

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: P1033406

Luminaire Tested: S124DIW-B350D1050UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033406
REPORT IS A COMBINATION OF REPORTS P997334 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D1050UB40-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

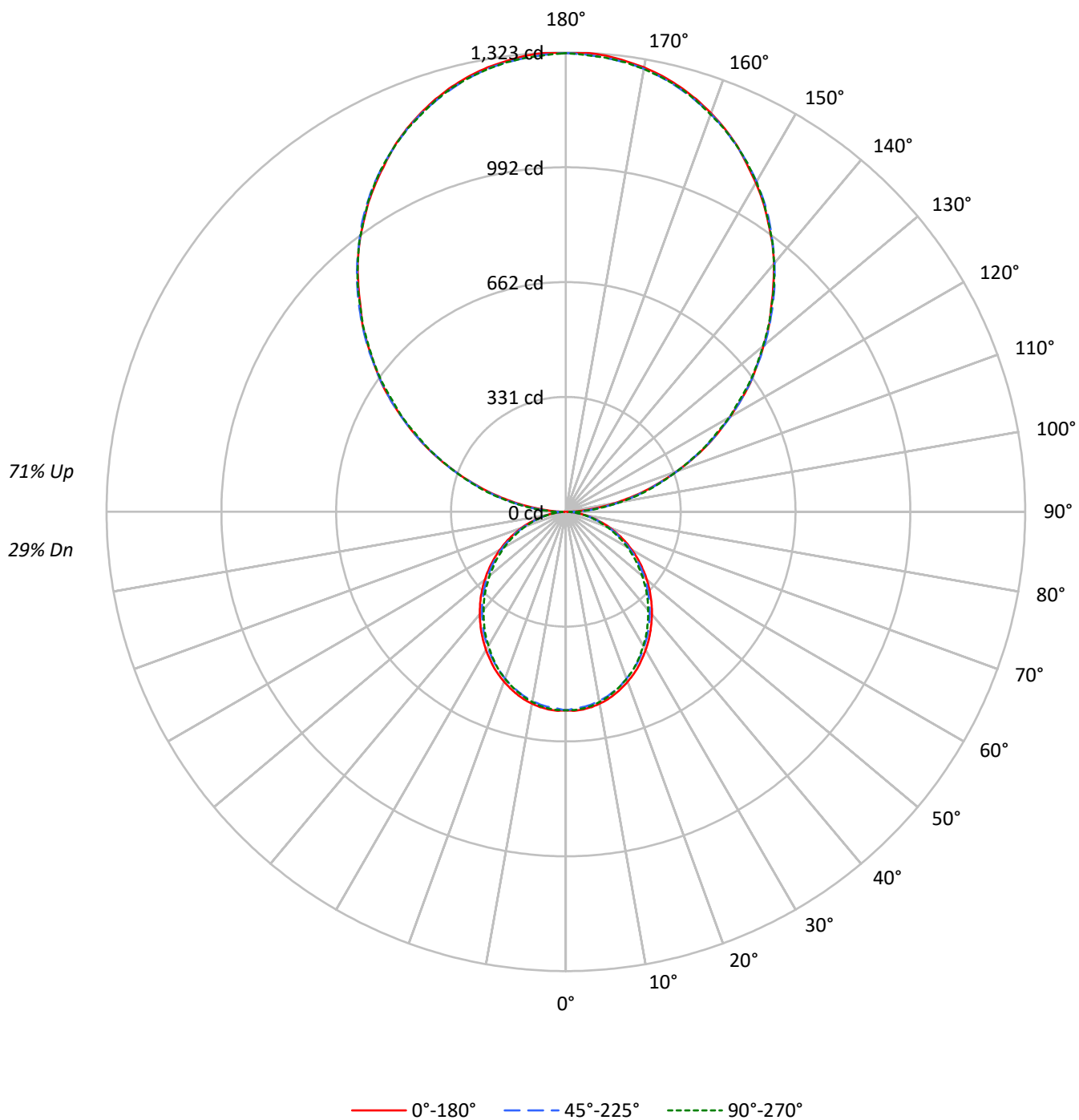
Lumens per Lamp: N/A
Luminaire Lumens: 5136.0 lumens
Efficiency: N/A
Efficacy: 115.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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: P1033406

