

Test Report

Report Number: L25020

Date: Aug 20, 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: ALU7WC29DNNNGN

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 22, 2025 through August 22, 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

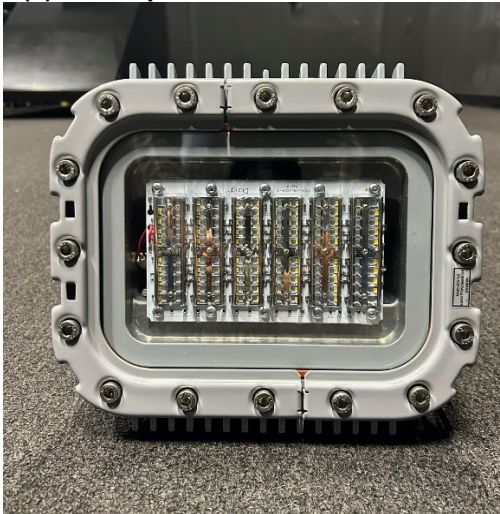
Description of sample:

Sample Number: L25020
Manufacturer: Dialight Corporation
Product Name: Area Light 8.5K
Description: Area Light
Model Number: ALU7WC29DNNNGN

Report Summary

Sample number L25020
Dialight unit model number ALU7WC29DNNNGN

Photograph(s) of sample:



*Photographs not to scale. For reference only.

Summary of Results:

	<u>Integrating Sphere</u>	<u>Goniophotometer</u>
Luminous Flux:	8302 (lumens)	8329 (lumens)
Electrical Power:	72.1 (W)	72.2 (W)
Luminous Efficacy:	115.2 (lumens/W)	115.4 (lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (120VAC):	72.1 (W)
	Power Factor (120VAC):	0.9969
	Current ATHD % (120VAC):	7.06
Secondary Voltage:	Input Power (277VAC):	70.5 (W)
	Power Factor (277VAC):	0.9847
	Current ATHD % (277VAC):	4.67

Color Measurements:

Correlated Color Temperature (CCT):	5065 (K)
Color Rendering Index (CRI):	82.96
Chromaticity Coordinate (x):	0.344
Chromaticity Coordinate (y):	0.353
Chromaticity Coordinate (u')	0.210
Chromaticity Coordinate (v')	0.485
DUV:	0.0012

Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L25020.

Dialight unit model number ALU7WC29DNNNGN

Test Conditions:

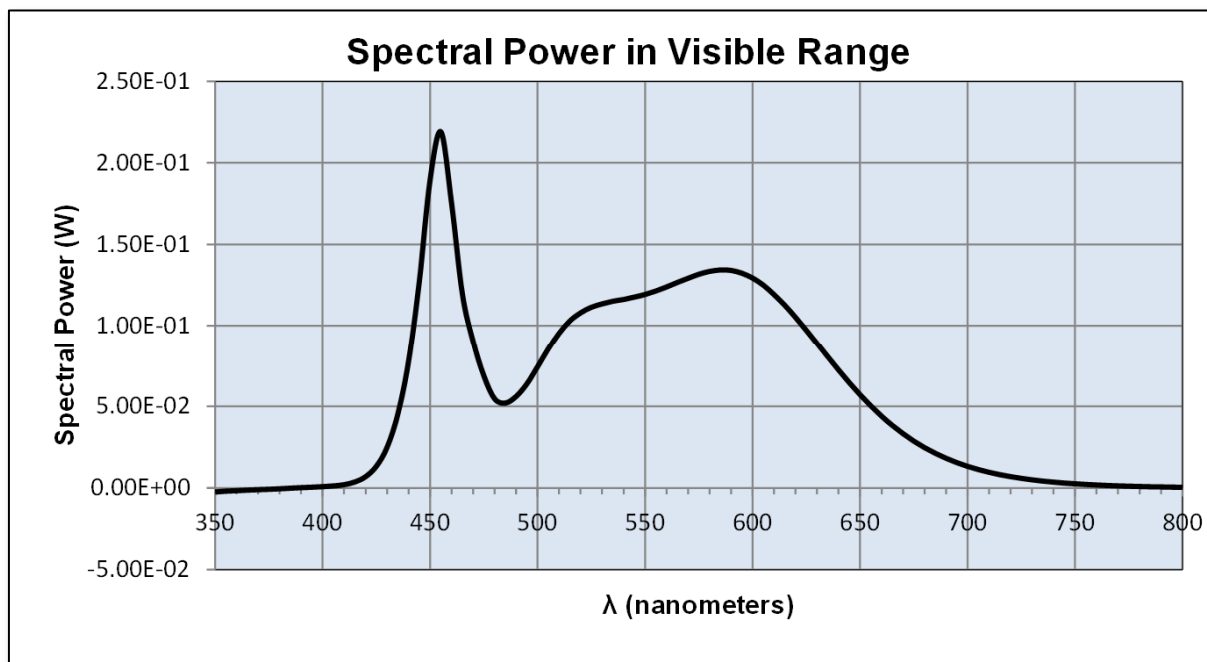
Ambient Temperature: 25 ± 1.2 (°C)
Ambient Relative Humidity: 10 to 65 (%RH)

