

Test Report

Report Number: L23022

Date: Sep 20, 2023

Issued by:

Dialight Optics Laboratory
1501 Route 34 South, Farmingdale, NJ 07727

Test of one Flood

Unit manufacturer: Dialight Corporation
Unit model number: F1EN6U2Fxxxxxx

Issued to:

Dialight Corporation
1501 Route 34 South, Farmingdale, NJ 07727

Tests performed: Photometric characterization and temperature measurement per the described standards.

Dates of test: September 8, 2023 through September 18, 2023

Standards used: All tests are performed in accordance with procedures and guidelines prescribed by the American National Standards Institute (ANSI) or Illuminating Engineering Society of North America (IES):

- IES LM-79:2019: Optical and Electrical Measurements of Solid-State Lighting Products
- ANSI/UL 1598:2008: Underwriters Laboratories Inc. Standard for Safety: Luminaires
- ENERGY STAR Manufacturer's Guide for Qualifying Solid State Lighting Luminaires Version 2.1

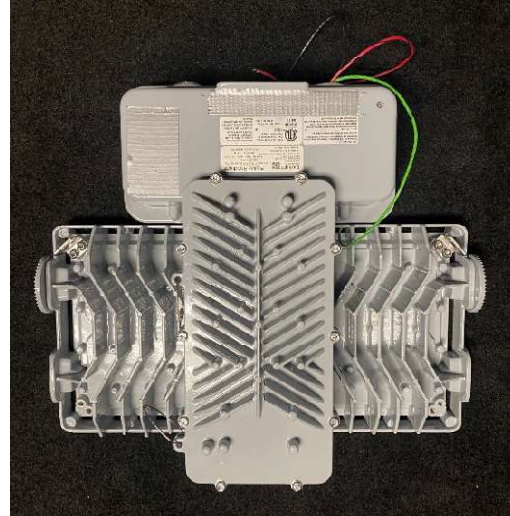
Description of sample:

Sample Number: L23022
Manufacturer: Dialight Corporation
Product Name: ProSite F1 Flood 30K
Description: Flood
Model Number: F1EN6U2Fxxxxxx

Report Summary

Sample number L23022
Dialight unit model number F1EN6U2Fxxxxxx

Photograph(s) of sample:



*Photographs not to scale. For reference only.

Summary of Results:

	<u>Integrating Sphere</u>	<u>Goniophotometer</u>
Luminous Flux:	25042 (lumens)	25361 (lumens)
Electrical Power:	232.5 (W)	232.4 (W)
Luminous Efficacy:	107.7 (lumens/W)	109.1 (lumens/W)

Electrical Measurements:

Input Power (120VAC): 232.5 (W)
Power Factor (120VAC): 0.9951
Current ATHD % (120VAC): 4.94
Input Power (277VAC): 223.6 (W)
Power Factor (277VAC): 0.9557
Current ATHD % (277VAC): 9.11

Color Measurements:

Correlated Color Temperature (CCT): 2274
Color Rendering Index (CRI): 72.77
Chromaticity Coordinate (x): 0.496
Chromaticity Coordinate (y): 0.412
Chromaticity Coordinate (u'): 0.285
Chromaticity Coordinate (v'): 0.533
DUV: -0.0012

Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L23022.

Dialight unit model number F1EN6U2Fxxxxxx

Test Conditions:

