

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: P1033405

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

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033405
REPORT IS A COMBINATION OF REPORTS P997333 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-F
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

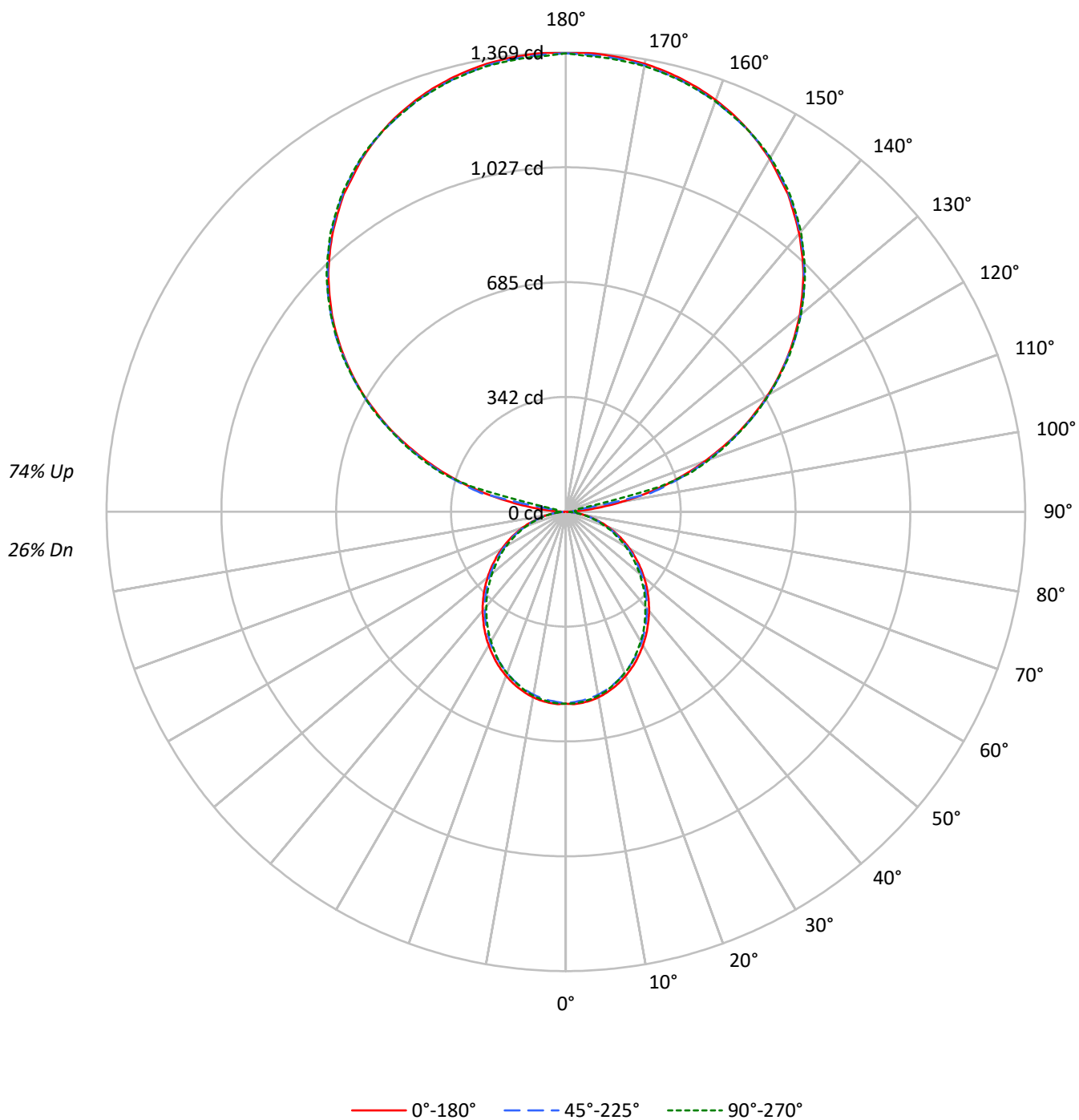
Lumens per Lamp: N/A
Luminaire Lumens: 5698.0 lumens
Efficiency: N/A
Efficacy: 128.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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

