

**PHOTOMETRIC TEST REPORT No. 240716PH****Date: 24<sup>th</sup> September 2024**

**Client:** Light Culture Australia Pty Ltd  
**Address:** 61 Pile Road, Somersby, NSW 2250  
**Contact:** Cameron Bates

**Emergency Luminaire:**

**Catalogue No.:** 24 118 K4

**Description:** Ceiling Mounted Emergency lighting luminaire

**Optical System:** An LED module made of NICHIA LEDs (model number NF2W757GR-V3)

**Emergency Control Gear:** Laboratory DC power supply and DC supplied electronic control gear for emergency LED lighting (model number EMconverterLED ST 204 MH/LiFePO4, 50V)

**Batteries:**

C0-C180° Vertical Plane

C90-C270° Vertical Plane

**Test Voltage:** 4.8013VDC (As determined in accordance with the requirements of Paragraph D2.1, Table D1 & D2) – Refer to LEDLab Test Report No. 240715TH.

**Test Specification:**

The luminaire was tested generally in accordance with the procedures given in APPENDIX C of AS/NZS 2293.3:2018, "Classification of Emergency Luminaires", and CIE 121-1996, "The Photometry and Goniophotometry of Luminaires" using the **absolute** method.

**Results:**

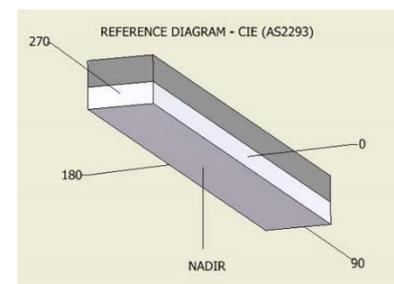
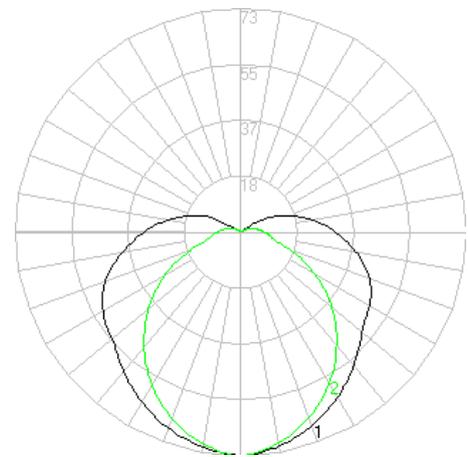
**Luminous Intensity Distribution (I-TABLE) is given on Page 6**

**Luminaire Classification for a mounting height of 2.7m**

**C<sub>0</sub> / D 50**

**C<sub>90</sub> / D 20**

**For full details see table within**



**Tested by:** A. Yetendje on 15<sup>th</sup> September 2024

**Authorised Signatory:** \_\_\_\_\_

A. Yetendje

## Test Configuration

The luminaire was photometered in 'C-Gamma' such that:

- The first axis vertical, in the direction of nadir, perpendicular to and centred on the drop visor.
- The second axis (C0°- C180°) through the photometric centre, perpendicular to the first axis, and centred on the drop visor.
- The third axis is perpendicular to the first and second in the C90° - C270° Plane.
- The long dimension of the optical opening in the direction of the C90°- C270° Plane.
- The photometric test distance of 10.002m, is referenced to the photometric centre of the drop visor and the photocell.

Due to the Type B mounting arrangement, a correction factor to achieve correct orientation was determined but not applied as it was less than 0.5% and accounted for in the Uncertainty Budget.

Uncertainties have not been applied for the border of the classification criterion. As per Terms & Conditions this is LEDLab standard practice unless the client requests a different decision rule.