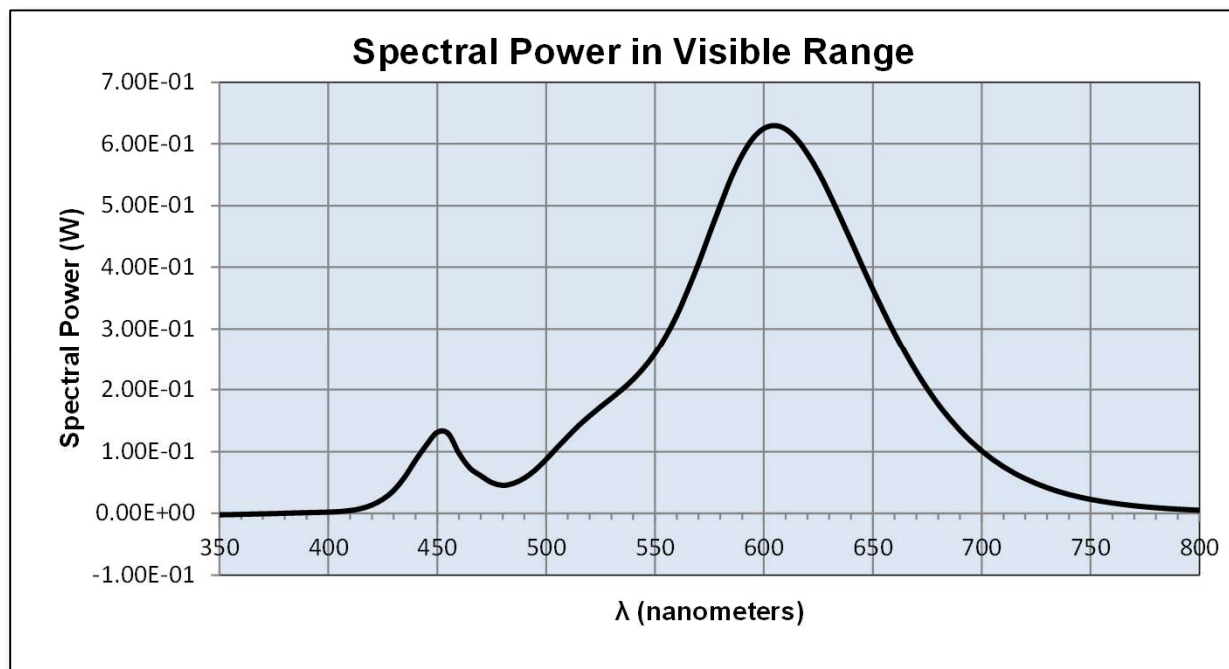
Ambient Temperature: 25 ± 1.2 (°C)
Ambient Relative Humidity: 10 to 65 (%RH)

Electrical Measurements:

Input Voltage: 120.0 (VAC)
Input Current: 1.948 (A)
Input Power: 232.5 (W)
Input Power Factor: 0.9951
Current ATHD: 4.94 (%)

Photometric measurements:

Luminous Flux: 25042.5 (lumens)
Luminous Efficacy: 107.7 (lumens/W)
Correlated Color Temperature (CCT): 2274 (K)
CRI -Ra: 72.77
CRI -R9: -23.69
DUV: -0.0012
CIE Coordinate (x): 0.496
CIE Coordinate (y): 0.412
CIE Coordinate (u'): 0.285
CIE Coordinate (v'): 0.533
TM30_Rf: 76.5
TM30_Rg: 96.4
TM30_Rcs_hue1: -15.58 %



