

Test Report

Report Number: L25035

Date: Dec 1, 2025

Issued by:

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

Test of one Area Light

Unit manufacturer: Dialight Corporation
Unit model number: ALU5WC29DNNNGN

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: November 25, 2025 through November 25, 2025

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

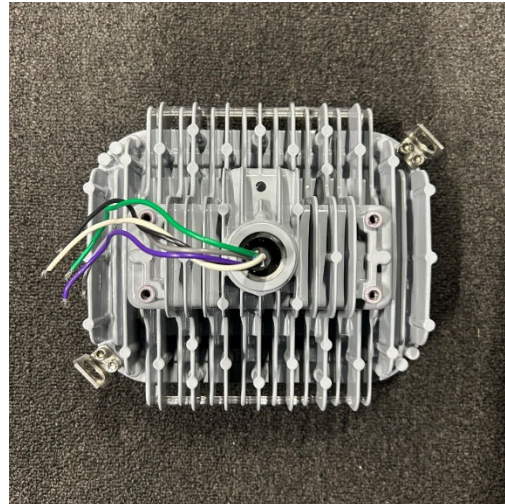
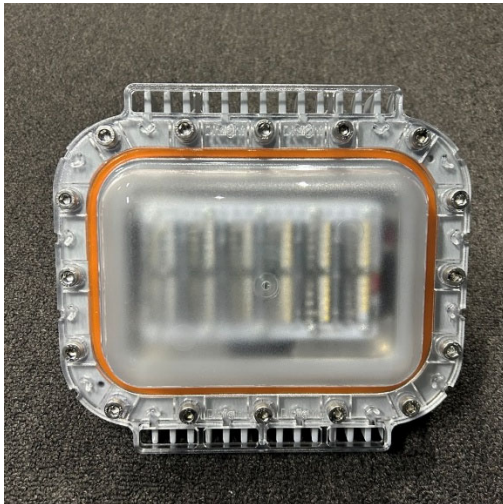
Description of sample:

Sample Number: L25035
Manufacturer: Dialight Corporation
Product Name: Area Light 8.5K
Description: Area Light
Model Number: ALU5WC29DNNNGN

Report Summary

Sample number L25035
Dialight unit model number ALU5WC29DNNNGN

Photograph(s) of sample:



*Photographs not to scale. For reference only.

Summary of Results:

	<u>Integrating Sphere</u>	<u>Goniophotometer</u>
Luminous Flux:	8741 (lumens)	8825 (lumens)
Electrical Power:	72.4 (W)	72.4 (W)
Luminous Efficacy:	120.7 (lumens/W)	122 (lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (120VAC):	72.4 (W)
	Power Factor (120VAC):	0.9969
	Current ATHD % (120VAC):	7.00
Secondary Voltage:	Input Power (277VAC):	70.1 (W)
	Power Factor (277VAC):	0.9843
	Current ATHD % (277VAC):	4.56

Color Measurements:

Correlated Color Temperature (CCT):	5190 (K)
Color Rendering Index (CRI):	82.69
Chromaticity Coordinate (x):	0.340
Chromaticity Coordinate (y):	0.355
Chromaticity Coordinate (u')	0.207
Chromaticity Coordinate (v')	0.486
DUV:	0.0036

Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L25035.

Dialight unit model number ALU5WC29DNNNGN

Test Conditions:

