

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: P1033117

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

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033117
REPORT IS A COMBINATION OF REPORTS P996682 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-F
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

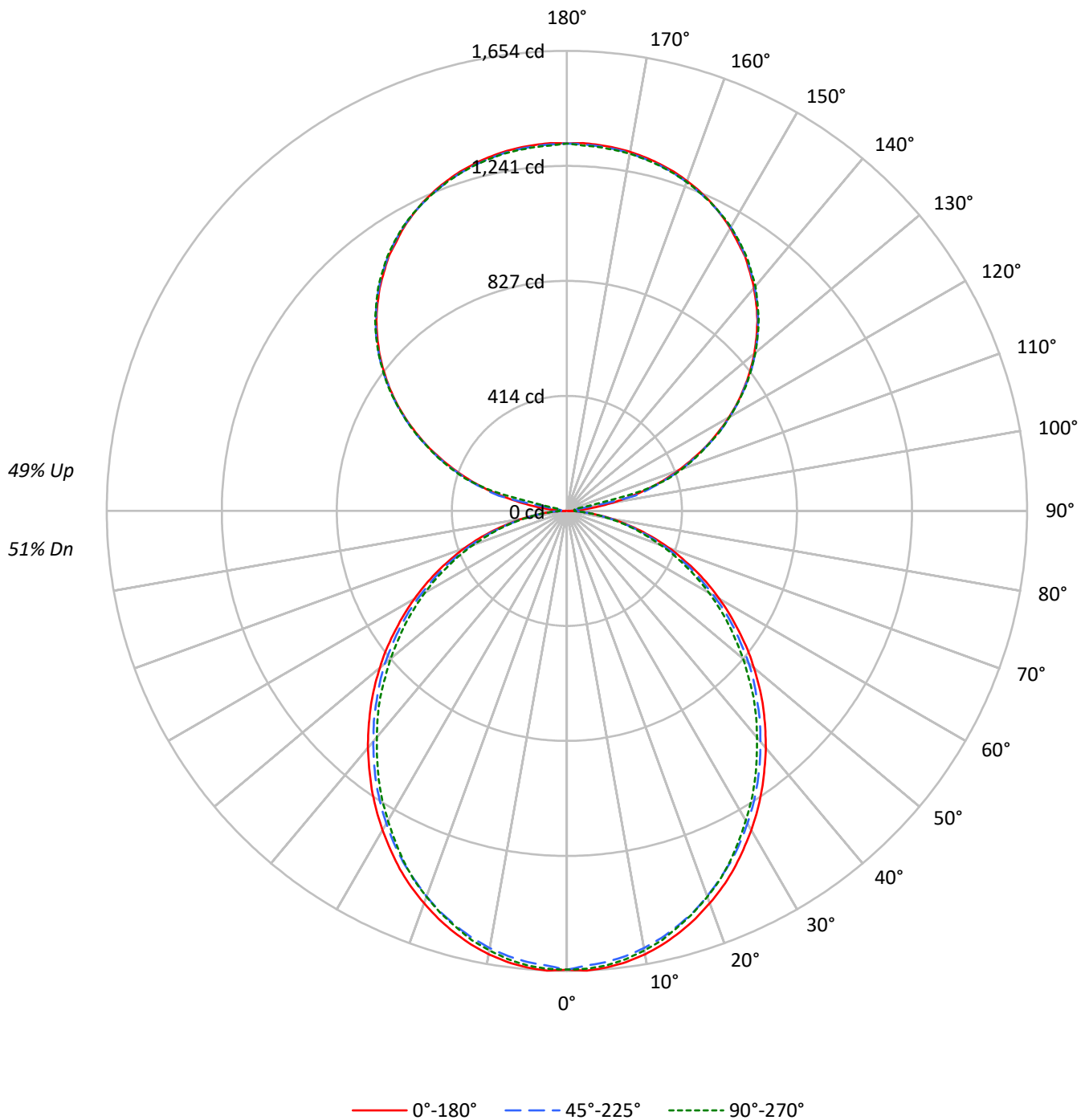
Lumens per Lamp: N/A
Luminaire Lumens: 8323.0 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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

