

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1031806

Luminaire Tested: S123DIW-B560D460UB50-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031806
REPORT IS A COMBINATION OF REPORTS P991767 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B560D460UB50-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

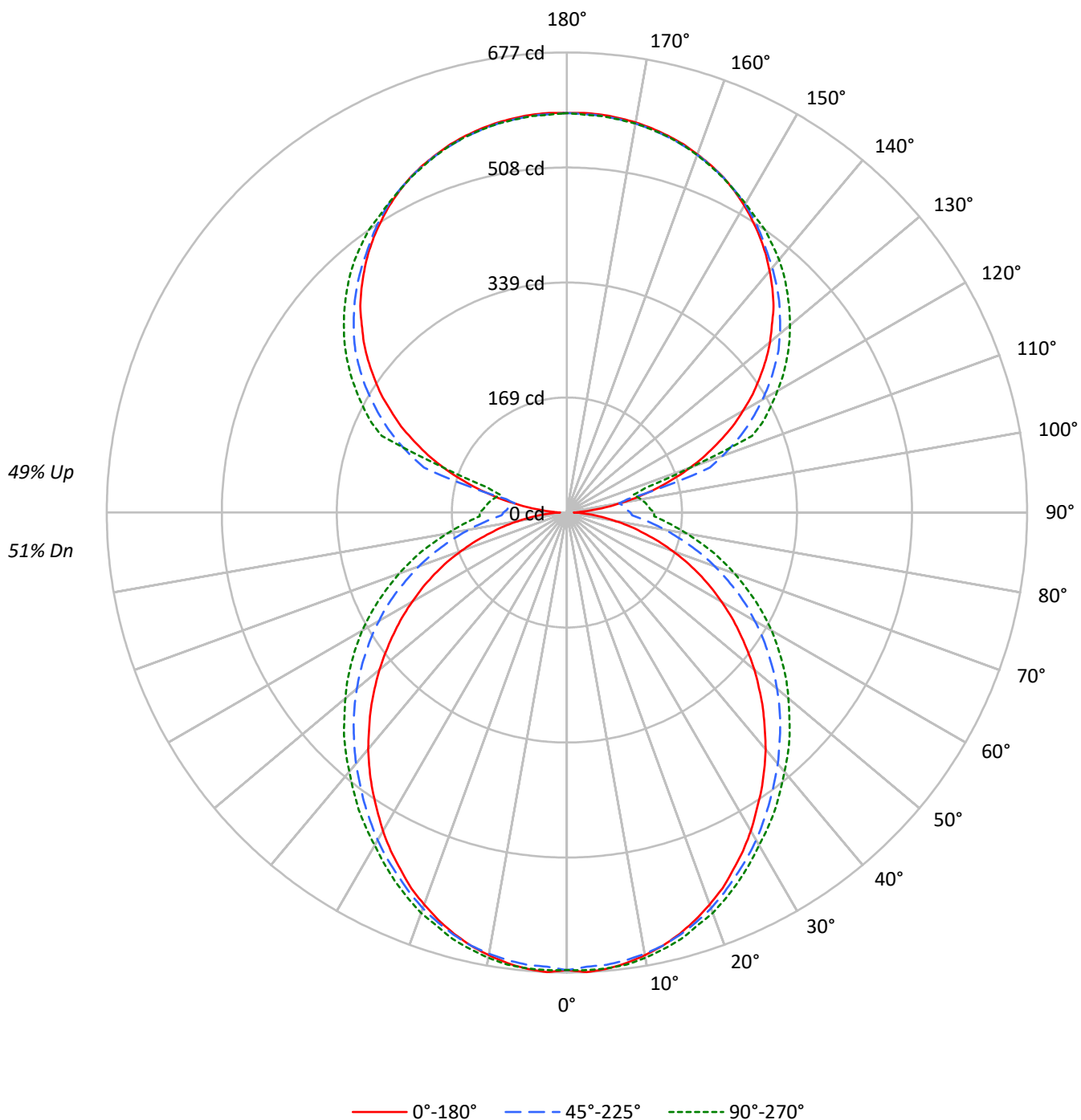
Lumens per Lamp: N/A
Luminaire Lumens: 4056.0 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 37.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57
1	97	92	88	84	89	85	81	78	72	69	67	60	58	56	49	47	46
2	88	80	73	68	81	74	68	63	62	58	54	52	49	46	42	40	38
3	80	70	62	56	73	65	58	52	55	50	45	46	42	38	37	34	32
4	73	62	53	47	67	57	50	44	48	43	38	40	36	33	33	30	27
5	67	55	46	40	61	51	43	38	43	37	33	36	32	28	30	26	24
6	62	49	41	35	56	46	38	33	39	33	28	33	28	25	27	23	21
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	24	21	18
8	53	40	32	27	48	37	30	25	32	26	22	27	23	19	22	19	16
9	49	37	29	24	45	34	27	22	29	24	20	25	20	17	21	17	15
10	46	33	26	21	42	31	25	20	27	22	18	23	19	16	19	16	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7248	7248	7248
5°	7268	7035	7030
10°	7200	6845	6793
15°	7104	6634	6541
20°	6969	6400	6270
25°	6803	6136	5991
30°	6632	5896	5710
35°	6442	5646	5482
40°	6259	5416	5239
45°	6056	5195	5041
50°	5856	4974	4824
55°	5635	4748	4626
60°	5419	4518	4422
65°	5195	4272	4183
70°	4859	3996	3937
75°	4435	3681	3684
80°	3941	3363	3395
85°	3448	3105	3187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 6056 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	1.6
10°-20°	182.1	4.5
20°-30°	272.3	6.7
30°-40°	325.1	8.0
40°-50°	340.2	8.4
50°-60°	319.2	7.9
60°-70°	266.6	6.6
70°-80°	190.7	4.7
80°-90°	114.6	2.8
90°-100°	92.0	2.3
100°-110°	152.6	3.8
110°-120°	280.5	6.9