## Test Procedures and Equipment

<b>Calibration report:</b>	240227CAL using N.M.I. report RN 181690 on standard lamp 13478
<b>Technical Procedure:</b>	P112 & P117
<b>Angular Resolution:</b>	<i>Test Configuration and issued .ies file</i> Horizontal (H) Plane Interval 15 Deg Vertical (V) Angle Interval 1.0 Deg <i>Abbreviated Test Report File (I-Table)</i> C Plane Interval 15 Deg Gamma Angle Interval 5.0 Deg
<b>Software:</b>	Lisun LSG-1800B
<b>Obstructions:</b>	None
<b>Lab. Book Page:</b>	PH6/1965
<b>Primary Orientation Correction:</b>	1.0
<b>Colour correction:</b>	1.028
<b>Goniophotometer:</b>	Lisun Electronics Model LSG-1800B, Serial No. GSGHF070010.
<b>Photocell:</b>	Lisun Electronics Detector Serial No. 330220-1
<b>Lux meter:</b>	Lisun Electronics Model PM 400, Serial No. GSRXK090021
<b>Lux meter integration time (PLC):</b>	5
<b>Power meter:</b>	Lisun Electronics Model RT-200, Serial No. GSXY0100021
<b>Power meter integration time (s):</b>	0.5
<b>Luminaire thermometer:</b>	AMA 1362983 0.1°C Serial No 526,10942
<b>Temperature Data Logger:</b>	Lisun TMP-8 Multiplex Serial No GSJWM010028
<b>Auxiliary Photocell:</b>	Delta Ohm HD 2102.1 & LP471PHOT
<b>Sphere and Spectroradiometer:</b>	1.8m 4II Integrating Sphere and Lisun LMS 9000A spectroradiometer Serial No GSXYE090207 (used for colour metrics)



