

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: P1033100

Luminaire Tested: S124DIW-B1020D1050UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033100
REPORT IS A COMBINATION OF REPORTS P996656 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1050UB30-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

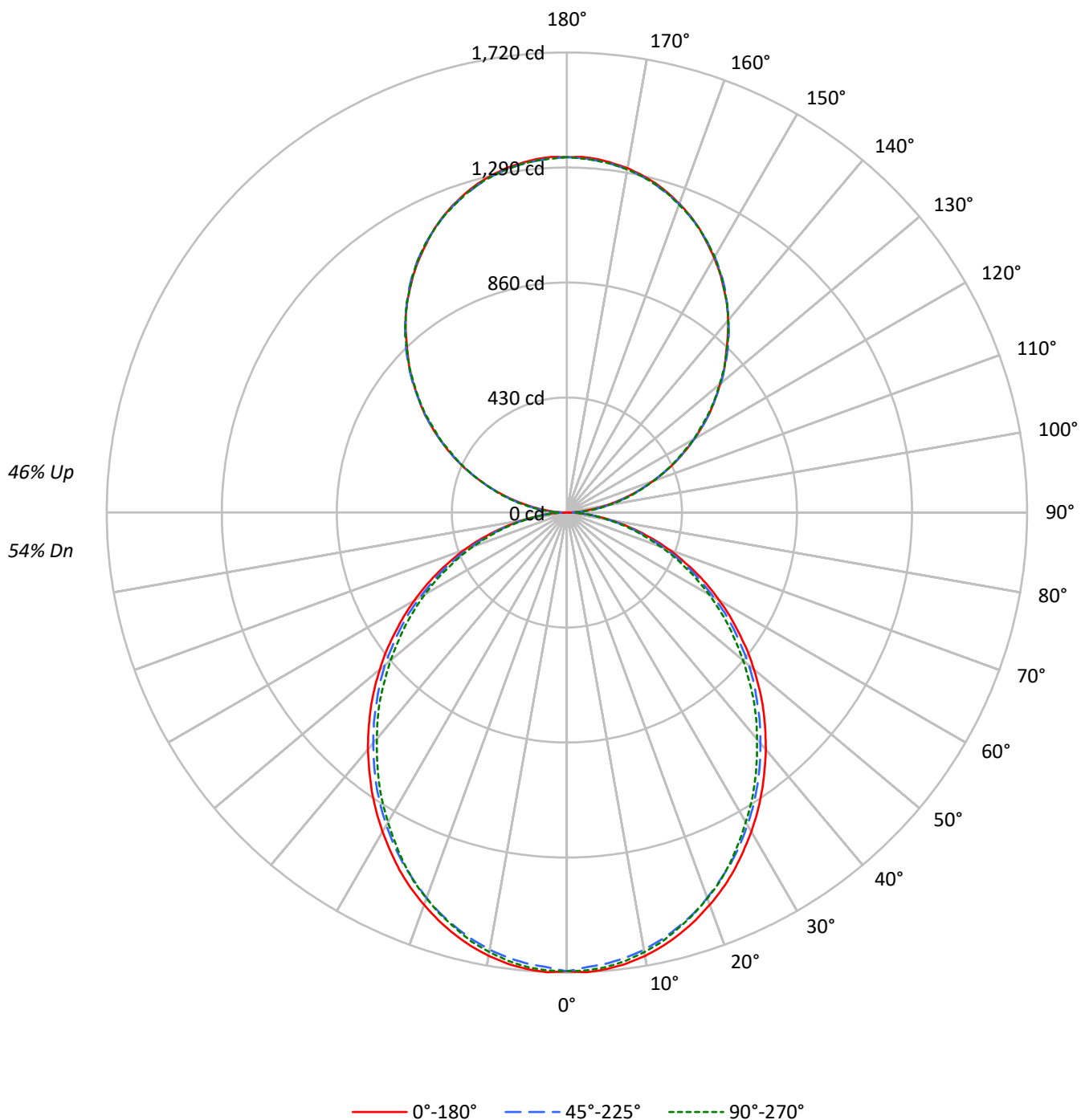
Lumens per Lamp: N/A
Luminaire Lumens: 8091.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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: P1033100