Electrical Measurements:

Input Voltage: 121.1 (VAC)
Input Current: 0.597 (A)
Input Power: 72.1 (W)
Input Power Factor: 0.9969
Current ATHD: 7.06 (%)

Photometric measurements:

Luminous Flux: 8301.8 (lumens)
Luminous Efficacy: 115.2 (lumens/W)
Correlated Color Temperature (CCT): 5065 (K)
CRI -Ra: 82.96
CRI -R9: 3.31
DUV: 0.0012
CIE Coordinate (x): 0.344
CIE Coordinate (y): 0.353
CIE Coordinate (u'): 0.210
CIE Coordinate (v'): 0.485
TM30_Rf: 83.0
TM30_Rg: 94.8
TM30_Rcs_hue1: -13.02 %



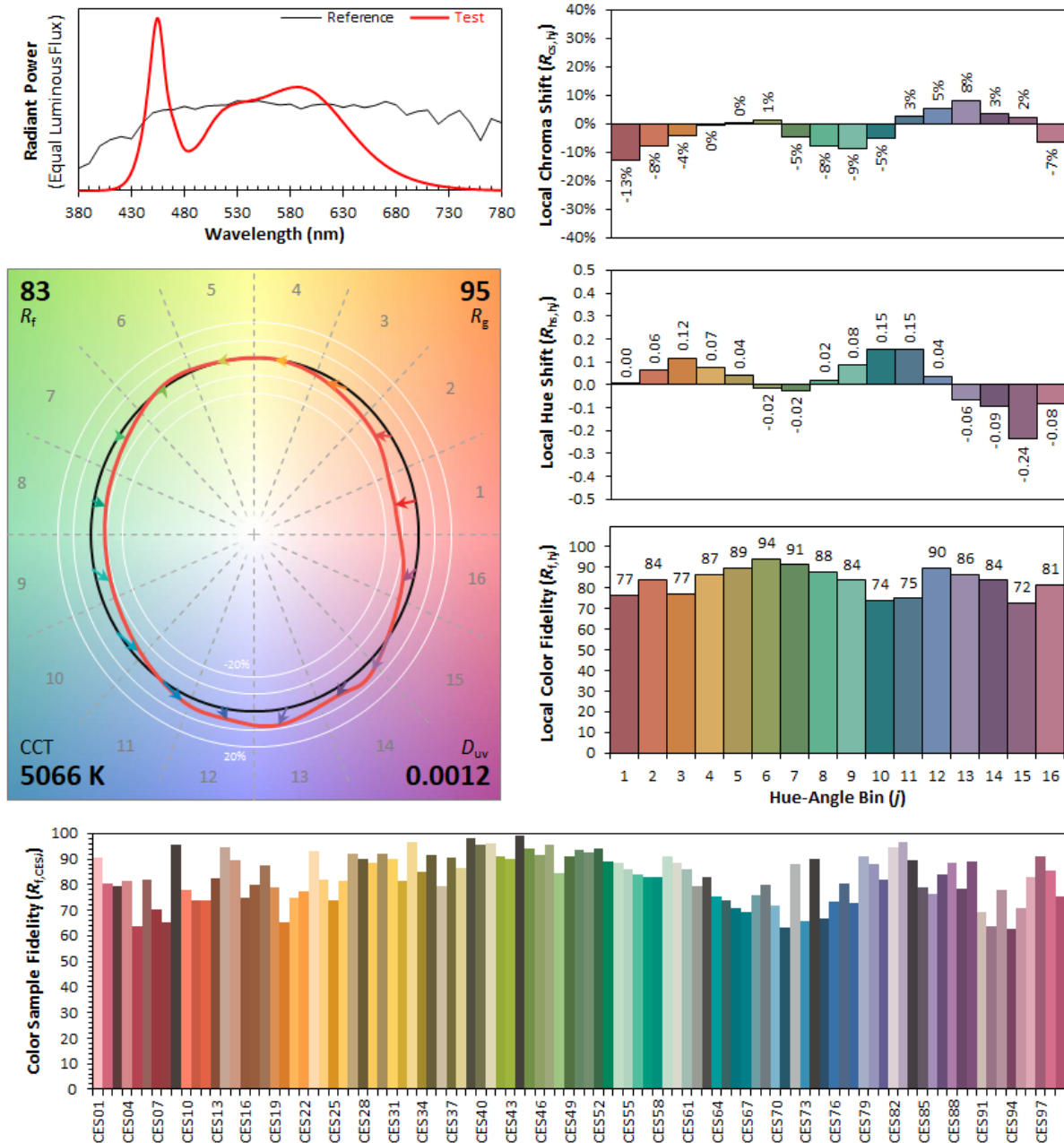
Test Results: Integrating Sphere

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	-0.00241	490	0.05611	630	0.08878	770	0.00133
355	-0.00189	495	0.06382	635	0.08049	775	0.00114
360	-0.00160	500	0.07442	640	0.07238	780	0.00096
365	-0.00128	505	0.08553	645	0.06451	785	0.00080
370	-0.00101	510	0.09528	650	0.05714	790	0.00068
375	-0.00076	515	0.10290	655	0.05032	795	0.00056
380	-0.00044	520	0.10792	660	0.04402	800	0.00047
385	-0.00009	525	0.11136	665	0.03836		
