

Test Report

Report Number: L23011

Date: Nov 7, 2023

Issued by:

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

Test of one Floodlight

Unit manufacturer: Dialight Corporation
Unit model number: F2UNJL8NDTNVGN

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: October 19, 2023 through October 23, 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

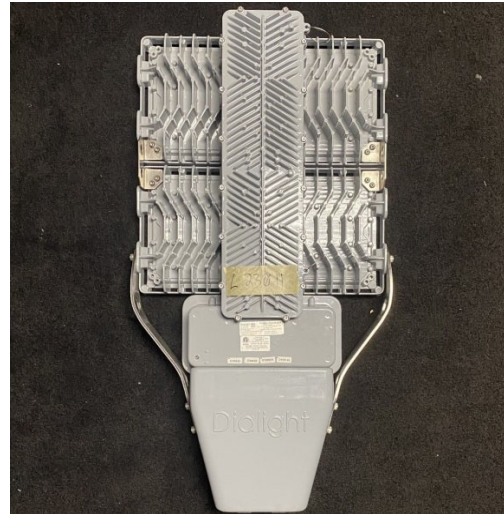
Description of sample:

Sample Number: L23011
Manufacturer: Dialight Corporation
Product Name: ProSite
Description: Floodlight
Model Number: F2UNJL8NDTNVGN

Report Summary

Sample number L23011
Dialight unit model number F2UNJL8NDTNVGN

Photograph(s) of sample:



*Photographs not to scale. For reference only.

Summary of Results:

	<u>Integrating Sphere</u>	<u>Goniophotometer</u>
Luminous Flux:	59637 (lumens)	57612 (lumens)
Electrical Power:	479.1 (W)	479.0 (W)
Luminous Efficacy:	124.5 (lumens/W)	120.3 (lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (240VAC):	479.1 (W)
	Power Factor (240VAC):	0.9753
	Current ATHD % (240VAC):	9.14
Secondary Voltage:	Input Power (120VAC):	496.3 (W)
	Power Factor (120VAC):	0.9960
	Current ATHD % (120VAC):	4.63

Color Measurements:

Correlated Color Temperature (CCT):	3947 (K)
Color Rendering Index (CRI):	74.60
Chromaticity Coordinate (x):	0.383
Chromaticity Coordinate (y):	0.378
Chromaticity Coordinate (u')	0.226
Chromaticity Coordinate (v')	0.502
DUV:	-0.0001

Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L23011.

Dialight unit model number F2UNJL8NDTNVGN

Test Conditions:

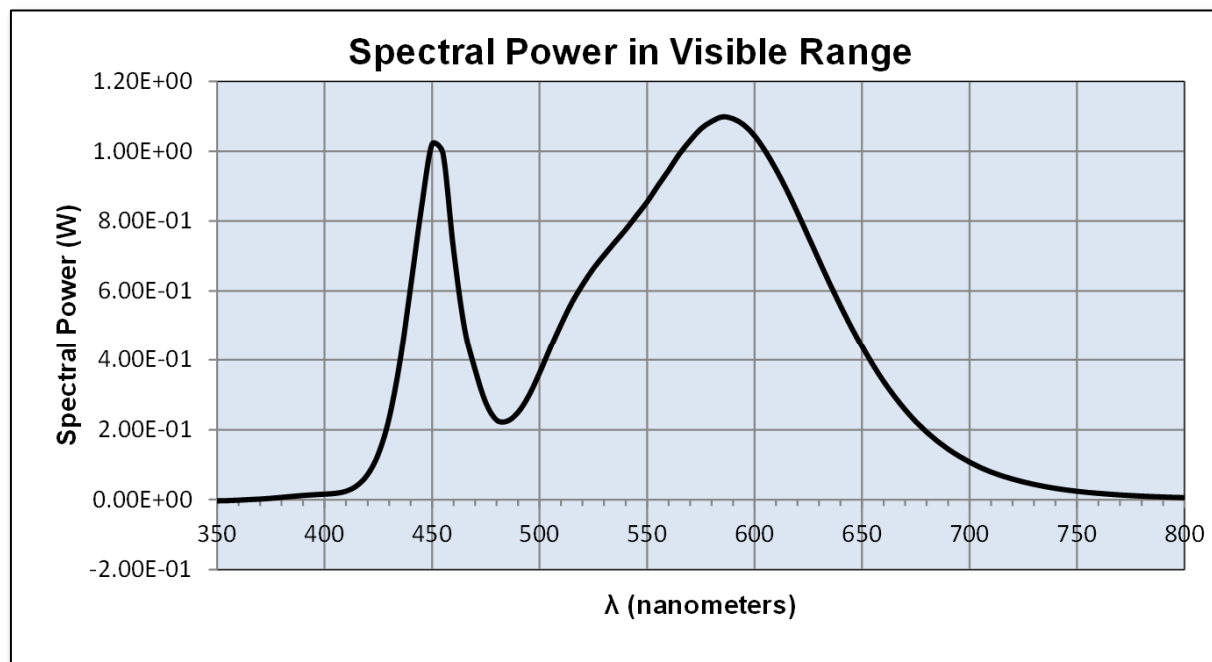
Ambient Temperature: 25 ± 1.2 (°C)
Ambient Relative Humidity: 10 to 65 (%RH)

