photocell for automatic light from dusk til dawn
- New with Corrosion Class C4 for reliable use in more environmentally challenging areas
- Light-weight and slim design
- Tilted universal mounting bracket allows wall or ceiling mounting with the possibility of tilting upwards or downwards
- Breather membrane to prevent water ingress
- Pre-assembled with 3 m cable for flexible connection possibilities





FLEX

5 sizes with

1K 08

IK08 rated

resistance

impact

FLEX feature

(Lumen switch)



Corrosion Class

C4 – against

environmental

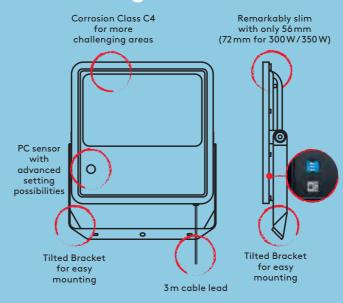
salt and

impacts

Integral

photocell

Facilitating life



Installation/Mounting

- Suitable for wall or ceiling mounting
- Quick and easy installation thank to universal mounting bracket (0-300°)
- Pre-wired with 3m mains cable

Light source information

-	Flex Steps (@ 4000K:			
	80 W	120 W	190 W	300 W	350 W
	75001m	100001m	15 000 lm	30 000 lm	350001m
	9000lm	12500 lm	20000 lm	35000 lm	400001m
	10 000 lm	15000 lm	250001m	40 000 lm	470001m

- Efficiency up to 146 lm/W
- Colour temperature 4000K
- Life time 50000 hours (@L80, Ta 25°C)
- CRI≥80
- MacAdam (initial): 5

- Class I electrical
- IP66
- IK08
- Ambient operating
- temperature: -30 to +50 °C
- Body: Aluminium die-cast
- RAL7016 (anthracite grey) - Bracket: Carbon steel,
- RAL7016 (anthracite grey) - Cover: Tempered glass
- Lens: PC

28

luminous flux is reduced to 80% of the initial value

50000 hours

lifetime before

Sealed to IP66

for exterior

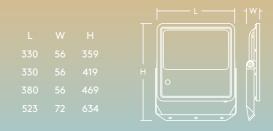
applications



Material/Finish

with 0,1% copper

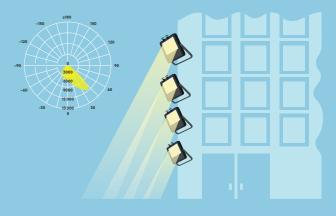




Ordering guide

Description	SAP Code
4000 K	
LEO FLEX IP66 80W 840 PC W3M	96651538
LEO FLEX IP66 120W 840 PC W3M	96651539
LEO FLEX IP66 190W 840 PC W3M	96651540
LEO FLEX IP66 300W 840 PC W3M	96651542
LEO FLEX IP66 350W 840 PC W3M	96651543

Portfolio overview



Integral photocell (default)

No matter if Leo is used outside or even inside for different applications (e.g. industrial areas) its integral photocell can be easily controlled via switch on the back of the product. It enables four settings to suit your application.

Setting 1: 10 Lux on/30 Lux off Setting 2: 25 Lux on/75 Lux off Setting 3: 200 Lux on/300 Lux off Setting 4: Disable

Wall-mounted LED Outdoor Luminaire

Holly



1 P 65

Sealed to IP65

for protected

applications

Ideal for...

Building facades

exterior

Elegant in appearance, Holly is the perfect match for any wall

- Elegant and timeless design
- 2 different designs (round, square)
- Versions with up/downlight or only downlight available
- Zero uplight versions available to reduce light pollution
- Special designed back plate provides mounting flexibility
- Fast and easy installation thanks to a well positioned 3 pole terminal block



Special designed back plate provides more flexibility in mounting



Residential

50 000 hours

lifetime

IK04 rated impact

1K 04

impact resistance

Light distribution

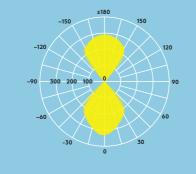


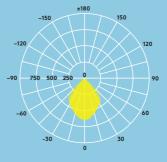
Holly UP/DOWN

DLOR: 53%

LOR: 100%

cd/klm ULOR: 47%

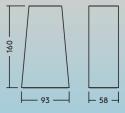




Light source information	Specification
- 250-500lm	- ClassI electrical
– 3000K	– IP65
- Lifetime: 50000 hours rated	– IK04
life (@ L80, Ta 25°C)	- Ambient operating
- CRI 80	temperature: -20 to +40 °C



Round and square version



Ordering guide

Description	SAP Code
HOLLY CONE ROUND DOWN IP65 300 830	96633683
HOLLY CONE ROUND UP/DOWN IP65 500 830	96633684
HOLLY CONE SQUARE DOWN IP65 300 830	96633685
HOLLY CONE SQUARE UP/DOWN IP65 500 830	96633686

Installation/Mounting

 Fast and easy installation thanks to a well positioned 3 pole terminal block

3 pole terminal block Special designed back plate provides more flexibility in

Material/Finish

- Body: Aluminium die-cast RAL7016
- Front cover: clear glass

Light output

mounting



*No light pollution, zero uplight

Eric

LED Exit Luminaire



Easy to install and energy efficient, Eric is a versatile emergency exit luminaire

- Energy efficient LED with Lithium Battery
- Low 3W standby power consumption
- One Box Solution Comes with both single and double-sided decals in Running man "Pictograph" and the "EXIT" decal
- Easy installation: Large terminal block and cable entry included
- 24 m viewing distance
- Wall and Ceiling mount
- Luminaire 5 year warranty
- Battery 3 year warranty
- Complies to AS/NZS2293



Image: Solution of the second state of the second



3 hours emergency duration Low 3W standby power consumption





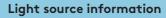


Reception areas





Public entrance areas



- 50000 hours rated life (1°C to 40°C)
- 3W

Installation/Mounting

 Wall, Ceiling single sided and double sided

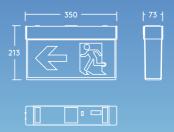
Material/Finish

Body: Polycarbonate Diffuser: Polycarbonate

ldeal for ...

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Ordering guide

Description

Eric LED Universal Exit Luminaire

SAP Code 96294618

- Class I electrical
- Maintained, manual test switch
- AS/NZS2293

Eve

Emergency LED Luminaire



Tamper resistant, Eve is suitable for most emergency lighting applications

- With energy efficient LED lamps and reliable Lithium battery, Eve delivers superior light output allowing greater spacing
- Low 0.5W standby power consumption
- Retrofitting is easy with an adaptor plate to suit older applications included in the box
- Energy efficient, long life LED 50 000 hours
- Tamper resistant no dome required
- Pre-wired with flex and plug
- Luminaire 5 year warranty
- Battery 3 year warranty
- Complies to AS/NZS2293



		¢
3 W	50 000 hours lifetime	Low 0.5W standby power consumption



140 × 17 mm

Ideal for ...



3 hours emergency

duration

Light source information - 50000 hours rated life (1°C to 40°C) - 3W

– 4× High flux LED

Installation/Mounting

Recessed ceiling mount with 85 mm ceiling hole cut-out. 135 mm (with adaptor plate) for retrofit

Material/Finish

White polycarbonate disc with an aluminium heat sink







Ordering guide

Description

Eve Recessed Emergency Luminaire FP

SAP Code 96294619

- Class I electrical
- Tamper resistant
- AS/NZS2293