

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: P1033411

Luminaire Tested: S124DIW-B350D1050UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033411
REPORT IS A COMBINATION OF REPORTS P997342 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D1050UB50-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

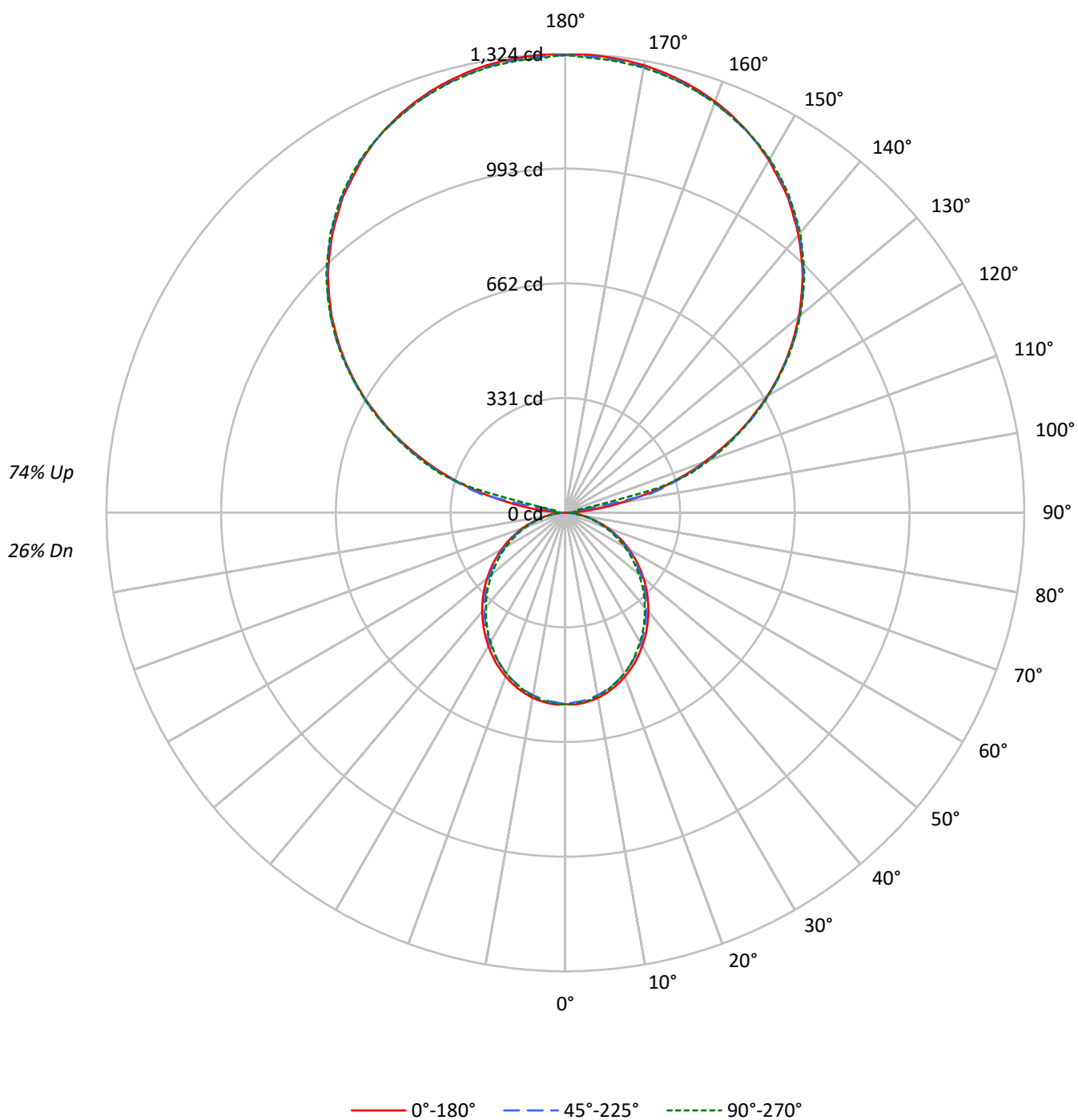
Lumens per Lamp: N/A
Luminaire Lumens: 5509.0 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 44.5
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

