

Test Report

Report Number: L25015

Date: Aug 19, 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: ALU5NC2BDNNGN

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: August 19, 2025 through August 19, 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

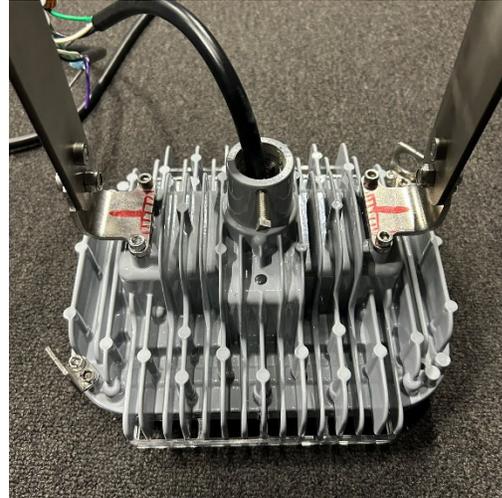
Description of sample:

Sample Number: L25015
Manufacturer: Dialight Corporation
Product Name: Area Light 13K
Description: Area Light
Model Number: ALU5NC2BDNNGN

Report Summary

Sample number L25015
Dialight unit model number ALU5NC2BDNNGN

Photograph(s) of sample:



*Photographs not to scale. For reference only.

Summary of Results:

	<u>Integrating Sphere</u>	<u>Goniophotometer</u>
Luminous Flux:	12758 (lumens)	12779 (lumens)
Electrical Power:	76.6 (W)	76.7 (W)
Luminous Efficacy:	166.5 (lumens/W)	166.7 (lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (120VAC):	76.6	(W)
	Power Factor (120VAC):	0.9966	
	Current ATHD % (120VAC):	7.17	
Secondary Voltage:	Input Power (277VAC):	74.7	(W)
	Power Factor (277VAC):	0.9858	
	Current ATHD % (277VAC):	4.67	

Color Measurements:

Correlated Color Temperature (CCT):	5032	(K)
Color Rendering Index (CRI):	88.04	
Chromaticity Coordinate (x):	0.344	
Chromaticity Coordinate (y):	0.348	
Chromaticity Coordinate (u')	0.212	
Chromaticity Coordinate (v')	0.483	
DUV:	-0.0012	

Temperature Measurements:

In Situ LED Source Temperature:	25.0	(°C)
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Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L25015.

Dialight unit model number ALU5NC2BDNNGN

Test Conditions:

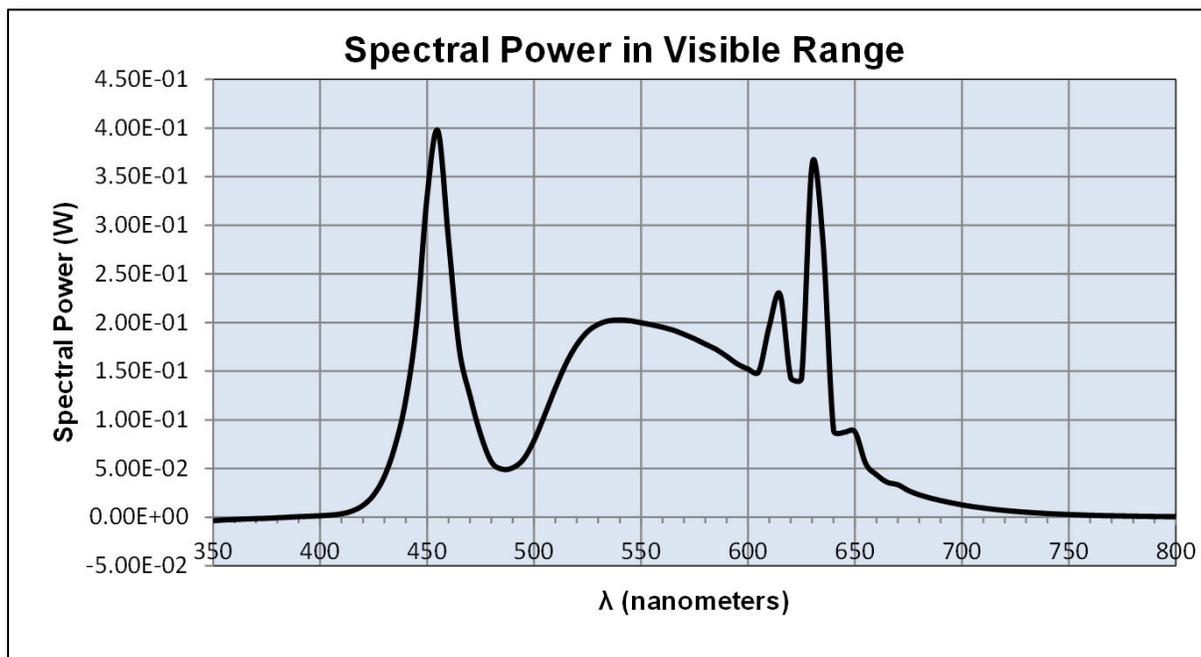
Ambient Temperature: 25 ± 1.2 (°C)
Ambient Relative Humidity: 10 to 65 (%RH)