Electrical Measurements:

Input Voltage: 239.9 (VAC)
Input Current: 2.048 (A)
Input Power: 479.1 (W)
Input Power Factor: 0.9753
Current ATHD: 9.14 (%)

Photometric measurements:

Luminous Flux: 59637.3 (lumens)
Luminous Efficacy: 124.5 (lumens/W)
Correlated Color Temperature (CCT): 3947 (K)
CRI -Ra: 74.60
CRI -R9: -26.91
DUV: -0.0001
CIE Coordinate (x): 0.383
CIE Coordinate (y): 0.378
CIE Coordinate (u'): 0.226
CIE Coordinate (v'): 0.502
TM30_Rf: 77.2
TM30_Rg: 93.2
TM30_Rcs_hue1: -16.74 %



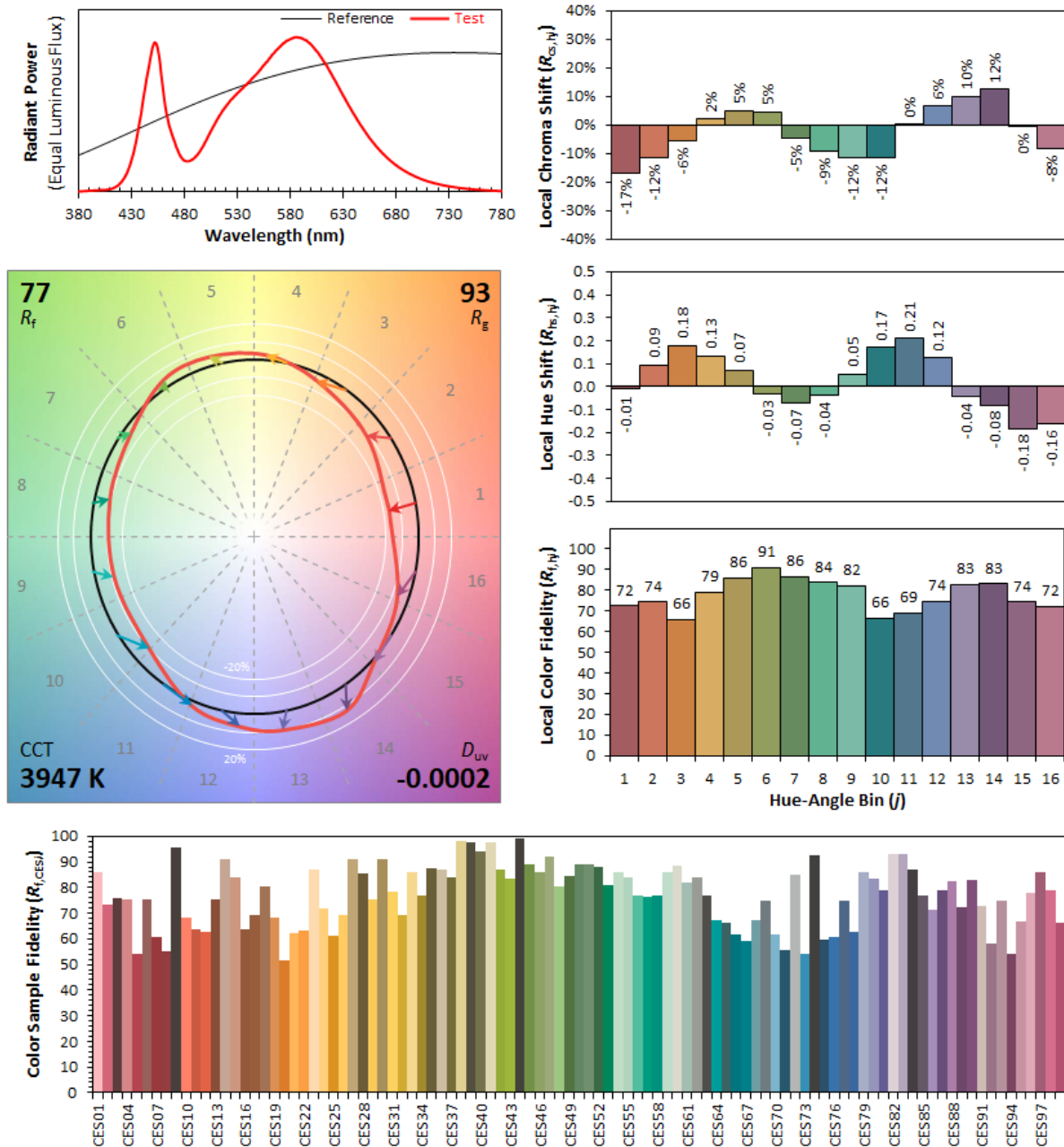
Test Results: Integrating Sphere

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	-0.00324	490	0.24994	630	0.68713	770	0.01363
355	-0.00256	495	0.29748	635	0.61998	775	0.01183
360	-0.00128	500	0.36294	640	0.55612	780	0.01032
365	0.00039	505	0.43511	645	0.49516	785	0.00890
370	0.00186	510	0.50378	650	0.43890	790	0.00777
375	0.00407	515	0.56640	655	0.38608	795	0.00678
380	0.00674	520	0.61792	660	0.33825	800	0.00591
385	0.00949	525	0.66409	665	0.29579		
