

Test Report

Report Number: L23037

Date: Jan 8, 2024

Issued by:

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

Test of one Floodlight

Unit manufacturer: Dialight Corporation
Unit model number: F2U74A2Exxxxxx

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: December 12, 2023 through December 21, 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

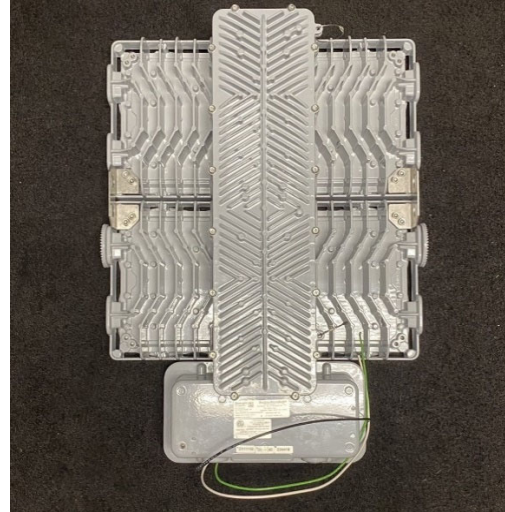
Description of sample:

Sample Number: L23037
Manufacturer: Dialight Corporation
Product Name: ProSite F2 Flood 24K
Description: Floodlight
Model Number: F2U74A2Exxxxxx

Report Summary

Sample number L23037
Dialight unit model number F2U74A2Exxxxxx

Photograph(s) of sample:



*Photographs not to scale. For reference only.

Summary of Results:

	<u>Integrating Sphere</u>	<u>Goniophotometer</u>
Luminous Flux:	21799 (lumens)	22513 (lumens)
Electrical Power:	453.4 (W)	453.1 (W)
Luminous Efficacy:	48.08 (lumens/W)	49.69 (lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (120VAC):	453.4 (W)
	Power Factor (120VAC):	0.9952
	Current ATHD % (120VAC):	5.03
Secondary Voltage:	Input Power (277VAC):	436.4 (W)
	Power Factor (277VAC):	0.9605
	Current ATHD % (277VAC):	9.61

Color Measurements:

Correlated Color Temperature (CCT):	1765 (K)
Color Rendering Index (CRI):	57.57
Chromaticity Coordinate (x):	0.568
Chromaticity Coordinate (y):	0.425
Chromaticity Coordinate (u')	0.326
Chromaticity Coordinate (v')	0.549
DUV:	0.0059

Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L23037.

Dialight unit model number F2U74A2Exxxxxx

Test Conditions:

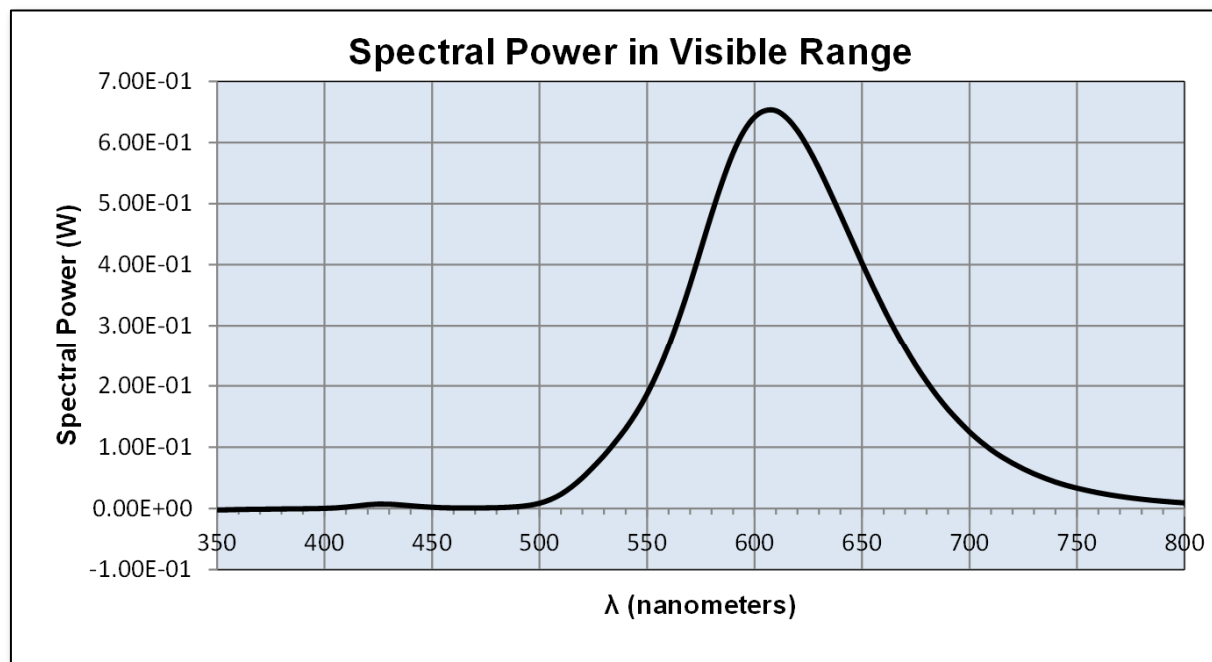
Ambient Temperature: 25 ± 1.2 (°C)
Ambient Relative Humidity: 10 to 65 (%RH)