CATALOG NUMBER: S124DIW-B350D1050UB40-4F0-XX-W2A-F1

Luminous Intensity Polar Plot



TEST NUMBER: P1033406

CATALOG NUMBER: S124DIW-B350D1050UB40-4F0-XX-W2A-F1

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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37
1	93	89	85	82	83	80	76	74	62	60	58	47	45	44	32	31	31
2	85	77	72	67	76	70	65	60	55	51	48	41	39	37	28	27	26
3	77	68	61	55	69	61	55	50	48	44	41	36	33	31	25	23	22
4	70	60	52	47	63	54	48	43	43	38	34	32	29	27	22	20	19
5	65	53	46	40	58	48	41	36	38	33	30	29	26	23	20	18	16
6	59	48	40	34	53	43	36	31	34	29	26	26	23	20	18	16	14
7	55	43	35	30	49	39	32	27	31	26	22	24	20	18	17	14	13
8	51	39	31	26	45	35	29	24	28	23	20	21	18	16	15	13	11
9	47	35	28	23	42	32	26	21	26	21	18	20	16	14	14	12	10
10	44	32	25	21	39	29	23	19	24	19	16	18	15	13	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4664	4664	4664
5°	4668	4530	4535
10°	4628	4404	4373
15°	4562	4255	4191
20°	4477	4092	4001
25°	4382	3922	3797
30°	4267	3737	3573
35°	4147	3548	3357
40°	4023	3344	3127
45°	3893	3141	2912
50°	3749	2943	2674
55°	3592	2711	2437
60°	3431	2458	2191
65°	3249	2197	1913
70°	3036	1881	1616
75°	2720	1517	1294
80°	2320	1097	910
85°	1797	610	490

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3893 cd/sqm

TEST NUMBER: P1033406

CATALOG NUMBER: S124DIW-B350D1050UB40-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	1.0
10°-20°	151.9	3.0
20°-30°	223.5	4.4
30°-40°	259.8	5.1
40°-50°	259.8	5.1
50°-60°	227.2	4.4
60°-70°	168.7	3.3
70°-80°	95.7	1.9
80°-90°	30.2	0.6
90°-100°	86.1	1.7
100°-110°	257.9	5.0
110°-120°	438.1	8.5
120°-130°	577.8	11.3
130°-140°	649.0	12.6
140°-150°	637.9	12.4
150°-160°	536.5	10.4
160°-170°	356.9	6.9
170°-180°	125.0	2.4
0°-30°	429.3	8.4
0°-40°	689.1	13.4
0°-60°	1176.2	22.9
0°-90°	1470.8	28.6
90°-120°	782.1	15.2
90°-150°	2646.7	51.5
90°-180°	3665.0	71.4
0°-180°	5136.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	572	572	572	572	572	
5°	572	570	565	570	569	54
15°	544	542	535	538	537	153
25°	493	490	483	484	482	227
35°	424	421	414	411	409	265
45°	346	343	336	330	329	267
55°	262	260	254	248	246	234
65°	177	175	170	166	164	176
75°	94	92	90	88	88	100
85°	25	25	24	24	23	27
90°	3	14	22	29	31	6
95°	61	70	78	81	81	66
105°	238	239	243	246	249	252
115°	445	445	443	442	441	439
125°	649	649	648	646	644	578
135°	837	843	843	841	838	647
145°	1016	1021	1022	1021	1018	636
155°	1165	1165	1164	1168	1164	536
165°	1268	1265	1263	1269	1265	357
175°	1319	1314	1313	1320	1313	125
180°	1321	1321	1321	1321	1321	

