

# Report of Test LL18301

Atom Lighting Round IP65 Cast LED Bunker Light. Product ID: AT 5403/BLK/EM.

Round cast aluminium body and grill face with black finish, extents ~ 350 mm dia. x 110 mm deep.

Opal diffuser with forms luminous opening of 300 mm dia. x 25 mm deep.

Array of 88 Hangke 2835 LEDs (mains mode) and 4 x Hangke 5630 LEDs (EM mode) centred 32 mm above L/O. One Tridonic EM PowerLED 15W Basic CLE NiCd electronic driver/inverter.

Tested at 3.773 Vdc. For full product details refer test report LL1501603T.



## Performance Summary

Luminous flux	53.3 lm
Luminaire Power	1.12 W
Luminous Efficacy	47.6 lm/W

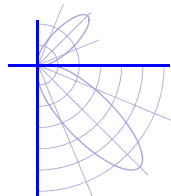
## Emergency Classification

C0	C20
C90	C16

**PREPARED FOR : Atom Lighting Ltd., Arundel, QLD 4214.**



Page 1 of 5



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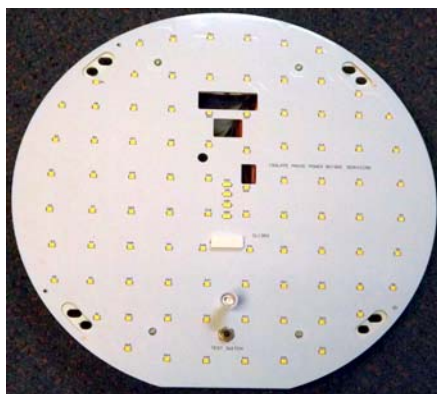
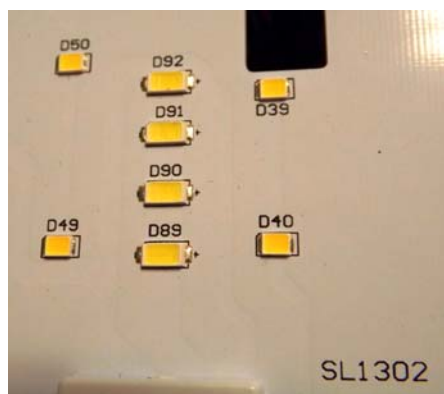
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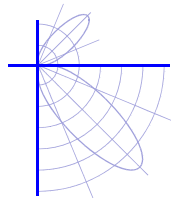
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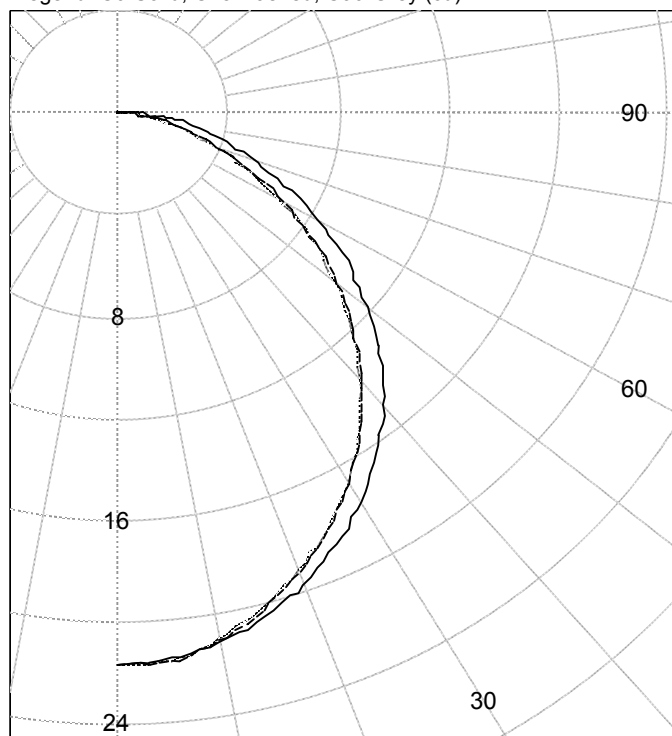
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Legend: C0-Solid, C45-Dashed, C90-Grey (cd)



(Two plane symmetry)