Electrical Measurements:

Input Voltage: 120.1 (VAC)
Input Current: 3.795 (A)
Input Power: 453.4 (W)
Input Power Factor: 0.9952
Current ATHD: 5.03 (%)

Photometric measurements:

Luminous Flux: 21799.2 (lumens)
Luminous Efficacy: 48.1 (lumens/W)
Correlated Color Temperature (CCT): 1765 (K)
CRI -Ra: 57.57
CRI -R9: -56.37
DUV: 0.0059
CIE Coordinate (x): 0.568
CIE Coordinate (y): 0.425
CIE Coordinate (u'): 0.326
CIE Coordinate (v'): 0.549
TM30_Rf: 53.1
TM30_Rg: 46.2
TM30_Rcs_hue1: -21.81 %



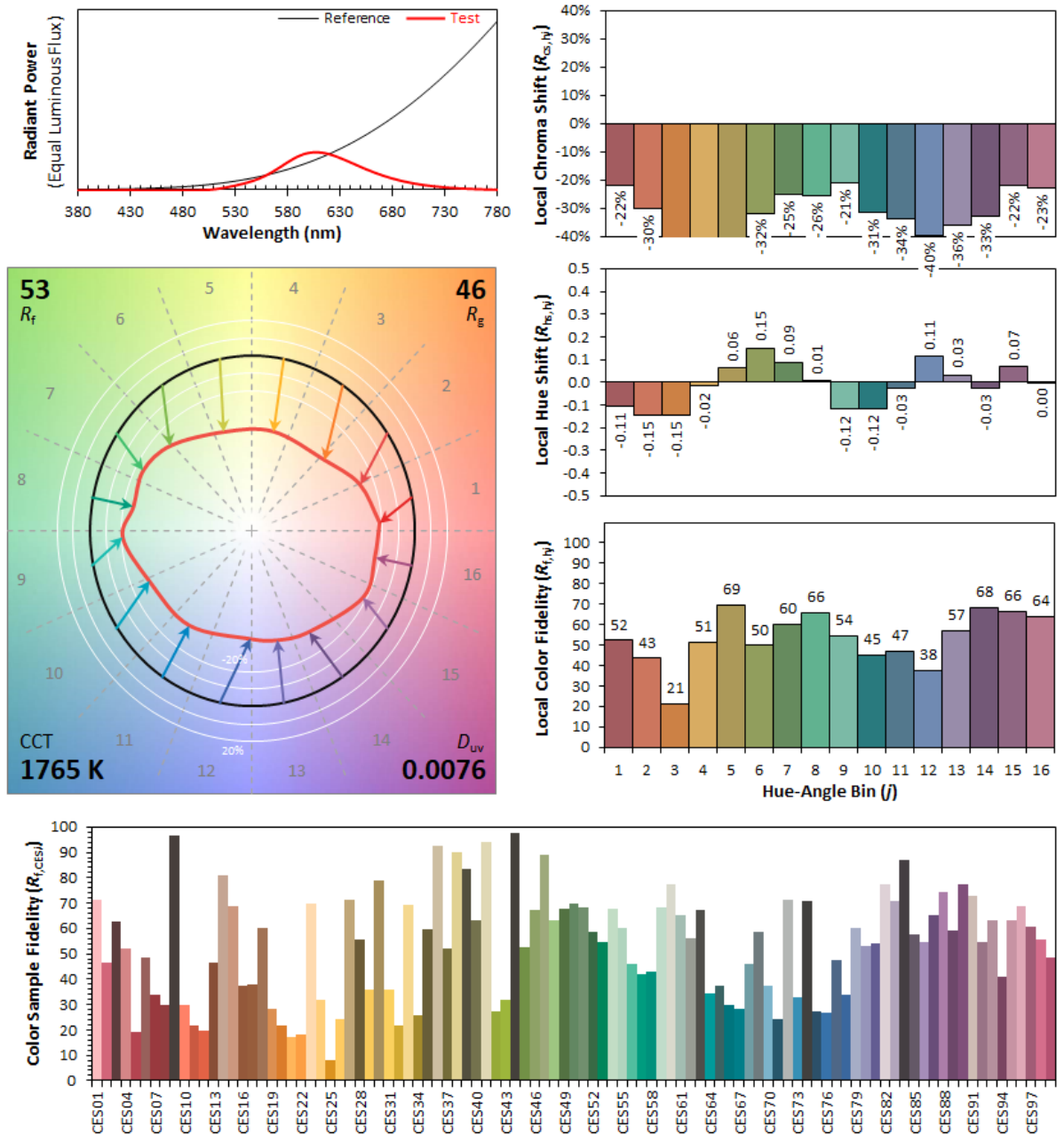
Test Results: Integrating Sphere

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	-0.00251	490	0.00297	630	0.55694	770	0.01964
355	-0.00218	495	0.00499	635	0.51970	775	0.01721
360	-0.00169	500	0.00854	640	0.48113	780	0.01519
365	-0.00141	505	0.01455	645	0.44204	785	0.01332
370	-0.00124	510	0.02336	650	0.40235	790	0.01176
375	-0.00106	515	0.03566	655	0.36455	795	0.01035
380	-0.00084	520	0.05049	660	0.32855	800	0.00912
385	-0.00068	525	0.06800	665	0.29439		
390	-0.00050	530	0.08660	670	0.26316		
395	-0.00028	535	0.10777	675	0.23388		
400	0.00015	540	0.13030	680	0.20752		
405	0.00090	545	0.15650	685	0.18334		
410	0.00226	550	0.18703	690	0.16163		
415	0.00416	555	0.22351	695	0.14262		
420	0.00606	560	0.26579	700	0.12491		
425	0.00719	565	0.31461	705	0.10944		
430	0.00702	570	0.36822	710	0.09574		