390	0.01220	530	0.70250	670	0.25734		
395	0.01429	535	0.73940	675	0.22318		
400	0.01604	540	0.77547	680	0.19340		
405	0.01814	545	0.81511	685	0.16743		
410	0.02434	550	0.85481	690	0.14455		
415	0.04014	555	0.90122	695	0.12476		
420	0.07208	560	0.94552	700	0.10730		
425	0.13078	565	0.99206	705	0.09200		
430	0.23290	570	1.03078	710	0.07916		
435	0.39392	575	1.06429	715	0.06832		
440	0.61092	580	1.08558	720	0.05899		
445	0.83632	585	1.09858	725	0.05084		
450	1.02152	590	1.09338	730	0.04370		
455	0.99513	595	1.07544	735	0.03763		
460	0.71634	600	1.04427	740	0.03235		
465	0.49516	605	1.00016	745	0.02788		
470	0.37176	610	0.94766	750	0.02414		
475	0.27659	615	0.88858	755	0.02086		
480	0.22769	620	0.82337	760	0.01820		
485	0.22487	625	0.75580	765	0.01574		

IES TM-30-18 Color Rendition Report



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

x 0.3827

y 0.3777

u' 0.2262

v' 0.5024

CIE 13.3-1995
(CRI)

R_a 75

R_g -27

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 L23011.

