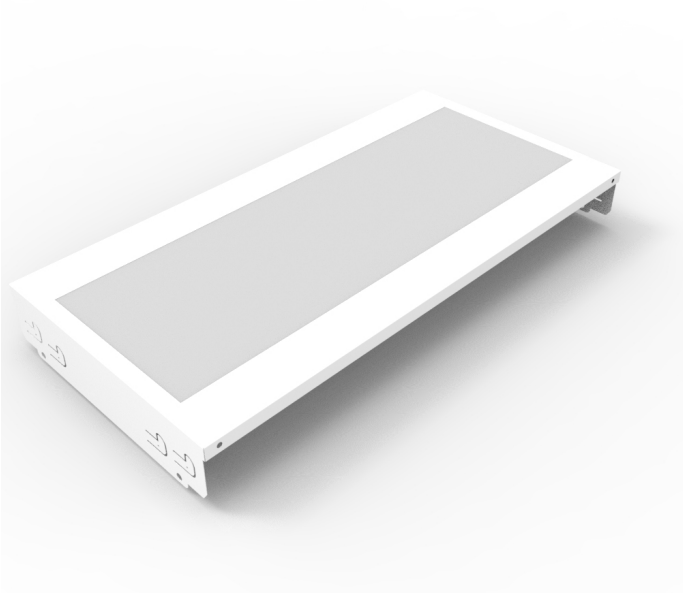
GUARDIAN TROFFER DIFF 3 DALI

GTBT2WD3D-6X3-14W

- Perfect solution for office installations
- Australian made and engineered
- High lumen efficacy
- Zhaga LED arrays allow for easy maintenance
- Excellent colour tolerance of 3-step MacAdam Ellipse
- Long LED lifetime >53000 hours L90B10
- Made from quality zinc-plated cold-rolled steel
- This fitting can be engineered to meet the installation requirements with custom lengths, widths and air slot positions
- Selected models covered under IPART (NSW) and REES (SA)



PROJECT INFORMATION	
Project Name	LED DIRECT-GTBT2WD3D-6X3-14W
Fixture Type	Troffer Diff 3

ORDERING INFORMATION	
Order code	GTBT2WD3D-6X3-14W
Description	GUARDIAN TROFFER DIFF 3 DALI 14W Troffer / 293mm x 590mm - Two Way Grid / 4000k / 80cri / 1630lm / DALI
Driver Type	DT6 Dimmable
Included options	Ultra Wide, Standard DALI-2 Driver, F&P 2C (1M), Driver 350 mA

EFFICIENCIES	
Chip Efficiency	183 lm/W
Optical Efficiency	77 %
Luminare Efficiency	141 lm/W
Driver Efficiency	82 %
Total System Efficiency	116 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 Dimensions	555 x 190 mm
Diffuser Material	PMMA
Product Finish	Powder coated
Fitting Colour	Mannex White
Installation Type	Recessed

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	14 W
Power Factor	0.95
Working Temp Range	-25 to 40 °C

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LAMP

Macadam Steps (SDCM)	3-step MacAdam Ellipse
CCT Configuration	Single
Colour Rendering Index (CRI)	>80
Light Output Ratio (LOR)	77 %

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	53000 hrs	53000 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	1630 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)
Driver Current	350 mA

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	7 RTB (Total 7 Years) Control gear & LEDs. 5 Year for body

7 Year Return to base warranty on the Control Gear and LEDs which is subject to the hours of operation and use. All other components are covered by a return to base 3 year workmanship and defect warranty.

Warranty Operating Hours	40000 hrs

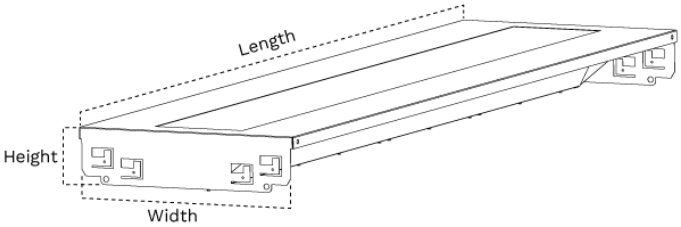
This product is provided with a warranty up until the stated warranty period or until the stated warranty operating hours has been reached (whichever occurs first).

