

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: P1033109

Luminaire Tested: S124DIW-B1020D1050UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033109
REPORT IS A COMBINATION OF REPORTS P996670 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1050UB40-4F0-XX-W2A-D
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

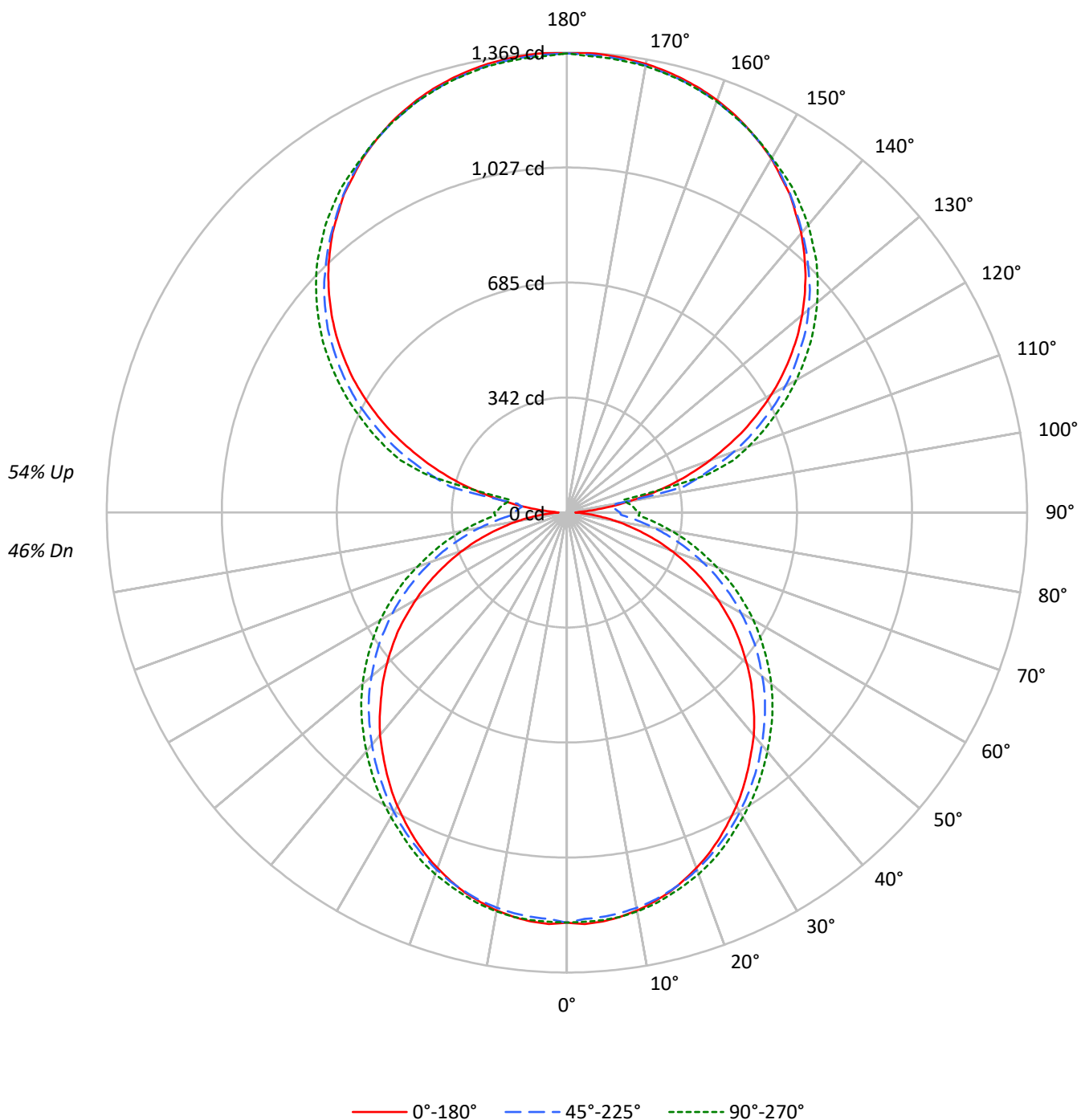
Lumens per Lamp: N/A
Luminaire Lumens: 8391.0 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 78.3
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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52
1	96	91	87	83	88	84	80	77	70	67	65	57	55	53	45	44	42
2	87	79	73	67	79	73	67	62	60	56	53	49	46	44	39	37	35
3	79	69	62	55	72	64	57	52	53	48	44	43	40	36	34	31	29
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25
5	66	54	46	40	60	50	42	37	42	36	32	34	30	27	27	24	22
6	61	48	40	34	55	45	37	32	37	32	27	31	26	23	25	21	19
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	22	19	17
8	52	40	32	26	48	37	29	25	31	25	21	25	21	18	20	17	15
9	48	36	28	23	44	33	26	22	28	23	19	23	19	16	19	16	13
10	45	33	26	21	41	31	24	20	26	21	17	22	17	15	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9952	9952	9952
5°	9979	9692	9710
10°	9915	9502	9475
15°	9822	9287	9209
20°	9684	9055	8951
25°	9530	8800	8673
30°	9362	8546	8390
35°	9172	8286	8137
40°	9020	8037	7876
45°	8795	7804	7644
50°	8604	7539	7400
55°	8405	7283	7120
60°	8097	6965	6856
65°	7759	6622	6538
70°	7349	6230	6169
75°	6775	5792	5820
80°	6128	5350	5453
85°	5268	4902	5156

