

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: P1031803

Luminaire Tested: S123DIW-B560D460UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031803
REPORT IS A COMBINATION OF REPORTS P991762 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B560D460UB40-4F0-XX-W2A-F1
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

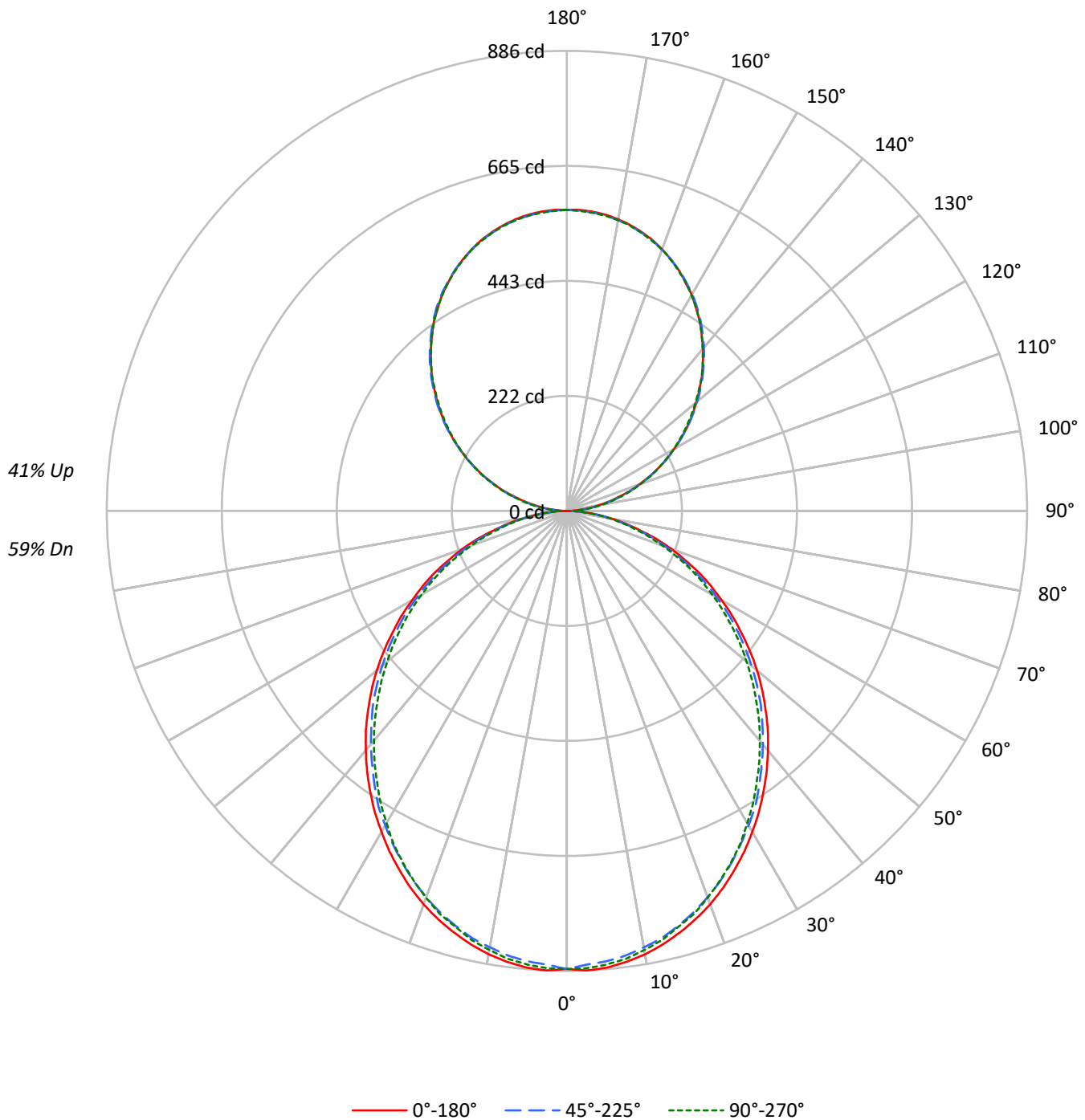
Lumens per Lamp: N/A
Luminaire Lumens: 3904.0 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64
1	100	95	91	88	93	89	86	82	77	75	72	67	65	63	57	55	54
2	91	83	77	72	84	78	72	68	68	64	60	58	55	53	50	48	46
3	83	73	66	60	77	68	62	56	60	55	50	52	48	44	44	41	39
4	76	65	57	50	70	61	53	48	53	47	43	46	42	38	39	36	33
5	70	58	49	43	65	54	47	41	48	42	37	41	37	33	36	32	29
6	64	52	44	38	60	49	41	36	43	37	32	37	33	29	32	29	26
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	29	26	23
8	55	43	35	29	51	40	33	28	35	30	25	31	26	23	27	23	20
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	21	18
10	48	36	28	23	45	34	27	23	30	24	21	27	22	19	23	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9496	9496	9496
5°	9520	9168	9155
10°	9435	8858	8767
15°	9304	8535	8345
20°	9154	8177	7926
25°	8959	7799	7479
30°	8746	7408	7008
35°	8523	7008	6541
40°	8289	6588	6081
45°	8033	6180	5601
50°	7771	5723	5118
55°	7436	5250	4629
60°	7090	4726	4109
65°	6766	4159	3567
70°	6299	3530	2934
75°	5626	2795	2277
80°	4859	1964	1612
85°	3785	1055	807

