Test Report

Report Number: L24011 Date: Jul 30, 2024

Issued by:
Dialight Optics Laboratory
1501 Route 34 South, Farmingdale, NJ 07727

Test of one Streetlight
Unit manufacturer: Dialight Corporation
Unit model number: S1xNQB2BxxxxxN

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: July 30, 2024 through July 30, 2024

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

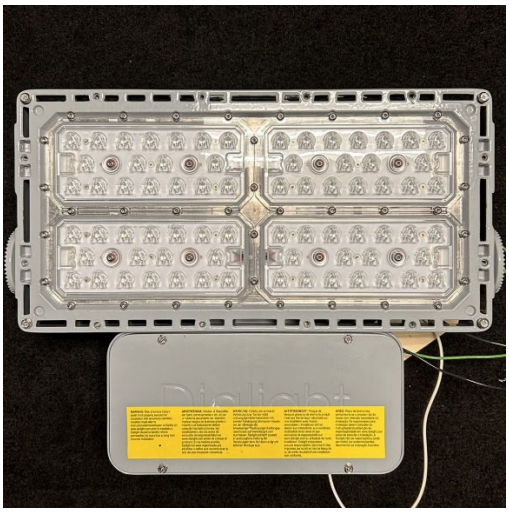
Description of sample:

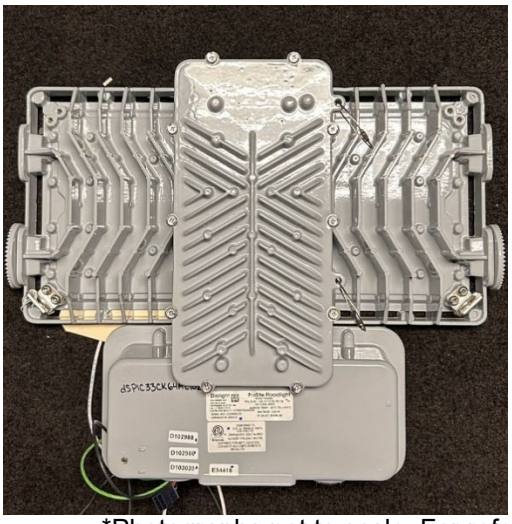
Sample Number:	L24011
Manufacturer:	Dialight Corporation
Product Name:	ProSite Streetlight
Description:	Streetlight
Model Number:	S1xNQB2BxxxxxN

Report Summary

Sample number L24011
Dialight unit model number S1xNQB2BxxxxxN

Photograph(s) of sample:





*Photographs not to scale. For reference only.

Summary of Results:

	Integrating Sphere	Goniophotometer
Luminous Flux:	12410 (lumens)	12205 (lumens)
Electrical Power:	81.8 (W)	81.8 (W)
Luminous Efficacy:	151.8 (lumens/W)	149.2 (lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (120VAC):	81.8	(W)
	Power Factor (120VAC):	0.9911	
	Current ATHD % (120VAC):	7.99	
Secondary Voltage:	Input Power (277VAC):	79.4	(W)
	Power Factor (277VAC):	0.9230	
	Current ATHD % (277VAC):	11.51	

Color Measurements:

Correlated Color Temperature (CCT):	4875	(K)
Color Rendering Index (CRI):	70.48	
Chromaticity Coordinate (x):	0.350	
Chromaticity Coordinate (y):	0.363	
Chromaticity Coordinate (u'):	0.210	
Chromaticity Coordinate (v'):	0.491	
DUV:	0.0040	

Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L24011.
Dialight unit model number S1xNQB2BxxxxxN

Test Conditions:

