



Light Emission Distribution Laboratory

Division of Photometry & Electrical Testing Pty. Ltd ABN 11 166 255 134

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Accredited for Compliance with ISO/IEC 17025 Accreditation No. 19541

PHOTOMETRIC TEST REPORT No. 201146PH

Date: 18th January 2021

Client: Offspring Profiles Ltd
Address: 55 Cuba Street, Petone, Lower Hutt 5012 New Zealand
Contact: Robin Campbell



Emergency Luminaire: Handrail Series

Catalogue Nos. RICHIE RAIL 20 (sample tested), RICHIE RAIL 26

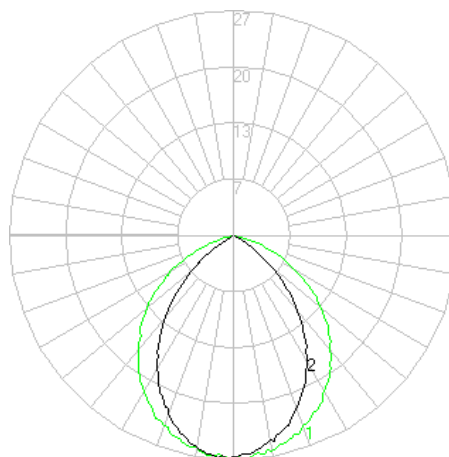
Description: Sustained Emergency LED handrail (520mm length)

Optical System: Spec Series Emergency 24V 4000K LED strip

Emergency Control Gear: STREAMER LED Emergency Power Kit YH24-1502CV

Batteries: LiFePO4 12.8V 3Ah BATTERY PACK

Test Voltage: 12.423VDC (As determined in accordance with the requirements of Paragraph D2.1, Table D1 & D2) – Refer to Ledlab Test Report No. 201145TH.



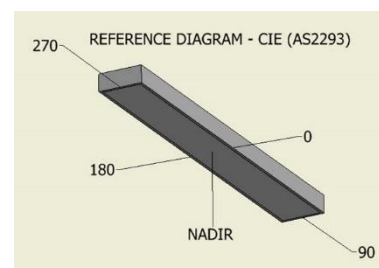
C0-C180° Vertical Plane
C90-C270° Vertical Plane

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 5
Luminaire Classification is given on Page 3



Tested by: J. King on 18th January 2021

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 diffuser.
- The second axis (C0° - C180°) through the photometric centre, perpendicular to the first axis, and centred on the lower edge of light opening.
- 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 9.857m, is referenced to the photometric centre of the light opening 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

<i>Calibration report:</i>	200627CAL using N.M.I. report RN 181690 on standard lamp M14192
<i>Technical Procedure:</i>	P112 & P117
<i>Angular Resolution:</i>	<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
<i>Software:</i>	Lisun LSG-1800B
<i>Obstructions:</i>	None
<i>Lab. Book Page:</i>	PH4/1768
<i>Primary Orientation Correction:</i>	1.0
<i>Colour correction:</i>	1.028
<i>Goniophotometer:</i>	Lisun Electronics Model LSG-1800B, Serial No. GSGHF070010.
<i>Photocell:</i>	Lisun Electronics Detector Serial No. 330220-1
<i>Lux meter:</i>	Lisun Electronics Model PM 400, Serial No. GSRXK090021
<i>Lux meter integration time (PLC):</i>	5
<i>Power meter:</i>	Lisun Electronics Model RT-200, Serial No. GSXY0100021
<i>Power meter integration time (s):</i>	0.5
<i>Luminaire thermometer:</i>	AMA 1362983 0.1°C Serial No 526,10942
<i>Temperature Data Logger:</i>	Lisun TMP-8 Multiplex Serial No GSJWM010028
<i>Auxiliary Photocell:</i>	Delta Ohm HD 2102.1 & LP471PHOT

TEST RESULTS

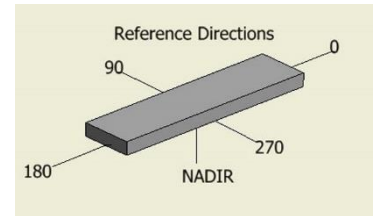
Electrical

Supply Voltage: 12.423 VDC
Supply Current: 0.165 ADC

TEST REPORT and IES file archive

The data files for this report are contained in the *archive file: 201146PH.zip*
IES file: 201146PH.ies

TOTAL LUMINOUS FLUX: 47 Lumens



Classification Table:

The Table below should be used in conjunction with Tables F1 to F5 of AS/NZ 2293.1:2018 to give the best spacing distance for the mounting height used.