390	0.00025	530	0.11346	670	0.03330		
395	0.00053	535	0.11508	675	0.02872		
400	0.00086	540	0.11615	680	0.02476		
405	0.00129	545	0.11762	685	0.02130		
410	0.00208	550	0.11923	690	0.01823		
415	0.00372	555	0.12135	695	0.01556		
420	0.00698	560	0.12384	700	0.01328		
425	0.01333	565	0.12660	705	0.01132		
430	0.02498	570	0.12915	710	0.00965		
435	0.04541	575	0.13165	715	0.00820		
440	0.07791	580	0.13339	720	0.00696		
445	0.12739	585	0.13428	725	0.00592		
450	0.18980	590	0.13401	730	0.00504		
455	0.21910	595	0.13229	735	0.00427		
460	0.17494	600	0.12929	740	0.00362		
465	0.11955	605	0.12496	745	0.00306		
470	0.09012	610	0.11910	750	0.00260		
475	0.06872	615	0.11254	755	0.00220		
480	0.05469	620	0.10508	760	0.00187		
485	0.05207	625	0.09710	765	0.00157		

IES TM-30-18 Color Rendition Report



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

x 0.3435
 y 0.3526
 u' 0.2099
 v' 0.4849

CIE 13.3-1995
(CRI)

R_a 83
 R_g 3

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 L25020.

