

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: P1033173

Luminaire Tested: S124DIW-B1020D1560UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033173
REPORT IS A COMBINATION OF REPORTS P996812 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1560UB50-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

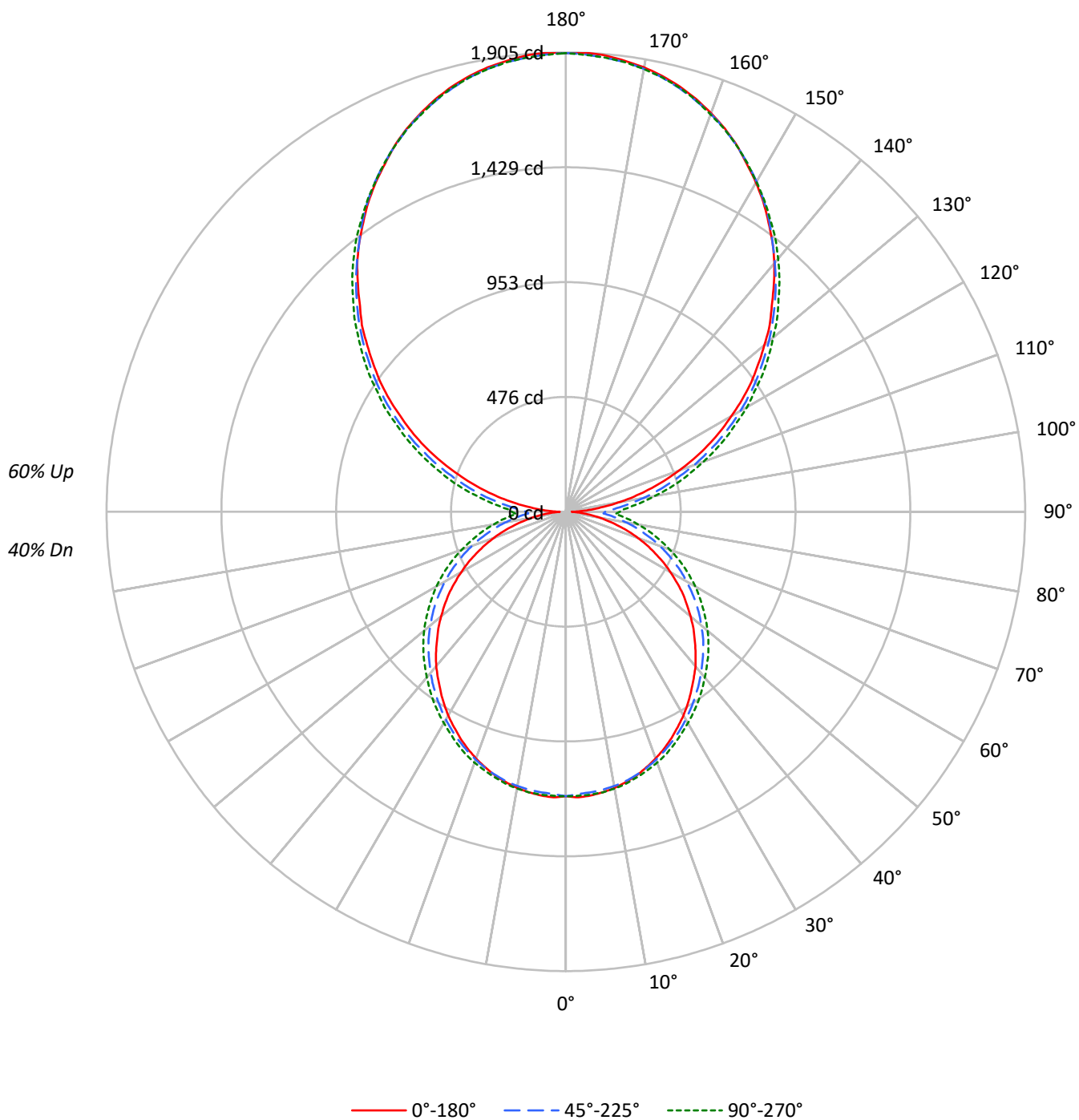
Lumens per Lamp: N/A
Luminaire Lumens: 9305.0 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 99
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: P1033173

CATALOG NUMBER: S124DIW-B1020D1560UB50-4F0-XX-W2A-D1

Luminous Intensity Polar Plot



TEST NUMBER: P1033173

CATALOG NUMBER: S124DIW-B1020D1560UB50-4F0-XX-W2A-D1

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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47
1	95	90	86	82	86	82	79	75	67	64	62	53	51	50	40	39	38
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	31
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	31	28	26
4	71	60	52	46	64	55	48	43	45	40	36	36	32	29	27	25	22
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	24	22	19
6	60	48	40	34	54	44	37	31	36	31	26	29	25	22	22	19	17
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12
10	44	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11

