

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: P1031370

Luminaire Tested: S123DIW-B1000D460UB40-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031370
REPORT IS A COMBINATION OF REPORTS P990771 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1000D460UB40-4F0-XX-W2A-F
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

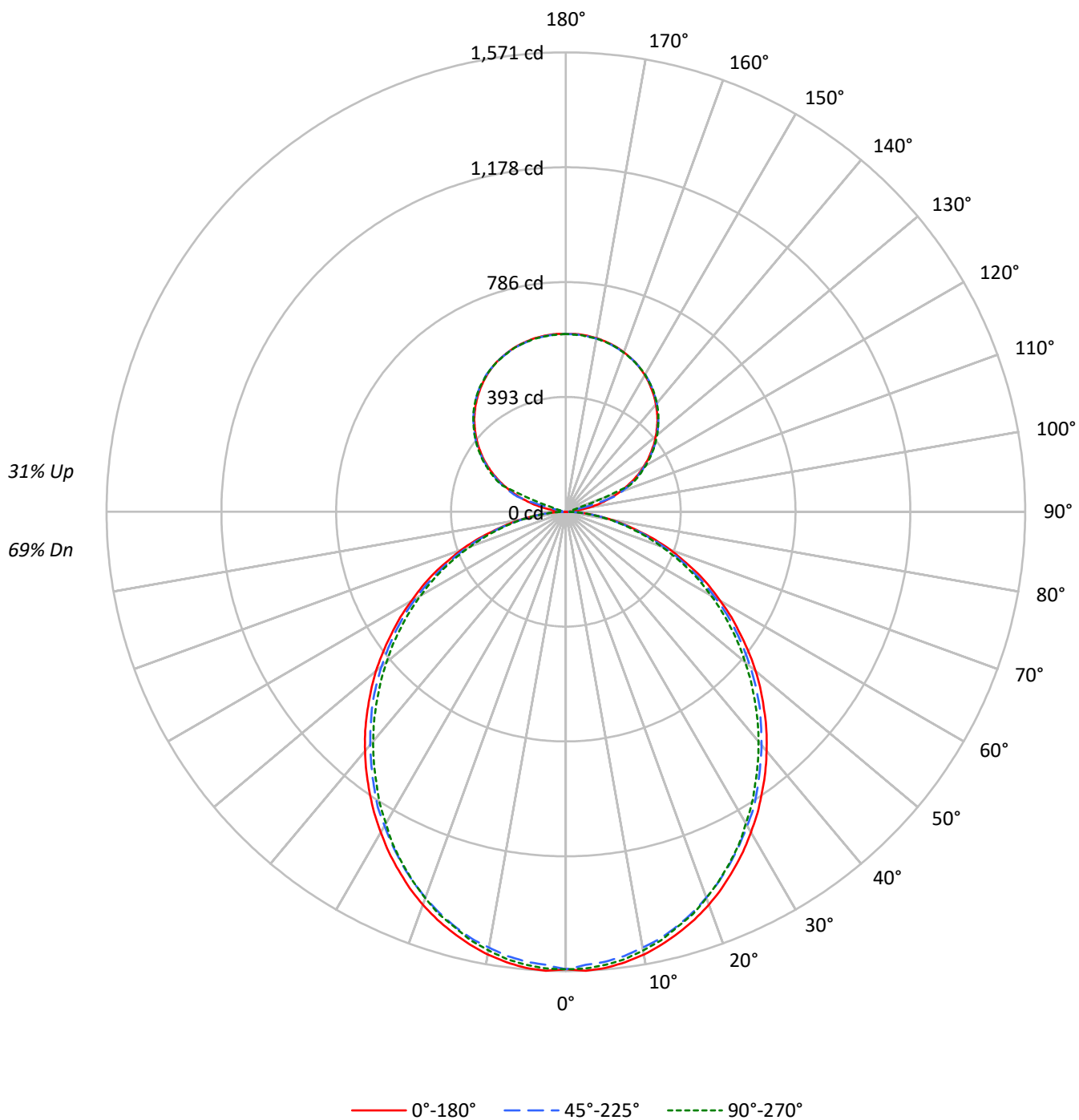
Lumens per Lamp: N/A
Luminaire Lumens: 5927.0 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 60
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			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73	69		
1	102	97	93	90	96	92	89	85	82	80	77	73	71	69	65	63	62	58		
2	93	85	79	73	87	81	75	70	72	68	64	64	61	58	57	54	52	48		
3	85	75	67	61	80	71	64	59	64	58	54	57	52	49	50	47	44	41		
4	77	66	58	52	73	63	55	50	56	50	46	51	46	42	45	41	38	35		
5	71	59	51	44	67	56	49	43	51	44	40	45	40	36	41	37	33	30		
6	66	53	45	39	62	51	43	37	46	39	35	41	36	32	37	33	29	27		
7	61	48	40	34	57	46	38	33	42	35	31	37	32	28	34	29	26	24		
8	57	44	36	30	53	42	34	29	38	32	27	34	29	25	31	27	23	21		
9	53	40	32	27	50	38	31	26	35	29	24	32	26	23	29	24	21	19		
10	49	37	29	24	47	35	28	24	32	26	22	29	24	21	27	22	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16841	16841	16841
5°	16884	16260	16236
10°	16733	15710	15549
15°	16500	15138	14799
20°	16234	14502	14058
25°	15889	13832	13264
30°	15511	13138	12430
35°	15115	12429	11601
40°	14701	11685	10784
45°	14245	10959	9933
50°	13783	10151	9078
55°	13187	9310	8211
60°	12575	8380	7288
65°	12000	7375	6326
70°	11173	6261	5204
75°	9978	4958	4041
80°	8616	3484	2858
85°	6724	1874	1432