Dialight unit model number F2UNJL8NDTNVGN

Electrical Measurements:

Input Voltage: 239.6 (VAC)
 Input current: 2.05 (A)
 Input Power: 479.00 (W)
 Power Factor: 0.9756

Photometric measurements:

Absolute Luminous Flux: 57611.9 (lumens)
 Luminous Efficacy: 120.3 (lumens/W)

BUG Rating:

4	-	0	-	5
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Intensity Summary:

Candlepower Summary

H/V	0.00	45.00	90.00	135.00	180.00	Lumens
0.00	13130	13130	13130	13130	13130	
5.00	13061	12407	12697	12670	12752	1299
15.00	14188	10415	9785	9987	8546	3084
25.00	16544	11414	8030	7668	5113	4701
35.00	16047	12978	9948	7816	4322	6413
45.00	8264	15567	10855	8020	3866	6270
55.00	6154	21624	15445	5693	3617	7535
65.00	3172	22344	18078	4037	3007	7433
75.00	1941	8976	6200	3134	2182	3785
85.00	230	1132	1439	1666	1213	637
90.00	2	64	469	772	658	

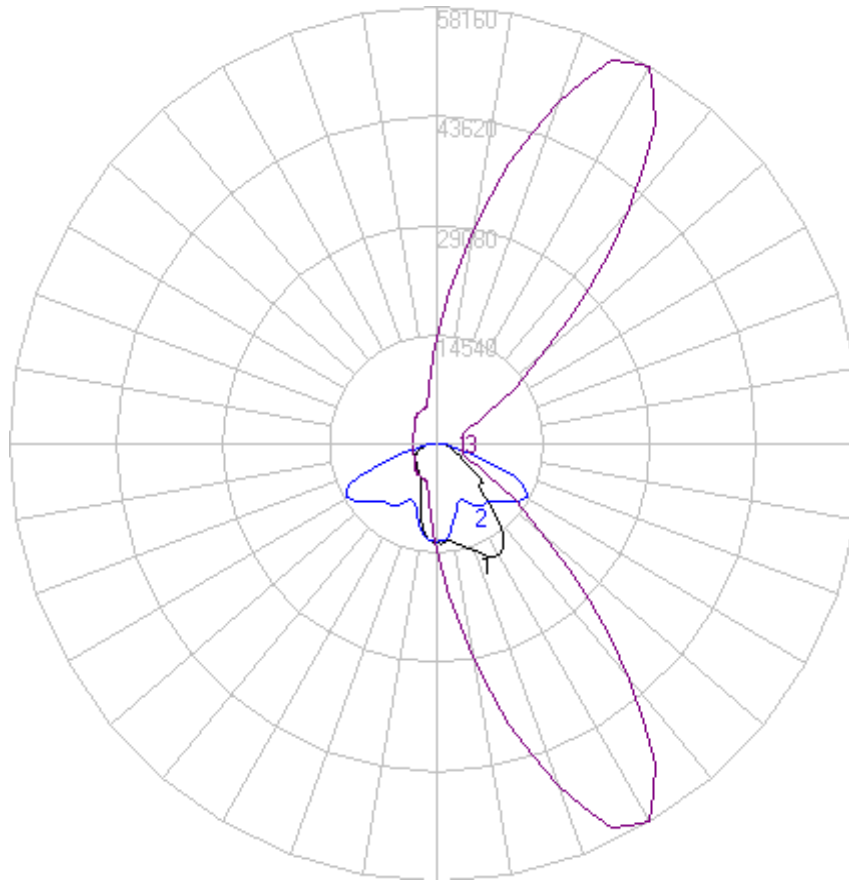
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0 to 30	8619.23	14.98	14.98
0 to 40	15316.18	26.61	26.61
0 to 60	37010.46	64.31	64.31
0 to 90	57553.31	100.00	100.00
90 to 180	0.00	0.00	0.00
0 to 180	57553.31	100.00	100.00