Electrical Measurements:

Input Voltage: 120.9 (VAC)
Input Current: 0.636 (A)
Input Power: 76.6 (W)
Input Power Factor: 0.9966
Current ATHD: 7.17 (%)

Photometric measurements:

Luminous Flux: 12757.6 (lumens)
Luminous Efficacy: 166.5 (lumens/W)
Correlated Color Temperature (CCT): 5032 (K)
CRI -Ra: 88.04
CRI -R9: 67.43
DUV: -0.0012
CIE Coordinate (x): 0.344
CIE Coordinate (y): 0.348
CIE Coordinate (u'): 0.212
CIE Coordinate (v'): 0.483
TM30_Rf: 84.2
TM30_Rg: 101.3
TM30_Rcs_hue1: -5.89 %



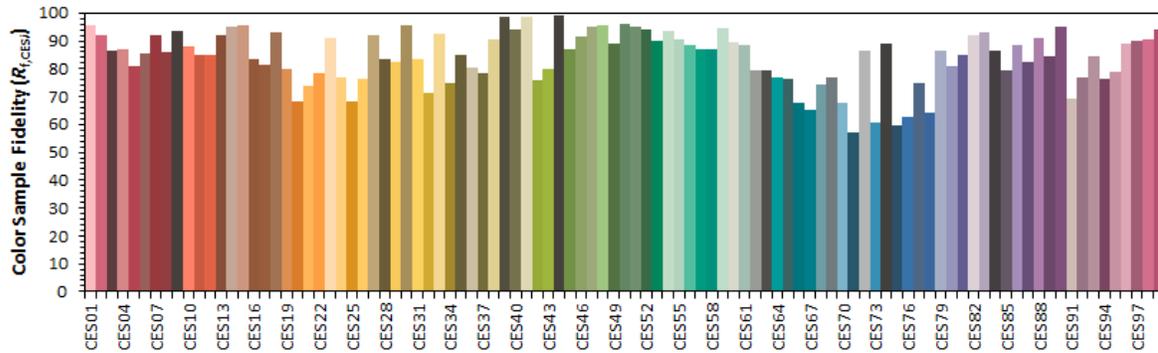
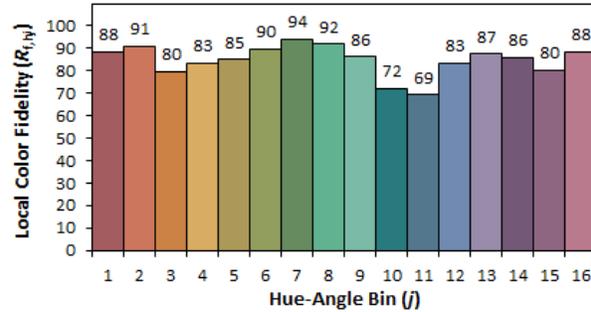
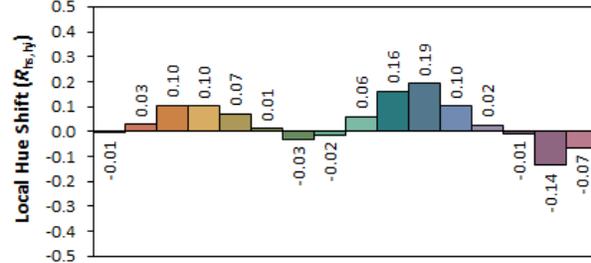
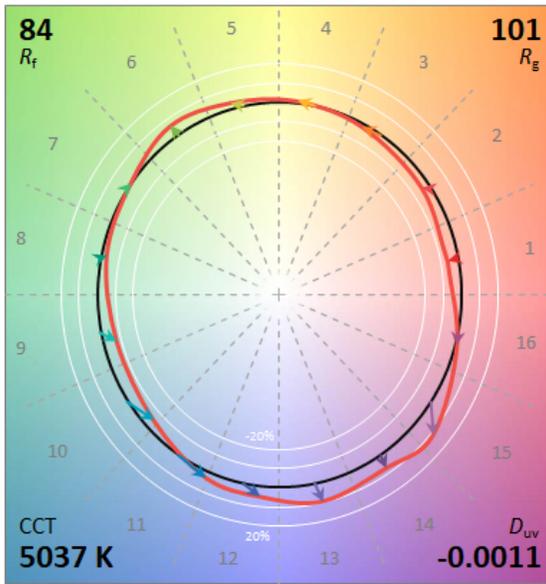
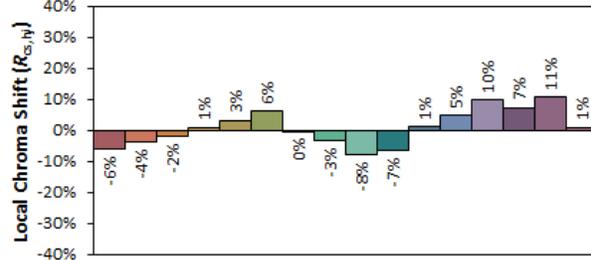
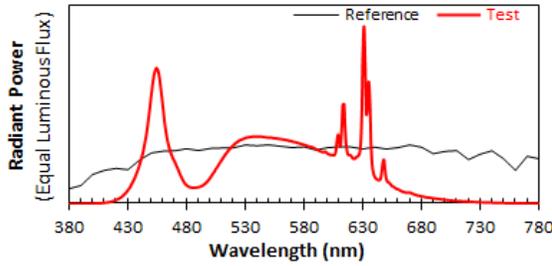
Test Results: Integrating Sphere

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	-0.00357	490	0.05081	630	0.36346	770	0.00148
355	-0.00279	495	0.05951	635	0.28383	775	0.00127
360	-0.00236	500	0.07899	640	0.08882	780	0.00108
365	-0.00187	505	0.10535	645	0.08737	785	0.00090
370	-0.00146	510	0.13326	650	0.08772	790	0.00075
375	-0.00113	515	0.15827	655	0.05505	795	0.00063