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

TEST NUMBER: P1033173

CATALOG NUMBER: S124DIW-B1020D1560UB50-4F0-XX-W2A-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	1.2
10°-20°	320.3	3.4
20°-30°	484.4	5.2
30°-40°	586.0	6.3
40°-50°	619.5	6.7
50°-60°	583.0	6.3
60°-70°	483.8	5.2
70°-80°	339.5	3.6
80°-90°	195.4	2.1
90°-100°	237.9	2.6
100°-110°	455.8	4.9
110°-120°	687.5	7.4
120°-130°	864.0	9.3
130°-140°	948.3	10.2
140°-150°	921.2	9.9
150°-160°	772.5	8.3
160°-170°	514.0	5.5
170°-180°	180.0	1.9
0°-30°	916.5	9.8
0°-40°	1502.5	16.1
0°-60°	2705.0	29.1
0°-90°	3723.7	40.0
90°-120°	1381.2	14.8
90°-150°	4114.7	44.2
90°-180°	5581.0	60.0
0°-180°	9305.0	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°	26	95	163	210	224	21
95°	106	162	227	267	279	109
105°	355	383	437	475	490	377
115°	649	661	701	728	736	641
125°	940	938	970	992	997	838
135°	1208	1216	1226	1244	1247	935
145°	1465	1470	1471	1478	1478	917
155°	1677	1677	1676	1682	1676	772
165°	1826	1821	1818	1827	1821	515
175°	1899	1892	1890	1901	1890	180
180°	1902	1902	1902	1902	1902	

TEST NUMBER: P1033173

CATALOG NUMBER: S124DIW-B1020D1560UB50-4F0-XX-W2A-D1

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°	25.5	94.6	163.2	210.3	223.8
92.5°	58.1	123.5	187.6	229.0	241.1
95°	105.5	162.3	226.8	266.8	278.7
97.5°	157.1	207.2	273.2	313.4	325.3
100°	220.5	260.7	325.5	364.1	373.3
102.5°	288.1	318.7	380.7	419.5	431.5
105°	354.7	382.6	437.3	474.7	489.8
107.5°	426.8	450.7	498.4	537.3	545.1
110°	499.0	520.5	565.2	592.7	607.7

TEST NUMBER: P1033173

CATALOG NUMBER: S124DIW-B1020D1560UB50-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	574.1	590.0	630.7	659.8	670.4
115°	649.3	661.2	700.6	728.2	735.9
117.5°	721.4	729.4	767.5	790.8	797.0
120°	792.2	802.1	836.0	855.0	868.6
122.5°	867.2	868.7	902.9	924.9	926.9
125°	939.5	938.2	969.7	991.9	996.8
127.5°	1005.7	1008.8	1032.3	1053.1	1060.8
130°	1075.0	1078.0	1099.2	1120.1	1122.1
132.5°	1147.1	1148.6	1163.1	1182.6	1189.0
135°	1207.5	1216.3	1225.6	1243.8	1247.4
137.5°	1276.6	1279.7	1288.0	1303.4	1311.4
140°	1345.8	1347.4	1348.7	1364.4	1369.6
142.5°	1407.7	1410.7	1407.9	1422.4	1427.7
145°	1465.1	1469.7	1471.2	1477.6	1478.5
147.5°	1524.0	1530.0	1528.5	1528.4	1532.2
150°	1576.9	1581.5	1581.5	1581.5	1580.0
152.5°	1625.6	1628.6	1630.0	1634.5	1630.0
155°	1677.1	1677.1	1675.7	1681.5	1675.7
157.5°	1721.3	1718.3	1718.3	1722.7	1718.3
160°	1759.5	1758.0	1756.6	1761.0	1753.6
162.5°	1794.8	1790.4	1788.9	1797.8	1790.4
165°	1825.7	1821.3	1818.4	1827.2	1821.3
167.5°	1850.7	1844.8	1844.8	1853.7	1844.8
170°	1871.3	1864.0	1865.4	1874.3	1864.0
172.5°	1886.0	1880.1	1880.1	1890.4	1880.1
175°	1899.3	1891.9	1890.4	1900.7	1890.4
177.5°	1905.2	1897.8	1897.8	1908.1	1896.3
180°	1902.2	1902.2	1902.2	1902.2	1902.2

(END OF REPORT)