



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 -
Testing.
Accreditation No.
19541

PHOTOMETRIC TEST REPORT No. 200143PH

Date: 5th February 2020

Client: OFFSPRING PROFILES

Address: 40 Austin Street, Onekawa, Napier, New Zealand

Contact: Robin Campbell

Luminaire: Flat Freddie 30

Catalogue No. FF30-SPEC-20-CTUNE

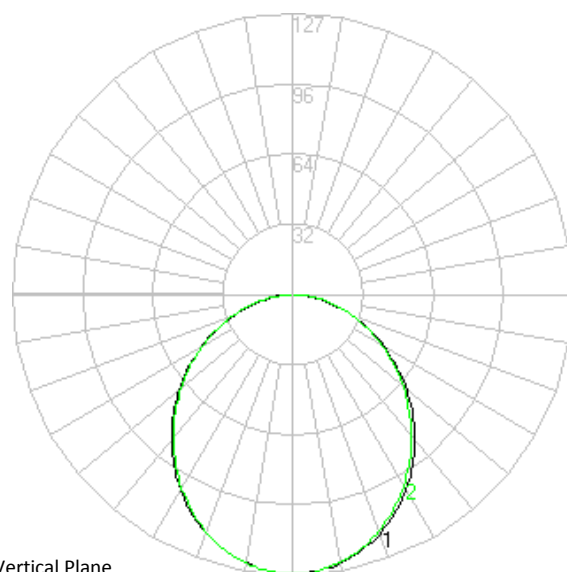
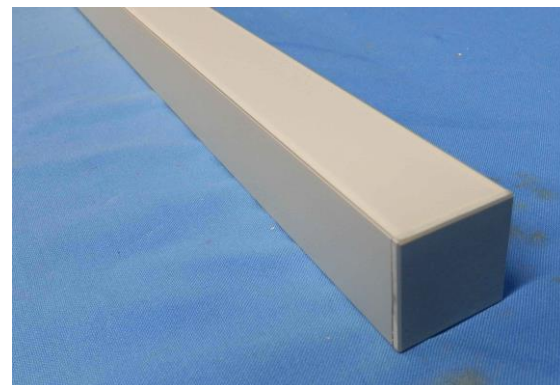
Description: 520mm aluminium extrusion (30mm x 30mm)
incorporating a flat linear opal diffuser.

Optical System: Offspring Profiles 24VDC with colour tuning
LED board type SPEC-20-CTUNE (500mm LED strip) set at
5000K.

Control Gear: LISUN DC Series DC3010 24VDC Supply.

Test Specification:

The luminaire was tested in accordance with the procedures given
in IES LM79-19, "Optical and electrical measurements of Solid-
State Lighting Products" using the **absolute** method.



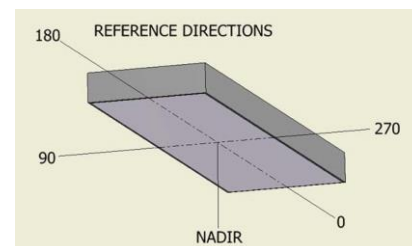
0-180° Vertical Plane
90-270° Vertical Plane

Results:

When tested at an ambient of 25°C at a supply voltage of 24.0VDC, the
luminaire consumed 0.202A and 4.8W. That is, Lamp Circuit Power (LCP),
which includes power supply losses, is 4.8W.

The Total Luminous Flux was measured as 328 Lumens. The Correlated
Colour Temperature was measured as 4969K average.