120°-130°	331.7	8.2
130°-140°	342.0	8.4
140°-150°	313.3	7.7
150°-160°	251.2	6.2
160°-170°	162.1	4.0
170°-180°	55.9	1.4
0°-30°	518.3	12.8
0°-40°	843.4	20.8
0°-60°	1502.8	37.1
0°-90°	2074.7	51.2
90°-120°	525.1	12.9
90°-150°	1512.1	37.3
90°-180°	1981.0	48.8
0°-180°	4056.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	673	673	673	673	673	
5°	674	673	668	674	673	64
15°	642	644	643	651	650	181
25°	580	587	589	598	598	267
35°	499	510	520	531	534	312
45°	408	425	444	458	464	314
55°	311	335	362	381	387	278
65°	215	244	276	298	305	212
75°	117	151	188	212	221	125
85°	36	73	112	136	144	37
90°	10	50	93	120	128	8
95°	35	45	86	112	119	38
105°	136	158	151	94	101	144
115°	248	259	290	312	319	245
125°	346	350	373	389	395	310
135°	430	432	442	456	458	331
145°	495	497	498	505	508	310
155°	544	544	544	546	544	251
165°	574	573	572	576	573	162
175°	588	586	586	589	586	56
180°	588	588	588	588	588	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	673.4	673.4	673.4	673.4	673.4
2.5°	677.0	674.8	669.0	674.8	674.1
5°	674.1	672.6	668.2	674.1	673.4
7.5°	669.0	669.0	664.6	671.9	671.2
10°	661.6	663.1	659.4	666.8	665.3
12.5°	652.8	655.0	652.8	659.4	658.0
15°	641.8	644.0	643.3	650.6	649.9
17.5°	628.6	633.0	632.3	638.9	637.4
20°	613.9	618.3	619.8	626.4	627.1
22.5°	598.5	602.9	605.1	613.9	613.2
25°	579.5	586.8	589.0	598.5	598.5
27.5°	561.1	569.2	573.6	581.7	582.4
30°	541.3	550.9	556.7	565.5	565.5
32.5°	519.3	530.3	538.4	547.9	550.1
35°	498.8	510.5	520.1	531.1	534.0
37.5°	476.8	490.0	501.0	513.5	515.7
40°	454.8	468.0	482.6	495.1	498.0
42.5°	430.6	447.4	462.8	476.8	481.2
45°	407.8	425.4	443.8	457.7	463.6
47.5°	383.6	403.4	424.0	439.4	443.8
50°	360.1	380.7	403.4	420.3	425.4
52.5°	335.2	357.2	382.9	400.5	407.1
55°	311.0	335.2	361.6	381.4	387.3
57.5°	287.5	312.5	341.1	360.9	367.5