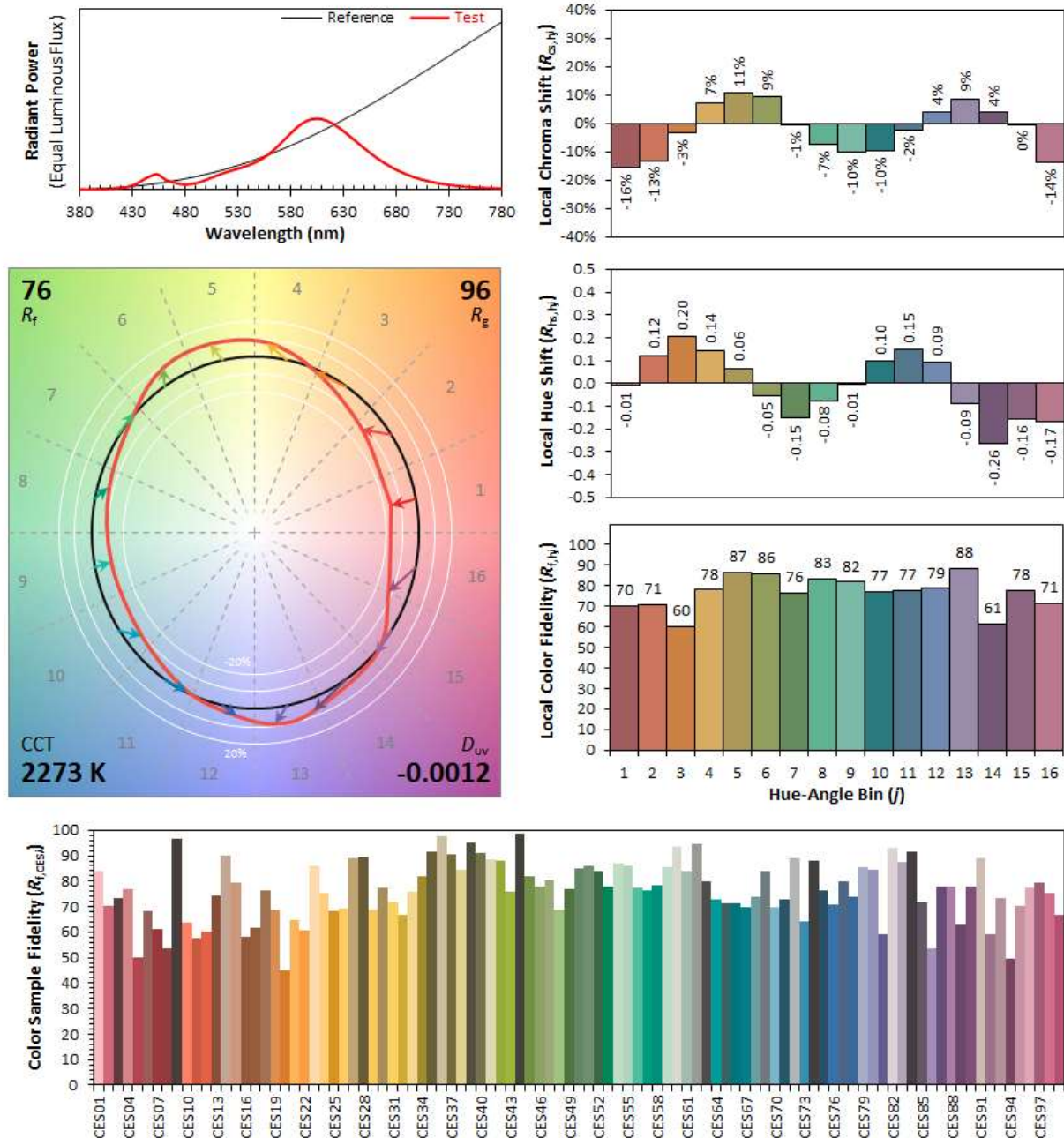
Test Results: Integrating Sphere

Results continued from previous page.

Tabulated Spectral Power in Visible Range:

$\lambda(\text{nm})$	(W/nm)	$\lambda(\text{nm})$	(W/nm)	$\lambda(\text{nm})$	(W/nm)	$\lambda(\text{nm})$	(W/nm)
350	-0.00225	490	0.05707	630	0.51948	770	0.01237
355	-0.00201	495	0.07018	635	0.48164	775	0.01069
360	-0.00155	500	0.08739	640	0.44288	780	0.00918
365	-0.00112	505	0.10625	645	0.40308	785	0.00791
370	-0.00070	510	0.12463	650	0.36439	790	0.00682
375	-0.00027	515	0.14226	655	0.32750	795	0.00590
380	0.00026	520	0.15790	660	0.29208	800	0.00511
385	0.00076	525	0.17252	665	0.25959		
390	0.00117	530	0.18634	670	0.22916		
395	0.00161	535	0.20085	675	0.20161		
400	0.00205	540	0.21701	680	0.17655		
405	0.00289	545	0.23632	685	0.15441		
410	0.00454	550	0.25929	690	0.13428		
415	0.00779	555	0.28829	695	0.11656		
420	0.01359	560	0.32213	700	0.10100		
425	0.02278	565	0.36266	705	0.08727		
430	0.03709	570	0.40665	710	0.07536		
435	0.05847	575	0.45443	715	0.06498		
440	0.08579	580	0.50098	720	0.05615		
445	0.11060	585	0.54553	725	0.04839		
450	0.13126	590	0.58217	730	0.04152		
455	0.12928	595	0.60943	735	0.03563		
460	0.09710	600	0.62523	740	0.03062		
465	0.07321	605	0.62984	745	0.02631		
470	0.06093	610	0.62405	750	0.02266		
475	0.04994	615	0.60809	755	0.01948		
480	0.04541	620	0.58421	760	0.01678		
485	0.04866	625	0.55453	765	0.01442		

IES TM-30-18 Color Rendition Report



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

x 0.4959
 y 0.4116
 u' 0.2855
 v' 0.5332

CIE 13.3-1995
(CRI)

R_a 73
 R_g -24

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

Test Results: Goniometer

Results include unit flux, distribution, efficacy, and electrical power for sample number L23022.