380	-0.00058	520	0.17748	660	0.04373	800	0.00052
385	-0.00001	525	0.19078	665	0.03598		
390	0.00053	530	0.19831	670	0.03340		
395	0.00100	535	0.20198	675	0.02737		
400	0.00150	540	0.20274	680	0.02305		
405	0.00220	545	0.20195	685	0.01980		
410	0.00351	550	0.19988	690	0.01711		
415	0.00636	555	0.19781	695	0.01479		
420	0.01215	560	0.19533	700	0.01267		
425	0.02285	565	0.19228	705	0.01087		
430	0.04182	570	0.18806	710	0.00939		
435	0.07319	575	0.18338	715	0.00809		
440	0.12039	580	0.17794	720	0.00695		
445	0.19783	585	0.17260	725	0.00600		
450	0.33006	590	0.16542	730	0.00515		
455	0.39728	595	0.15753	735	0.00440		
460	0.28479	600	0.15232	740	0.00377		
465	0.17302	605	0.14957	745	0.00325		
470	0.12502	610	0.19708	750	0.00279		
475	0.08492	615	0.22892	755	0.00239		
480	0.05695	620	0.14289	760	0.00203		
485	0.04939	625	0.14242	765	0.00171		

IES TM-30-18 Color Rendition Report



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

x 0.3439
y 0.3483
u' 0.2119
v' 0.4829

CIE 13.3-1995 (CRI)	
R_a	88
R_g	67

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 L25015.