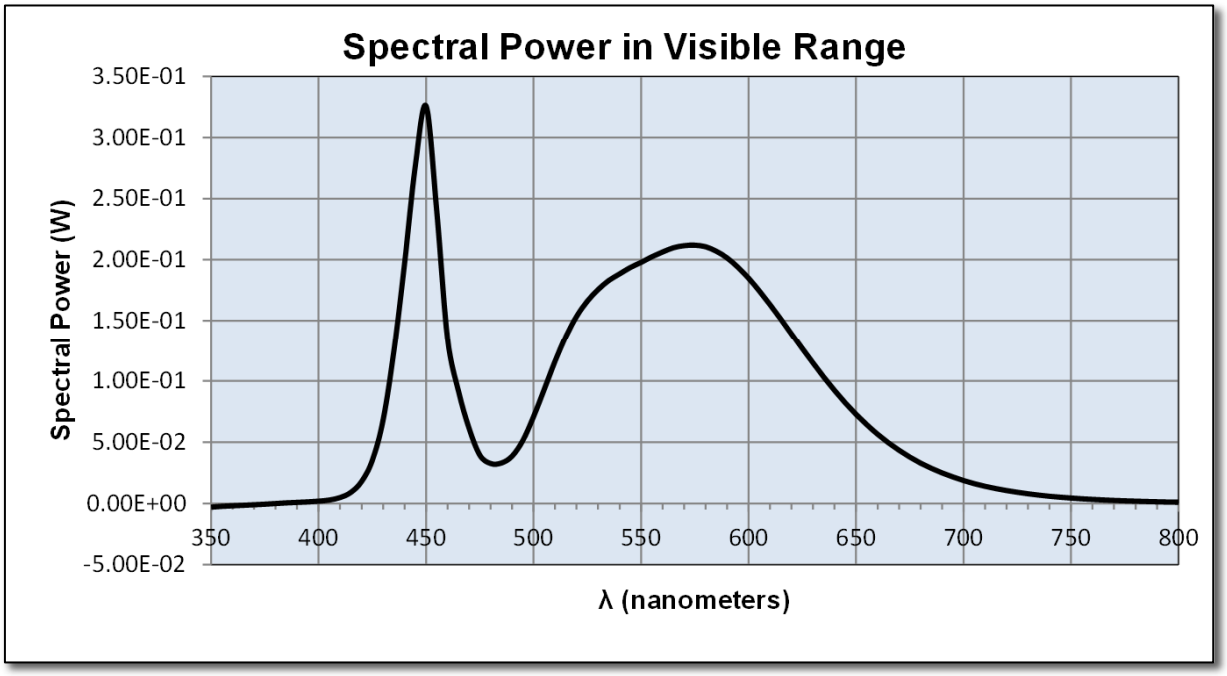
Ambient Temperature:	25 ± 1.2	(°C)
Ambient Relative Humidity:	10 to 65	(%RH)

Electrical Measurements:

Input Voltage:	120.6	(VAC)
Input Current:	0.684	(A)
Input Power:	81.8	(W)
Input Power Factor:	0.9911	
Current ATHD:	7.99	(%)

Photometric measurements:

Luminous Flux:	12409.9	(lumens)
Luminous Efficacy:	151.8	(lumens/W)
Correlated Color Temperature (CCT):	4875	(K)
CRI -Ra:	70.48	
CRI -R9:	-38.48	
DUV:	0.0040	
CIE Coordinate (x):	0.350	
CIE Coordinate (y):	0.363	
CIE Coordinate (u'):	0.210	
CIE Coordinate (v'):	0.491	
TM30_Rf:	72.2	
TM30_Rg:	93.9	
TM30_Rcs_hue1:	-18.27	%



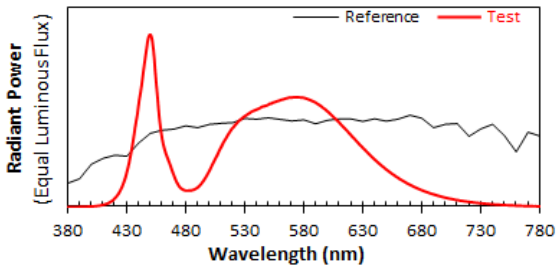
Test Results: Integrating Sphere

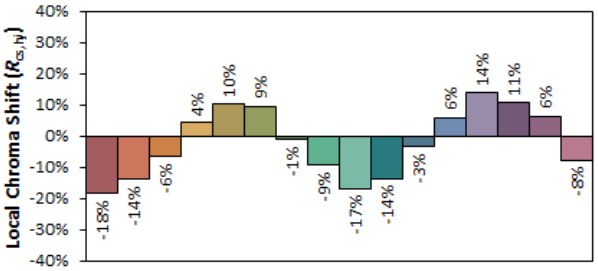
Results continued from previous page.

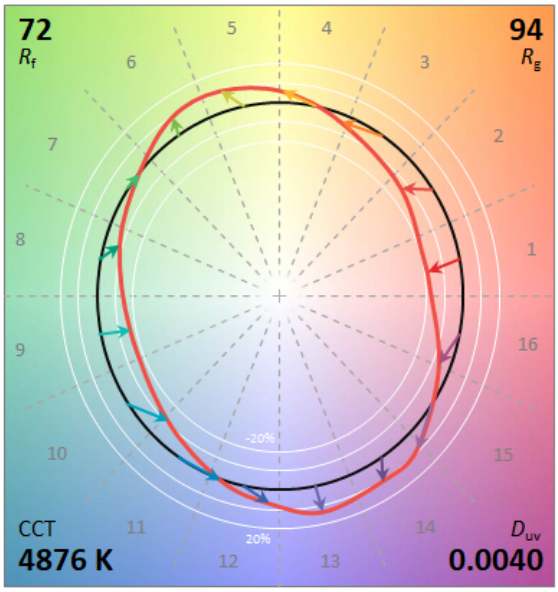
Tabulated Spectral Power in Visible Range:

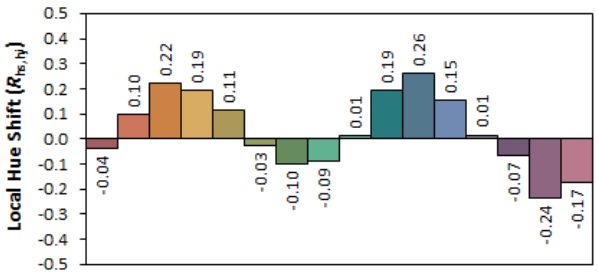
λ(nm)	(W/nm)	λ(nm)	(W/nm)	λ(nm)	(W/nm)	λ(nm)	(W/nm)
350	-0.00299	**490**	0.03863	**630**	0.11471	**770**	0.00247
355	-0.00232	**495**	0.05146	**635**	0.10311	**775**	0.00215
360	-0.00191	**500**	0.07101	**640**	0.09225	**780**	0.00187
365	-0.00150	**505**	0.09338	**645**	0.08206	**785**	0.00161
370	-0.00105	**510**	0.11644	**650**	0.07272	**790**	0.00137
375	-0.00059	**515**	0.13685	**655**	0.06429	**795**	0.00117
380	-0.00004	**520**	0.15359	**660**	0.05651	**800**	0.00101
385	0.00048	**525**	0.16610	**665**	0.04959		
390	0.00089	**530**	0.17555	**670**	0.04341		
395	0.00128	**535**	0.18304	**675**	0.03784		
400	0.00187	**540**	0.18839	**680**	0.03294		
405	0.00283	**545**	0.19365	**685**	0.02869		
410	0.00484	**550**	0.19783	**690**	0.02496		
415	0.00907	**555**	0.20245	**695**	0.02165		
420	0.01797	**560**	0.20634	**700**	0.01869		
425	0.03535	**565**	0.20977	**705**	0.01617		
430	0.06825	**570**	0.21151	**710**	0.01399		
435	0.12456	**575**	0.21189	**715**	0.01216		
440	0.19719	**580**	0.21064	**720**	0.01056		
445	0.27716	**585**	0.20691	**725**	0.00914		
450	0.32575	**590**	0.20147	**730**	0.00791		
455	0.23841	**595**	0.19387	**735**	0.00683		
460	0.13447	**600**	0.18485	**740**	0.00589		
465	0.09209	**605**	0.17439	**745**	0.00510		
470	0.06119	**610**	0.16313	**750**	0.00444		
475	0.03940	**615**	0.15123	**755**	0.00383		
480	0.03260	**620**	0.13888	**760**	0.00332		
485	0.03301	**625**	0.12666	**765**	0.00286		

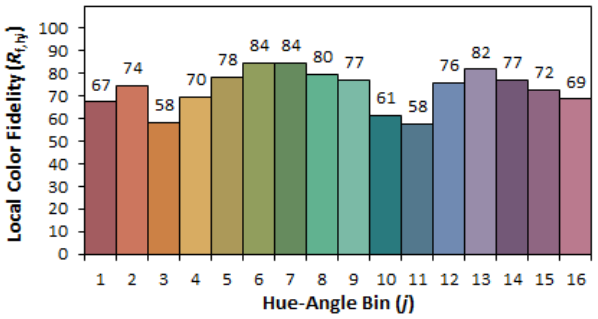
IES TM-30-18 Color Renditon Report

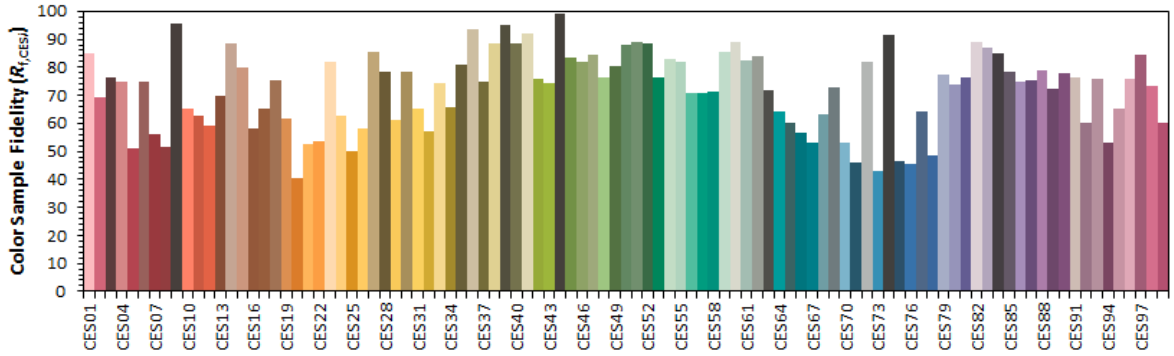












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	**0.3497**
y	**0.3632**
u'	**0.2100**
v'	**0.4909**