Dialight unit model number F1EN6U2Fxxxxxx

Electrical Measurements:

Input Voltage: 119.7 (VAC)
Input current: 1.95 (A)
Input Power: 232.36 (W)
Power Factor: 0.9951

Photometric measurements:

Absolute Luminous Flux: 25361.0 (lumens)
Luminous Efficacy: 109.1 (lumens/W)

Intensity Summary:

Candlepower Summary

H/V	0.00	45.00	90.00	135.00	180.00	Lumens
0.00	16703	16703	16703	16703	16703	
5.00	16336	16371	16259	16268	16349	1658
15.00	12518	12657	12444	12614	12528	3555
25.00	11154	11289	11074	11006	11018	5138
35.00	9750	9825	9623	9562	9538	6065
45.00	7140	7172	7143	7060	7046	5502
55.00	2776	2903	3127	3163	3185	2702
65.00	505	533	572	562	546	533
75.00	222	228	251	230	233	244
85.00	40	44	46	55	56	27
90.00	1	1	1	4	5	

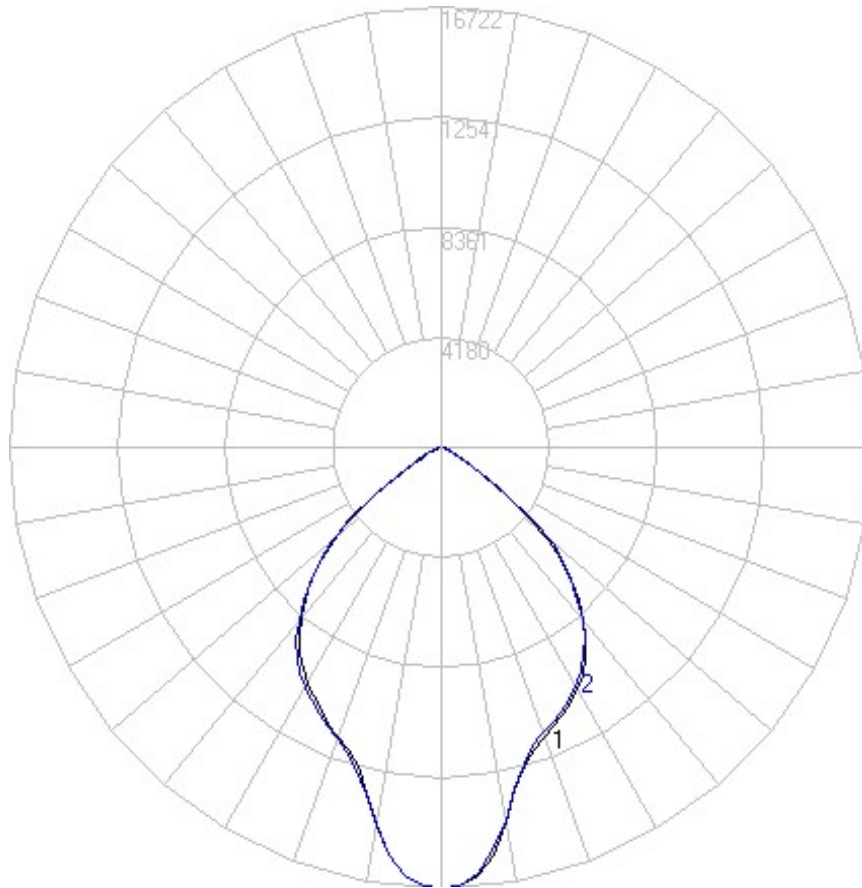
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0 to 30	10217.17	40.28	40.28
0 to 40	16219.53	63.94	63.94
0 to 60	24446.60	96.38	96.38
0 to 90	25365.81	100.00	100.00
90 to 180	0.00	0.00	0.00
0 to 180	25365.81	100.00	100.00

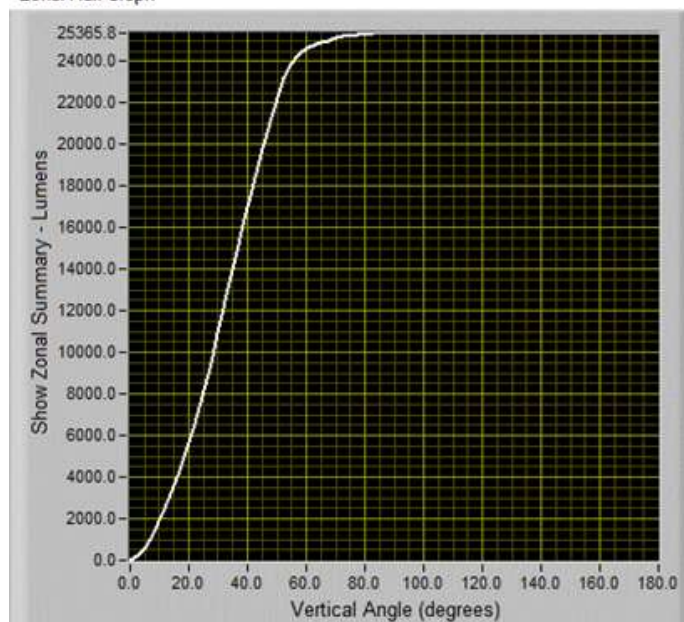
Test Results: Goniometer

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Polar Plot:



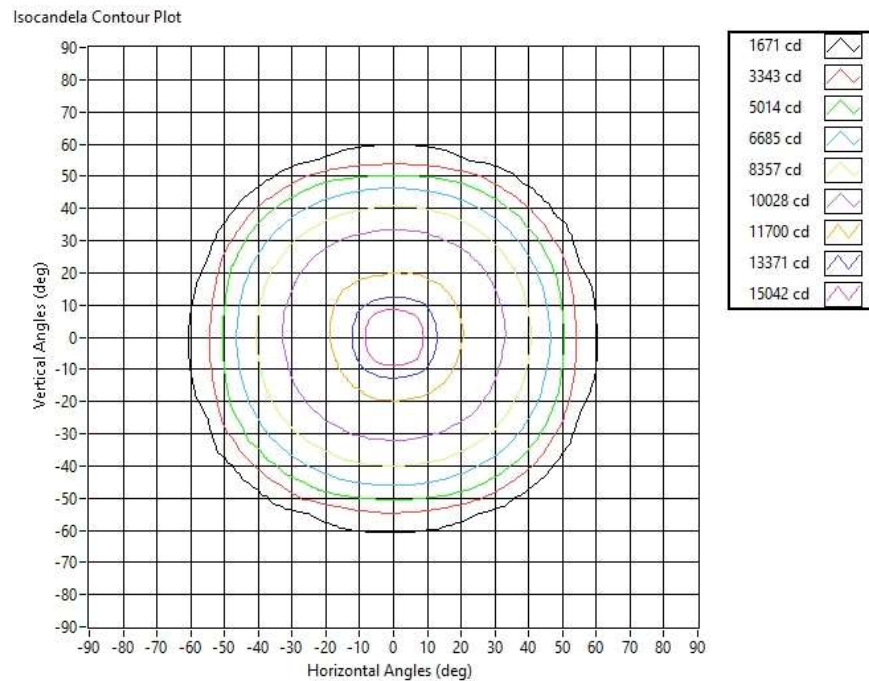
Zonal Flux Graph



Test Results: Goniometer

Results continued from previous page.

Illuminance Plot:



Illuminance-Cone of Light:

Mounting Height (ft)	Beam Cone Width (ft)	Orthogonal Beam Cone Width (ft)	Projected Illuminance (fc)
2	3.60	3.57	4175.8
4	7.20	7.13	1044.0
6	10.80	10.70	464.0
8	14.39	14.26	261.0
10	17.99	17.83	167.0
12	21.59	21.40	116.0
14	25.19	24.96	85.2
16	28.79	28.53	65.2
18	32.39	32.09	51.6
20	35.99	35.66	41.8

Equipment Used:

Equipment Name	Model Number
Omega TC	DPi8
LSI High Speed Mirror Goniometer	6240T
Elgar AC Power Supply	CW1251P
Sorensen DC Power Supply	XHR150-7
Dialight Confirmation Sample	HB1N4N
Dialight Confirmation Sample	HB1N4J
Fluke 8808A Digit Multimeter	8808A
Step-Up Transformer	
Omega Thermocouple	5TC-TT-K
Fluke 971 Humidity Meter	971
GwINSTEK DC Power Supply	GEP172679
Dialight Confirmation Sample	
Omega TC	TC-08
Labshere 2M sphere	Illumia Plus 2600-195
Labshere Controller	PM-150-140
Xitron Power Analyzer	XT2640
Xitron Power Analyzer	XT2640
LPS-525 DC Power Supply	LPS-525
Omega Temperature Controller	DP41-RTD-A
YOKOGAWA Digital Power Meter	WT310E
STS Luminous Intensity Standard Lamp for Type-C Cal	STD-EHD
STS Luminous Intensity Standard Lamp for Type-C Cal	STD-EHD
STS Luminous Intensity Standard Lamp for Type-C Cal	STD-EHD
Dialight Confirmation Sample	
Labsphere calibration lamp for 2M sphere	SCL-1400
Labsphere calibration lamp for 2M sphere	SCL-1400
Labsphere calibration lamp for 2M sphere	SCL-1400
Labshere Spectrometer- CDS 2600 Spectrometer	CDS-2600

Additional Notes:

Samples are received and tested in new and undamaged condition, unless otherwise noted.
The results shown in this report are representative only of the test samples submitted. This data has been issued to the assignee for further evaluation.
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