TEST NUMBER: P1033117

CATALOG NUMBER: S124DIW-B1020D1050UB50-4F0-XX-W2A-F

Luminous Intensity Polar Plot



TEST NUMBER: P1033117

CATALOG NUMBER: S124DIW-B1020D1050UB50-4F0-XX-W2A-F

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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57
1	98	94	90	86	90	87	83	80	73	71	69	61	60	58	50	49	48
2	89	82	76	70	82	76	70	66	64	60	57	54	51	48	44	42	40
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	39	37	34
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	35	32	30
5	68	57	48	42	63	53	45	40	45	39	35	38	34	30	32	28	26
6	63	51	43	37	58	47	40	35	41	35	31	34	30	27	29	25	23
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18
9	50	38	31	25	46	36	29	24	31	25	22	26	22	19	22	19	16
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	21	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13448	13448	13448
5°	13460	13062	13078
10°	13345	12698	12610
15°	13154	12268	12082
20°	12910	11802	11537
25°	12635	11309	10949
30°	12302	10776	10304
35°	11959	10230	9681
40°	11601	9644	9017
45°	11225	9055	8397
50°	10810	8485	7710
55°	10358	7818	7028
60°	9895	7088	6318
65°	9365	6335	5518
70°	8757	5427	4659
75°	7844	4374	3732
80°	6683	3162	2626
85°	5196	1760	1413

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11225 cd/sqm

TEST NUMBER: P1033117

CATALOG NUMBER: S124DIW-B1020D1050UB50-4F0-XX-W2A-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.4	1.9
10°-20°	437.9	5.3
20°-30°	644.5	7.7
30°-40°	749.2	9.0
40°-50°	749.1	9.0
50°-60°	655.2	7.9
60°-70°	486.5	5.8
70°-80°	276.0	3.3
80°-90°	81.8	1.0
90°-100°	43.8	0.5
100°-110°	288.8	3.5
110°-120°	551.4	6.6
120°-130°	700.0	8.4
130°-140°	748.8	9.0
140°-150°	700.2	8.4
150°-160°	564.7	6.8
160°-170°	364.2	4.4
170°-180°	125.5	1.5
0°-30°	1237.9	14.9
0°-40°	1987.1	23.9
0°-60°	3391.5	40.7
0°-90°	4235.7	50.9
90°-120°	884.0	10.6
90°-150°	3033.0	36.4
90°-180°	4087.0	49.1
0°-180°	8323.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1649	1649	1649	1649	1649	
5°	1648	1643	1628	1643	1640	156
15°	1569	1563	1544	1551	1547	442
25°	1421	1411	1393	1394	1389	654
35°	1222	1213	1195	1185	1179	764
45°	998	988	967	953	949	769
55°	755	751	732	716	708	676
65°	511	505	492	478	472	506
75°	272	266	259	254	252	289
85°	71	71	69	69	67	77
90°	3	14	22	28	30	8
95°	54	21	22	28	29	67
105°	297	303	308	317	282	311
115°	555	558	557	559	559	546
125°	780	784	782	785	786	697
135°	968	967	971	973	975	746
145°	1116	1119	1119	1120	1122	698
155°	1224	1225	1222	1226	1223	564
165°	1291	1286	1286	1294	1285	365
175°	1321	1315	1316	1325	1313	126
180°	1321	1321	1321	1321	1321	