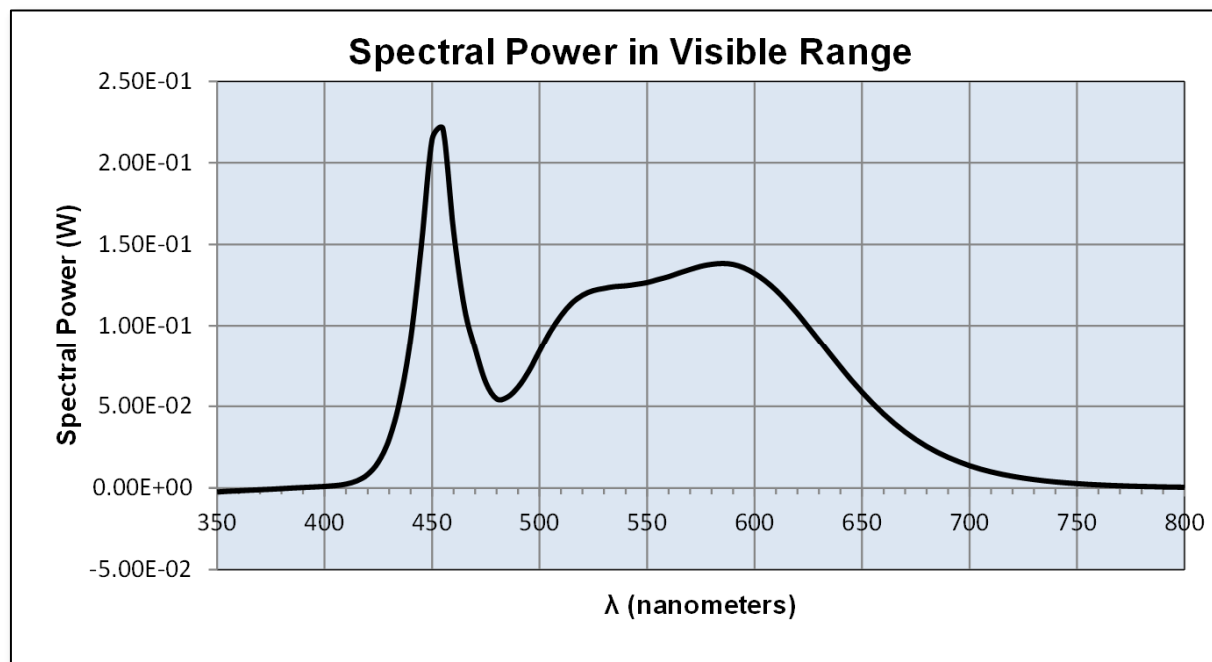
Ambient Temperature: 25 ± 1.2 (°C)
Ambient Relative Humidity: 10 to 65 (%RH)

Electrical Measurements:

Input Voltage: 120.1 (VAC)
Input Current: 0.605 (A)
Input Power: 72.4 (W)
Input Power Factor: 0.9969
Current ATHD: 7.00 (%)

Photometric measurements:

Luminous Flux: 8740.9 (lumens)
Luminous Efficacy: 120.7 (lumens/W)
Correlated Color Temperature (CCT): 5190 (K)
CRI -Ra: 82.69
CRI -R9: 1.24
DUV: 0.0036
CIE Coordinate (x): 0.340
CIE Coordinate (y): 0.355
CIE Coordinate (u'): 0.207
CIE Coordinate (v'): 0.486
TM30_Rf: 83.6
TM30_Rg: 94.9
TM30_Rcs_hue1: -13.24 %



