

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: P1033115

Luminaire Tested: S124DIW-B1020D1050UB50-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033115
REPORT IS A COMBINATION OF REPORTS P996679 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1050UB50-4F0-XX-W2A-D
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

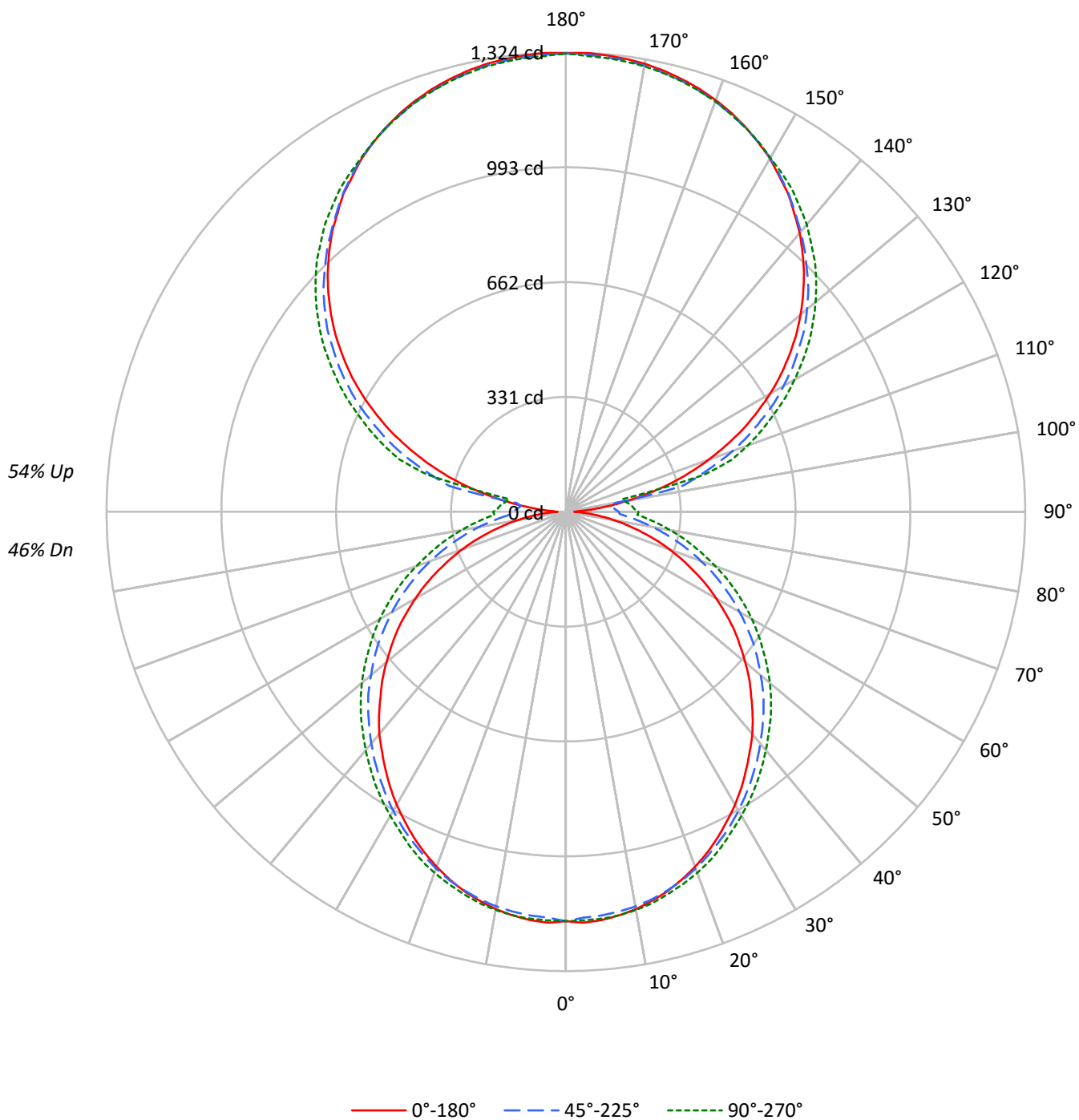
Lumens per Lamp: N/A
Luminaire Lumens: 8113.0 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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°	9622	9622	9622
5°	9649	9371	9388
10°	9586	9187	9160
15°	9496	8980	8904
20°	9363	8755	8654
25°	9213	8507	8386
30°	9052	8262	8112
35°	8868	8012	7867
40°	8720	7771	7614
45°	8503	7545	7391
50°	8318	7289	7155
55°	8126	7042	6883
60°	7829	6734	6628
65°	7501	6402	6320
70°	7103	6023	5965
75°	6550	5602	5627
80°	5923	5172	5272
85°	5094	4741	4985