TEST NUMBER: P1033117

CATALOG NUMBER: S124DIW-B1020D1050UB50-4F0-XX-W2A-F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1649.2	1649.2	1649.2	1649.2	1649.2
2.5°	1654.5	1650.5	1636.0	1649.2	1647.9
5°	1647.9	1642.6	1628.1	1642.6	1640.0
7.5°	1636.0	1630.7	1614.8	1626.7	1625.4
10°	1618.8	1613.5	1596.3	1606.9	1604.3
12.5°	1596.3	1591.1	1572.6	1584.5	1580.5
15°	1568.6	1563.3	1543.5	1551.4	1547.4
17.5°	1536.9	1530.3	1511.8	1517.1	1514.4
20°	1501.2	1494.6	1474.8	1478.7	1476.1
22.5°	1462.9	1453.6	1433.8	1441.7	1436.4
25°	1420.6	1411.3	1392.8	1394.2	1388.9
27.5°	1373.0	1363.8	1346.6	1343.9	1337.3
30°	1325.4	1314.9	1297.7	1292.4	1285.8
32.5°	1275.2	1266.0	1247.5	1240.9	1234.3
35°	1222.4	1213.1	1194.6	1185.4	1178.8
37.5°	1166.9	1158.9	1139.1	1129.9	1120.6
40°	1112.7	1102.1	1082.3	1069.1	1062.5
42.5°	1054.5	1049.3	1026.8	1010.9	1007.0
45°	997.7	988.5	967.3	952.8	948.8
47.5°	938.2	931.6	911.8	896.0	885.4
50°	877.5	872.2	853.7	835.2	827.2
52.5°	818.0	811.4	791.6	775.7	765.1
55°	754.6	750.6	732.1	716.2	708.3
57.5°	695.1	691.1	672.6	656.8	648.8
60°	633.0	626.4	609.2	597.3	590.7
62.5°	572.2	566.9	548.4	537.8	531.2
65°	511.4	504.8	491.6	478.4	471.8
67.5°	449.3	444.0	430.8	417.6	416.3
70°	392.5	383.2	372.7	362.1	358.1
72.5°	331.7	322.4	314.5	306.6	302.6
75°	272.2	265.6	259.0	253.7	252.4
77.5°	214.1	211.4	204.8	203.5	199.5
80°	162.5	158.6	155.9	153.3	152.0
82.5°	112.3	111.0	111.0	109.7	108.4
85°	71.4	71.4	68.7	68.7	67.4
87.5°	34.4	33.0	31.7	31.7	31.7
90°	3.0	13.8	21.7	27.7	29.6
92.5°	14.8	12.8	20.7	26.7	26.7
95°	54.3	20.7	21.7	27.7	28.7
97.5°	103.7	125.5	21.7	26.7	27.7
100°	162.0	179.8	43.5	26.7	27.7
102.5°	227.2	239.1	250.9	28.7	28.7
105°	297.4	303.3	308.2	317.1	281.6
107.5°	361.6	364.6	371.5	376.4	380.4
110°	426.8	429.8	435.7	437.7	440.6



TEST NUMBER: P1033117

CATALOG NUMBER: S124DIW-B1020D1050UB50-4F0-XX-W2A-F

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	490.0	495.9	497.9	496.9	500.9
115°	555.2	558.2	557.2	559.2	559.2
117.5°	613.5	617.5	620.4	619.4	619.4
120°	672.8	676.7	675.8	677.7	675.8
122.5°	728.1	730.1	732.1	733.1	731.1
125°	780.5	784.4	782.5	785.4	786.4
127.5°	830.9	831.8	836.8	835.8	834.8
130°	879.3	880.3	883.2	884.2	884.2
132.5°	923.7	925.7	929.7	930.6	929.7
135°	968.2	967.2	971.1	973.1	975.1
137.5°	1007.7	1007.7	1012.6	1014.6	1013.6
140°	1046.2	1048.2	1050.2	1053.1	1054.1
142.5°	1080.8	1084.8	1085.8	1087.7	1087.7
145°	1116.4	1119.3	1119.3	1120.3	1122.3
147.5°	1144.0	1150.0	1149.0	1150.0	1151.0
150°	1174.7	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)