

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: P1033462

Luminaire Tested: S124DIW-B350D1560UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033462
REPORT IS A COMBINATION OF REPORTS P997463 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D1560UB40-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

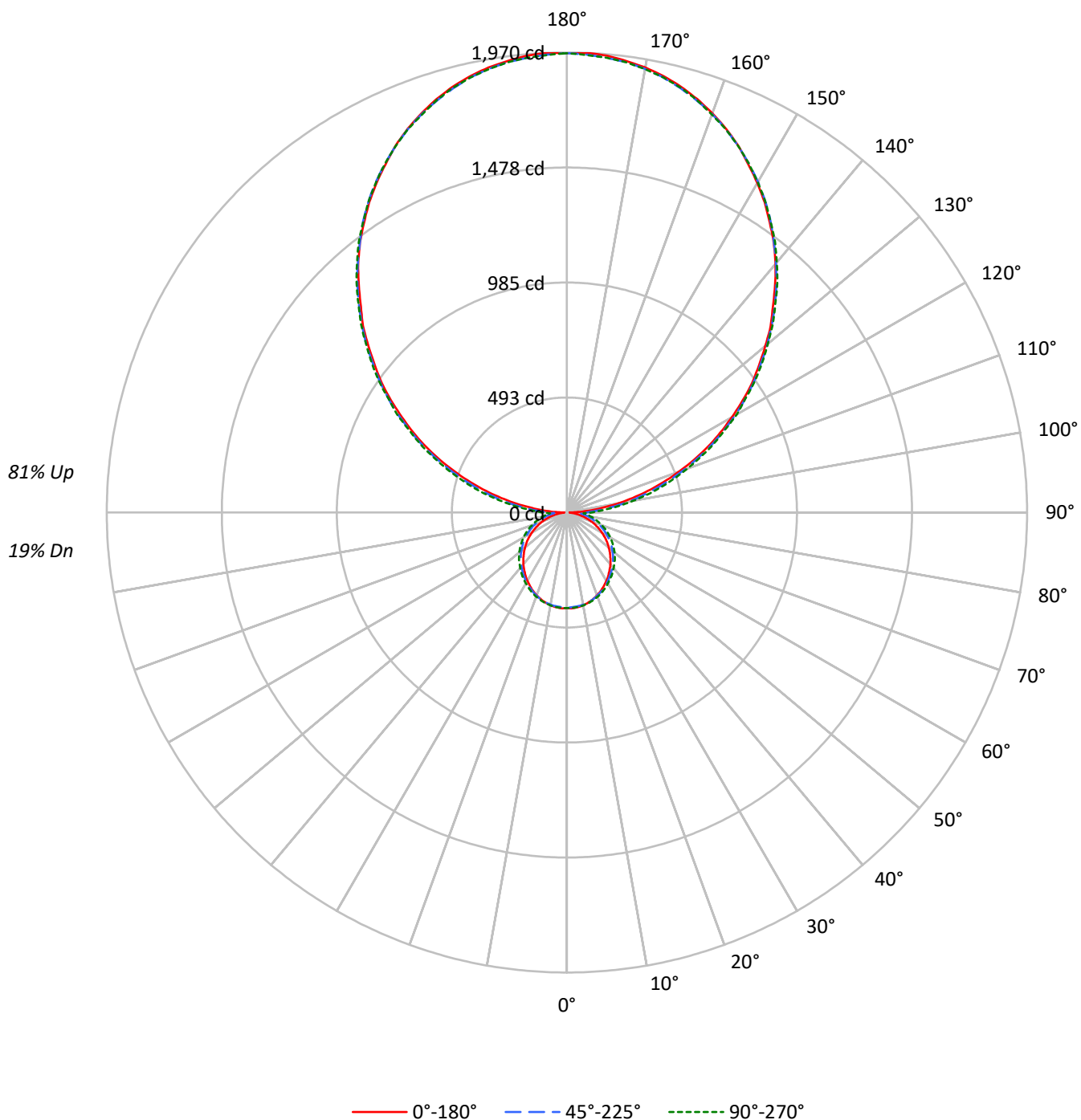
Lumens per Lamp: N/A
Luminaire Lumens: 6857.0 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 65.2
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	50	30	10
RCR																				
0	100	100	100	100	88	88	88	88	66	66	66	46	46	46	28	28	28	19		
1	90	86	82	79	80	76	73	70	57	55	53	40	38	37	24	23	22	15		
2	82	75	69	64	72	66	61	57	50	46	44	35	33	31	21	19	19	12		
3	75	66	59	53	66	58	52	47	44	40	36	30	28	26	18	17	16	10		
4	68	58	50	44	60	51	45	40	39	34	31	27	24	22	16	15	13	9		
5	62	51	43	38	55	45	39	34	34	30	26	24	21	19	14	13	11	7		
6	57	46	38	32	50	41	34	29	31	26	23	22	19	16	13	11	10	6		
7	53	41	33	28	46	36	30	25	28	23	20	19	16	14	12	10	9	6		
8	49	37	30	25	43	33	27	22	25	20	17	18	15	12	11	9	8	5		
9	45	34	26	22	40	30	24	19	23	18	15	16	13	11	10	8	7	5		
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	9	7	6	4		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3337	3337	3337
5°	3346	3249	3255
10°	3324	3186	3176
15°	3293	3114	3087
20°	3246	3036	3001
25°	3195	2950	2907
30°	3138	2865	2813
35°	3075	2778	2728
40°	3024	2695	2640
45°	2949	2616	2563
50°	2884	2527	2481
55°	2818	2441	2386
60°	2715	2335	2298
65°	2600	2220	2192
70°	2463	2088	2069
75°	2271	1942	1952
80°	2052	1793	1828
85°	1768	1643	1729