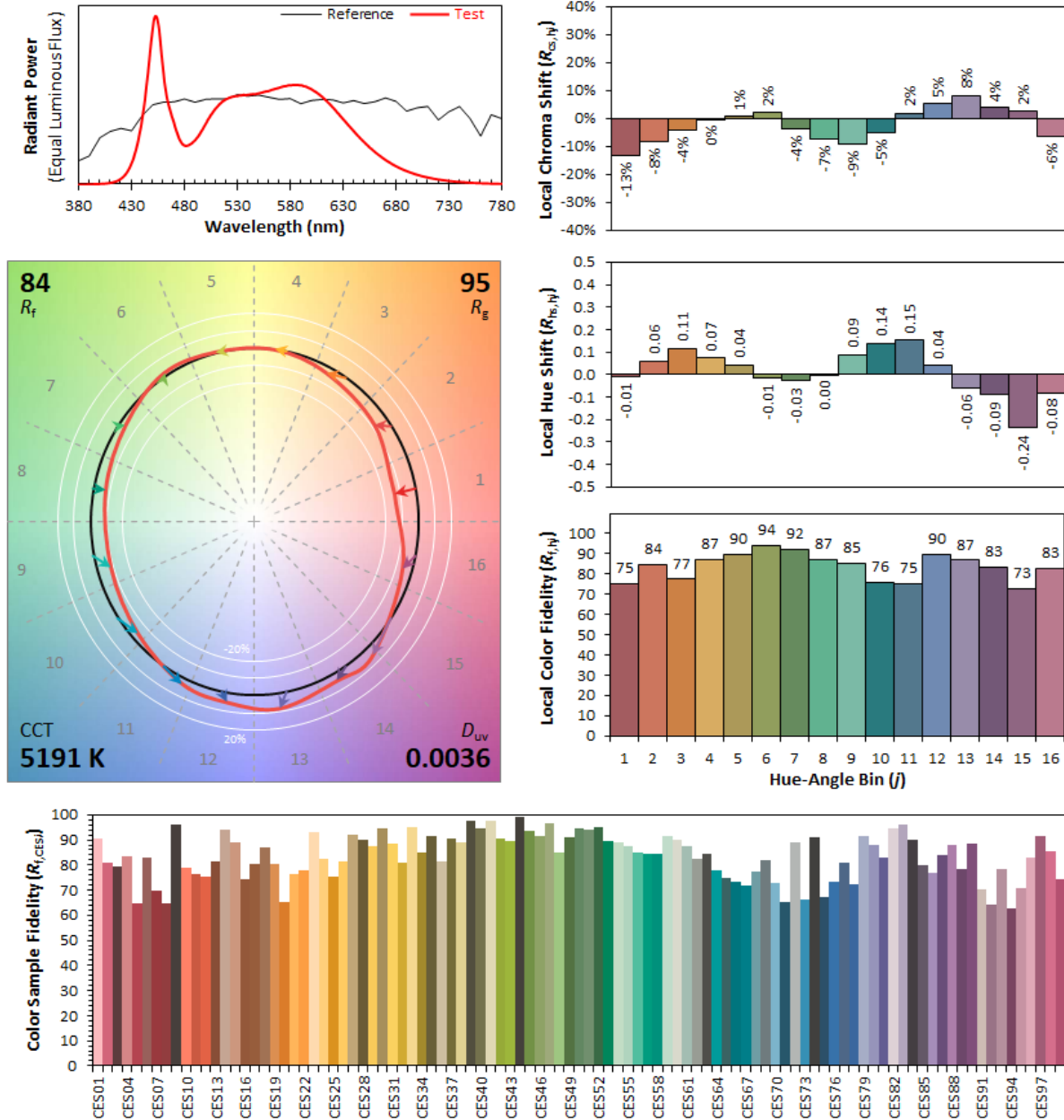
Test Results: Integrating Sphere

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	-0.00242	490	0.06182	630	0.09076	770	0.00138
355	-0.00198	495	0.07162	635	0.08236	775	0.00117
360	-0.00167	500	0.08422	640	0.07411	780	0.00100
365	-0.00132	505	0.09635	645	0.06609	785	0.00085
370	-0.00101	510	0.10630	650	0.05868	790	0.00071
375	-0.00072	515	0.11391	655	0.05174	795	0.00058
380	-0.00036	520	0.11881	660	0.04535	800	0.00049
385	0.00000	525	0.12163	665	0.03957		
390	0.00034	530	0.12299	670	0.03433		
395	0.00064	535	0.12410	675	0.02967		
400	0.00100	540	0.12454	680	0.02554		
405	0.00149	545	0.12546	685	0.02192		
410	0.00245	550	0.12653	690	0.01880		
415	0.00441	555	0.12840	695	0.01611		
420	0.00832	560	0.13015	700	0.01368		
425	0.01597	565	0.13246	705	0.01163		
430	0.02988	570	0.13457	710	0.00992		
435	0.05388	575	0.13654	715	0.00844		
440	0.09171	580	0.13774	720	0.00719		
445	0.14918	585	0.13828	725	0.00610		
450	0.21464	590	0.13768	730	0.00518		
455	0.22100	595	0.13559	735	0.00439		
460	0.15785	600	0.13212	740	0.00372		
465	0.11115	605	0.12753	745	0.00317		
470	0.08560	610	0.12179	750	0.00269		
475	0.06449	615	0.11494	755	0.00228		
480	0.05464	620	0.10739	760	0.00193		
485	0.05564	625	0.09913	765	0.00163		

IES TM-30-18 Color Rendition Report



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

x 0.3404
y 0.3550
u' 0.2070
v' 0.4856

CIE 13.3-1995
(CRI)

R_a 83
R_g 1

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 L25035.