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8033 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.2	2.1
10°-20°	234.8	6.0
20°-30°	346.8	8.9
30°-40°	405.1	10.4
40°-50°	407.2	10.4
50°-60°	357.7	9.2
60°-70°	266.4	6.8
70°-80°	151.6	3.9
80°-90°	44.3	1.1
90°-100°	37.3	1.0
100°-110°	113.0	2.9
110°-120°	192.4	4.9
120°-130°	253.0	6.5
130°-140°	284.4	7.3
140°-150°	279.6	7.2
150°-160°	235.4	6.0
160°-170°	156.7	4.0
170°-180°	54.9	1.4
0°-30°	664.8	17.0
0°-40°	1069.9	27.4
0°-60°	1834.9	47.0
0°-90°	2297.2	58.8
90°-120°	342.7	8.8
90°-150°	1159.8	29.7
90°-180°	1607.0	41.2
0°-180°	3904.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	883	879	871	878	877	84
15°	840	838	828	834	829	237
25°	763	759	749	750	747	352
35°	660	655	646	641	637	413
45°	541	538	528	519	515	418
55°	410	410	400	391	388	368
65°	280	276	268	262	260	276
75°	148	145	143	139	136	158
85°	39	38	38	36	36	42
90°	0	5	11	13	14	5
95°	27	30	34	36	36	30
105°	102	103	108	108	108	110
115°	194	195	194	194	194	192
125°	283	285	284	282	280	253
135°	368	370	370	368	367	283
145°	446	447	448	448	446	279
155°	511	511	511	513	510	235
165°	556	555	555	558	554	157
175°	578	577	577	579	576	55
180°	580	580	580	580	580	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	882.2	882.2	882.2	882.2	882.2
2.5°	886.0	883.0	874.6	882.2	881.5
5°	883.0	879.2	870.8	878.4	876.9
7.5°	876.1	872.3	864.0	870.8	870.1
10°	867.0	863.2	853.4	860.2	858.7
12.5°	854.9	851.9	842.8	847.3	846.6
15°	840.5	837.5	827.6	833.7	829.1
17.5°	824.6	820.8	810.9	815.5	813.9
20°	806.4	801.8	791.9	795.0	792.7
22.5°	785.9	781.3	771.5	773.7	770.7
25°	763.1	758.6	748.7	749.5	747.2
27.5°	739.6	735.0	724.4	725.2	722.9
30°	713.8	710.0	699.4	699.4	694.1
32.5°	688.0	682.7	675.1	669.8	667.5
35°	660.0	655.4	645.5	641.0	637.2
37.5°	631.9	625.8	616.0	610.6	608.4
40°	602.3	597.7	587.1	581.1	578.0
42.5°	572.7	567.4	556.8	550.7	547.7
45°	540.9	537.8	528.0	518.9	515.1
47.5°	509.8	505.2	496.1	487.0	484.0
50°	477.9	474.1	464.2	455.9	451.3
52.5°	444.5	442.2	431.6	424.8	420.2
55°	410.4	409.6	399.8	391.4	387.6
57.5°	378.5	375.5	367.9	360.3	355.8
60°	343.6	342.9	333.8	326.9	323.1
62.5°	312.5	310.3	301.1	294.3	292.0
65°	279.9	276.1	268.5	262.5	260.2
67.5°	245.0	242.0	235.9	230.6	227.6
70°	213.9	209.4	204.8	199.5	195.7
72.5°	181.3	178.3	173.0	168.4	166.9
75°	147.9	144.9	142.6	138.8	136.5
77.5°	118.3	116.8	113.8	110.8	110.8
80°	89.5	87.2	85.7	85.0	85.0
82.5°	61.4	61.4	61.4	59.9	59.2
85°	39.4	37.9	37.9	36.4	36.4
87.5°	19.7	17.4	16.7	15.9	15.9
90°	0.5	5.0	10.9	12.8	13.7
92.5°	13.7	16.4	19.1	20.5	19.6
95°	26.9	30.1	33.7	35.5	35.5
97.5°	44.2	46.5	49.2	51.5	51.0
100°	62.0	64.7	67.0	68.3	69.2
102.5°	82.5	83.8	87.0	88.4	87.9
105°	102.5	103.4	107.5	107.5	108.4
107.5°	126.2	126.6	128.5	129.8	129.4
110°	148.0	149.0	149.9	151.7	150.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	170.8	171.3	171.3	173.6	173.6
115°	193.6	195.0	194.1	194.5	194.1
117.5°	216.8	217.3	216.4	216.4	215.0
120°	238.2	241.0	238.7	238.2	237.3
122.5°	260.6	262.4	261.5	260.1	258.7
125°	283.3	284.7	283.8	282.0	280.2
127.5°	304.3	307.0	306.1	303.4	301.6
130°	325.2	328.9	327.5	325.7	322.5
132.5°	346.2	349.8	348.9	346.7	344.4
135°	367.6	370.3	369.9	368.1	367.2
137.5°	387.2	389.5	390.8	388.6	387.2
140°	407.7	410.0	410.4	410.0	406.8
142.5°	426.4	428.7	429.6	429.1	426.8
145°	446.0	446.9	448.2	447.8	446.0
147.5°	462.8	464.6	466.0	466.0	463.3
150°	480.6	481.5	482.4	482.4	479.7
152.5°	495.2	496.5	497.0	497.9	495.6
155°	510.7	510.7	511.1	512.9	509.7
157.5°	523.9	523.4	523.9	525.7	523.0
160°	536.2	535.2	535.2	537.5	535.7
162.5°	547.1	545.7	546.2	548.5	545.3
165°	556.2	554.8	554.8	557.6	554.4
167.5°	563.9	562.1	562.6	565.3	562.6
170°	570.3	568.5	568.5	571.7	568.5
172.5°	575.3	573.5	573.5	576.2	573.1
175°	578.5	576.7	576.7	579.4	576.2
177.5°	580.3	578.5	578.5	581.3	578.1
180°	579.9	579.9	579.9	579.9	579.9

(END OF REPORT)