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 3882 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.8	0.6
10°-20°	111.1	1.6
20°-30°	168.0	2.4
30°-40°	203.2	3.0
40°-50°	214.8	3.1
50°-60°	202.2	2.9
60°-70°	167.7	2.4
70°-80°	117.7	1.7
80°-90°	70.6	1.0
90°-100°	167.7	2.4
100°-110°	413.3	6.0
110°-120°	672.0	9.8
120°-130°	871.5	12.7
130°-140°	971.2	14.2
140°-150°	950.8	13.9
150°-160°	798.9	11.7
160°-170°	531.5	7.8
170°-180°	186.1	2.7
0°-30°	317.8	4.6
0°-40°	521.0	7.6
0°-60°	938.0	13.7
0°-90°	1294.0	18.9
90°-120°	1253.0	18.3
90°-150°	4046.5	59.0
90°-180°	5563.0	81.1
0°-180°	6857.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	409	409	409	409	409	
5°	410	408	405	409	408	39
15°	393	393	392	396	395	111
25°	359	362	363	368	369	165
35°	314	320	324	331	332	197
45°	262	271	280	287	290	203
55°	205	215	229	238	240	183
65°	142	157	172	184	187	141
75°	79	96	115	128	132	84
85°	24	44	64	78	82	25
90°	12	47	79	101	108	12
95°	97	126	156	172	177	104
105°	359	369	392	408	417	381
115°	666	670	682	690	692	657
125°	968	967	977	983	983	863
135°	1247	1256	1259	1264	1262	965
145°	1514	1520	1521	1522	1520	948
155°	1734	1734	1733	1739	1733	798
165°	1888	1883	1880	1889	1883	532
175°	1964	1956	1955	1966	1955	186
180°	1967	1967	1967	1967	1967	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	409.2	409.2	409.2	409.2	409.2
2.5°	411.0	409.6	406.0	409.2	408.7
5°	409.6	408.2	405.0	408.7	408.2
7.5°	406.9	406.0	403.2	407.3	406.9
10°	403.2	402.7	400.5	404.6	404.1
12.5°	398.2	398.2	396.8	400.5	400.5
15°	392.7	393.1	391.8	395.9	395.4
17.5°	385.3	386.7	386.3	390.4	389.9
20°	377.5	378.9	379.4	384.0	384.0
22.5°	368.8	370.7	371.6	376.2	377.1
25°	359.2	362.0	363.3	368.4	368.8
27.5°	348.7	352.8	354.6	359.2	359.7
30°	338.1	341.8	345.0	350.1	351.0
32.5°	326.7	331.3	334.9	340.9	341.8
35°	314.3	319.8	324.4	330.8	332.2
37.5°	301.9	308.4	313.9	320.3	321.6
40°	290.0	296.0	302.4	309.3	311.1
42.5°	276.3	283.2	290.9	298.7	300.1
45°	262.1	270.8	279.5	287.3	289.6
47.5°	248.8	257.5	267.6	275.4	278.1
50°	234.1	244.2	254.3	263.5	266.2