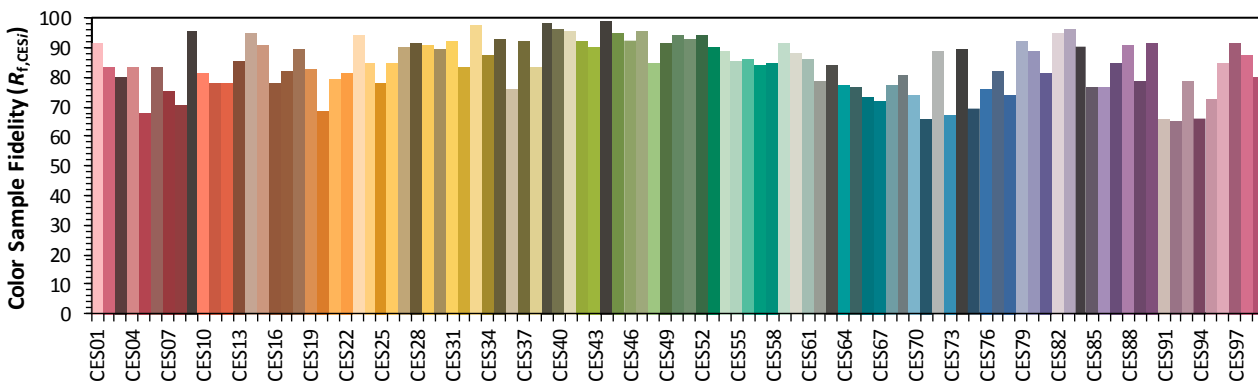
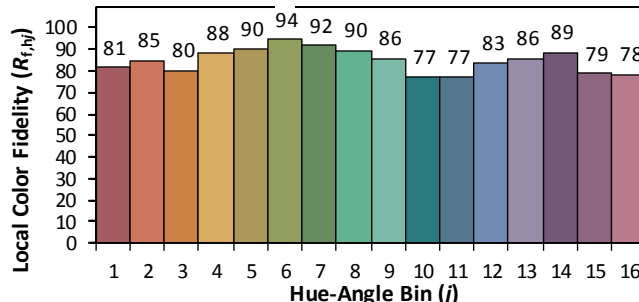
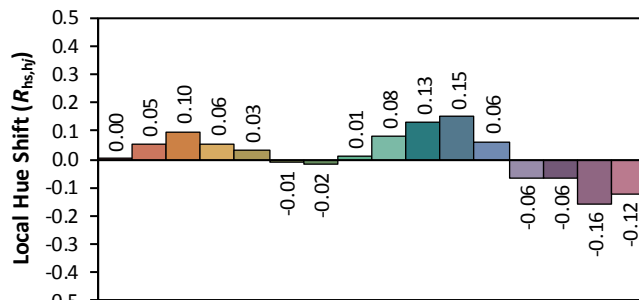
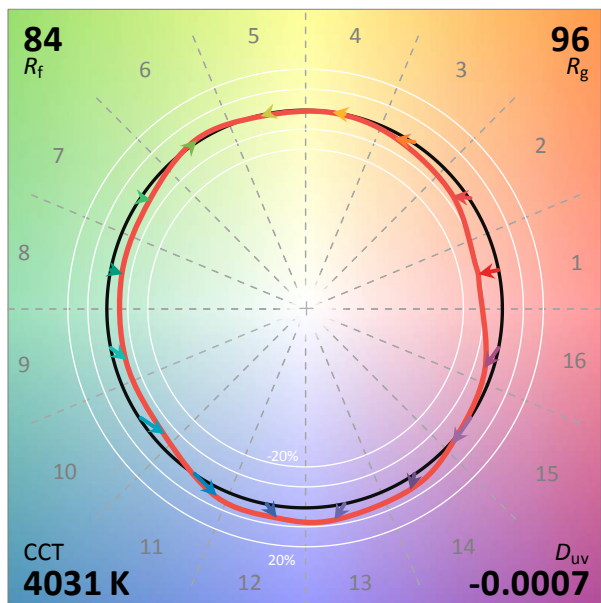
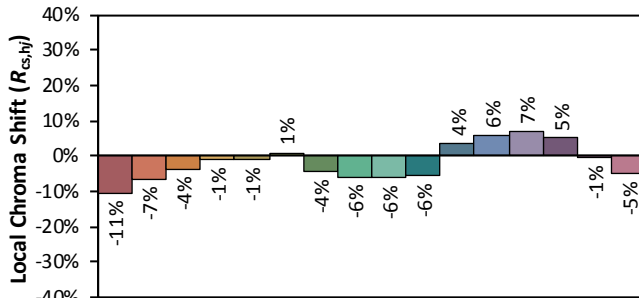
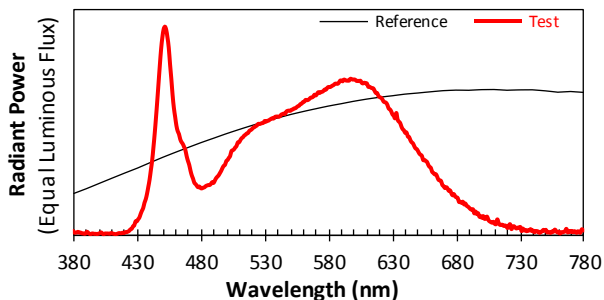
C0-180		C90-270	
alpha	numeric	alpha	numeric
A	0	A	25
B	0	B	25
C	0	C	16
D	0	D	4
E	0	E	16



