



GUARDIAN DOME DIFF DALI

GTBTDMD-12X3-84-21W

- Australian made and engineered
- Quality luminaire made from zinc plated cold rolled steel
- Zhaga compatible LED board footprint allows for easy maintenance and supports a circular economy
- Latest in Samsung LED chips boast a long life providing 53,000hr L90B10 in ambient temperatures of 40 degrees
- External mounted LED driver allows for easy maintenance and removes the heat source to increase reliability and lifetime
- Wide aperture diffuser provides soft-light output
- This fitting can be engineered to meet the installation requirements with custom lengths, widths and air slot positions



PROJECT INFORMATION

Project Name	LED DIRECT- GTBTDMD-12X3-84-21W
Fixture Type	TROFFER DOME DIFFUSER

ORDERING INFORMATION

Order code	GTBTDMD-12X3-84-21W
Description	GUARDIAN DOME DIFF DALI 21.2W Troffer / 1195mm x 295mm / 4000k / 80cri / 2940lm / DALI
Driver Type	DT6 Dimmable
Included options	Standard Diffuser, Standard DALI-2 Driver, F&P 2C (1M)

EFFICIENCIES

Total System Efficiency	138 lm/W
--------------------------------	----------

The performance of each component of a luminaire is demonstrated through its efficiencies, which together determine the total system efficiency of the product. The output of the LED chip is first multiplied by the optical and thermal efficiencies to calculate the Luminaire efficiency. However, this calculation does not consider the driver efficiency. To determine the overall efficiency of the system, the Luminaire efficiency must be multiplied by the driver efficiency, which accounts for all losses in the system.

MECHANICAL

Body Material	Zinc Annealed Steel
Diffuser Material	PMMA
Product Finish	Powder coated
Fitting Colour	Mannex White
Installation Type	Recessed
IP Rating	IP44

ELECTRICAL

Electrical Rating	Class II
Input Frequency	50 Hz
Input voltage	230Vac
In Australia the Input voltage is defined as 230Vac -6%/+10%. This effectively means that the voltage range of these products are 216Vac - 253Vac or 240V +6%	
Maximum Wattage	21.2 W
Power Factor	0.95
Working Temp Range	-25 to 40 °C



LAMP	
Macadam Steps (SDCM)	3-step MacAdam Ellipse
CCT Configuration	Single
Colour Rendering Index (CRI)	>80

LED LIFETIME	
LED Lifetime	>54,000 hrs
This is the Reported LED Lifetime in Hours based on TM-21. LED DIRECT SOLUTIONS does not list the projected or calculated LED lifetime, which is normally longer as TM-21 Addendum B explicitly states "The Calculated and Projected Lp(Dk) are not to be reported". This Lifetime refers to the life of a single LED however the system life is longer since the probability and binomial distribution of all LEDs in the system means that the average led is performing above the specification and compensates for the LEDs falling below.	
Ambient Temp (°C)	25 °C 40 °C
L90B10	53,000 hrs 53,000 hrs
This rating defines the performance of the led within its lifetime. L relates to lumen depreciation, where the proceeding number gives the resultant lumen output at the end of it reported lifetime. L70, would mean 30% lumen depreciation which means 70% of its initial output and is tested accordingly to TM-21. The B part refers to failures, which can be define as the percentage of LEDs which fall below the L value in the projected lifetime. A value of B10 refers to 10% failure and a value of B50 refers to 50% failure. After the defined lifetime, the system will reach the defined lumen depreciation and the average led failures is defined by the B rating. The B rating is defined in and tested to IEC62717.	
TM-21 Test Hours	9000 hrs

COLOUR TEMPERATURE	
CCT	4000 K
Luminaire Lumens	2940 lm
All photometric data has a tolerance of ±10%. Luminaire lumens refers to the exit lumens or delivered lumens from the luminaire.	

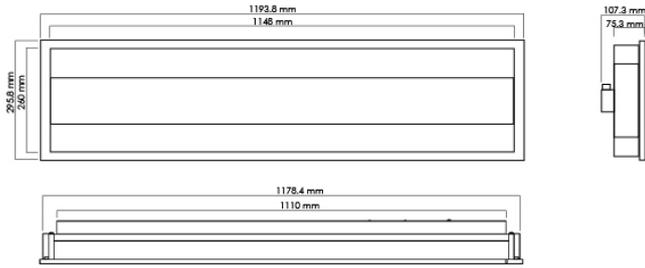
DRIVER	
Dimmable	Yes
Driver Included	Yes
Driver Mode	Constant Current
Driver Type	DT6 Dimmable
Flex & Plug or Lead Length	1000 mm
Wiring Type	F&P 2C (1M)

COMPLIANCE	
Product Design Life	10 years
The product design life relates to the total product life which includes LEDs, drivers and the enclosure. This is different to the LED lifetime which only refers to the economical lifetime of the LEDs at which time the lumen output has dropped below the L Value. The product design life is calculated at the maximum ambient or working temperature of the product and takes into account the Daily Use.	
Daily Use	13 hrs
The Daily Use is the recommended time required to meet the product's design life. Installations can exceed this time, however the product design life will be reduced proportionally.	
Standards	AS/NZS 60598.1 AS/NZS 60598.2.2 AS/NZS 61347.1 AS/NZS 61347.2.13 IEC/TR 62778 IEC 62031 AS/NZS 61535.1 AS CISPR 15