Dialight unit model number ALU5NC2BDNNGN

Electrical Measurements:

Input Voltage:	120.5	(VAC)
Input current:	0.64	(A)
Input Power:	76.66	(W)
Power Factor:	0.9961	

Photometric measurements:

Absolute Luminous Flux:	12779.0	(lumens)
Luminous Efficacy:	166.7	(lumens/W)

BUG Rating: B3 - U3 - G2

Photometric Distribution Summary:

Candlepower Summary

H/V	0.00	22.50	45.00	67.50	90.00	Lumens
0.00	4369	4369	4369	4369	4369	
5.00	4358	4362	4361	4365	4359	442
15.00	4199	4201	4203	4221	4212	1192
25.00	3878	3894	3906	3911	3918	1805
35.00	3442	3454	3440	3455	3478	2173
45.00	2988	2933	2881	2970	3023	2317
55.00	2442	2469	2395	2338	2359	2154
65.00	1647	1678	1719	1634	1631	1634
75.00	667	741	844	901	924	849
85.00	208	214	229	252	250	160
90.00	117	119	122	134	138	

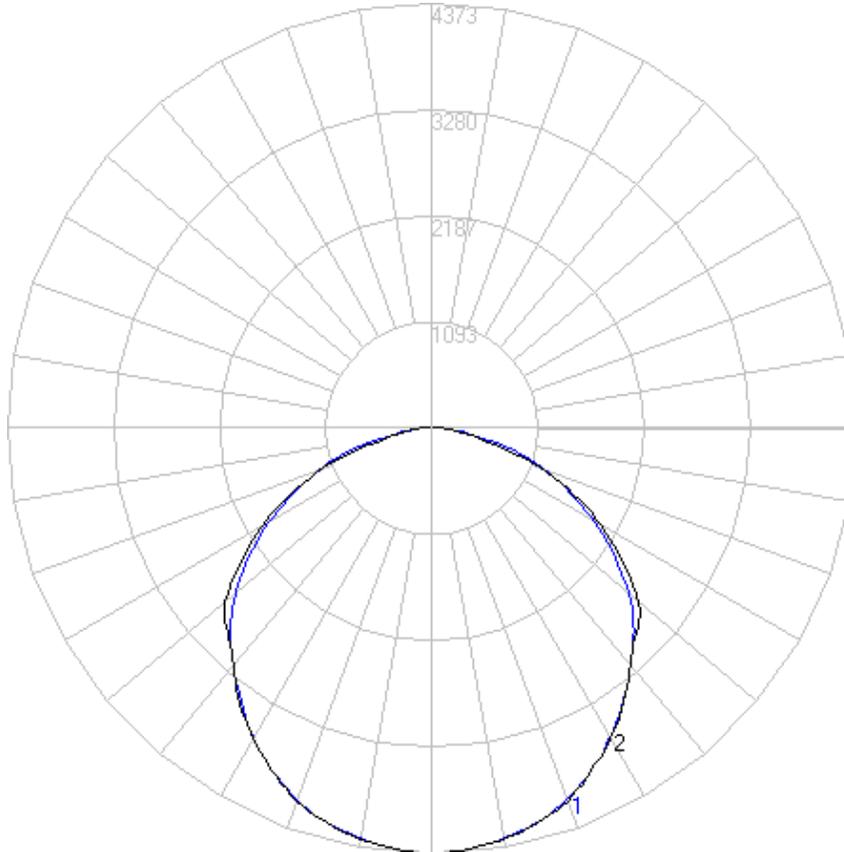
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0 to 30	3392.90	26.55	26.55
0 to 40	5543.15	43.38	43.38
0 to 60	9899.77	77.47	77.47
0 to 90	12583.89	98.47	98.47
90 to 180	0.00	0.00	0.00
0 to 180	12779.03	100.00	100.00