Dialight unit model number ALU7WC29DNNNGN

Electrical Measurements:

Input Voltage: 120.5 (VAC)
Input current: 0.60 (A)
Input Power: 72.17 (W)
Power Factor: 0.9965

Photometric measurements:

Absolute Luminous Flux: 8329.1 (lumens)
Luminous Efficacy: 115.4 (lumens/W)

BUG Rating: B3 - U2 - G3

Photometric Distribution Summary:

Candlepower Summary

H/V	0.00	45.00	90.00	135.00	180.00	Lumens
0.00	1891	1891	1891	1891	1891	
5.00	2039	1954	1850	1813	1842	194
15.00	2104	2384	2067	1790	1683	557
25.00	1778	2443	2066	1898	1400	830
35.00	1523	2266	2034	1792	1205	1014
45.00	1083	2020	2087	1551	985	1048
55.00	712	1674	2699	1392	681	1037
65.00	217	1946	3408	1409	138	949
75.00	24	1351	1324	1212	48	538
85.00	2	10	18	34	7	6
90.00	1	2	2	2	1	

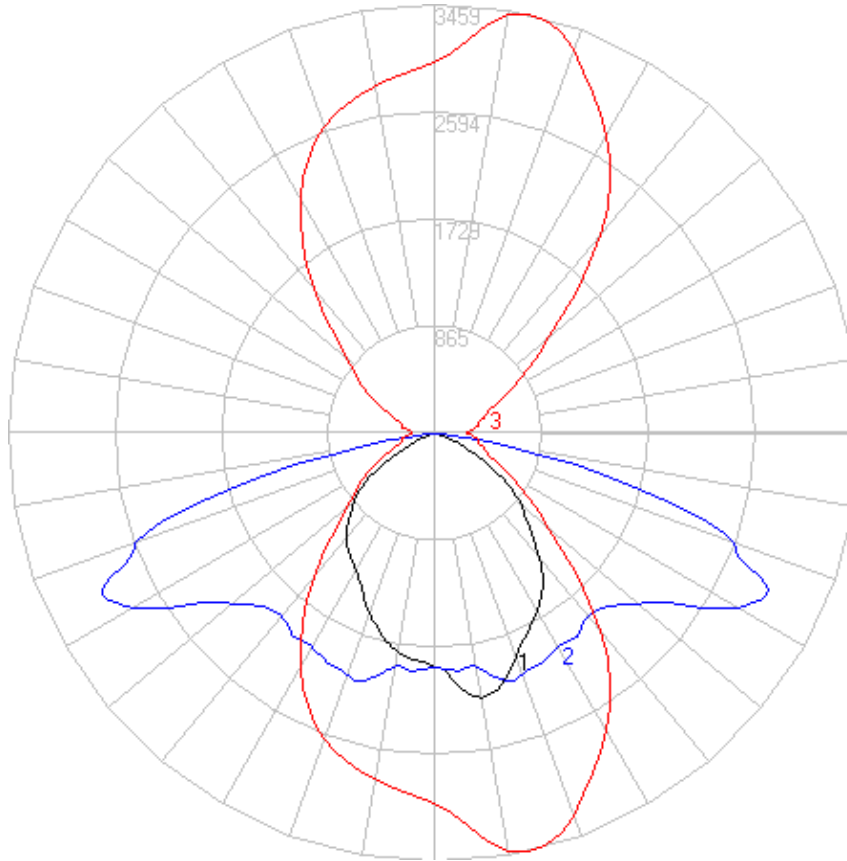
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0 to 30	1704.22	20.49	20.49
0 to 40	2892.26	34.78	34.78
0 to 60	5633.94	67.74	67.74
0 to 90	8316.46	100.00	100.00
90 to 180	0.00	0.00	0.00
0 to 180	8316.46	100.00	100.00

