

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: P1033172

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

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033172
REPORT IS A COMBINATION OF REPORTS P996811 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-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

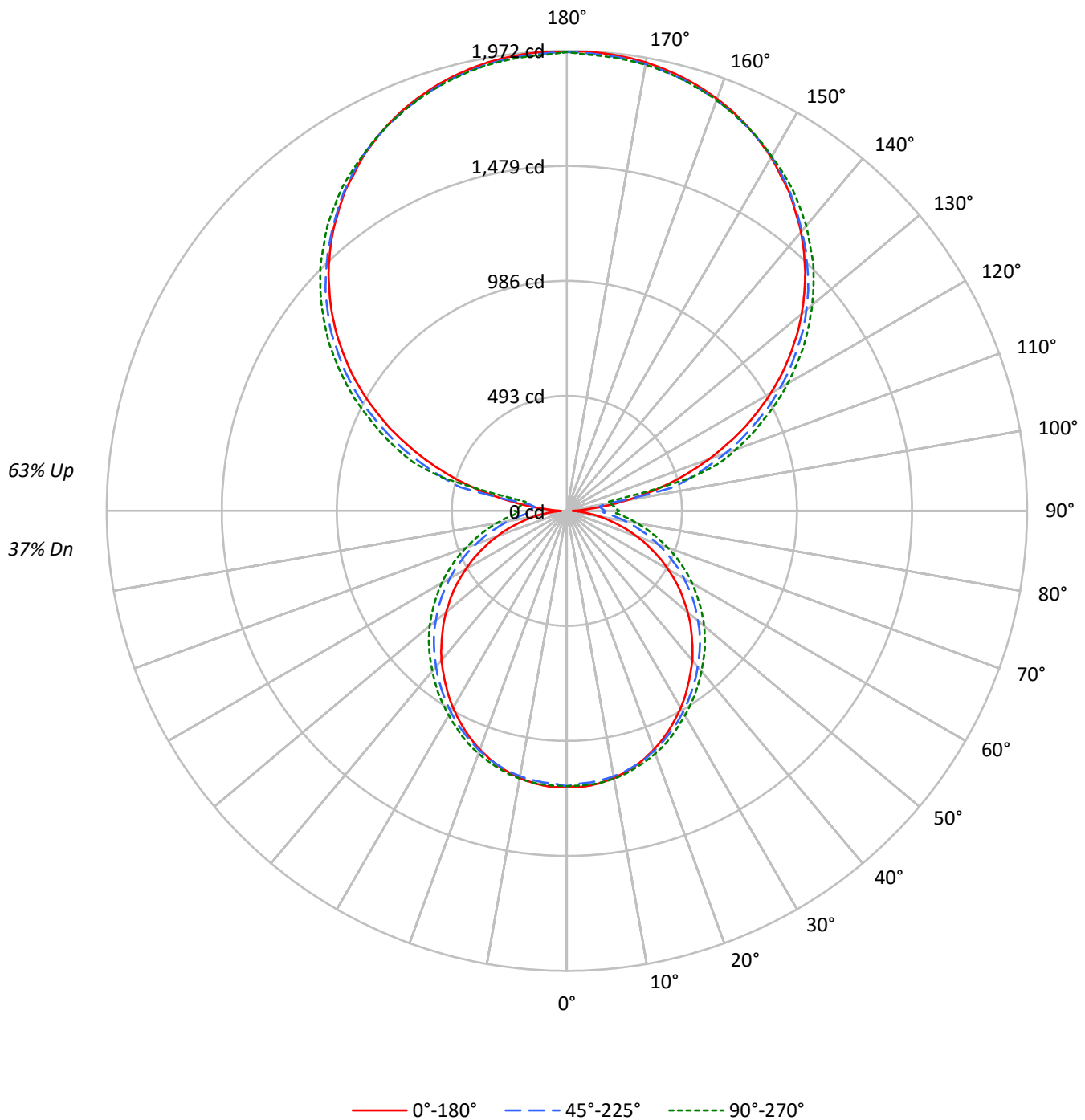
Lumens per Lamp: N/A
Luminaire Lumens: 10114.0 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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: P1033172