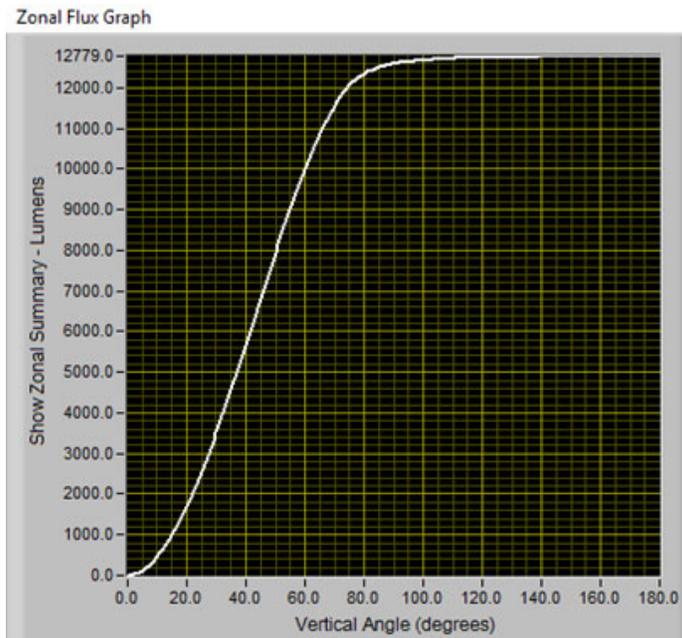
Test Results: Goniometer

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Polar Plot:



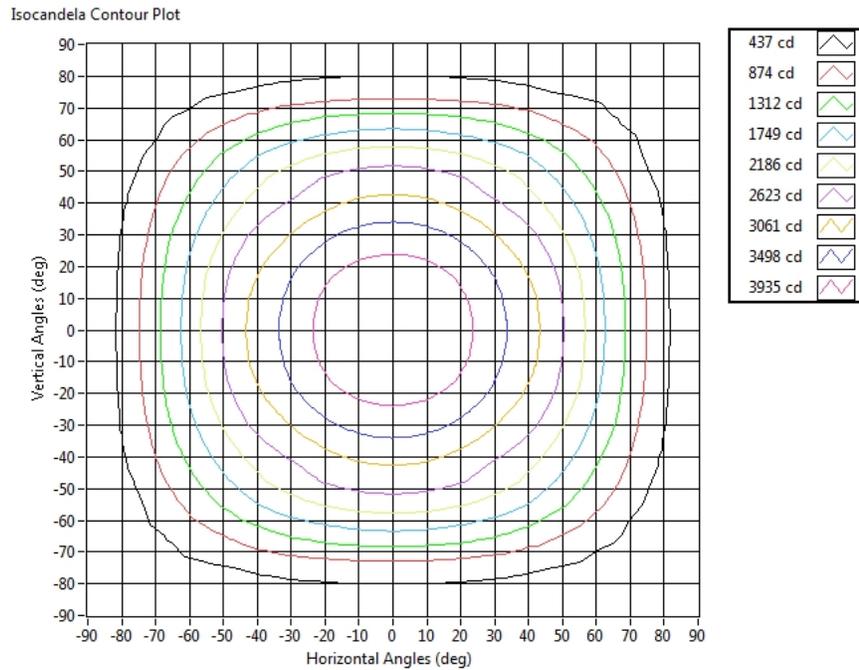
Zonal Flux:



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	6.19	6.00	1092.1
4	12.38	12.00	273.0
6	18.57	18.00	121.3
8	24.77	24.00	68.3
10	30.96	30.00	43.7
12	37.15	36.00	30.3
14	43.34	42.00	22.3
16	49.53	48.01	17.1
18	55.72	54.01	13.5
20	61.91	60.01	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
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
Labisphere calibration lamp for 2M sphere	SCL-1400
Labisphere calibration lamp for 2M sphere	SCL-1400
Labisphere 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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 Approved Signatory