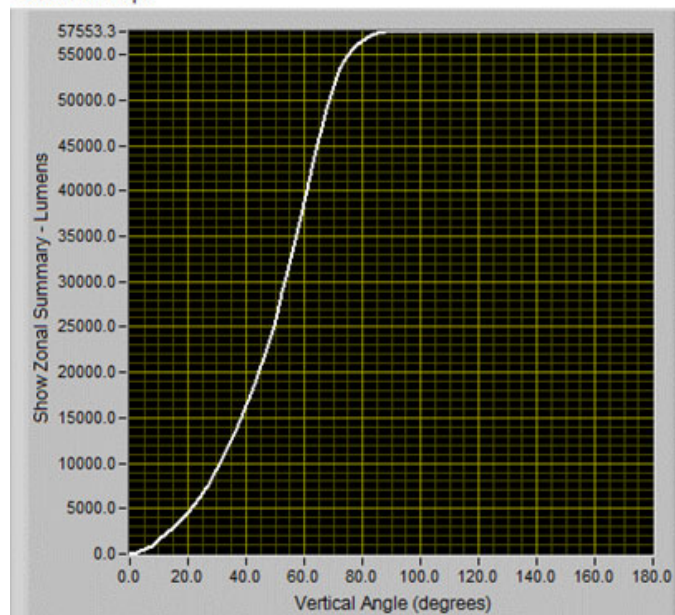
Test Results: Goniometer

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Polar Plot:



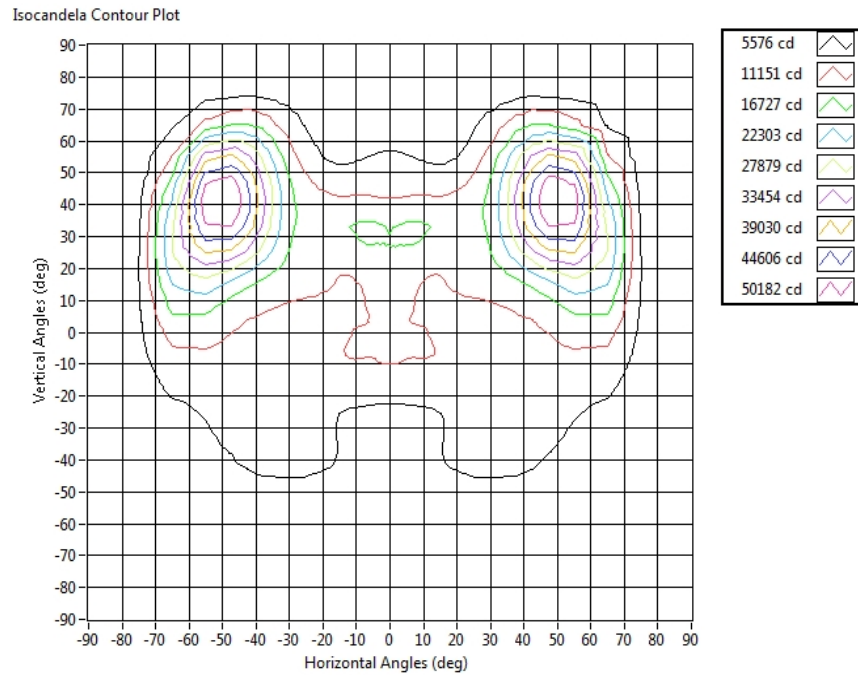
Zonal Flux Graph



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	3.36	11.11	3282.6
4	6.71	22.21	820.7
6	10.07	33.32	364.7
8	13.42	44.43	205.2
10	16.78	55.53	131.3
12	20.13	66.64	91.2
14	23.49	77.75	67.0
16	26.84	88.85	51.3
18	30.20	99.96	40.5
20	33.55	111.07	32.8

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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