

Test Report

Report Number: L25021

Date: Sep 10, 2025

Issued by:

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

Test of one Bulkhead

Unit manufacturer: Dialight Corporation
Unit model number: Bxx4UG23xxxxxx

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: September 8, 2025 through September 10, 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: L25021
Manufacturer: Dialight
Product Name: Vigilant/SafeSite Bulkhead
Description: Bulkhead
Model Number: Bxx4UG23xxxxxx
LED Part Number: NCSG219BT-V1

Report Summary

Sample number L25021
Dialight unit model number Bxx4UG23xxxxxx

Photograph(s) of sample:



*Photographs not to scale. For reference only.

Summary of Results:

	<u>Integrating Sphere</u>	<u>Goniophotometer</u>
Luminous Flux:	2622 (lumens)	2678 (lumens)
Electrical Power:	27.3 (W)	27.3 (W)
Luminous Efficacy:	96.14 (lumens/W)	98.06 (lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (120VAC):	27.3 (W)
	Power Factor (120VAC):	0.9907
	Current ATHD % (120VAC):	11.90
Secondary Voltage:	Input Power (277VAC):	27.6 (W)
	Power Factor (277VAC):	0.9407
	Current ATHD % (277VAC):	14.78

Color Measurements:

Correlated Color Temperature (CCT):	7402 (K)
Color Rendering Index (CRI):	-25.11
Chromaticity Coordinate (x):	0.195
Chromaticity Coordinate (y):	0.729
Chromaticity Coordinate (u')	0.069
Chromaticity Coordinate (v')	0.578
DUV:	0.1511

Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L25021.

Dialight unit model number Bxx4UG23xxxxxx

Test Conditions:

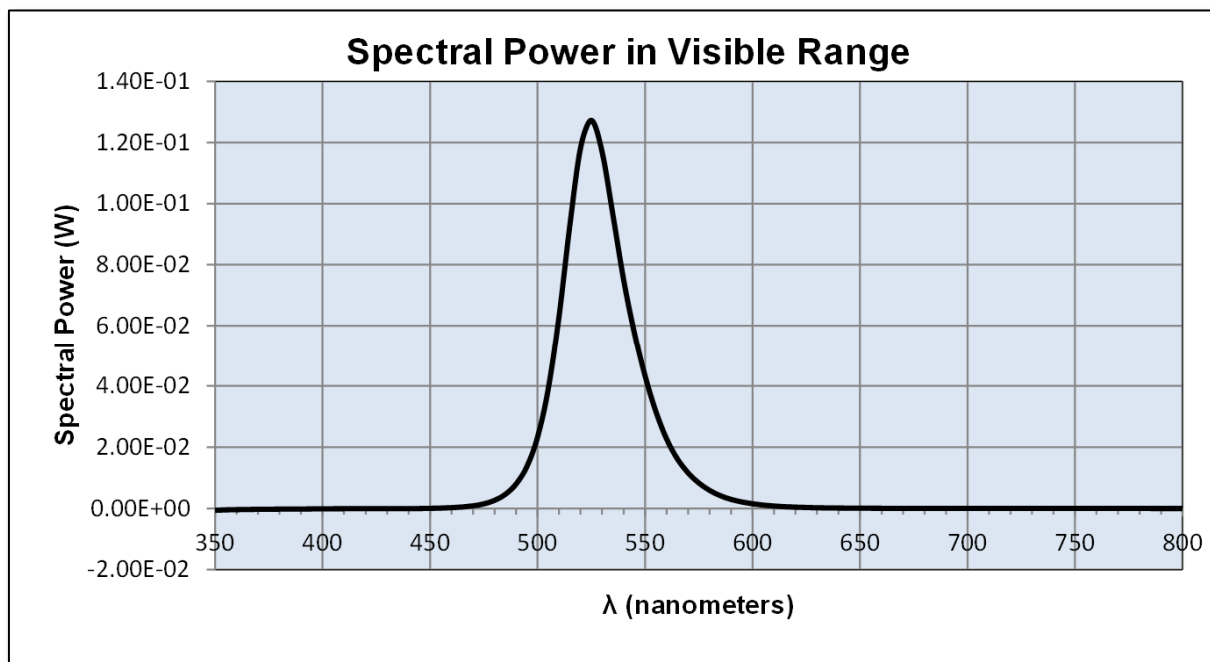
Ambient Temperature: 25 ± 1.2 (°C)
Ambient Relative Humidity: 10 to 65 (%RH)

Electrical Measurements:

Input Voltage: 121.2 (VAC)
Input Current: 0.227 (A)
Input Power: 27.3 (W)
Input Power Factor: 0.9907
Current ATHD: 11.90 (%)

Photometric measurements:

Luminous Flux: 2622.3 (lumens)
Luminous Efficacy: 96.1 (lumens/W)
Correlated Color Temperature (CCT): 7402 (K)
CRI -Ra: -25.11
CRI -R9: -364.62
DUV: 0.1511
CIE Coordinate (x): 0.195
CIE Coordinate (y): 0.729
CIE Coordinate (u'): 0.069
CIE Coordinate (v'): 0.578
TM30_Rf: 2.5
TM30_Rg: 7.2
TM30_Rcs_hue1: -83.81 %



Test Results: Integrating Sphere

Results continued from previous page.

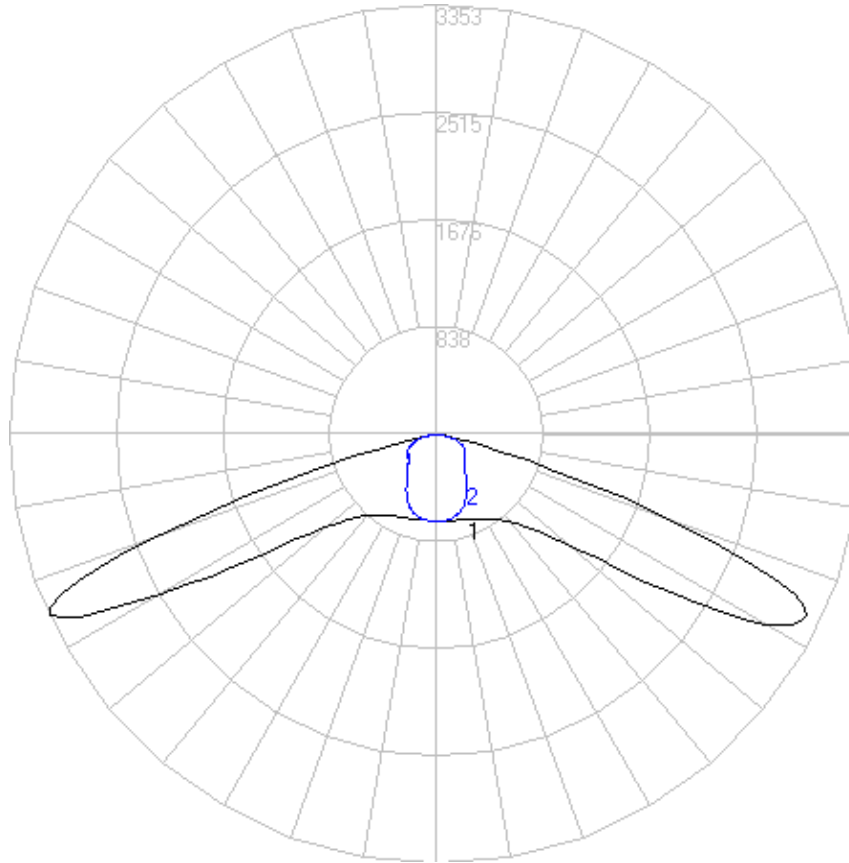
Tabulated Spectral Power in Visible Range:

$\lambda(\text{nm})$	(W/nm)	$\lambda(\text{nm})$	(W/nm)	$\lambda(\text{nm})$	(W/nm)	$\lambda(\text{nm})$	(W/nm)
350	-0.00059	490	0.00800	630	0.00024	770	-0.00001
355	-0.00045	495	0.01367	635	0.00018	775	-0.00001
360	-0.00038	500	0.02334	640	0.00014	780	0.00000
365	-0.00032	505	0.03927	645	0.00010	785	-0.00001
370	-0.00027	510	0.06332	650	0.00008	790	-0.00001
375	-0.00025	515	0.09302	655	0.00006	795	-0.00002
380	-0.00022	520	0.11840	660	0.00005	800	-0.00002
385	-0.00019	525	0.12728	665	0.00004		
390	-0.00017	530	0.11692	670	0.00004		
395	-0.00015	535	0.09641	675	0.00003		
400	-0.00012	540	0.07508	680	0.00002		
405	-0.00009	545	0.05764	685	0.00002		
410	-0.00008	550	0.04329	690	0.00002		
415	-0.00007	555	0.03169	695	0.00002		
420	-0.00007	560	0.02270	700	0.00001		
425	-0.00007	565	0.01620	705	0.00001		
430	-0.00007	570	0.01159	710	0.00001		
435	-0.00006	575	0.00830	715	0.00001		
440	-0.00004	580	0.00590	720	0.00000		
445	-0.00002	585	0.00416	725	0.00000		
450	0.00004	590	0.00296	730	0.00000		
455	0.00012	595	0.00212	735	0.00000		
460	0.00026	600	0.00153	740	0.00000		
465	0.00048	605	0.00110	745	0.00000		
470	0.00086	610	0.00079	750	0.00000		
475	0.00151	615	0.00058	755	0.00000		
480	0.00266	620	0.00043	760	-0.00001		
485	0.00463	625	0.00032	765	-0.00001		