DIMENSIONS

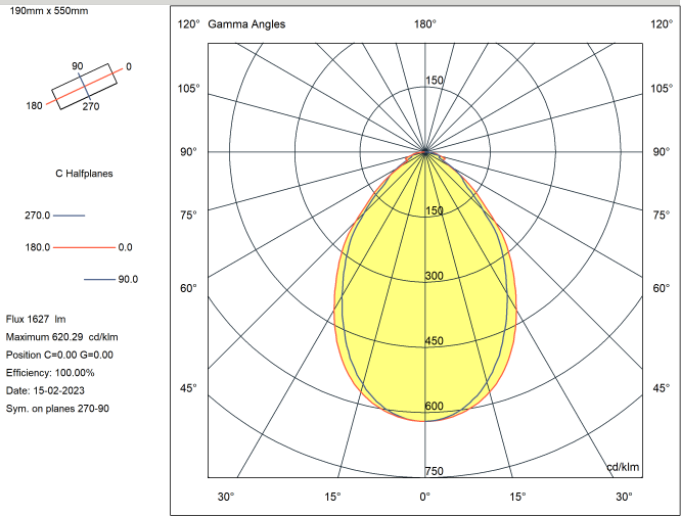
Product Height	80 mm
Product Length	590 mm
Product Width	293 mm

All dimensions are +/- 1mm.

LINE DRAWINGS



PHOTOMETRICS



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	15.5	16.6	15.8	16.8	17.0	15.3	16.4	15.6	16.6	16.8
x=2H y=3H	16.3	17.2	16.6	17.5	17.7	15.9	16.9	16.2	17.1	17.4
x=2H y=4H	16.8	17.7	17.1	17.9	18.2	16.3	17.2	16.6	17.4	17.7
x=2H y=6H	17.3	18.1	17.6	18.4	18.7	16.7	17.5	17.0	17.8	18.1
x=2H y=8H	17.5	18.3	17.9	18.6	18.9	16.8	17.6	17.2	17.9	18.3
x=2H y=12H	17.7	18.5	18.1	18.8	19.1	17.0	17.7	17.3	18.1	18.4
x=4H y=2H	15.9	16.8	16.2	17.0	17.3	15.6	16.5	16.0	16.8	17.1
x=4H y=3H	16.8	17.6	17.2	17.9	18.2	16.5	17.3	16.9	17.6	17.9
x=4H y=4H	17.5	18.2	17.9	18.5	18.9	17.0	17.7	17.4	18.0	18.4
x=4H y=6H	18.1	18.7	18.6	19.1	19.5	17.6	18.2	18.0	18.5	18.9
x=4H y=8H	18.5	19.0	18.9	19.4	19.8	17.8	18.4	18.3	18.7	19.2
x=4H y=12H	18.7	19.2	19.2	19.6	20.0	18.0	18.5	18.5	18.9	19.3
x=8H y=4H	17.7	18.2	18.1	18.6	19.0	17.3	17.8	17.7	18.2	18.6
x=8H y=6H	18.5	18.9	19.0	19.4	19.8	18.0	18.4	18.5	18.9	19.3
x=8H y=8H	19.0	19.3	19.4	19.8	20.3	18.4	18.8	18.9	19.2	19.7
x=8H y=12H	19.3	19.6	19.8	20.1	20.6	18.7	19.0	19.2	19.5	20.0
x=12H y=4H	17.7	18.2	18.2	18.6	19.0	17.3	17.8	17.7	18.2	18.6
x=12H y=6H	18.6	19.0	19.1	19.4	19.9	18.1	18.5	18.6	18.9	19.4
x=12H y=8H	19.1	19.4	19.6	19.9	20.4	18.5	18.8	19.0	19.3	19.8
Variations										
S = 1.0 H	0.9 / -3.1					0.9 / -3.1				
S = 1.5 H	1.5 / -5.6					1.6 / -6.1				
S = 2.0 H	2.2 / -7.2					2.2 / -7.5				
Std. Table	BK05					BK04				
Addendum Cor.	1.4					0.4				

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.