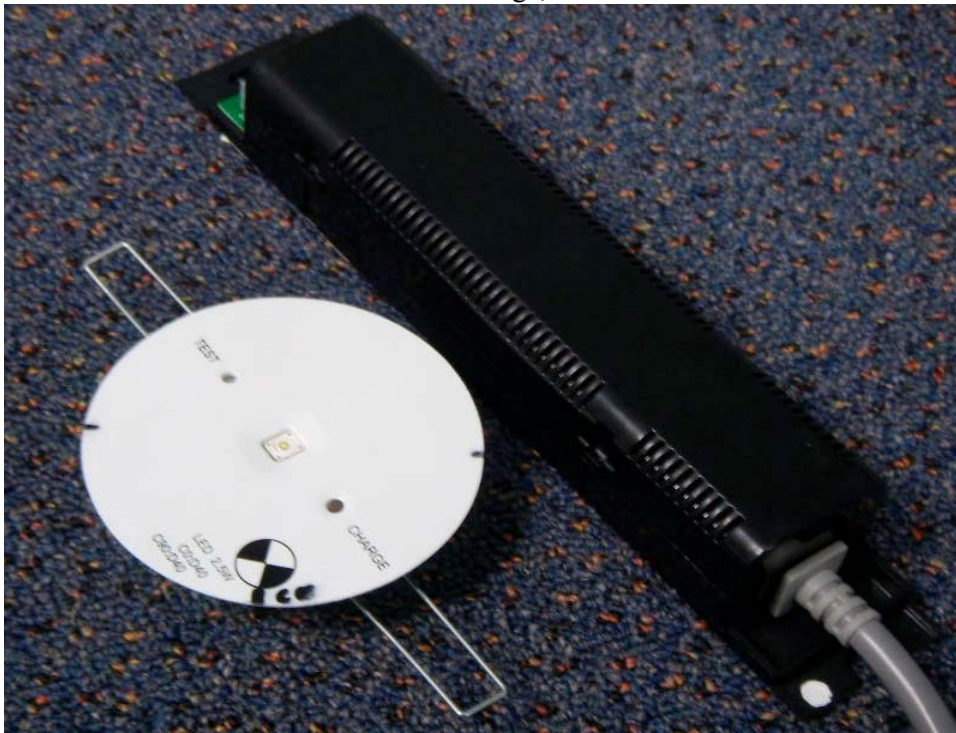


# Report of Test LL12923

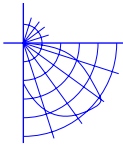
Maco Lighting LED Emergency Downlight. Product ID: LEDFIRE DALI PLUS.  
White plastic face plate, 85 mm diameter, secured to a finned aluminium heat sink.  
One Maco Lighting LED LEDFIRE D40 LED centred and recessed flush on face plate.  
One remote Maco Lighting PCB ATLEDV1P1 TM0409 emergency inverter.  
For full product details refer to report LL0917505T.  
Photometric test voltage, 4.881 V dc.



Performance Summary		Emergency Classification	
Light Output Ratio	N / A	C0	D40
Luminaire Power	3.82 W		

**PREPARED FOR : Maco Lighting Pty. Ltd., Eight Mile Plains, Queensland, 4113.**

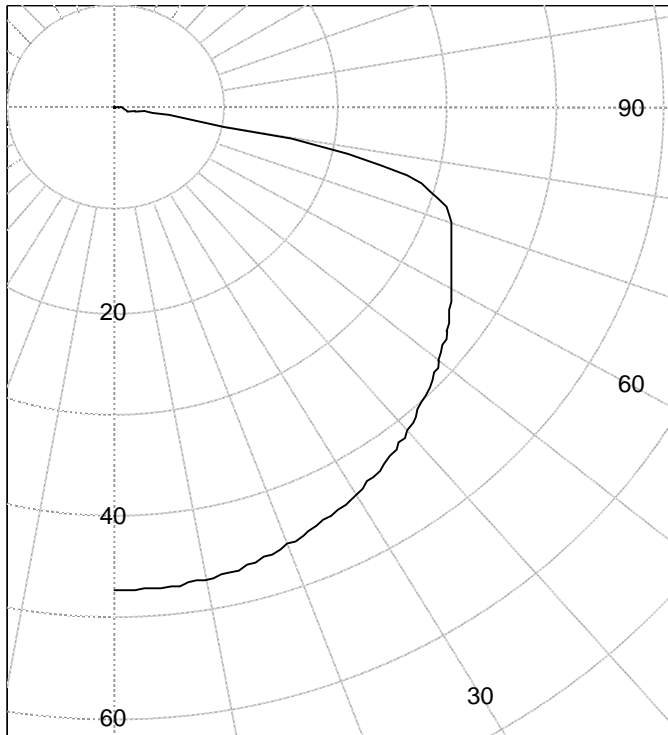




## Certified Test Report No. LL12923

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LEGEND : C0-Solid (cd)



