Test Report

Report Number: L25022 Date: Aug 29, 2025

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

Test of one Bulkhead
Unit manufacturer: Dialight Corporation
Unit model number: Bxx4BG23xxxxxx

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 28, 2025 through August 28, 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:	L25022
Manufacturer:	Dialight
Product Name:	Vigilant/SafeSite Bulkhead
Description:	Bulkhead
Model Number:	Bxx4BG23xxxxxx

Report Summary

Sample number L25022
Dialight unit model number Bxx4BG23xxxxxx

Photograph(s) of sample:





*Photographs not to scale. For reference only.

Summary of Results:

	Integrating Sphere		Goniophotometer	
Luminous Flux:	2754	(lumens)	2812	(lumens)
Electrical Power:	27.4	(W)	27.3	(W)
Luminous Efficacy:	100.4	(lumens/W)	103	(lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (120VAC):	27.4	(W)
	Power Factor (120VAC):	0.9905	
	Current ATHD % (120VAC):	12.04	
Secondary Voltage:	Input Power (277VAC):	27.6	(W)
	Power Factor (277VAC):	0.9407	
	Current ATHD % (277VAC):	14.73	

Color Measurements:

Correlated Color Temperature (CCT):	7415	(K)
Color Rendering Index (CRI):	-25.73	
Chromaticity Coordinate (x):	0.194	
Chromaticity Coordinate (y):	0.730	
Chromaticity Coordinate (u'):	0.068	
Chromaticity Coordinate (v'):	0.578	
DUV:	0.1516	

Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L25022.
Dialight unit model number Bxx4BG23xxxxxx

Test Conditions:

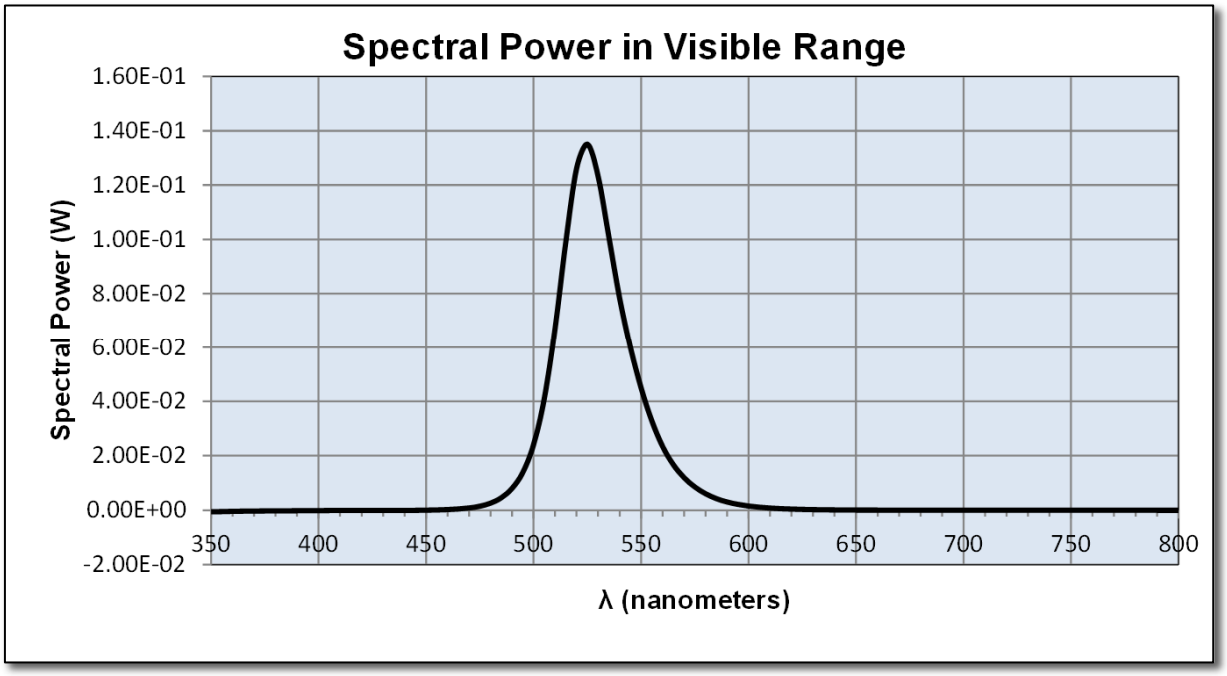
Ambient Temperature:	25 ± 1.2	(°C)
Ambient Relative Humidity:	10 to 65	(%RH)

Electrical Measurements:

Input Voltage:	121.5	(VAC)
Input Current:	0.228	(A)
Input Power:	27.4	(W)
Input Power Factor:	0.9905	
Current ATHD:	12.04	(%)

Photometric measurements:

Luminous Flux:	2754.2	(lumens)
Luminous Efficacy:	100.4	(lumens/W)
Correlated Color Temperature (CCT):	7415	(K)
CRI -Ra:	-25.73	
CRI -R9:	-364.85	
DUV:	0.1516	
CIE Coordinate (x):	0.194	
CIE Coordinate (y):	0.730	
CIE Coordinate (u'):	0.068	
CIE Coordinate (v'):	0.578	
TM30_Rf:	2.4	
TM30_Rg:	6.9	
TM30_Rcs_hue1:	-84.02	%