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8795 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.6	1.4
10°-20°	331.3	3.9
20°-30°	501.0	6.0
30°-40°	606.1	7.2
40°-50°	640.7	7.6
50°-60°	603.0	7.2
60°-70°	500.4	6.0
70°-80°	351.1	4.2
80°-90°	200.8	2.4
90°-100°	163.2	1.9
100°-110°	385.9	4.6
110°-120°	628.8	7.5
120°-130°	756.9	9.0
130°-140°	788.7	9.4
140°-150°	727.0	8.7
150°-160°	584.0	7.0
160°-170°	376.6	4.5
170°-180°	129.8	1.5
0°-30°	947.9	11.3
0°-40°	1554.0	18.5
0°-60°	2797.7	33.3
0°-90°	3850.0	45.9
90°-120°	1178.0	14.0
90°-150°	3450.5	41.1
90°-180°	4541.0	54.1
0°-180°	8391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1220	1220	1220	1220	1220	
5°	1222	1218	1208	1219	1218	116
15°	1171	1173	1168	1181	1179	330
25°	1072	1080	1084	1099	1100	494
35°	938	954	968	987	991	587
45°	782	808	834	857	864	604
55°	612	641	682	709	718	546
65°	424	467	514	548	559	420
75°	235	286	343	381	394	250
85°	72	130	191	232	246	75
90°	25	91	158	204	217	18
95°	74	84	141	184	198	83
105°	320	353	409	452	426	336
115°	582	598	640	673	682	574
125°	813	815	848	876	886	726
135°	1004	1003	1017	1041	1051	774
145°	1156	1158	1158	1167	1174	722
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°	1220.4	1220.4	1220.4	1220.4	1220.4
2.5°	1225.9	1221.8	1210.9	1220.4	1219.1
5°	1221.8	1217.7	1208.1	1219.1	1217.7
7.5°	1213.6	1210.9	1202.7	1215.0	1213.6
10°	1202.7	1201.3	1194.5	1206.8	1205.4
12.5°	1187.6	1187.6	1183.5	1194.5	1194.5
15°	1171.2	1172.6	1168.5	1180.8	1179.4
17.5°	1149.4	1153.5	1152.1	1164.4	1163.0
20°	1126.1	1130.2	1131.6	1145.3	1145.3
22.5°	1100.2	1105.6	1108.4	1122.0	1124.8
25°	1071.5	1079.7	1083.8	1098.8	1100.2
27.5°	1040.0	1052.3	1057.8	1071.5	1072.8
30°	1008.6	1019.5	1029.1	1044.1	1046.9
32.5°	974.4	988.1	999.0	1016.8	1019.5
35°	937.5	953.9	967.6	986.7	990.8
37.5°	900.6	919.8	936.2	955.3	959.4
40°	865.1	882.9	902.0	922.5	928.0
42.5°	824.1	844.6	867.8	891.1	895.2
45°	781.7	807.7	833.7	856.9	863.7
47.5°	742.1	768.1	798.1	821.4	829.6
50°	698.4	728.4	758.5	785.8	794.0
52.5°	654.6	684.7	720.2	747.6	755.8
55°	612.3	641.0	682.0	709.3	717.5
57.5°	564.4	600.0	639.6	672.4	679.2
60°	518.0	553.5	598.6	630.0	641.0
62.5°	472.9	512.5	557.6	589.0	600.0
65°	423.7	467.4	513.9	548.0	559.0
67.5°	377.2	423.7	472.9	507.0	518.0
70°	329.4	375.8	427.8	464.7	474.2
72.5°	282.9	330.7	386.8	422.3	433.2
75°	235.1	285.6	343.0	381.3	393.6
77.5°	190.0	243.3	303.4	341.7	355.3
80°	149.0	203.6	263.8	304.8	315.7
82.5°	108.0	165.4	225.5	267.9	280.2
85°	72.4	129.8	191.3	232.3	246.0
87.5°	45.1	101.1	161.3	200.9	213.2
90°	25.0	90.8	157.8	203.5	216.6
92.5°	35.8	81.6	148.6	193.0	203.9
95°	74.0	84.4	141.4	184.4	197.7
97.5°	123.7	185.8	134.6	175.2	188.5
100°	182.6	236.6	148.9	168.4	178.9
102.5°	250.0	292.4	356.5	162.2	173.1
105°	319.9	353.3	409.0	452.4	426.5
107.5°	386.3	412.5	467.6	506.8	520.5
110°	452.3	474.6	528.5	561.9	576.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	516.4	538.9	586.1	615.0	630.1
115°	582.4	597.8	640.5	672.6	682.2
117.5°	642.7	655.0	699.1	726.7	737.6
120°	702.6	710.8	749.5	778.8	787.7
122.5°	759.8	761.9	800.8	829.2	836.7
125°	812.7	815.4	847.5	876.5	885.7
127.5°	864.8	864.4	896.8	920.4	929.0
130°	913.5	913.1	938.1	963.7	971.9
132.5°	959.4	960.1	980.6	1004.9	1012.1
135°	1004.0	1003.0	1016.7	1040.6	1050.9
137.5°	1044.9	1043.6	1054.1	1076.6	1082.5
140°	1084.7	1085.5	1088.8	1109.7	1117.5
142.5°	1119.2	1123.3	1122.9	1140.0	1145.5
145°	1156.0	1157.7	1157.7	1166.9	1174.4
147.5°	1184.6	1189.3	1188.3	1190.7	1197.2
150°	1216.3	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)