Luminous Intensity Distribution (I-TABLE) is given on Page 5



Tested by: Bruce Real/J King on 5th of February 2020

Authorised Signatory: _____

D.Ford

The tests and measurements performed at LEDLab and 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. The data specified in this report apply to the luminaire with the components nominated and will not necessarily be applicable to the use of other light source sizes or ratings, nor to any other luminaire of similar design. The data are based on operation of the luminaire under laboratory conditions. Multiplying factors to correct the data for actual working conditions should be used when applicable. Ph. 0403242121



Test Configuration

The luminaire was photometered in IESNA Horizontal – Vertical Reference angles such that:

- The luminaire was mounted with photometric centre aligned with photometric zero (in the direction of nadir), centred on the light emitting area.
- The supply wires were located on the 0° Horizontal angle, photometric horizontal, in the zero-degree photometric plane.
- In accordance with CIE S 025/E:2015 Clause 5.3.2 the face of the diffuser was co-incident with centre of the goniophotometer.
- The long dimension of the optical opening in the direction of the H= 0° - 180° Plane.
- The photometric test distance of 9.82m, is referenced to the photometric centre of the luminaire 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. Should these Uncertainties be required contact LEDLab.

Test Procedures and Equipment

Calibration report: 181104CAL using N.M.I. report RN 181690 on standard lamp M14192

Technical Procedure: P113 & P118

Angular Resolution: Test Configuration and issued .ies file
C Plane Interval 15 Deg
Gamma Angle Interval 1.0 Deg
Abbreviated Test Report File (I-Table)
C Plane Interval 15 Deg
Gamma Angle Interval 5.0 Deg

Software: Lisun LSG-1800B

Obstructions: None

Lab. Book Page: PH3/1696

Primary Orientation Correction: 1.0

Colour correction: 1.028

Goniophotometer: Lisun Electronics Model LSG-1800B, Serial No. GSGHF070010.

Photocell: Lisun Electronics Detector Serial No. 330220-1

Lux meter: Lisun Electronics Model PM 400, Serial No. GSRXK090021

Lux meter integration time (PLC): 5

Power meter: Lisun Electronics Model RT-200, Serial No. GSXY0100021

Power meter integration time (s): 0.5

Luminaire thermometer: AMA 1362983 0.1°C Serial No 526,10942

Temperature Data Logger: Lisun TMP-8 Multiplex Serial No GSJWM010028

Auxiliary Photocell: Delta Ohm HD 2102.1 & LP471PHOT



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TEST REPORT and IES file archive

The data files for this report are contained in the archive file 200143PH.zip

IES file 200143PH.ies

Document File: 200143PH.pdf

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3462$ $y=0.3547$ $u(u')=0.2110$ $v=0.3242$ $v'=0.4863$

CCT: $T_c=4969K$ ($duv=0.00109$)