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	-0.00057	**490**	0.00807	**630**	0.00024	**770**	-0.00001
355	-0.00048	**495**	0.01392	**635**	0.00018	**775**	-0.00001
360	-0.00039	**500**	0.02418	**640**	0.00014	**780**	0.00000
365	-0.00032	**505**	0.04118	**645**	0.00011	**785**	-0.00001
370	-0.00029	**510**	0.06727	**650**	0.00008	**790**	-0.00001
375	-0.00025	**515**	0.09923	**655**	0.00007	**795**	-0.00002
380	-0.00023	**520**	0.12618	**660**	0.00005	**800**	-0.00002
385	-0.00020	**525**	0.13507	**665**	0.00004		
390	-0.00017	**530**	0.12323	**670**	0.00004		
395	-0.00015	**535**	0.10088	**675**	0.00003		
400	-0.00012	**540**	0.07833	**680**	0.00003		
405	-0.00009	**545**	0.06005	**685**	0.00002		
410	-0.00007	**550**	0.04496	**690**	0.00002		
415	-0.00006	**555**	0.03285	**695**	0.00002		
420	-0.00006	**560**	0.02345	**700**	0.00001		
425	-0.00006	**565**	0.01674	**705**	0.00001		
430	-0.00007	**570**	0.01197	**710**	0.00001		
435	-0.00006	**575**	0.00855	**715**	0.00001		
440	-0.00005	**580**	0.00607	**720**	0.00000		
445	-0.00002	**585**	0.00427	**725**	0.00000		
450	0.00004	**590**	0.00303	**730**	0.00000		
455	0.00012	**595**	0.00217	**735**	0.00000		
460	0.00026	**600**	0.00156	**740**	0.00000		
465	0.00047	**605**	0.00112	**745**	0.00000		
470	0.00084	**610**	0.00081	**750**	0.00000		
475	0.00148	**615**	0.00059	**755**	0.00000		
480	0.00263	**620**	0.00043	**760**	-0.00001		
485	0.00461	**625**	0.00032	**765**	-0.00001		

Test Results: Goniometer

Results include unit flux, distribution, efficacy, and electrical power for sample number L25022.
Dialight unit model number Bxx4BG23xxxxxx

Electrical Measurements:

Input Voltage:	120.4	(VAC)
Input current:	0.23	(A)
Input Power:	27.31	(W)
Power Factor:	0.9874	

Photometric measurements:

Absolute Luminous Flux:	2811.6	(lumens)
Luminous Efficacy:	103.0	(lumens/W)

BUG Rating: B1 - U0 - G0

Photometric Distribution Summary:

Candlepower Summary

H/V	0.00	45.00	90.00	135.00	180.00	Lumens
0.00	991	991	991	991	991	
5.00	992	998	1000	991	988	101
15.00	965	972	978	969	967	275
25.00	959	962	982	958	978	448
35.00	1032	1019	1068	1023	1084	660
45.00	1256	1231	1328	1269	1316	993
55.00	321	321	310	271	218	252
65.00	98	94	85	92	90	92
75.00	43	40	25	37	41	41
85.00	9	8	4	7	5	4
90.00	2	2	1	2	2	

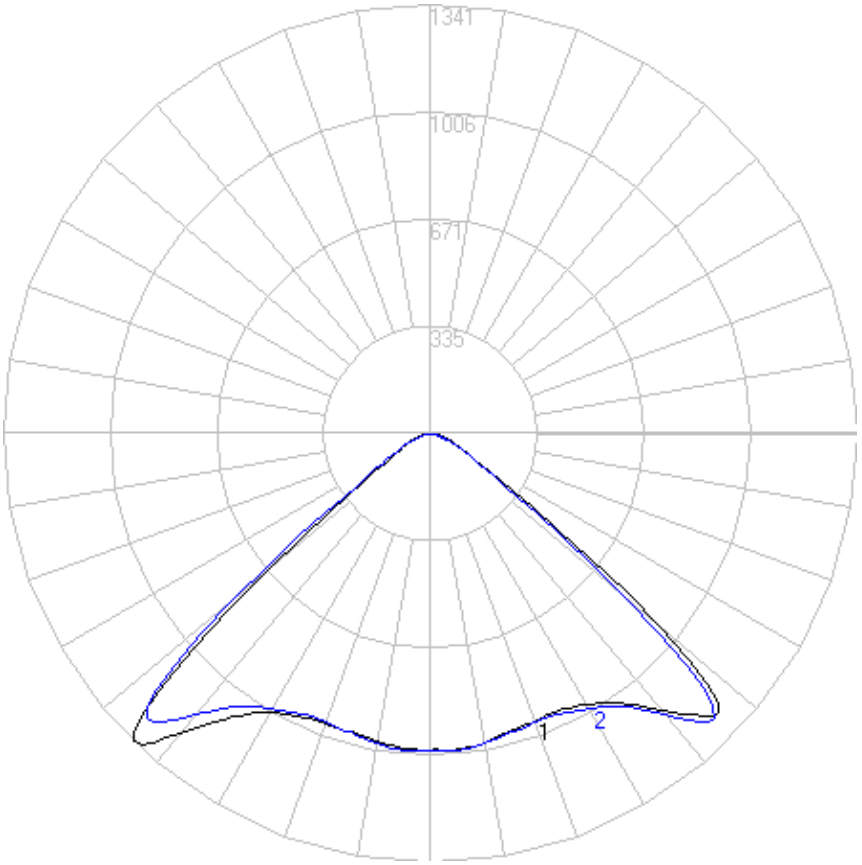
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0 to 30	816.00	29.12	29.12
0 to 40	1477.44	52.73	52.73
0 to 60	2666.00	95.15	95.15
0 to 90	2801.79	100.00	100.00
90 to 180	0.00	0.00	0.00
0 to 180	2801.79	100.00	100.00