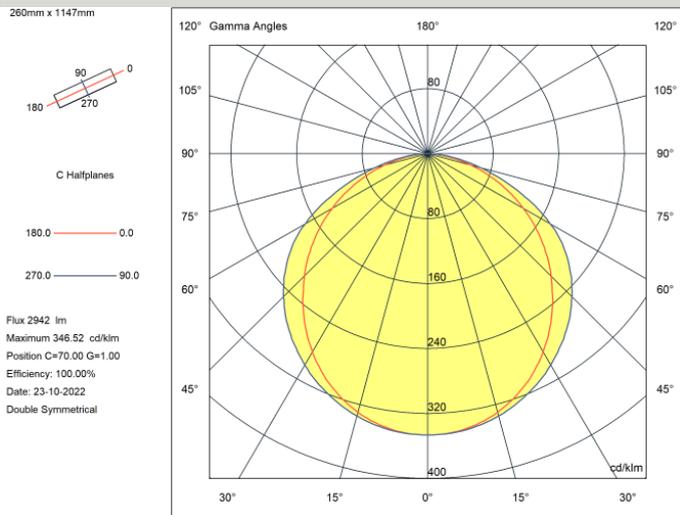
WARRANTY	
Commercial Use Warranty	5 RTB (Total 5 Years)
Warranty Operating Hours	40000 hrs
This product is provided with a warranty up until the stated warranty period or until the stated warranty operating hours has been reached (whichever occurs first).	

DIMENSIONS	
Product Height	97 mm
Product Length	1195 mm
Product Width	295 mm
All dimensions are +/- 1mm.	

LINE DRAWINGS



PHOTOMETRICS



ACCESSORIES

Description	PLASTER KIT / 1200 X 300 / White
Item Code	PFK-12x3



UGR

Reflectancies										
Ceiling/Cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
WorkingPlane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room Dim.	Viewed Crosswise					Viewed Endwise				
x=2H y=2H	16.1	17.5	16.4	17.7	17.9	17.2	18.6	17.5	18.8	19.0
x=2H y=3H	17.6	18.8	17.9	19.1	19.3	18.8	20.0	19.1	20.2	20.5
x=2H y=4H	18.1	19.3	18.5	19.6	19.8	19.3	20.4	19.6	20.7	21.0
x=2H y=6H	18.5	19.6	18.9	19.9	20.2	19.7	20.7	20.0	21.0	21.4
x=2H y=8H	18.6	19.6	19.0	20.0	20.3	19.8	20.8	20.2	21.1	21.4
x=2H y=12H	18.7	19.6	19.1	20.0	20.3	19.8	20.8	20.2	21.1	21.5
x=4H y=2H	17.0	18.2	17.4	18.5	18.7	17.9	19.0	18.2	19.3	19.6
x=4H y=3H	18.7	19.7	19.1	20.0	20.4	19.6	20.6	20.0	20.9	21.2
x=4H y=4H	19.5	20.3	19.9	20.7	21.0	20.3	21.2	20.7	21.5	21.9
x=4H y=6H	20.0	20.7	20.4	21.1	21.5	20.8	21.5	21.2	21.9	22.3
x=4H y=8H	20.1	20.8	20.6	21.2	21.6	20.9	21.6	21.4	22.0	22.4
x=4H y=12H	20.2	20.8	20.7	21.3	21.7	21.0	21.6	21.5	22.1	22.5
x=8H y=4H	19.9	20.6	20.3	21.0	21.4	20.6	21.3	21.0	21.7	22.1
x=8H y=6H	20.6	21.1	21.0	21.6	22.0	21.2	21.8	21.7	22.2	22.7
x=8H y=8H	20.8	21.3	21.3	21.8	22.2	21.4	21.9	21.9	22.4	22.9
x=8H y=12H	21.0	21.4	21.5	21.9	22.4	21.6	22.0	22.1	22.5	23.0
x=12H y=4H	19.9	20.5	20.4	20.9	21.4	20.6	21.2	21.1	21.7	22.1
x=12H y=6H	20.7	21.1	21.1	21.6	22.1	21.3	21.8	21.8	22.2	22.7
x=12H y=8H	21.0	21.4	21.4	21.8	22.4	21.5	22.0	22.0	22.4	22.9
Variations										
S = 1.0 H	0.6 / -2.1					0.6 / -1.9				
S = 1.5 H	0.9 / -3.8					0.9 / -3.6				
S = 2.0 H	1.2 / -4.9					1.1 / -4.6				
Std. Table	BK06					BK05				
Addendum Cor.	3.5					3.8				

AS/NZS 1680.2 specifies the UGR value is rounded by +/- 1.5. For example values between 20.5 and 23.5 are considered to be UGR 22. The data in the table below lists the corrected UGR values.