Dialight unit model number ALU5WC29DNNNGN

Electrical Measurements:

Input Voltage:	120.4	(VAC)
Input current:	0.60	(A)
Input Power:	72.35	(W)
Power Factor:	0.9964	

Photometric measurements:

Absolute Luminous Flux:	8824.9	(lumens)
Luminous Efficacy:	122.0	(lumens/W)

BUG Rating: B3 - U0 - G3

Photometric Distribution Summary:

Candlepower Summary

H/V	0.00	45.00	90.00	135.00	180.00	Lumens
0.00	1997	1997	1997	1997	1997	
5.00	1966	2049	1883	1867	1966	198
15.00	2224	2299	1992	1735	1784	569
25.00	2051	2195	1885	1733	1531	854
35.00	1799	1986	1760	1535	1294	1022
45.00	1428	1655	1714	1283	1067	1054
55.00	1131	1373	2466	1045	857	1105
65.00	669	1849	2965	1141	384	1065
75.00	232	1635	1911	1340	119	762
85.00	79	398	377	436	66	134
90.00	55	132	182	205	52	

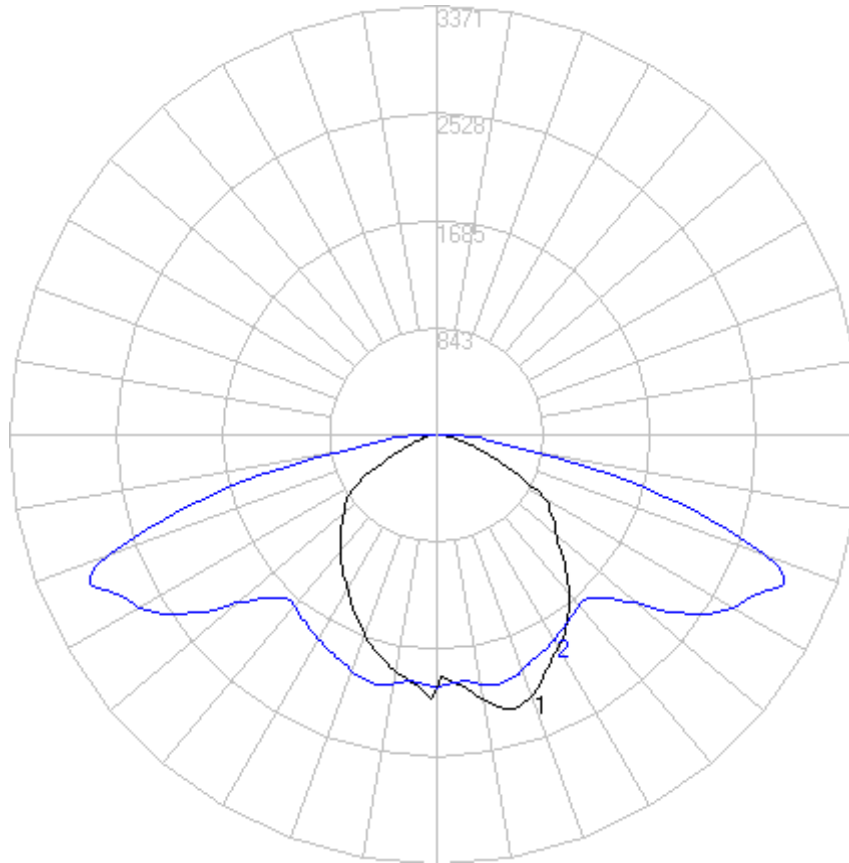
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0 to 30	1651.19	19.21	19.21
0 to 40	2749.43	31.99	31.99
0 to 60	5383.49	62.64	62.64
0 to 90	8594.03	100.00	100.00
90 to 180	0.00	0.00	0.00
0 to 180	8594.03	100.00	100.00