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

The tests and measurements covered by this document are traceable to Australian National standards of measurement. This report only applies to the items tested as received from the client and shall only be reproduced in full unless approved in writing by Light Emission Distribution Laboratory.

ANSI/IES TM-30-18 COLOR RENDITION REPORT



Notes:

x 0.3786
 y 0.3741
 u' 0.2250
 v' 0.5001

CIE 13.3-1995
 (CRI)
 R_a 85
 R_g 19

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PHOTOMETRIC TEST REPORT No. 201146PH

Date: 18th January 2021

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	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
5	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
10	26	26	26	26	26	26	26	25	25	25	25	25	25	25	25	25	25	25	26	26	26	26	25	25	26
15	24	24	24	25	25	25	25	25	24	24	24	24	24	24	24	24	25	25	25	25	25	25	24	24	24
20	23	23	23	23	24	24	24	23	23	23	22	22	22	22	22	23	23	24	24	24	24	24	23	23	23
25	21	21	21	22	22	23	23	22	22	21	20	20	20	20	20	21	22	22	23	23	22	22	21	21	21
30	18	19	19	20	21	22	21	21	20	19	18	18	17	18	18	19	20	21	21	21	21	20	19	19	18
35	15	16	16	17	18	20	20	19	18	17	16	15	14	15	16	16	18	19	20	19	18	18	17	16	15
40	13	14	14	15	17	18	18	17	16	14	13	12	12	12	13	14	16	17	18	18	16	15	14	13	13
45	10	10	11	12	14	16	16	15	13	12	10	9	9	9	10	11	13	15	16	15	14	13	11	10	10
50	7	8	8	10	11	13	13	12	11	9	7	6	6	7	7	8	11	13	13	13	11	10	8	8	7
55	4	5	5	6	9	11	11	10	8	6	4	3	3	3	5	6	8	10	11	10	8	7	5	5	4
60	0	1	2	3	6	8	9	7	5	3	1	0	0	0	1	3	5	8	9	8	6	4	2	1	0
65	0	0	0	0	3	5	6	5	2	0	0	0	0	0	0	3	5	6	5	3	1	0	0	0	0
70	0	0	0	0	0	2	4	2	0	0	0	0	0	0	0	0	2	3	2	0	0	0	0	0	0
75	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
80	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
85	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
90	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
95	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
100	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
105	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
110	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
115	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
120	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
125	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
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

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