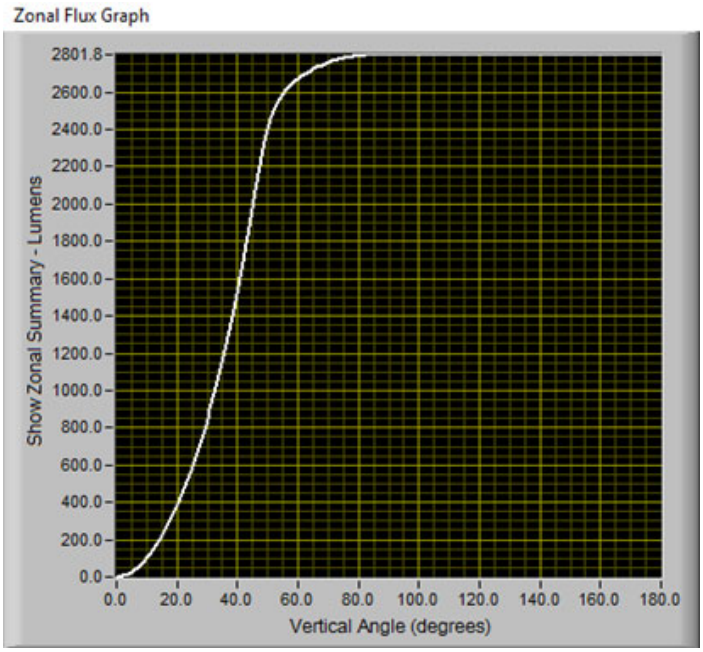
Test Results: Goniometer

Results continued from previous page.

Polar Plot:



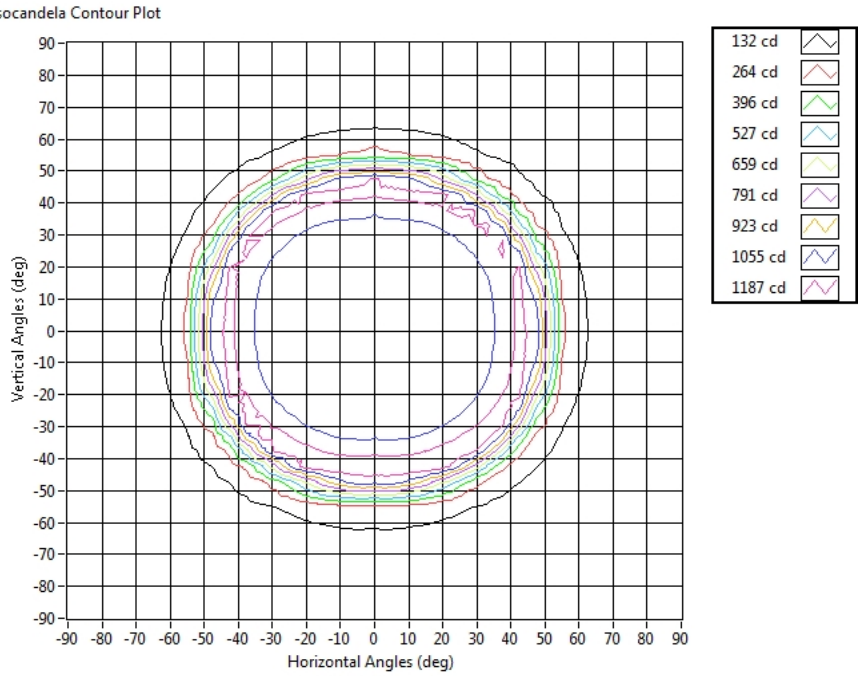
Zonal Flux:



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	5.29	5.26	247.7
4	10.58	10.51	61.9
6	15.86	15.77	27.5
8	21.15	21.02	15.5
10	26.44	26.28	9.9
12	31.73	31.54	6.9
14	37.02	36.79	5.1
16	42.31	42.05	3.9
18	47.59	47.31	3.1
20	52.88	52.56	2.5

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 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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