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8503 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	1.4
10°-20°	320.3	3.9
20°-30°	484.4	6.0
30°-40°	586.0	7.2
40°-50°	619.5	7.6
50°-60°	583.0	7.2
60°-70°	483.8	6.0
70°-80°	339.5	4.2
80°-90°	194.1	2.4
90°-100°	157.8	1.9
100°-110°	373.1	4.6
110°-120°	608.0	7.5
120°-130°	731.9	9.0
130°-140°	762.6	9.4
140°-150°	702.9	8.7
150°-160°	564.7	7.0
160°-170°	364.2	4.5
170°-180°	125.5	1.5
0°-30°	916.5	11.3
0°-40°	1502.5	18.5
0°-60°	2705.0	33.3
0°-90°	3722.4	45.9
90°-120°	1138.9	14.0
90°-150°	3336.3	41.1
90°-180°	4391.0	54.1
0°-180°	8113.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1181	1177	1168	1179	1177	112
15°	1132	1134	1130	1142	1140	319
25°	1036	1044	1048	1062	1064	477
35°	906	922	936	954	958	568
45°	756	781	806	828	835	584
55°	592	620	659	686	694	528
65°	410	452	497	530	540	406
75°	227	276	332	369	381	241
85°	70	126	185	225	238	73
90°	24	88	152	197	209	17
95°	72	82	137	178	191	81
105°	309	342	395	437	412	325
115°	563	578	619	650	660	555
125°	786	788	820	848	856	702
135°	971	970	983	1006	1016	748
145°	1118	1119	1119	1128	1136	698
155°	1224	1225	1222	1226	1223	565
165°	1291	1286	1286	1294	1285	365
175°	1321	1315	1316	1325	1313	126
180°	1321	1321	1321	1321	1321	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.0	1180.0	1180.0	1180.0	1180.0
2.5°	1185.3	1181.3	1170.7	1180.0	1178.6
5°	1181.3	1177.3	1168.1	1178.6	1177.3
7.5°	1173.4	1170.7	1162.8	1174.7	1173.4
10°	1162.8	1161.5	1154.9	1166.8	1165.4
12.5°	1148.3	1148.3	1144.3	1154.9	1154.9
15°	1132.4	1133.7	1129.8	1141.7	1140.3
17.5°	1111.3	1115.2	1113.9	1125.8	1124.5
20°	1088.8	1092.8	1094.1	1107.3	1107.3
22.5°	1063.7	1069.0	1071.6	1084.8	1087.5
25°	1035.9	1043.9	1047.8	1062.4	1063.7
27.5°	1005.6	1017.4	1022.7	1035.9	1037.3
30°	975.2	985.7	995.0	1009.5	1012.2
32.5°	942.1	955.3	965.9	983.1	985.7
35°	906.4	922.3	935.5	954.0	958.0
37.5°	870.8	889.3	905.1	923.6	927.6
40°	836.4	853.6	872.1	891.9	897.2
42.5°	796.8	816.6	839.1	861.5	865.5
45°	755.8	780.9	806.0	828.5	835.1
47.5°	717.5	742.6	771.7	794.1	802.1
50°	675.2	704.3	733.4	759.8	767.7
52.5°	632.9	662.0	696.4	722.8	730.7
55°	592.0	619.7	659.4	685.8	693.7
57.5°	545.7	580.1	618.4	650.1	656.7
60°	500.8	535.1	578.8	609.1	619.7
62.5°	457.2	495.5	539.1	569.5	580.1
65°	409.6	451.9	496.8	529.9	540.4
67.5°	364.7	409.6	457.2	490.2	500.8
70°	318.4	363.4	413.6	449.3	458.5
72.5°	273.5	319.8	373.9	408.3	418.9
75°	227.3	276.2	331.7	368.7	380.6
77.5°	183.7	235.2	293.3	330.3	343.6
80°	144.0	196.9	255.0	294.7	305.2
82.5°	104.4	159.9	218.0	259.0	270.9
85°	70.0	125.5	185.0	224.6	237.8
87.5°	43.6	97.8	155.9	194.2	206.1
90°	24.1	87.8	152.5	196.8	209.3
92.5°	34.6	78.9	143.6	186.6	197.2
95°	71.5	81.5	136.7	178.3	191.2
97.5°	119.6	179.7	130.1	169.4	182.3
100°	176.5	228.7	143.9	162.8	173.0
102.5°	241.7	282.7	344.7	156.9	167.4
105°	309.3	341.6	395.4	437.3	412.4
107.5°	373.5	399.0	452.1	490.0	503.3
110°	437.4	458.9	511.0	543.4	556.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	499.2	521.0	566.6	594.7	609.3
115°	563.1	578.0	619.3	650.4	659.6
117.5°	621.4	633.4	675.9	702.6	713.2
120°	679.4	687.3	724.7	753.0	761.7
122.5°	734.7	736.7	774.4	801.8	809.1
125°	785.8	788.4	819.5	847.5	856.4
127.5°	836.2	835.8	867.2	890.0	898.2
130°	883.3	882.9	907.0	931.8	939.7
132.5°	927.7	928.3	948.2	971.6	978.6
135°	970.8	969.8	983.0	1006.1	1016.1
137.5°	1010.3	1009.0	1019.2	1041.0	1046.6
140°	1048.8	1049.5	1052.8	1072.9	1080.5
142.5°	1082.1	1086.1	1085.8	1102.2	1107.5
145°	1117.7	1119.3	1119.3	1128.2	1135.5
147.5°	1145.3	1150.0	1149.0	1151.3	1157.6
150°	1176.0	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)