INTENSITY DATA (cd)

Gamma	C0	LMS.	Gamma	C0	LMS.
0	47.3		90	0.0	
5	47.2	4.5	95	0.0	0.0
10	47.0		100	0.0	
15	46.5	13.1	105	0.0	0.0
20	45.7		110	0.0	
25	44.8	20.7	115	0.0	0.0
30	43.8		120	0.0	
35	42.6	26.7	125	0.0	0.0
40	41.3		130	0.0	
45	39.8	30.8	135	0.0	0.0
50	38.4		140	0.0	
55	36.9	33.1	145	0.0	0.0
60	35.3		150	0.0	
65	33.8	33.5	155	0.0	0.0
70	32.4		160	0.0	
75	28.7	27.9	165	0.0	0.0
80	10.1		170	0.0	
85	0.9	2.0	175	0.0	0.0
90	0.0		180	0.0	

ZONAL LUMENS AND PERCENTAGES

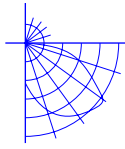
Zone	Lumens	%Lamp	%Luminaire
0-30	38.3	N / A	19.9
0-40	65.1	N / A	33.8
0-60	128.9	N / A	67.0
0-90	192.4	N / A	100.0
40-90	127.3	N / A	66.2
60-90	63.4	N / A	33.0
90-180	0.0	N / A	0.0
0-180	192.4	N / A	100.0

Light Output Ratio = N / A

CERTIFIED BY:

M.Brunt  
Authorised Signatory

Date of test 13-Jul-2009  
Date of report 22-Jul-2009

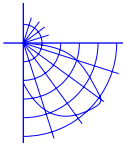


**Certified Test Report No. LL12923**

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**INTENSITY DATA (cd)**

Gamma	MEAN	LUMENS	Gamma	MEAN	LUMENS
0.0	47.3		90.0	0.0	
2.5	47.3		92.5	0.0	
5.0	47.2	4.5	95.0	0.0	
7.5	47.1		97.5	0.0	0.0
10.0	47.0		100.0	0.0	
12.5	46.8		102.5	0.0	
15.0	46.5	13.1	105.0	0.0	
17.5	46.1		107.5	0.0	0.0
20.0	45.7		110.0	0.0	
22.5	45.3		112.5	0.0	
25.0	44.8	20.7	115.0	0.0	
27.5	44.3		117.5	0.0	0.0
30.0	43.8		120.0	0.0	
32.5	43.2		122.5	0.0	
35.0	42.6	26.7	125.0	0.0	
37.5	42.0		127.5	0.0	0.0
40.0	41.3		130.0	0.0	
42.5	40.6		132.5	0.0	
45.0	39.8	30.8	135.0	0.0	
47.5	39.1		137.5	0.0	0.0
50.0	38.4		140.0	0.0	
52.5	37.6		142.5	0.0	
55.0	36.9	33.1	145.0	0.0	
57.5	36.1		147.5	0.0	0.0
60.0	35.3		150.0	0.0	
62.5	34.6		152.5	0.0	
65.0	33.8	33.5	155.0	0.0	
67.5	33.0		157.5	0.0	0.0
70.0	32.4		160.0	0.0	
72.5	31.1		162.5	0.0	
75.0	28.7	27.9	165.0	0.0	
77.5	23.2		167.5	0.0	0.0
80.0	10.1		170.0	0.0	
82.5	2.9		172.5	0.0	
85.0	0.9	2.0	175.0	0.0	
87.5	0.1		177.5	0.0	0.0
90.0	0.0		180.0	0.0	



**Certified Test Report No. LL12923**

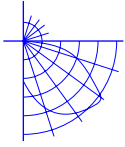
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For full product details refer to report LL0917505T.  
Photometric test voltage, 4.881 V dc.

Emergency Inverter Model	Maco Lighting ATLEDV1P1 TM0409
Battery Specification	4 x BST Power H-A2100BT
Mounting Orientation	Ceiling Mount
Photometric Test Voltage Determination	In accordance with AS/NZS 2293.3 2005 Appendix D Section 1.
Thermal Test Laboratory	LightLab International
Thermal Test Report Number	LL0917505T
Photometric Test Voltage	4.881 V dc

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

<b>C0</b> Plane represents: ALL planes			
A40 B40 C40 <b>D40 (18 m.)</b> E32			

Bold entries represent the classification yielding the maximum spacing between luminaires as ranked by Tables 5.1-5.5 of AS/NZS 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:** 25.3 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.

The generic term "LOR" is used in this report, it denotes the "Light Output Ratio Luminaire" as defined in Australian Standard AS1680, Part 3, 1991, Section 1.3.9.

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	+/- 0.25 degrees.

**Testing Procedure:** Tested in accordance with the applicable sections of CIE Publication Number 24 and Australian Standard AS1680, Part 3, 1991.