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14245 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.5	2.5
10°-20°	416.5	7.0
20°-30°	615.1	10.4
30°-40°	718.4	12.1
40°-50°	722.2	12.2
50°-60°	634.4	10.7
60°-70°	472.5	8.0
70°-80°	268.9	4.5
80°-90°	77.7	1.3
90°-100°	21.4	0.4
100°-110°	103.7	1.7
110°-120°	254.0	4.3
120°-130°	322.5	5.4
130°-140°	344.5	5.8
140°-150°	322.2	5.4
150°-160°	259.9	4.4
160°-170°	167.7	2.8
170°-180°	57.8	1.0
0°-30°	1179.1	19.9
0°-40°	1897.5	32.0
0°-60°	3254.2	54.9
0°-90°	4073.2	68.7
90°-120°	379.2	6.4
90°-150°	1368.4	23.1
90°-180°	1854.0	31.3
0°-180°	5927.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1565	1565	1565	1565	1565	
5°	1566	1559	1544	1558	1555	149
15°	1491	1485	1468	1478	1470	420
25°	1353	1345	1328	1329	1325	623
35°	1170	1162	1145	1137	1130	732
45°	959	954	936	920	914	741
55°	728	726	709	694	688	652
65°	496	490	476	466	461	490
75°	262	257	253	246	242	280
85°	70	67	67	65	65	75
90°	0	5	11	13	14	6
95°	28	9	14	17	17	33
105°	135	140	99	19	20	143
115°	252	255	259	264	266	249
125°	356	360	361	362	363	318
135°	443	446	448	449	448	341
145°	511	515	516	516	516	320
155°	563	562	563	565	562	260
165°	594	593	592	596	593	168
175°	608	606	606	609	606	58
180°	608	608	608	608	608	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1564.6	1564.6	1564.6	1564.6	1564.6
2.5°	1571.3	1566.0	1551.2	1564.6	1563.3
5°	1566.0	1559.2	1544.4	1557.9	1555.2
7.5°	1553.9	1547.1	1532.3	1544.4	1543.1
10°	1537.7	1531.0	1513.5	1525.6	1522.9
12.5°	1516.2	1510.8	1494.7	1502.7	1501.4
15°	1490.6	1485.2	1467.8	1478.5	1470.4
17.5°	1462.4	1455.6	1438.2	1446.2	1443.5
20°	1430.1	1422.0	1404.5	1409.9	1405.9
22.5°	1393.8	1385.7	1368.2	1372.2	1366.9
25°	1353.4	1345.3	1327.8	1329.2	1325.1
27.5°	1311.7	1303.6	1284.8	1286.1	1282.1
30°	1266.0	1259.2	1240.4	1240.4	1231.0
32.5°	1220.2	1210.8	1197.3	1187.9	1183.9
35°	1170.4	1162.4	1144.9	1136.8	1130.1
37.5°	1120.7	1109.9	1092.4	1083.0	1079.0
40°	1068.2	1060.1	1041.3	1030.5	1025.1
42.5°	1015.7	1006.3	987.5	976.7	971.3