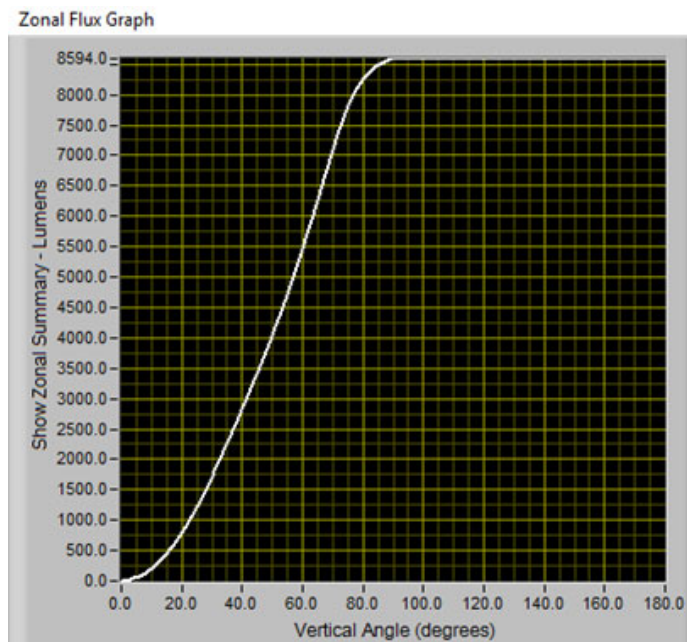
Test Results: Goniometer

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Polar Plot:



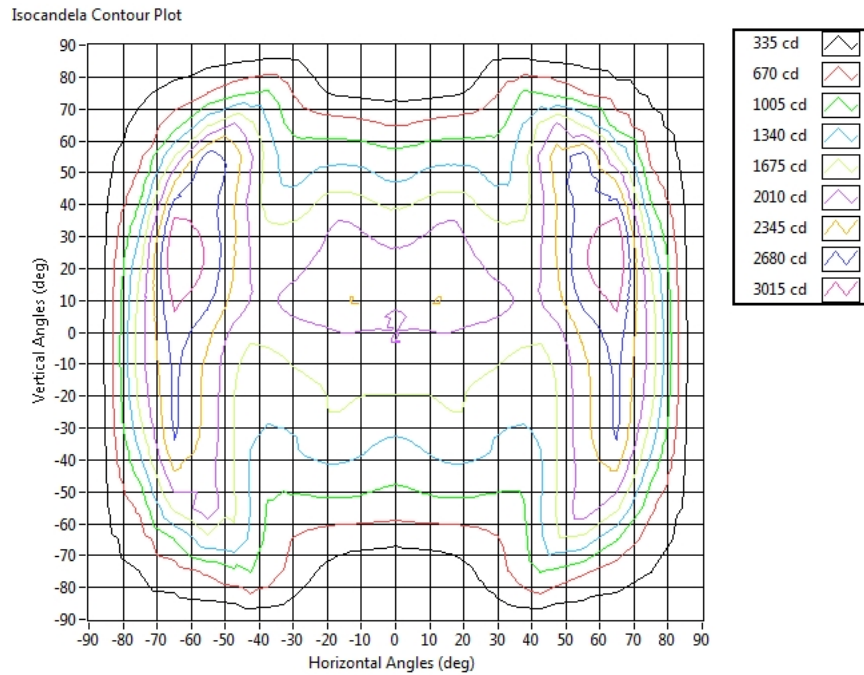
Zonal Flux:



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	5.75	22.60	499.3
4	11.50	45.20	124.8
6	17.26	67.80	55.5
8	23.01	90.40	31.2
10	28.76	113.00	20.0
12	34.51	135.60	13.9
14	40.26	158.20	10.2
16	46.02	180.80	7.8
18	51.77	203.40	6.2
20	57.52	226.00	5.0

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
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 Spectrometer- 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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