CIE 13.3-1995 (CRI)

R_a	70
R_9	-39

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

Dialight
OPTICS LABORATORY

NVLAP TESTING
NVLAP LAB CODE 201033-0

Test Results: Goniometer

Results include unit flux, distribution, efficacy, and electrical power for sample number L24011.
Dialight unit model number S1xNQB2BxxxxxN

Electrical Measurements:

Input Voltage:	120.2	(VAC)
Input current:	0.69	(A)
Input Power:	81.80	(W)
Power Factor:	0.9901	

Photometric measurements:

Absolute Luminous Flux:	12204.6	(lumens)
Luminous Efficacy:	149.2	(lumens/W)

BUG Rating: B3 - U0 - G3

Intensity Summary:

Candlepower Summary

H/V	0.00	45.00	90.00	135.00	180.00	Lumens
0.00	4343	4343	4343	4343	4343	
5.00	4444	4396	3946	4320	4236	436
15.00	3657	2930	2918	2802	2218	827
25.00	2826	1846	2703	1681	1537	991
35.00	2727	1670	3150	1635	1894	1414
45.00	3202	2420	3084	1481	1413	1793
55.00	2133	3272	3289	1026	630	1625
65.00	546	2482	4856	707	490	1320
75.00	316	1414	3164	499	527	950
85.00	156	588	598	258	237	187
90.00	65	20	9	161	105	