45°	959.2	953.8	936.3	920.2	913.5
47.5°	904.1	896.0	879.8	863.7	858.3
50°	847.6	840.8	823.3	808.5	800.5
52.5°	788.4	784.3	765.5	753.4	745.3
55°	727.8	726.5	709.0	694.2	687.5
57.5°	671.3	665.9	652.5	639.0	631.0
60°	609.4	608.1	591.9	579.8	573.1
62.5°	554.3	550.2	534.1	522.0	518.0
65°	496.4	489.7	476.2	465.5	461.4
67.5°	434.5	429.2	418.4	409.0	403.6
70°	379.4	371.3	363.2	353.8	347.1
72.5°	321.5	316.2	306.7	298.7	296.0
75°	262.3	257.0	252.9	246.2	242.2
77.5°	209.9	207.2	201.8	196.4	196.4
80°	158.7	154.7	152.0	150.7	150.7
82.5°	109.0	109.0	109.0	106.3	104.9
85°	70.0	67.3	67.3	64.6	64.6
87.5°	35.0	30.9	29.6	28.3	28.3
90°	0.5	5.0	10.8	12.6	13.6
92.5°	10.4	7.7	11.7	14.9	15.4
95°	27.6	9.0	14.0	17.2	17.2
97.5°	50.1	37.5	14.5	18.1	18.5
100°	76.3	85.4	14.9	18.5	19.0
102.5°	106.2	112.0	33.4	18.5	19.4
105°	134.6	139.6	98.9	19.0	19.9
107.5°	164.9	169.0	175.7	106.2	47.0
110°	195.2	198.8	203.7	188.8	124.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	224.1	227.2	232.2	236.3	235.4
115°	252.5	255.2	259.3	263.8	265.6
117.5°	280.5	283.7	286.0	289.6	290.0
120°	306.3	310.4	311.7	315.3	315.3
122.5°	332.5	335.7	337.5	339.7	340.2
125°	356.0	359.6	361.4	362.3	363.2
127.5°	379.5	383.1	385.4	386.7	385.8
130°	401.2	404.8	406.6	408.4	407.5
132.5°	422.0	425.6	426.9	428.7	427.4
135°	443.2	445.9	447.7	449.1	447.7
137.5°	461.3	464.9	465.8	468.0	467.1
140°	479.3	482.0	483.4	485.2	484.3
142.5°	496.0	498.8	500.1	501.5	500.1
145°	511.4	514.6	515.5	516.4	516.4
147.5°	526.3	528.6	529.5	530.4	528.1
150°	539.9	541.2	542.1	543.0	541.7
152.5°	552.1	552.5	553.0	554.8	552.5
155°	563.4	562.5	562.9	565.2	562.5
157.5°	572.4	572.4	571.9	574.6	571.0
160°	580.5	580.1	579.6	582.3	579.2
162.5°	588.2	586.8	586.4	589.6	586.8
165°	594.1	592.7	592.3	595.9	592.7
167.5°	599.0	597.2	597.2	600.9	597.2
170°	603.1	601.3	601.3	604.9	601.3
172.5°	605.8	603.6	604.0	607.6	603.6
175°	608.1	605.8	606.3	609.4	605.8
177.5°	609.0	606.7	607.2	610.8	606.3
180°	608.1	608.1	608.1	608.1	608.1

(END OF REPORT)