TEST NUMBER: P1033411

CATALOG NUMBER: S124DIW-B350D1050UB50-4F0-XX-W2A-F

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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34
1	92	88	84	81	82	79	76	73	61	59	57	45	44	42	30	29	29
2	84	77	71	66	75	69	64	60	53	50	47	39	37	35	26	25	24
3	77	68	61	55	68	60	55	50	47	43	40	35	32	30	23	22	20
4	70	60	52	46	62	53	47	42	42	37	34	31	28	25	21	19	18
5	64	53	45	39	57	48	41	36	37	32	29	28	24	22	19	17	15
6	59	47	40	34	52	43	36	31	33	29	25	25	22	19	17	15	13
7	54	43	35	30	48	38	32	27	30	25	22	23	19	17	15	13	12
8	50	39	31	26	45	35	28	24	27	23	19	21	17	15	14	12	11
9	47	35	28	23	42	32	25	21	25	20	17	19	16	13	13	11	10
10	44	32	25	20	39	29	23	19	23	18	15	17	14	12	12	10	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4509	4509	4509
5°	4512	4379	4384
10°	4474	4257	4227
15°	4409	4112	4050
20°	4327	3956	3867
25°	4235	3791	3671
30°	4124	3612	3454
35°	4009	3430	3245
40°	3889	3233	3023
45°	3763	3036	2815
50°	3623	2844	2585
55°	3472	2621	2356
60°	3317	2376	2118
65°	3139	2124	1849
70°	2936	1819	1563
75°	2631	1466	1251
80°	2242	1061	879
85°	1739	589	474

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3763 cd/sqm

TEST NUMBER: P1033411

CATALOG NUMBER: S124DIW-B350D1050UB50-4F0-XX-W2A-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	0.9
10°-20°	146.8	2.7
20°-30°	216.1	3.9
30°-40°	251.2	4.6
40°-50°	251.1	4.6
50°-60°	219.6	4.0
60°-70°	163.1	3.0
70°-80°	92.5	1.7
80°-90°	29.2	0.5
90°-100°	43.8	0.8
100°-110°	288.8	5.2
110°-120°	551.4	10.0
120°-130°	700.0	12.7
130°-140°	748.8	13.6
140°-150°	700.2	12.7
150°-160°	564.7	10.2
160°-170°	364.2	6.6
170°-180°	125.5	2.3
0°-30°	415.0	7.5
0°-40°	666.1	12.1
0°-60°	1136.9	20.6
0°-90°	1421.7	25.8
90°-120°	884.0	16.0
90°-150°	3033.0	55.1
90°-180°	4087.0	74.2
0°-180°	5509.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	553	553	553	553	553	
5°	552	551	546	551	550	52
15°	526	524	517	520	519	148
25°	476	473	467	467	466	219
35°	410	407	400	397	395	256
45°	334	331	324	319	318	258
55°	253	252	245	240	237	227
65°	171	169	165	160	158	170
75°	91	89	87	85	85	97
85°	24	24	23	23	23	26
90°	3	14	22	28	30	4
95°	54	21	22	28	29	67
105°	297	303	308	317	282	311
115°	555	558	557	559	559	546
125°	780	784	782	785	786	697
135°	968	967	971	973	975	746
145°	1116	1119	1119	1120	1122	698
155°	1224	1225	1222	1226	1223	564
165°	1291	1286	1286	1294	1285	365
175°	1321	1315	1316	1325	1313	126
180°	1321	1321	1321	1321	1321	