60°	262.6	289.0	319.1	339.6	347.7
62.5°	239.1	266.3	298.5	319.1	326.4
65°	214.9	243.5	275.8	297.8	305.1
67.5°	190.7	220.8	253.1	277.3	283.1
70°	165.0	196.6	231.8	255.3	262.6
72.5°	141.6	173.1	209.8	234.0	241.3
75°	116.6	151.1	187.8	212.0	220.8
77.5°	95.4	129.8	166.5	192.2	198.8
80°	72.6	108.6	146.7	171.6	179.0
82.5°	52.8	89.5	128.4	153.3	160.6
85°	35.9	72.6	111.5	136.4	143.8
87.5°	22.0	58.7	96.1	121.0	128.4
90°	9.9	50.3	93.4	120.0	128.3
92.5°	18.8	47.7	88.4	115.6	122.6
95°	34.7	45.4	86.1	112.0	119.3
97.5°	55.8	69.9	82.2	107.7	115.5
100°	80.4	112.6	78.2	103.0	110.7
102.5°	108.5	134.7	91.7	97.9	106.1
105°	136.0	158.4	150.6	93.9	101.4
107.5°	164.5	183.8	220.5	173.0	122.4
110°	193.0	209.7	243.8	248.5	192.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	221.0	234.3	266.9	289.3	295.0
115°	247.8	259.2	289.5	311.5	319.1
117.5°	274.9	283.7	310.9	332.0	338.2
120°	299.0	306.6	332.1	352.5	357.6
122.5°	324.3	328.8	353.3	371.7	377.2
125°	346.3	349.8	372.8	389.1	395.1
127.5°	369.0	371.8	392.3	408.3	412.5
130°	390.0	392.8	409.1	424.8	428.4
132.5°	409.3	412.8	425.2	440.1	443.9
135°	429.9	431.7	441.5	456.0	458.4
137.5°	447.3	450.0	456.1	470.0	472.8
140°	464.0	466.6	470.1	482.9	485.7
142.5°	480.2	482.1	483.4	494.2	496.6
145°	495.0	497.4	498.2	505.0	507.9
147.5°	508.7	510.9	511.8	514.8	515.6
150°	521.8	523.1	524.0	524.9	525.1
152.5°	533.6	534.0	534.5	536.2	534.0
155°	544.5	543.7	544.1	546.3	543.7
157.5°	553.3	553.3	552.8	555.4	551.9
160°	561.1	560.7	560.2	562.9	559.8
162.5°	568.5	567.2	566.8	569.9	567.2
165°	574.2	572.9	572.5	576.0	572.9
167.5°	579.0	577.3	577.3	580.8	577.3
170°	583.0	581.2	581.2	584.7	581.2
172.5°	585.6	583.4	583.8	587.3	583.4
175°	587.8	585.6	586.0	589.1	585.6
177.5°	588.6	586.4	586.9	590.4	586.0
180°	587.8	587.8	587.8	587.8	587.8

(END OF REPORT)