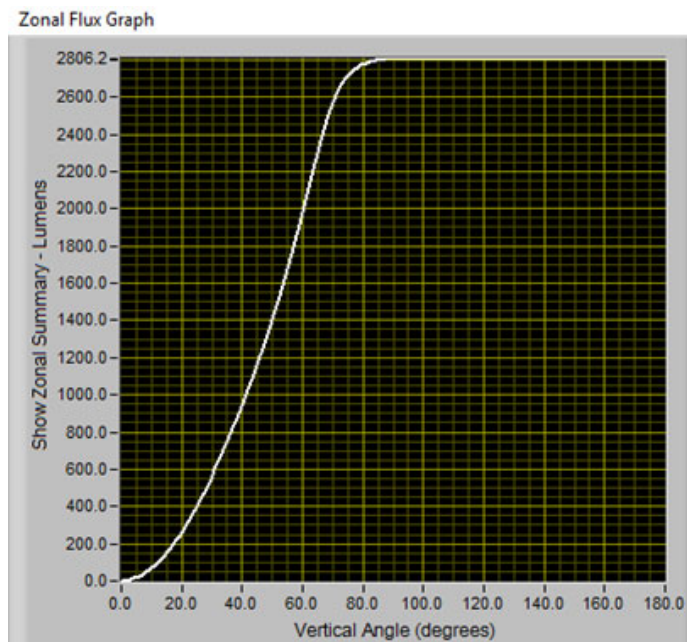
Test Results: Goniometer

Results continued from previous page.

Polar Plot:



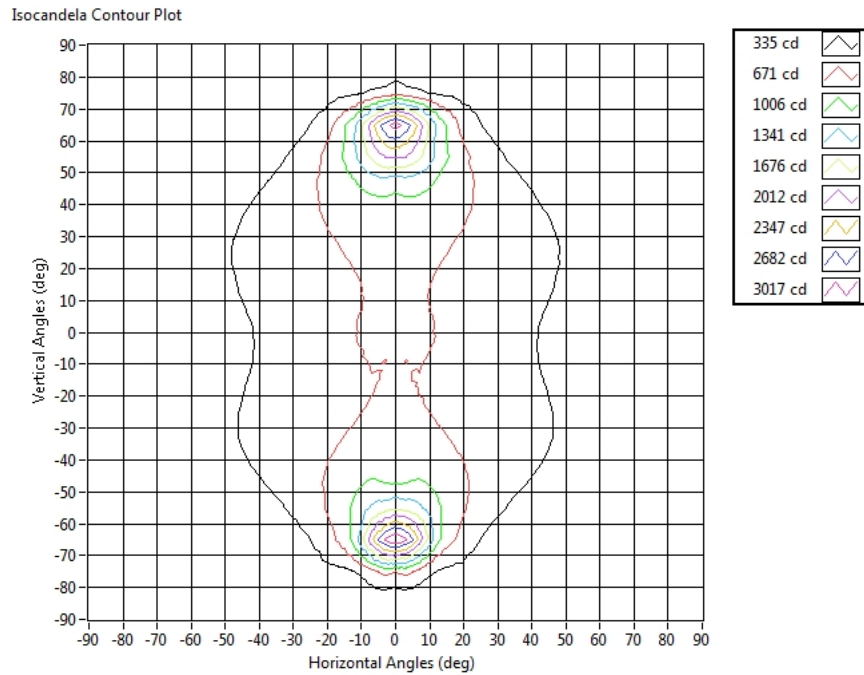
Zonal Flux:



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	16.80	3.56	168.9
4	33.59	7.12	42.2
6	50.39	10.68	18.8
8	67.18	14.23	10.6
10	83.98	17.79	6.8
12	100.77	21.35	4.7
14	117.57	24.91	3.4
16	134.37	28.47	2.6
18	151.16	32.03	2.1
20	167.96	35.59	1.7

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.
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