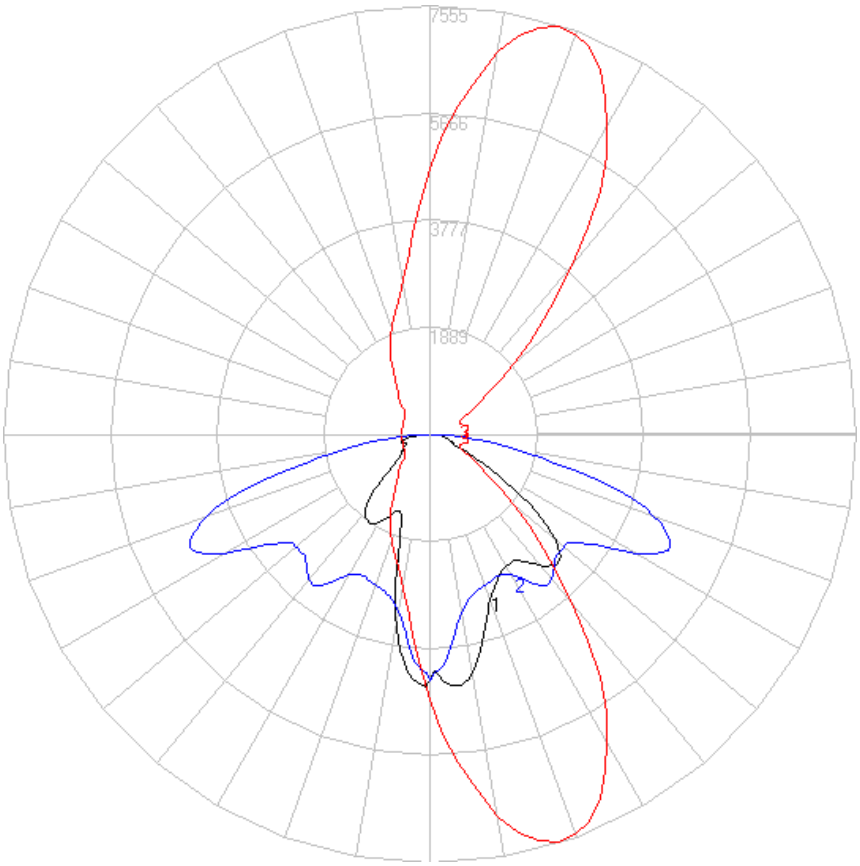
Zonal Lumen Summary

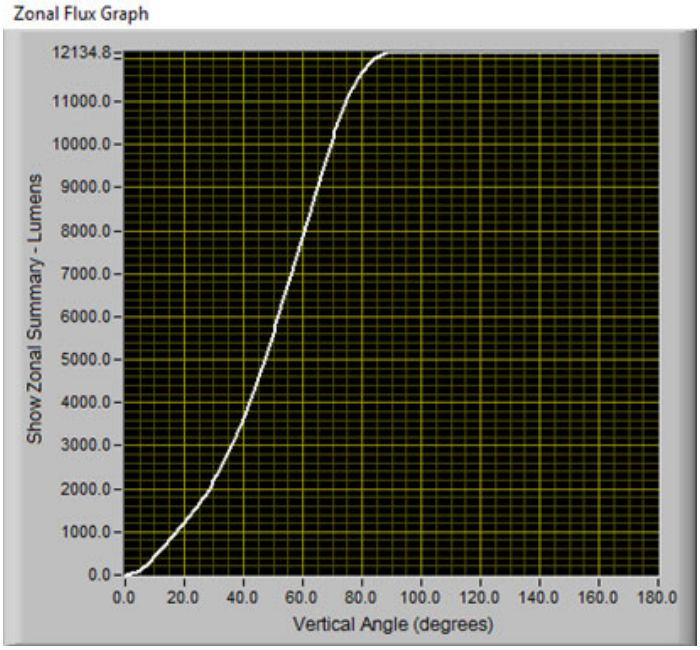
Zone	Lumens	% Lamp	% Fixture
0 to 30	2126.92	17.53	17.53
0 to 40	3545.06	29.21	29.21
0 to 60	7731.14	63.71	63.71
0 to 90	12134.79	100.00	100.00
90 to 180	0.00	0.00	0.00
0 to 180	12134.79	100.00	100.00

Test Results: Goniometer

Results continued from previous page.

Polar Plot:

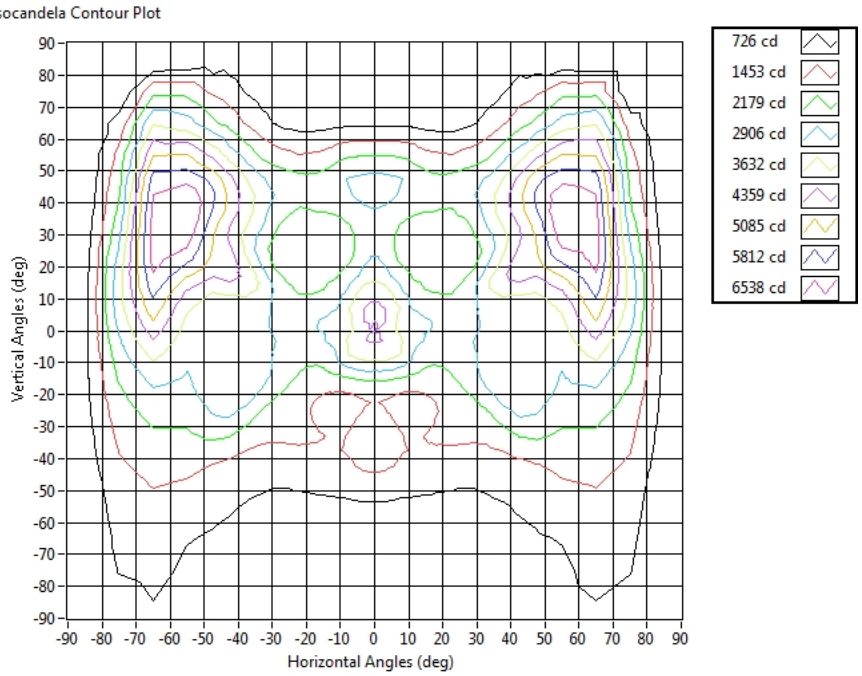




Test Results: Goniometer

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	3.34	18.24	1085.6
4	6.68	36.47	271.4
6	10.02	54.71	120.6
8	13.36	72.95	67.9
10	16.70	91.18	43.4
12	20.04	109.42	30.2
14	23.38	127.66	22.2
16	26.73	145.89	17.0
18	30.07	164.13	13.4
20	33.41	182.37	10.9

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 TC Meter	Dpi8-C24
Xitron Power Analyzer	XT2640
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
Labshere Spectrameter- CDS 2600 Spectrometer	CDS-2600
Xitron Power Analyzer	XT2640
LPS-525 DC Power Supply	LPS-525
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

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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Test Report Reviewed and Approved By:

Callan McCormick
Dialight Optics Laboratory
Optics Lab Engineer
Approved Signatory