CATALOG NUMBER: S124DIW-B1020D1050UB30-4F0-XX-W2A-F1

Luminous Intensity Polar Plot



TEST NUMBER: P1033100

CATALOG NUMBER: S124DIW-B1020D1050UB30-4F0-XX-W2A-F1

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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60
1	99	94	90	87	91	88	84	81	75	73	70	64	62	60	53	52	51
2	90	82	76	71	83	77	71	67	66	62	58	56	53	50	47	45	43
3	82	72	65	59	76	67	61	56	58	53	49	49	46	43	41	39	36
4	75	64	56	50	69	60	53	47	52	46	42	44	40	36	37	34	31
5	69	57	49	43	64	53	46	41	46	40	36	40	35	32	33	30	27
6	63	51	43	37	59	48	41	35	42	36	31	36	31	28	30	27	24
7	59	46	38	33	54	43	36	31	38	32	28	33	28	25	28	24	21
8	55	42	34	29	51	39	32	28	35	29	25	30	25	22	25	22	19
9	51	38	31	26	47	36	29	25	32	26	22	27	23	20	23	20	17
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13985	13985	13985
5°	13997	13583	13599
10°	13878	13206	13113
15°	13679	12758	12565
20°	13425	12272	11997
25°	13139	11760	11386
30°	12794	11206	10715
35°	12437	10639	10067
40°	12064	10029	9377
45°	11673	9416	8733
50°	11241	8824	8018
55°	10771	8130	7309
60°	10291	7371	6570
65°	9739	6587	5738
70°	9105	5643	4845
75°	8158	4550	3881
80°	6951	3290	2729
85°	5399	1832	1469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11673 cd/sqm

TEST NUMBER: P1033100

CATALOG NUMBER: S124DIW-B1020D1050UB30-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.6	2.0
10°-20°	455.4	5.6
20°-30°	670.3	8.3
30°-40°	779.1	9.6
40°-50°	779.0	9.6
50°-60°	681.4	8.4
60°-70°	505.9	6.3
70°-80°	287.0	3.5
80°-90°	85.0	1.1
90°-100°	86.6	1.1
100°-110°	259.4	3.2
110°-120°	440.6	5.4
120°-130°	581.1	7.2
130°-140°	652.7	8.1
140°-150°	641.5	7.9
150°-160°	539.5	6.7
160°-170°	359.0	4.4
170°-180°	125.7	1.6
0°-30°	1287.3	15.9
0°-40°	2066.5	25.5
0°-60°	3526.9	43.6
0°-90°	4404.8	54.4
90°-120°	786.6	9.7
90°-150°	2661.9	32.9
90°-180°	3686.0	45.6
0°-180°	8091.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1715	1715	1715	1715	1715	
5°	1714	1708	1693	1708	1705	163
15°	1631	1626	1605	1613	1609	460
25°	1477	1468	1448	1450	1444	680
35°	1271	1262	1242	1233	1226	795
45°	1038	1028	1006	991	987	800
55°	785	781	761	745	737	703
65°	532	525	511	498	491	526
75°	283	276	269	264	262	300
85°	74	74	72	72	70	80
90°	3	14	23	29	31	9
95°	62	71	78	81	81	67
105°	239	240	244	248	251	254
115°	448	448	446	445	444	442
125°	652	652	651	649	647	582
135°	842	848	848	846	842	651
145°	1022	1026	1028	1026	1023	640
155°	1171	1171	1170	1174	1170	539
165°	1275	1272	1270	1276	1272	360
175°	1326	1321	1320	1328	1320	126
180°	1328	1328	1328	1328	1328	