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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	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°	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

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	0.9
10°-20°	151.9	2.7
20°-30°	223.5	3.9
30°-40°	259.8	4.6
40°-50°	259.8	4.6
50°-60°	227.2	4.0
60°-70°	168.7	3.0
70°-80°	95.7	1.7
80°-90°	30.2	0.5
90°-100°	45.4	0.8
100°-110°	298.6	5.2
110°-120°	570.3	10.0
120°-130°	723.9	12.7
130°-140°	774.4	13.6
140°-150°	724.2	12.7
150°-160°	584.0	10.2
160°-170°	376.6	6.6
170°-180°	129.8	2.3
0°-30°	429.3	7.5
0°-40°	689.1	12.1
0°-60°	1176.2	20.6
0°-90°	1470.8	25.8
90°-120°	914.3	16.0
90°-150°	3136.8	55.1
90°-180°	4227.0	74.2
0°-180°	5698.0	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	5
95°	56	22	22	29	30	69
105°	308	314	319	328	291	322
115°	574	577	576	578	578	565
125°	807	811	809	812	813	721
135°	1001	1000	1004	1006	1008	772
145°	1155	1158	1158	1159	1161	721
155°	1266	1267	1264	1268	1265	584
165°	1335	1330	1330	1338	1329	377
175°	1366	1360	1361	1370	1358	130
180°	1366	1366	1366	1366	1366	

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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	30.7
92.5°	15.3	13.3	21.5	27.6	27.6
95°	56.2	21.5	22.5	28.6	29.6
97.5°	107.3	129.8	22.5	27.6	28.6
100°	167.6	186.0	45.0	27.6	28.6
102.5°	235.0	247.3	259.5	29.6	29.6
105°	307.6	313.7	318.8	328.0	291.2
107.5°	374.0	377.0	384.2	389.3	393.4
110°	441.4	444.5	450.6	452.6	455.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	506.8	512.9	515.0	513.9	518.0
115°	574.2	577.3	576.3	578.3	578.3
117.5°	634.5	638.6	641.7	640.6	640.6
120°	695.8	699.9	698.9	700.9	698.9
122.5°	753.0	755.1	757.1	758.1	756.1
125°	807.2	811.3	809.2	812.3	813.3
127.5°	859.3	860.3	865.4	864.4	863.4
130°	909.4	910.4	913.5	914.5	914.5
132.5°	955.3	957.4	961.5	962.5	961.5
135°	1001.3	1000.3	1004.4	1006.4	1008.5
137.5°	1042.2	1042.2	1047.3	1049.3	1048.3
140°	1082.0	1084.1	1086.1	1089.2	1090.2
142.5°	1117.8	1121.9	1122.9	1125.0	1125.0
145°	1154.6	1157.7	1157.7	1158.7	1160.7
147.5°	1183.2	1189.3	1188.3	1189.3	1190.4
150°	1214.9	1219.0	1217.9	1217.9	1219.0
152.5°	1241.4	1244.5	1242.5	1244.5	1243.5
155°	1266.0	1267.0	1263.9	1268.0	1264.9
157.5°	1287.4	1287.4	1283.3	1288.4	1283.3
160°	1305.8	1302.7	1301.7	1307.9	1301.7
162.5°	1322.2	1318.1	1317.1	1323.2	1316.0
165°	1335.4	1330.3	1330.3	1338.5	1329.3
167.5°	1346.7	1341.6	1340.6	1349.7	1339.5
170°	1355.9	1349.7	1350.8	1358.9	1348.7
172.5°	1362.0	1355.9	1356.9	1365.1	1353.8
175°	1366.1	1360.0	1361.0	1370.2	1357.9
177.5°	1369.2	1362.0	1364.1	1372.2	1360.0
180°	1366.1	1366.1	1366.1	1366.1	1366.1

(END OF REPORT)