TEST NUMBER: P1033406

CATALOG NUMBER: S124DIW-B350D1050UB40-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	571.9	571.9	571.9	571.9	571.9
2.5°	573.8	572.4	567.4	571.9	571.5
5°	571.5	569.7	564.6	569.7	568.7
7.5°	567.4	565.5	560.0	564.2	563.7
10°	561.4	559.6	553.6	557.3	556.4
12.5°	553.6	551.8	545.4	549.5	548.1
15°	544.0	542.2	535.3	538.0	536.7
17.5°	533.0	530.7	524.3	526.1	525.2
20°	520.6	518.3	511.4	512.8	511.9
22.5°	507.3	504.1	497.2	500.0	498.2
25°	492.7	489.5	483.0	483.5	481.7
27.5°	476.2	473.0	467.0	466.1	463.8
30°	459.7	456.0	450.0	448.2	445.9
32.5°	442.2	439.0	432.6	430.3	428.0
35°	423.9	420.7	414.3	411.1	408.8
37.5°	404.7	401.9	395.0	391.8	388.6
40°	385.9	382.2	375.3	370.8	368.5
42.5°	365.7	363.9	356.1	350.6	349.2
45°	346.0	342.8	335.5	330.4	329.0
47.5°	325.4	323.1	316.2	310.7	307.1
50°	304.3	302.5	296.1	289.6	286.9
52.5°	283.7	281.4	274.5	269.0	265.3
55°	261.7	260.3	253.9	248.4	245.6
57.5°	241.1	239.7	233.3	227.8	225.0
60°	219.5	217.2	211.3	207.1	204.9
62.5°	198.4	196.6	190.2	186.5	184.2
65°	177.4	175.1	170.5	165.9	163.6
67.5°	155.8	154.0	149.4	144.8	144.4
70°	136.1	132.9	129.2	125.6	124.2
72.5°	115.0	111.8	109.1	106.3	104.9
75°	94.4	92.1	89.8	88.0	87.5
77.5°	74.2	73.3	71.0	70.6	69.2
80°	56.4	55.0	54.1	53.2	52.7
82.5°	39.0	38.5	38.5	38.0	37.6
85°	24.7	24.7	23.8	23.8	23.4
87.5°	11.9	11.5	11.0	11.0	11.0
90°	3.1	14.3	22.5	28.6	30.6
92.5°	26.6	39.8	45.0	48.0	49.0
95°	61.3	70.5	77.6	80.7	80.7
97.5°	98.1	106.2	114.4	118.5	118.5
100°	143.0	147.1	156.3	158.4	158.4
102.5°	190.0	191.0	199.2	202.3	203.3
105°	238.0	239.1	243.1	246.2	249.3
107.5°	288.1	289.1	290.1	294.2	293.2
110°	339.2	341.2	340.2	338.2	341.2

TEST NUMBER: P1033406

CATALOG NUMBER: S124DIW-B350D1050UB40-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	392.3	392.3	390.3	390.3	390.3
115°	445.4	445.4	443.4	442.4	441.3
117.5°	495.5	495.5	494.5	491.4	488.3
120°	545.5	549.6	546.6	541.5	543.5
122.5°	597.6	598.7	597.6	594.6	589.5
125°	648.7	648.7	647.7	645.7	643.6
127.5°	694.7	697.8	695.7	693.7	692.7
130°	743.7	746.8	746.8	744.8	740.7
132.5°	793.8	795.8	794.8	792.8	791.8
135°	836.7	842.8	842.8	840.8	837.7
137.5°	884.7	887.8	889.8	886.8	887.8
140°	932.7	934.8	934.8	933.8	932.7
142.5°	976.7	978.7	977.7	977.7	977.7
145°	1016.5	1020.6	1021.6	1020.6	1017.5
147.5°	1057.4	1062.5	1061.5	1060.4	1059.4
150°	1094.2	1098.2	1098.2	1098.2	1097.2
152.5°	1128.9	1130.9	1132.0	1135.0	1132.0
155°	1164.7	1164.7	1163.6	1167.7	1163.6
157.5°	1195.3	1193.3	1193.3	1196.3	1193.3
160°	1221.9	1220.8	1219.8	1222.9	1217.8
162.5°	1246.4	1243.3	1242.3	1248.4	1243.3
165°	1267.8	1264.8	1262.7	1268.9	1264.8
167.5°	1285.2	1281.1	1281.1	1287.2	1281.1
170°	1299.5	1294.4	1295.4	1301.5	1294.4
172.5°	1309.7	1305.6	1305.6	1312.8	1305.6
175°	1318.9	1313.8	1312.8	1319.9	1312.8
177.5°	1323.0	1317.9	1317.9	1325.0	1316.9
180°	1321.0	1321.0	1321.0	1321.0	1321.0

(END OF REPORT)