TEST NUMBER: P1033411

CATALOG NUMBER: S124DIW-B350D1050UB50-4F0-XX-W2A-F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	552.9	552.9	552.9	552.9	552.9
2.5°	554.6	553.3	548.4	552.9	552.4
5°	552.4	550.6	545.8	550.6	549.8
7.5°	548.4	546.6	541.3	545.3	544.9
10°	542.7	540.9	535.1	538.7	537.8
12.5°	535.1	533.4	527.2	531.1	529.8
15°	525.8	524.1	517.4	520.1	518.7
17.5°	515.2	513.0	506.8	508.6	507.7
20°	503.2	501.0	494.4	495.7	494.8
22.5°	490.4	487.3	480.6	483.3	481.5
25°	476.2	473.1	466.9	467.4	465.6
27.5°	460.3	457.2	451.4	450.5	448.3
30°	444.3	440.8	435.0	433.2	431.0
32.5°	427.5	424.4	418.2	416.0	413.8
35°	409.8	406.7	400.5	397.4	395.1
37.5°	391.2	388.5	381.9	378.8	375.7
40°	373.0	369.5	362.8	358.4	356.2
42.5°	353.5	351.7	344.2	338.9	337.6
45°	334.5	331.4	324.3	319.4	318.1
47.5°	314.5	312.3	305.7	300.3	296.8
50°	294.1	292.4	286.2	280.0	277.3
52.5°	274.2	272.0	265.4	260.0	256.5
55°	252.9	251.6	245.4	240.1	237.4
57.5°	233.0	231.7	225.5	220.2	217.5
60°	212.2	210.0	204.2	200.2	198.0
62.5°	191.8	190.0	183.8	180.3	178.1
65°	171.4	169.2	164.8	160.4	158.1
67.5°	150.6	148.8	144.4	140.0	139.5
70°	131.6	128.5	124.9	121.4	120.1
72.5°	111.2	108.1	105.4	102.8	101.4
75°	91.3	89.0	86.8	85.1	84.6
77.5°	71.8	70.9	68.7	68.2	66.9
80°	54.5	53.2	52.3	51.4	50.9
82.5°	37.7	37.2	37.2	36.8	36.3
85°	23.9	23.9	23.0	23.0	22.6
87.5°	11.5	11.1	10.6	10.6	10.6
90°	3.0	13.8	21.7	27.7	29.6
92.5°	14.8	12.8	20.7	26.7	26.7
95°	54.3	20.7	21.7	27.7	28.7
97.5°	103.7	125.5	21.7	26.7	27.7
100°	162.0	179.8	43.5	26.7	27.7
102.5°	227.2	239.1	250.9	28.7	28.7
105°	297.4	303.3	308.2	317.1	281.6
107.5°	361.6	364.6	371.5	376.4	380.4
110°	426.8	429.8	435.7	437.7	440.6

TEST NUMBER: P1033411

CATALOG NUMBER: S124DIW-B350D1050UB50-4F0-XX-W2A-F

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	490.0	495.9	497.9	496.9	500.9
115°	555.2	558.2	557.2	559.2	559.2
117.5°	613.5	617.5	620.4	619.4	619.4
120°	672.8	676.7	675.8	677.7	675.8
122.5°	728.1	730.1	732.1	733.1	731.1
125°	780.5	784.4	782.5	785.4	786.4
127.5°	830.9	831.8	836.8	835.8	834.8
130°	879.3	880.3	883.2	884.2	884.2
132.5°	923.7	925.7	929.7	930.6	929.7
135°	968.2	967.2	971.1	973.1	975.1
137.5°	1007.7	1007.7	1012.6	1014.6	1013.6
140°	1046.2	1048.2	1050.2	1053.1	1054.1
142.5°	1080.8	1084.8	1085.8	1087.7	1087.7
145°	1116.4	1119.3	1119.3	1120.3	1122.3
147.5°	1144.0	1150.0	1149.0	1150.0	1151.0
150°	1174.7	1178.6	1177.6	1177.6	1178.6
152.5°	1200.4	1203.3	1201.3	1203.3	1202.3
155°	1224.1	1225.1	1222.1	1226.0	1223.1
157.5°	1244.8	1244.8	1240.9	1245.8	1240.9
160°	1262.6	1259.6	1258.6	1264.6	1258.6
162.5°	1278.4	1274.4	1273.5	1279.4	1272.5
165°	1291.2	1286.3	1286.3	1294.2	1285.3
167.5°	1302.1	1297.2	1296.2	1305.1	1295.2
170°	1311.0	1305.1	1306.1	1314.0	1304.1
172.5°	1316.9	1311.0	1312.0	1319.9	1309.0
175°	1320.9	1315.0	1315.9	1324.8	1313.0
177.5°	1323.8	1316.9	1318.9	1326.8	1315.0
180°	1320.9	1320.9	1320.9	1320.9	1320.9

(END OF REPORT)