



THUNDERBALL

HALO

2D LED Circular Luminaire

IP65 D320



*All products must be registered at haloinnovation.co.uk to qualify for warranty

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FEATURES

- / Durable IP65 rated case
- / Multiple function on EM / MS
- / Best replacement for 2D CCFL
- / 3H EM at 10% lumen output
- / Single colour or Tri-colour (CCT)
- / 5 year warranty*
- / LSF Wiring

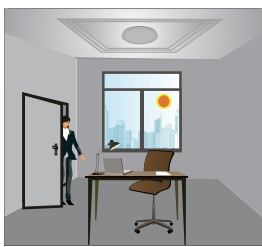
OPTIONS

- / Microwave sensor: 0% or 10%
- / Emergency: 3 hours with 10% lumen
- / DALI dimmable drivers

APPLICATIONS

- / Replacement for 2D fluorescent
- / Commercial, Industrial & Residential

MICROWAVE SENSOR



With sufficient ambient light, the sensor does not switch on the lamp.



With insufficient ambient light, the sensor switches on the lamp when motion is detected.



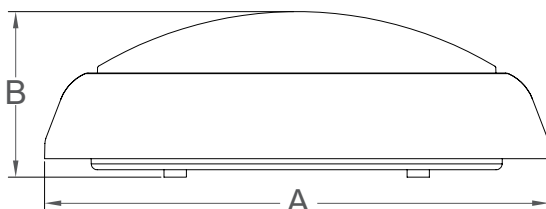
After hold time, the sensor dims the lamp at a low light level if no new motion is detected.



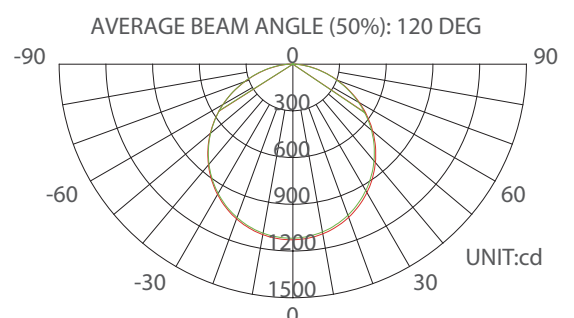
After stand-by period, the sensor switches off the lamp if no motion is detected in its detection zone.

DIMENSIONS

Model	A (mm)	B (mm)
2D Bulkhead	Ø 325	113



PHOTOMETRY CURVE














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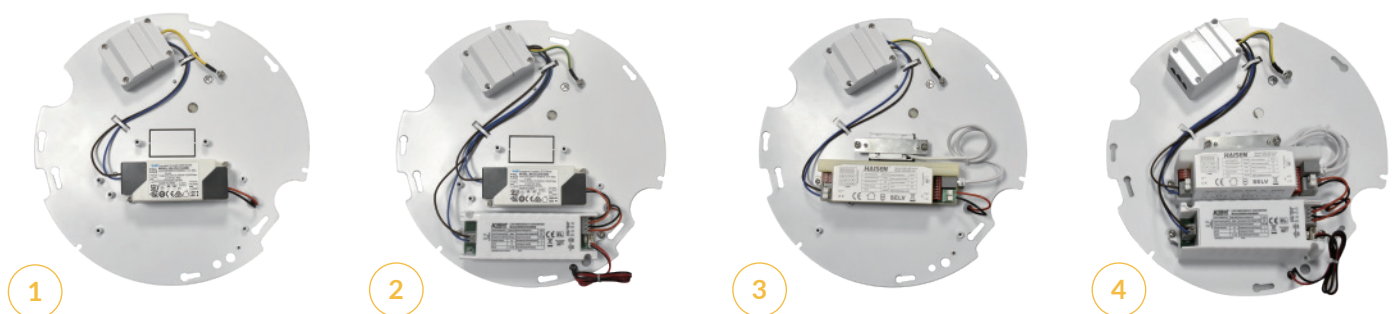
DATA SHEET

Part No	Description	LED Qty	Lumen Efficacy (Lm/w)	Luminous Flux (LM)
THUNDERBALL				
TB32-12GTR-MNF	Thunderball 12W 2D LED Bulkhead	72 x 2	100	1200
TB32-12GTR-MNF-MW	Thunderball 12W 2D LED Bulkhead + Microwave Sensor	72 x 2	100	1200
THUNDERBALL + EMERGENCY				
TB32-12GTR-MNF-MW-EM	Thunderball 12W 2D LED Bulkhead + Microwave Sensor + Emergency	72 x 2	100	1200
TB32-12GTR-MNF-EM	Thunderball 12W 2D LED Bulkhead + Emergency	72 x 2	100	1200

TECHNICAL SPECIFICATIONS

Colour Index	Ra>80	Input Voltage	AC200-240V 50/60Hz			
Colour Temp.	Single Colour: 3000K, 4000K, 5000K & 6000K or Tri-colour (CCT): 3000/6000K, Mixed: 4500K	Working Voltage	Constant DC36-42V			
Function	F1: STD F2: STD+EMG F3: STD+MS F4: STD+EMG+MS	Protection Class	IP65			
Temperature	Operation: -15° to 50°C Storage: -25° to 55°C	Temperature	Operation: -15° to 50°C Storage: -25° to 55°C			
Function	F1: STD F2: STD+EMG F3: STD+MS F4: STD+EMG+MS	Lifespan	30,000 hours			
Microwave Sensor Function	0% or 10% lumen on Microwave sensor	Energy Efficiency Class	A+ / A++			
Emergency Function	3 hour emergency / 140lm	Colour Consistency in level	Max. 6SDCM			
Flicker	Flicker free	Starting Time	<0.5S			
Power Factor	>0.95	THD	<15%			
LED Current	Constant 50mA	Switching Cycle before Failure	>100,000 times			
		Warranty	5 years			

VARIATIONS



- 1\ Standard
- 2\ Standard + 3h Emergency
- 3\ Standard+ Microwave
- 4\ Standard + 3h Emergency + Microwave