TEST NUMBER: P1033100

CATALOG NUMBER: S124DIW-B1020D1050UB30-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1715.0	1715.0	1715.0	1715.0	1715.0
2.5°	1720.5	1716.4	1701.3	1715.0	1713.7
5°	1713.7	1708.2	1693.1	1708.2	1705.4
7.5°	1701.3	1695.8	1679.3	1691.7	1690.3
10°	1683.4	1677.9	1660.1	1671.1	1668.3
12.5°	1660.1	1654.6	1635.3	1647.7	1643.6
15°	1631.2	1625.7	1605.1	1613.4	1609.2
17.5°	1598.2	1591.4	1572.1	1577.6	1574.9
20°	1561.1	1554.3	1533.6	1537.8	1535.0
22.5°	1521.3	1511.7	1491.0	1499.3	1493.8
25°	1477.3	1467.7	1448.4	1449.8	1444.3
27.5°	1427.8	1418.2	1400.3	1397.6	1390.7
30°	1378.4	1367.4	1349.5	1344.0	1337.1
32.5°	1326.1	1316.5	1297.3	1290.4	1283.5
35°	1271.2	1261.5	1242.3	1232.7	1225.8
37.5°	1213.5	1205.2	1184.6	1175.0	1165.4
40°	1157.1	1146.1	1125.5	1111.8	1104.9
42.5°	1096.6	1091.1	1067.8	1051.3	1047.2
45°	1037.5	1027.9	1005.9	990.8	986.7
47.5°	975.7	968.8	948.2	931.7	920.7
50°	912.5	907.0	887.8	868.5	860.3
52.5°	850.7	843.8	823.2	806.7	795.7
55°	784.7	780.6	761.3	744.8	736.6
57.5°	722.8	718.7	699.5	683.0	674.7
60°	658.3	651.4	633.5	621.2	614.3
62.5°	595.0	589.5	570.3	559.3	552.4
65°	531.8	525.0	511.2	497.5	490.6
67.5°	467.2	461.7	448.0	434.3	432.9
70°	408.1	398.5	387.5	376.5	372.4
72.5°	344.9	335.3	327.1	318.8	314.7
75°	283.1	276.2	269.4	263.9	262.5
77.5°	222.6	219.9	213.0	211.6	207.5
80°	169.0	164.9	162.2	159.4	158.0
82.5°	116.8	115.4	115.4	114.1	112.7
85°	74.2	74.2	71.5	71.5	70.1
87.5°	35.7	34.4	33.0	33.0	33.0
90°	3.1	14.4	22.6	28.8	30.8
92.5°	26.7	40.1	45.2	48.3	49.3
95°	61.6	70.9	78.1	81.2	81.2
97.5°	98.6	106.9	115.1	119.2	119.2
100°	143.8	148.0	157.2	159.3	159.3
102.5°	191.1	192.1	200.4	203.4	204.5
105°	239.4	240.4	244.5	247.6	250.7
107.5°	289.7	290.8	291.8	295.9	294.9
110°	341.1	343.2	342.1	340.1	343.2



TEST NUMBER: P1033100

CATALOG NUMBER: S124DIW-B1020D1050UB30-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	394.5	394.5	392.5	392.5	392.5
115°	448.0	448.0	445.9	444.9	443.9
117.5°	498.3	498.3	497.3	494.2	491.1
120°	548.7	552.8	549.7	544.6	546.6
122.5°	601.1	602.1	601.1	598.0	592.9
125°	652.4	652.4	651.4	649.4	647.3
127.5°	698.7	701.8	699.7	697.7	696.6
130°	748.0	751.1	751.1	749.0	744.9
132.5°	798.3	800.4	799.4	797.3	796.3
135°	841.5	847.7	847.7	845.6	842.5
137.5°	889.8	892.9	894.9	891.8	892.9
140°	938.1	940.1	940.1	939.1	938.1
142.5°	982.3	984.3	983.3	983.3	983.3
145°	1022.3	1026.4	1027.5	1026.4	1023.4
147.5°	1063.4	1068.6	1067.5	1066.5	1065.5
150°	1100.4	1104.5	1104.5	1104.5	1103.5
152.5°	1135.4	1137.4	1138.4	1141.5	1138.4
155°	1171.3	1171.3	1170.3	1174.4	1170.3
157.5°	1202.1	1200.1	1200.1	1203.2	1200.1
160°	1228.9	1227.8	1226.8	1229.9	1224.7
162.5°	1253.5	1250.4	1249.4	1255.6	1250.4
165°	1275.1	1272.0	1270.0	1276.1	1272.0
167.5°	1292.6	1288.5	1288.5	1294.6	1288.5
170°	1306.9	1301.8	1302.8	1309.0	1301.8
172.5°	1317.2	1313.1	1313.1	1320.3	1313.1
175°	1326.5	1321.3	1320.3	1327.5	1320.3
177.5°	1330.6	1325.4	1325.4	1332.6	1324.4
180°	1328.5	1328.5	1328.5	1328.5	1328.5

(END OF REPORT)