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

Luminous Intensity Polar Plot



TEST NUMBER: P1033172

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

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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44
1	94	90	85	82	85	81	78	75	65	63	61	51	49	48	38	37	36
2	85	78	71	66	77	70	65	60	57	53	50	44	42	39	33	31	29
3	78	68	61	55	70	62	55	50	50	45	41	39	36	33	29	27	25
4	71	60	52	46	64	54	48	42	44	39	35	34	31	28	25	23	21
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18
6	60	48	39	34	54	43	36	31	35	30	26	28	24	21	21	18	16
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14
8	51	39	31	26	46	35	28	24	29	24	20	23	19	16	17	14	12
9	47	35	28	23	43	32	26	21	26	21	18	21	17	14	16	13	11
10	44	32	25	20	40	29	23	19	24	19	16	19	16	13	15	12	10

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: P1033172

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	1.1
10°-20°	320.3	3.2
20°-30°	484.4	4.8
30°-40°	586.0	5.8
40°-50°	619.5	6.1
50°-60°	583.0	5.8
60°-70°	483.8	4.8
70°-80°	339.5	3.4
80°-90°	195.4	1.9
90°-100°	179.3	1.8
100°-110°	514.4	5.1
110°-120°	877.8	8.7
120°-130°	1074.3	10.6
130°-140°	1129.0	11.2
140°-150°	1045.5	10.3
150°-160°	840.9	8.3
160°-170°	542.3	5.4
170°-180°	186.9	1.8
0°-30°	916.5	9.1
0°-40°	1502.5	14.9
0°-60°	2705.0	26.7
0°-90°	3723.7	36.8
90°-120°	1571.4	15.5
90°-150°	4820.2	47.7
90°-180°	6390.0	63.2
0°-180°	10114.0	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	19
95°	98	92	147	192	205	113
105°	455	490	546	592	550	477
115°	835	851	892	924	933	822
125°	1168	1172	1202	1232	1241	1043
135°	1444	1443	1458	1482	1493	1113
145°	1664	1667	1667	1676	1685	1040
155°	1823	1824	1820	1826	1822	841
165°	1923	1916	1916	1927	1914	543
175°	1967	1958	1960	1973	1955	187
180°	1967	1967	1967	1967	1967	

TEST NUMBER: P1033172

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

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°	41.9	85.2	153.8	199.6	210.2
95°	98.1	91.7	147.4	191.8	205.2
97.5°	170.4	241.1	140.8	182.4	195.8
100°	255.8	316.7	165.1	175.8	186.5
102.5°	352.9	399.7	467.5	170.9	181.4
105°	454.8	490.0	546.2	592.5	550.1
107.5°	550.4	577.3	633.8	674.2	689.3
110°	646.2	669.1	724.1	757.5	772.5

TEST NUMBER: P1033172

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	739.0	763.7	810.2	837.9	854.3
115°	834.8	851.1	891.9	923.9	933.1
117.5°	921.6	935.5	979.5	1005.7	1016.3
120°	1008.5	1018.4	1055.3	1084.6	1092.3
122.5°	1090.9	1093.9	1132.5	1160.4	1166.8
125°	1167.6	1172.2	1202.3	1231.8	1241.1
127.5°	1242.7	1242.8	1276.6	1298.9	1306.6
130°	1313.4	1313.5	1339.1	1364.4	1372.3
132.5°	1379.7	1381.2	1403.0	1427.0	1433.4
135°	1444.5	1443.0	1458.2	1482.2	1493.2
137.5°	1503.3	1502.0	1514.7	1537.4	1542.5
140°	1560.7	1562.3	1566.6	1588.2	1596.3
142.5°	1610.9	1616.8	1616.9	1634.4	1639.7
145°	1663.9	1667.0	1667.0	1676.3	1684.6
147.5°	1705.1	1712.6	1711.1	1713.9	1720.7
150°	1750.7	1755.2	1753.8	1753.8	1755.2
152.5°	1787.6	1792.0	1789.1	1792.0	1790.6
155°	1822.9	1824.4	1820.0	1825.9	1821.5
157.5°	1853.8	1853.8	1847.9	1855.3	1847.9
160°	1880.3	1875.9	1874.4	1883.2	1874.4
162.5°	1903.8	1898.0	1896.5	1905.3	1895.0
165°	1923.0	1915.6	1915.6	1927.4	1914.1
167.5°	1939.2	1931.8	1930.3	1943.6	1928.9
170°	1952.4	1943.6	1945.0	1956.8	1942.1
172.5°	1961.2	1952.4	1953.9	1965.6	1949.5
175°	1967.1	1958.3	1959.8	1973.0	1955.3
177.5°	1971.5	1961.2	1964.2	1975.9	1958.3
180°	1967.1	1967.1	1967.1	1967.1	1967.1

(END OF REPORT)