Color Ratio: $R=0.158$ $G=0.798$ $B=0.044$

Peak Wavelength: 451nm

Half Bandwidth: 19.4nm

Dominant Wavelength: 572.1nm

Color Purity: 0.103

CRI: R_i : $R_a=82.7$

$R_1=81$

$R_2=88$

$R_3=92$

$R_4=82$

$R_5=81$

$R_6=82$

$R_7=88$

$R_8=68$

$R_9=10$

$R_{10}=70$

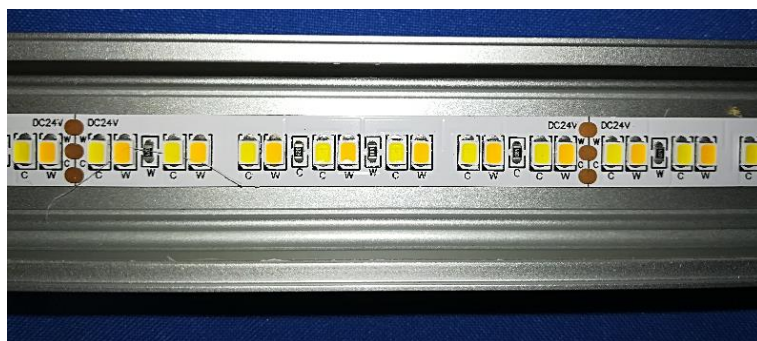
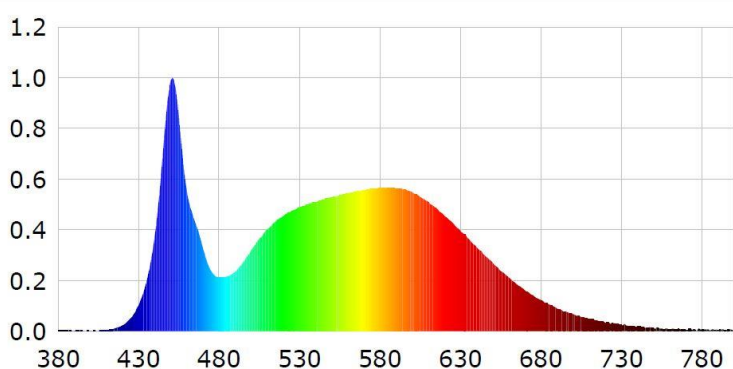
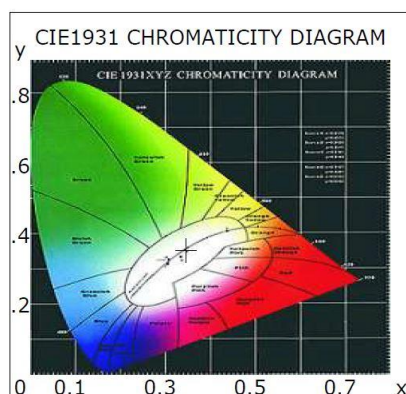
$R_{11}=80$

$R_{12}=55$

$R_{13}=83$

$R_{14}=96$

$R_{15}=76$



ANSI/IES TM-30-18 Color Rendition Report

Source:

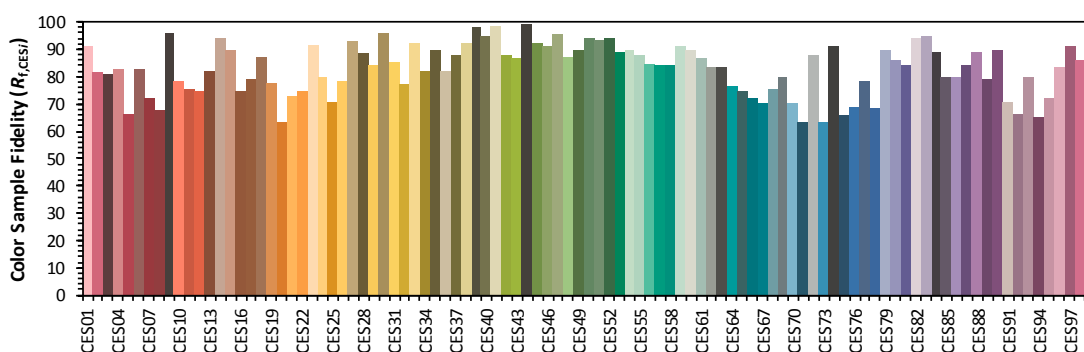
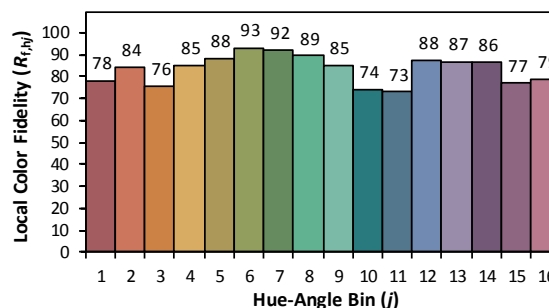
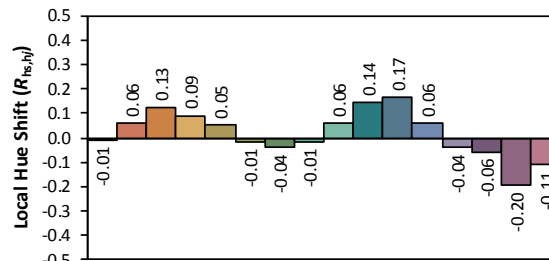
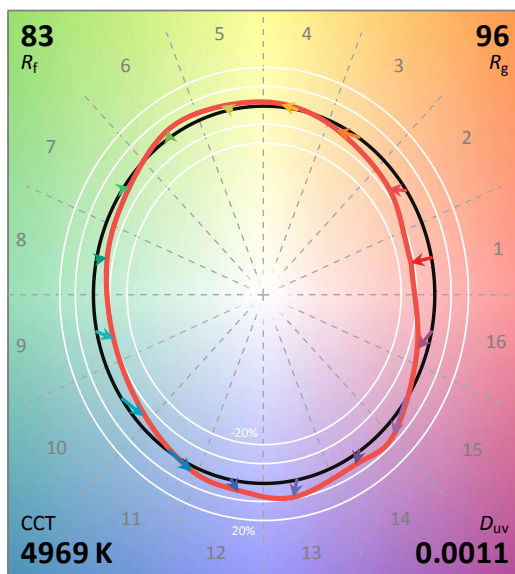
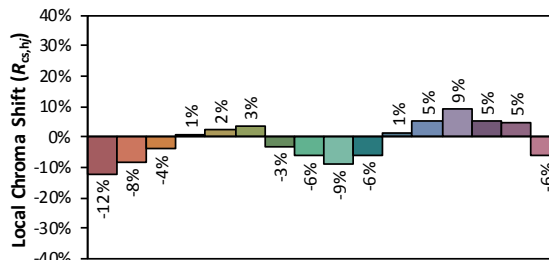
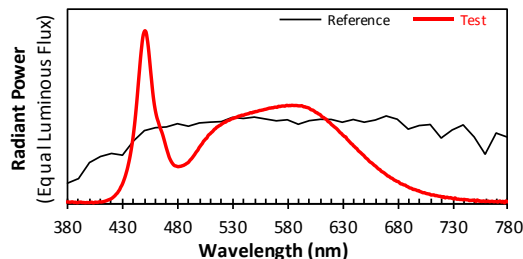
Manufacturer:

OFFSPRING PROFILES

Date: 5/02/2020

Model:

FF30 -SPEC-20-CTUNE (PI-JA191105OS-M)



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.3462

y 0.3547

u' 0.2110

v' 0.4863

CIE 13.3-1995
(CRI)

R_a 83

R_g 10

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.



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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	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	
5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	
10	124	124	124	124	124	123	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	
15	121	120	120	120	120	120	120	119	120	120	120	120	120	120	120	120	120	120	120	121	120	120	120	121	121		
20	116	115	115	115	115	114	115	114	114	115	115	115	116	116	116	116	115	116	115	115	115	116	115	116	116		
25	110	109	109	108	108	108	108	108	108	109	109	109	110	110	110	110	109	110	109	109	109	109	109	110	110		
30	103	102	102	101	101	100	101	100	101	101	102	102	102	103	102	103	102	102	101	102	102	102	102	103	103		
35	95	94	94	93	93	92	92	92	93	93	94	94	95	95	94	94	94	94	93	94	93	94	94	94	94		
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45	77	77	76	75	76	75	75	75	75	75	77	77	77	77	77	77	76	77	75	76	75	77	76	76	77		
50	68	67	67	66	66	66	66	65	66	67	67	68	68	68	67	67	67	68	67	67	67	67	67	67	68		
55	58	57	58	56	57	56	57	56	57	57	58	58	58	58	58	58	58	58	57	57	57	58	57	57	58		
60	48	47	48	47	47	47	47	47	48	47	48	48	48	49	48	48	48	49	48	48	48	48	48	48	48		
65	38	38	38	37	38	38	38	37	38	38	38	38	39	39	39	39	39	39	38	39	38	39	38	38	38		
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75	19	19	19	19	20	20	20	19	20	20	20	19	20	20	20	20	21	21	20	20	20	20	19	19	19		
80	11	10	11	10	11	11	11	11	11	11	11	11	11	11	11	12	12	12	12	12	11	12	10	10	11		
85	3	3	3	3	4	4	3	3	4	4	3	3	3	4	4	4	4	5	4	4	4	4	3	2	3		
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		
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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		
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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		