435	0.00578	575	0.42554	715	0.08410		
440	0.00435	580	0.48296	720	0.07384		
445	0.00308	585	0.53633	725	0.06470		
450	0.00198	590	0.58317	730	0.05651		
455	0.00119	595	0.61872	735	0.04939		
460	0.00086	600	0.64189	740	0.04310		
465	0.00074	605	0.65237	745	0.03769		
470	0.00078	610	0.65210	750	0.03315		
475	0.00094	615	0.64011	755	0.02910		
480	0.00127	620	0.61921	760	0.02547		
485	0.00186	625	0.59069	765	0.02237		

IES TM-30-18 Color Rendition Report



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

x 0.5682
 y 0.4248
 u' 0.3265
 v' 0.5492

CIE 13.3-1995
(CRI)

R_a 58
 R_g -56

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 L23037.
Dialight unit model number F2U74A2Exxxxxx

Electrical Measurements:

Input Voltage:	119.8	(VAC)
Input current:	3.80	(A)
Input Power:	453.10	(W)
Power Factor:	0.9952	

Photometric measurements:

Absolute Luminous Flux:	22513.4	(lumens)
Luminous Efficacy:	49.7	(lumens/W)

Intensity Summary:

Candlepower Summary

H/V	0.00	22.50	45.00	67.50	90.00	Lumens
0.00	76205	76205	76205	76205	76205	
5.00	68366	68373	68461	68392	68435	6985
15.00	39093	37541	36210	35162	34476	10402
25.00	5715	6546	7031	7178	7138	3017
35.00	1052	1074	1074	1076	1079	671
45.00	614	643	638	641	644	489
55.00	429	429	429	430	431	386
65.00	320	318	322	322	322	318
75.00	109	108	121	175	185	153
85.00	1	2	1	5	9	2
90.00	0	0	0	0	0	