52.5°	219.5	229.6	241.5	250.6	253.4
55°	205.3	214.9	228.6	237.8	240.5
57.5°	189.2	201.1	214.4	225.4	227.7
60°	173.7	185.6	200.7	211.2	214.9
62.5°	158.5	171.8	186.9	197.5	201.1
65°	142.0	156.7	172.3	183.7	187.4
67.5°	126.5	142.0	158.5	170.0	173.7
70°	110.4	126.0	143.4	155.8	159.0
72.5°	94.8	110.9	129.7	141.6	145.2
75°	78.8	95.8	115.0	127.8	132.0
77.5°	63.7	81.6	101.7	114.5	119.1
80°	49.9	68.3	88.4	102.2	105.8
82.5°	36.2	55.4	75.6	89.8	93.9
85°	24.3	43.5	64.1	77.9	82.5
87.5°	15.1	33.9	54.1	67.4	71.5
90°	11.9	47.0	78.9	101.2	107.9
92.5°	46.5	82.2	109.5	126.9	132.1
95°	97.3	126.1	155.5	172.4	176.6
97.5°	151.5	177.0	208.0	226.0	230.1
100°	218.0	236.1	267.6	283.0	286.2
102.5°	288.0	299.6	329.2	345.6	350.8
105°	358.6	369.3	392.3	408.3	416.6
107.5°	433.1	442.4	459.9	477.5	479.2
110°	508.8	518.2	532.7	540.2	548.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	587.4	592.9	604.9	615.0	618.7
115°	666.0	670.2	681.7	690.3	692.0
117.5°	740.5	743.3	755.5	760.6	759.7
120°	814.7	822.2	830.9	832.4	839.1
122.5°	892.3	893.8	904.7	909.2	904.8
125°	967.8	967.4	977.3	983.0	982.7
127.5°	1036.3	1040.4	1046.5	1051.8	1053.4
130°	1108.9	1113.0	1120.3	1125.5	1122.1
132.5°	1183.4	1186.0	1190.0	1194.7	1196.0
135°	1246.8	1256.0	1259.2	1263.5	1261.7
137.5°	1318.3	1322.5	1327.3	1329.7	1333.5
140°	1389.8	1392.5	1392.9	1397.4	1398.1
142.5°	1454.9	1457.9	1455.9	1460.9	1462.8
145°	1514.2	1519.8	1521.3	1522.5	1519.8
147.5°	1575.0	1582.1	1580.6	1579.6	1579.9
150°	1629.8	1635.4	1635.4	1635.4	1633.9
152.5°	1681.0	1684.1	1685.6	1690.2	1685.6
155°	1734.3	1734.3	1732.8	1738.8	1732.8
157.5°	1779.9	1776.9	1776.9	1781.4	1776.9
160°	1819.5	1817.9	1816.4	1821.0	1813.4
162.5°	1856.0	1851.4	1849.9	1859.0	1851.4
165°	1887.9	1883.4	1880.3	1889.4	1883.4
167.5°	1913.8	1907.7	1907.7	1916.8	1907.7
170°	1935.1	1927.5	1929.0	1938.1	1927.5
172.5°	1950.3	1944.2	1944.2	1954.9	1944.2
175°	1964.0	1956.4	1954.9	1965.5	1954.9
177.5°	1970.1	1962.5	1962.5	1973.1	1960.9
180°	1967.0	1967.0	1967.0	1967.0	1967.0

(END OF REPORT)