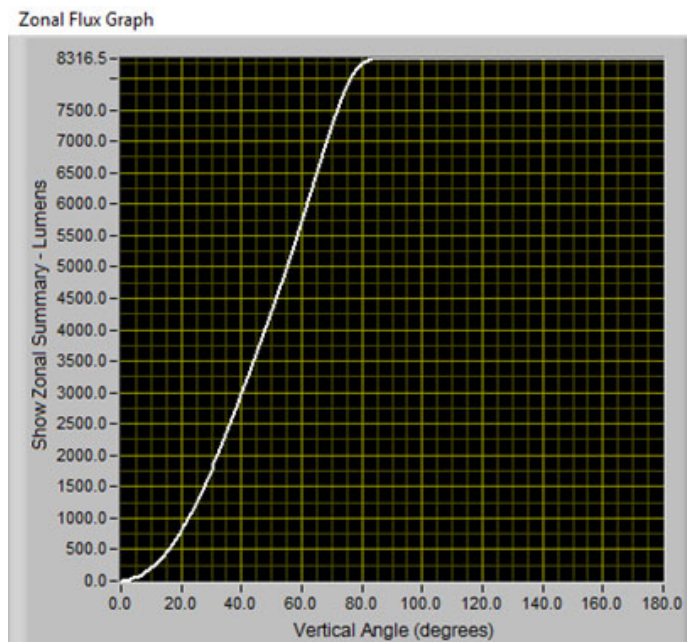
Test Results: Goniometer

Results continued from previous page.

Polar Plot:



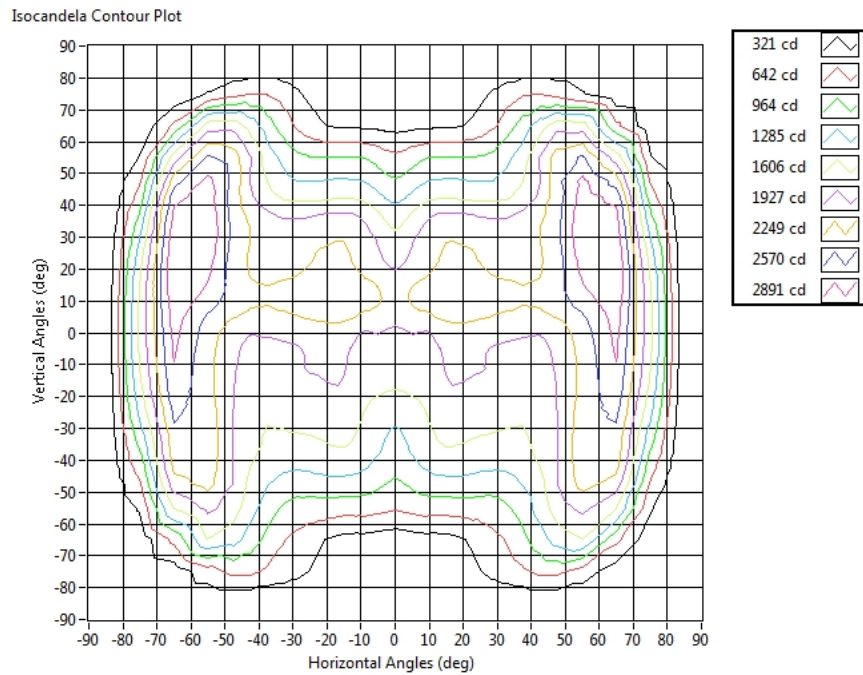
Zonal Flux:



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	4.49	17.51	472.8
4	8.99	35.03	118.2
6	13.48	52.54	52.5
8	17.98	70.06	29.6
10	22.47	87.57	18.9
12	26.96	105.09	13.1
14	31.46	122.60	9.6
16	35.95	140.12	7.4
18	40.45	157.63	5.8
20	44.94	175.15	4.7

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.
 This report shall not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.
 This report shall not be reproduced, except in full, without the express written permission of Dialight Optics Laboratory.

Test Report Issued By:

Abriam Rodriguez
 Dialight Optics Laboratory
 Optics Lab Technician

Test Report Reviewed and Approved By:

Callan McCormick
 Dialight Optics Laboratory
 Optics Lab Engineer
 Approved Signatory