## TEST RESULTS

### Electrical

Supply Voltage (VDC): 4.8013V

Supply Current (ADC): .804A

### TEST REPORT and IES file archive

The data files for this report are contained in the *archive file: 240716PH.zip*

*IES file: 240716PH.ies*

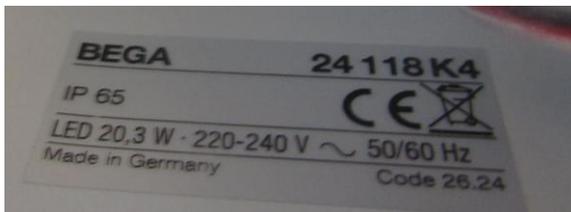
*Test Report: 240716PH.pdf*

**TOTAL LUMINOUS FLUX:** 286 Lumens

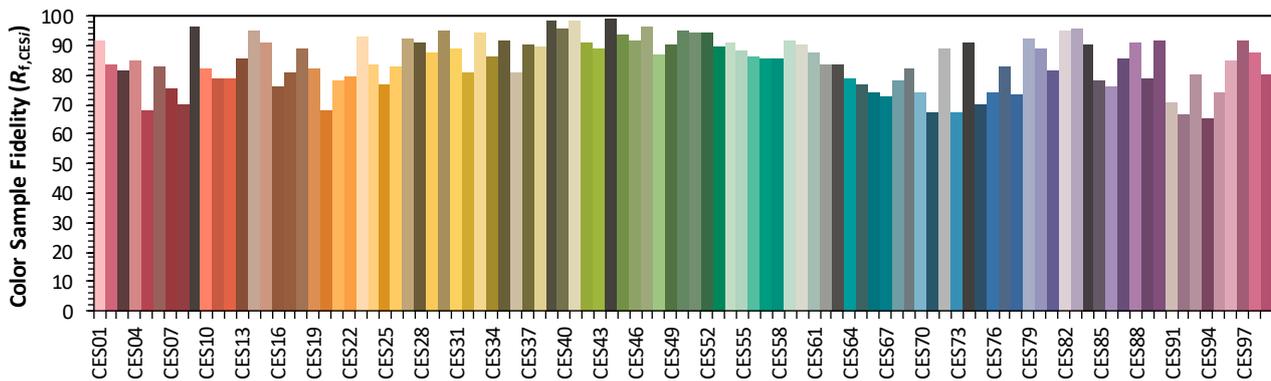
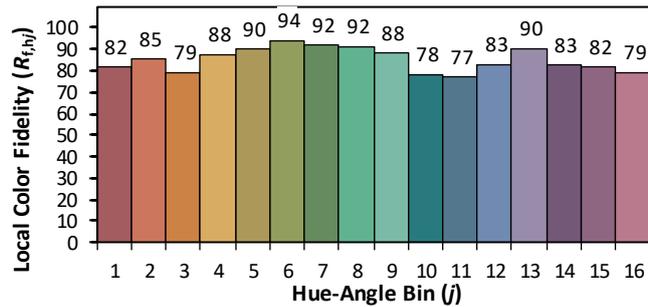
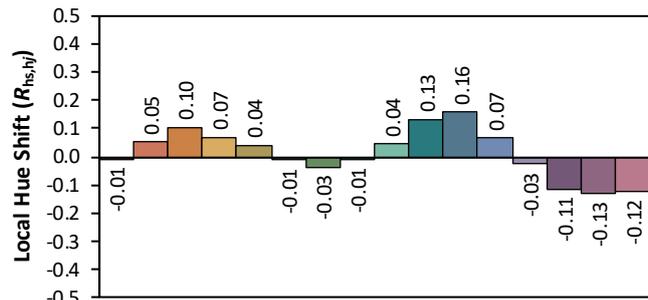
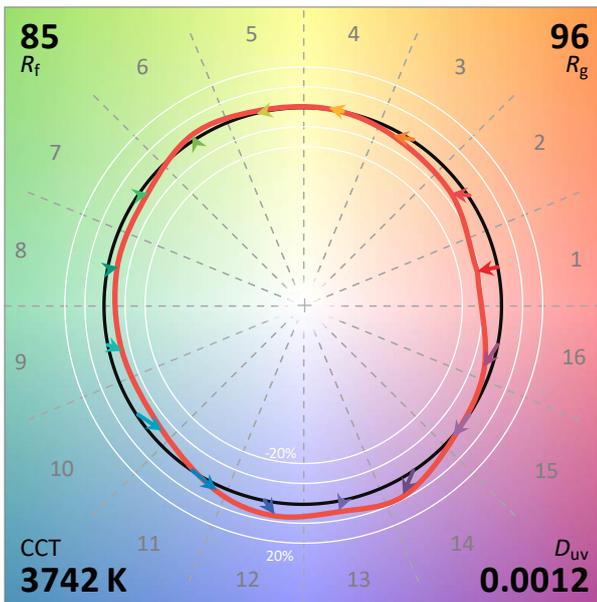
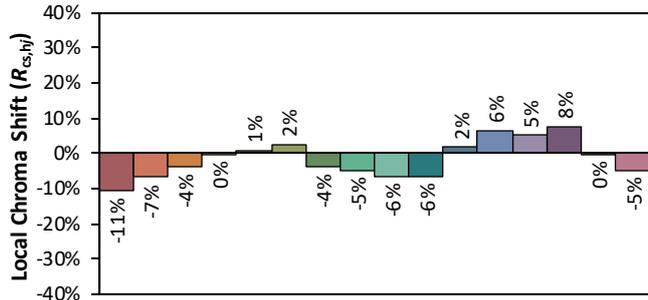
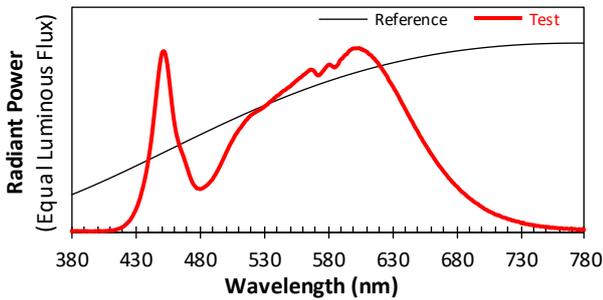
### Classification Table:

The Table below should be used in conjunction with Tables E1 to E5 of AS/NZS 2293.1:2018 to give the best spacing distance for the mounting height used. For your convenience the highlighted classification and spacing distance for 2.7m mounting height is reproduced on the front page.