C0-C90

### INTENSITY SUMMARY (cd)

Gamma	C-Plane					Flux (lm)
	C0	C22.5	C45	C67.5	C90	
0.0	21.7	21.7	21.7	21.7	21.7	2.0
5.0	21.5	21.6	21.6	21.6	21.6	
10.0	21.1	21.2	21.0	21.1	21.0	
15.0	20.5	20.5	20.3	20.1	20.1	5.7
20.0	19.7	19.5	19.2	19.2	19.1	
25.0	18.7	18.5	18.0	18.0	18.0	8.4
30.0	17.6	17.3	16.8	16.7	16.7	
35.0	16.3	15.8	15.3	15.1	15.2	9.7
40.0	14.9	14.4	13.8	13.5	13.6	
45.0	13.4	12.7	12.1	11.9	11.9	9.5
50.0	11.8	11.1	10.4	10.1	10.2	
55.0	10.2	9.4	8.6	8.4	8.5	8.0
60.0	8.3	7.6	6.9	6.7	6.8	
65.0	6.6	5.9	5.3	5.0	5.1	5.5
70.0	5.1	4.4	3.8	3.6	3.5	
75.0	3.9	3.2	2.7	2.4	2.4	3.0
80.0	2.8	2.1	1.6	1.4	1.4	
85.0	1.7	1.3	0.9	0.8	1.0	1.2
90.0	0.7	0.6	0.4	0.5	0.6	

### ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
0-30	16.1	N / A	30.3
0-40	25.8	N / A	48.4
0-60	43.3	N / A	81.3
0-90	53.0	N / A	99.4
40-90	27.2	N / A	51.0
60-90	9.7	N / A	18.2
90-180	0.3	N / A	0.6
0-180	53.3	N / A	100.0

Total Light Output = 53.3 lm

CERTIFIED BY:

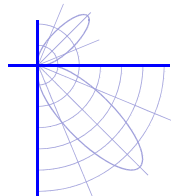
Toby Southgate  
Authorised Signatory

Date of test  
Date of report

3-Feb-2015  
17-Feb-2015



Page 3 of 5



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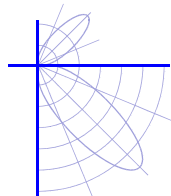
Emergency Inverter Model	Tridonic EM PowerLED 15W Basic CLE NiCd
Battery Specification	BST Battery D-SC3000BT
Mounting Orientation	Ceiling mount
Photometric Test Voltage Determination	In accordance with AS 2293.3 2005 Appendix C Section 2.4
Thermal Test Laboratory	LightLab International
Thermal Test Report Number	LL1501603T
Photometric Test Voltage	3.773 Vdc

Best available classifications in accordance with AS 2293.3 2005 Appendix C section 3.

<b>C0</b> Plane represents: C0, C180	<b>C90</b> Plane represents: C90, C270		
A20 B20 <b>C20 (9.9 m.)</b> D6.3 E12.5	A20 B20 <b>C16 (9.3 m.)</b> D4 E10		

Bold entries represent the classification yielding the maximum spacing between luminaires as ranked by Tables 5.1-5.5 of AS 2293.3 2005 Part 1 when mounted at a height of 2.7 metres. Spacing distance is bracketed.  
For the ranking and spacing distance of luminaires mounted at other heights, refer to tables 5.1-5.5.





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**Test Distance:** 8.0 metres

**Test Temperature:** 25.6 degrees Celsius

**Significance:** This laboratory has no control over the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

**Special Notes:** The intensity values contained in this report are shown as tested. When using these values in calculations the appropriate Ballast Factor and Manufacturer's rated lumens MUST be taken into account.

It should also be noted that prorating the lumen output for the use of other lamp/ballast combinations, or for use in different environmental conditions, than that tested may produce erroneous results.

This report is free of erasures and corrections.  
Photometric intensity values are reported using the CIE Cgamma coordinate system as described in CIE Publication number 121.

**Uncertainties:** At the 95% confidence interval with a factor  $k = 2$ , the uncertainties for this report are :-

Temperature	+/- 1 degree Celsius
Light Output Ratio	+/- 4%
Luminous Intensity	+/- 4%
Angular displacement	+/- 0.5 degrees.

**Testing Procedure:** Tested in accordance with the applicable sections of CIE Publication Number 121; and with reference to Australian Standard AS1680, Part 3, 1991.