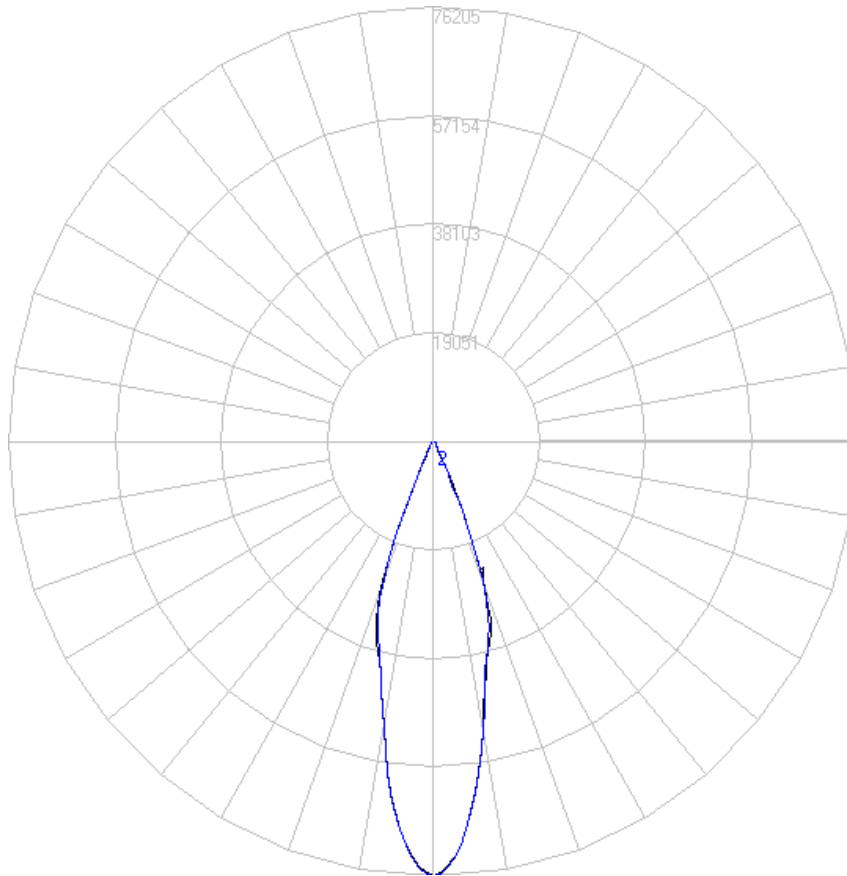
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0 to 30	20471.07	90.93	90.93
0 to 40	21155.61	93.97	93.97
0 to 60	22030.94	97.86	97.86
0 to 90	22513.39	100.00	100.00
90 to 180	0.00	0.00	0.00
0 to 180	22513.39	100.00	100.00

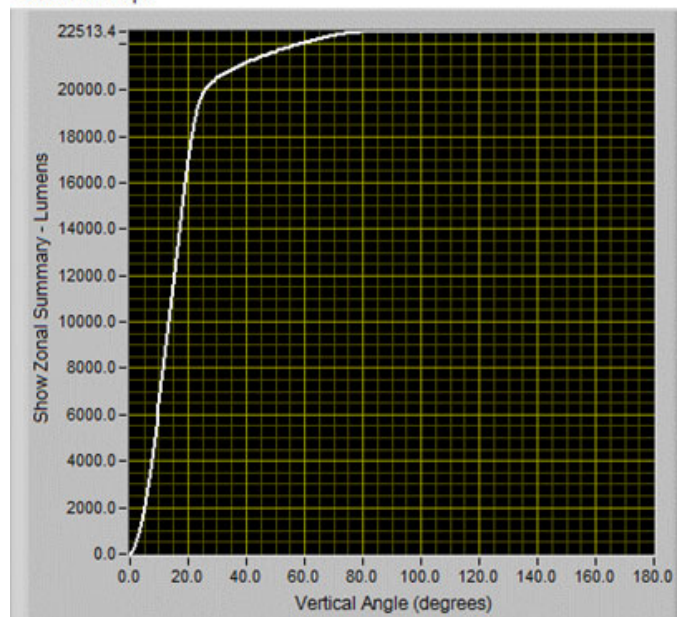
Test Results: Goniometer

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Polar Plot:



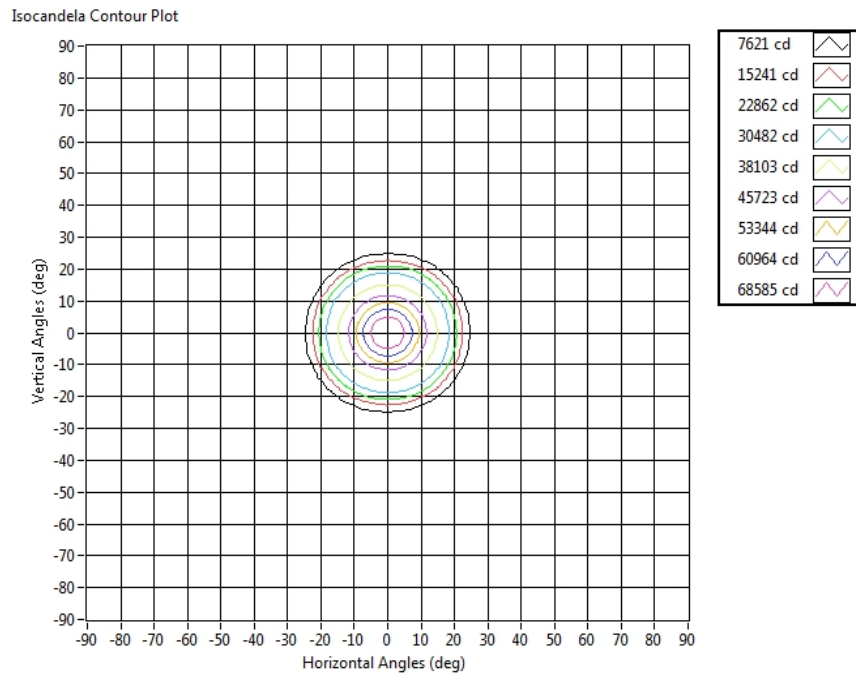
Zonal Flux Graph



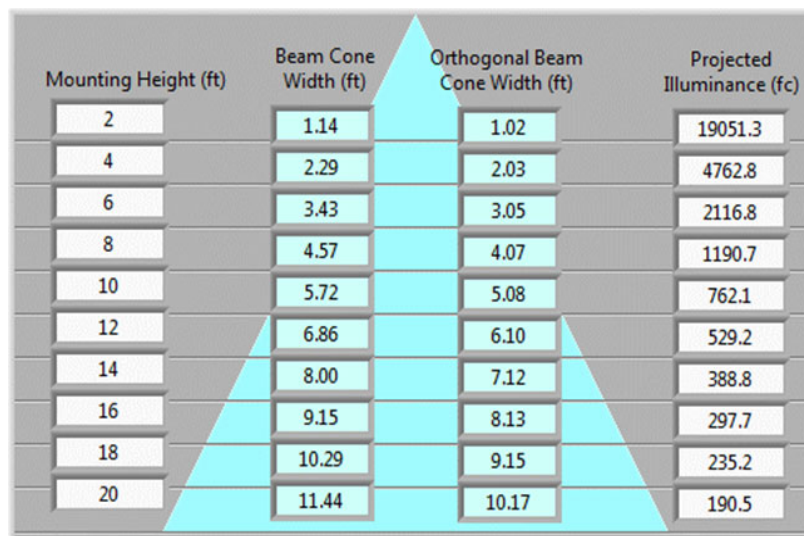
Test Results: Goniometer

Results continued from previous page.

Illuminance Plot:



Illuminance-Cone of Light:



Equipment Used:

Equipment Name	Model Number
Omega TC	DPI8
Type-C Moving Mirror Goniometer	6240T
Elgar AC Power Supply	CW1251P
Sorensen DC Power Supply	XHR150-7
Dialight Confirmation Sample	RRE2MN2CxxxxxN
Fluke 8808A Digit Multimeter	8808A
Step-Up Transformer	
Omega Thermocouple	5TC-TT-K
Fluke 971 Humidity Meter	971
GwINSTEK DC Power Supply	GEP172679
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	VEx7RB2Exxxxxx
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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