C <sub>0-180</sub>		C <sub>90-270</sub>	
alpha	numeric	alpha	numeric
A	63	A	63
B	63	B	63
C	63	C	63
D	50	D	20
E	50	E	40



## ANSI/IES TM-30-18 COLOR RENDITION REPORT



Notes:

x **0.3936**  
y **0.3873**  
u' **0.2295**  
v' **0.5081**

CIE 13.3-1995  
(CRI)  
R<sub>a</sub> **84**  
R<sub>g</sub> **16**



LUMINOUS INTENSITY DISTRIBUTION (I-Table) - cd																									
Vertical Angle (V) Degrees	Horizontal Angle (H Plane) - Degrees																								
	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360
0	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
5	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
10	71	71	71	70	70	70	70	70	70	70	70	71	71	71	71	70	70	70	70	70	70	70	71	71	71
15	70	70	69	68	68	67	68	68	67	68	68	69	69	69	68	68	68	68	68	68	68	68	69	70	70
20	68	68	67	66	65	64	65	65	64	65	66	67	67	67	66	65	65	65	65	65	65	66	67	68	68
25	66	66	64	63	62	61	61	61	61	62	63	64	65	64	63	62	61	61	61	61	62	63	64	66	66
30	64	63	61	59	58	57	57	57	57	58	60	61	62	61	60	58	58	57	58	57	58	60	61	63	64
35	62	60	58	56	54	53	53	53	53	54	56	58	60	58	57	55	54	53	53	53	54	56	58	60	62
40	59	58	55	52	50	48	48	48	49	51	53	55	57	55	53	51	49	49	49	49	50	52	55	58	59
45	56	55	52	49	46	44	44	43	44	47	49	52	54	52	50	47	45	44	44	44	46	49	52	55	56
50	54	52	49	45	41	39	39	38	40	43	46	49	51	49	46	43	41	39	39	39	42	45	48	52	54
55	53	51	46	41	37	34	33	34	35	39	43	47	49	47	43	39	36	34	34	35	37	41	46	51	53
60	52	49	44	38	33	29	28	29	31	35	40	45	48	46	41	36	32	29	29	30	33	38	43	49	52
65	49	47	41	35	29	24	22	24	27	32	38	44	47	44	39	33	28	25	23	25	29	35	41	47	49
70	47	44	39	32	26	20	17	19	24	30	36	41	44	42	37	31	25	20	18	20	26	32	38	44	47
75	43	41	35	29	22	16	12	15	21	27	33	39	42	39	34	28	22	16	13	16	22	29	35	40	43
80	39	37	32	26	19	12	10	12	18	24	30	35	38	35	31	25	19	13	10	12	19	25	32	37	39
85	35	33	28	22	16	10	9	10	15	21	27	32	34	32	27	22	16	10	9	10	16	22	28	33	35
90	31	29	25	19	13	8	8	8	13	18	24	28	31	28	24	19	13	8	8	8	13	19	24	29	31
95	27	25	21	16	11	7	6	7	10	15	21	25	27	25	21	16	11	7	6	7	10	16	21	25	27
100	23	22	18	13	8	5	5	6	8	12	17	21	23	21	18	13	9	6	5	5	8	13	17	21	23
105	20	18	15	10	6	4	4	4	6	9	14	17	20	18	15	11	7	5	4	4	6	10	14	18	20
110	16	15	12	6	4	3	3	3	4	7	11	14	16	15	12	8	4	4	3	3	4	7	11	14	16
115	11	9	5	2	2	2	2	3	3	4	8	10	12	11	9	4	3	3	3	2	2	5	9	11	
120	3	1	0	1	1	2	2	2	2	1	3	6	8	7	3	1	2	2	2	2	1	1	0	2	3
125	0	0	0	0	1	1	1	1	1	0	0	1	2	1	0	0	1	1	1	1	1	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

The photometric data includes all the requirements of the report section of IESNA LM-79-19 or CIE S 025/E.

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