

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: P1033159

Luminaire Tested: S124DIW-B1020D1560UB30-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033159
REPORT IS A COMBINATION OF REPORTS P996787 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1560UB30-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

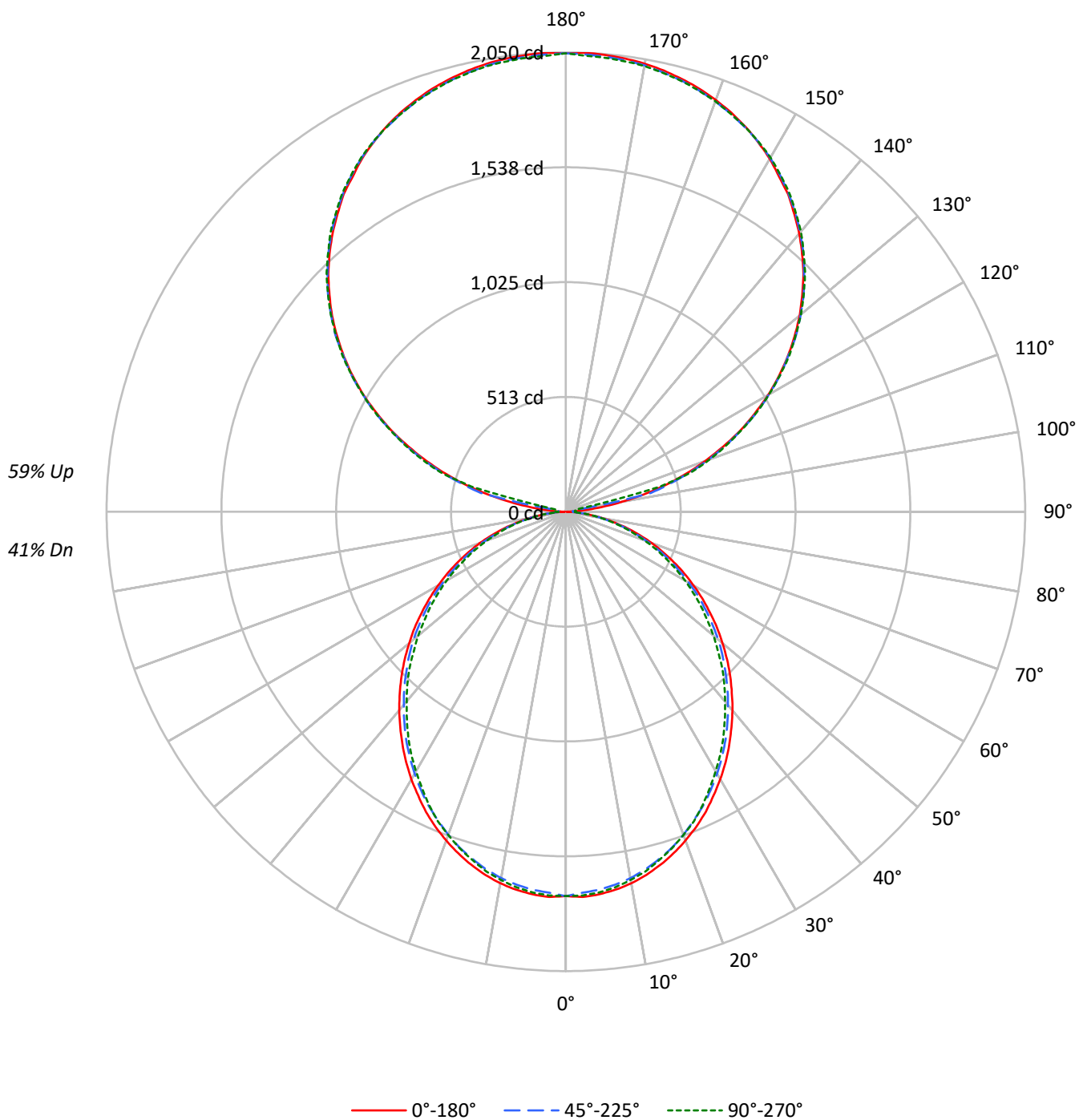
Lumens per Lamp: N/A
Luminaire Lumens: 10737.0 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 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

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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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48
1	96	91	88	84	87	83	80	77	69	66	64	55	53	52	42	41	40
2	87	80	74	69	79	73	68	63	60	56	53	48	46	43	37	35	34
3	79	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25
5	67	55	47	41	61	51	44	38	42	37	33	34	30	27	26	24	22
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17
8	53	40	33	28	48	37	30	26	31	26	22	25	22	19	20	17	15
9	49	37	29	24	45	34	27	23	29	23	20	23	20	17	19	16	14
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	12

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

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.6	1.5
10°-20°	455.4	4.2
20°-30°	670.3	6.2
30°-40°	779.1	7.3
40°-50°	779.0	7.3
50°-60°	681.4	6.3
60°-70°	505.9	4.7
70°-80°	287.0	2.7
80°-90°	86.4	0.8
90°-100°	67.9	0.6
100°-110°	447.3	4.2
110°-120°	854.0	8.0
120°-130°	1084.2	10.1
130°-140°	1159.8	10.8
140°-150°	1084.5	10.1
150°-160°	874.6	8.1
160°-170°	564.0	5.3
170°-180°	194.4	1.8
0°-30°	1287.3	12.0
0°-40°	2066.5	19.2
0°-60°	3526.9	32.8
0°-90°	4406.2	41.0
90°-120°	1369.2	12.8
90°-150°	4697.7	43.8
90°-180°	6331.0	59.0
0°-180°	10737.0	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°	5	21	34	43	46	9
95°	84	32	34	43	44	104
105°	461	470	477	491	436	482
115°	860	865	863	866	866	847
125°	1209	1215	1212	1216	1218	1080
135°	1500	1498	1504	1507	1510	1156
145°	1729	1734	1734	1735	1738	1080
155°	1896	1898	1893	1899	1894	874
165°	2000	1992	1992	2005	1991	565
175°	2046	2037	2038	2052	2034	195
180°	2046	2046	2046	2046	2046	

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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°	4.6	21.4	33.7	42.8	45.9
92.5°	23.0	19.9	32.1	41.3	41.3
95°	84.2	32.1	33.7	42.8	44.4
97.5°	160.7	194.3	33.7	41.3	42.8
100°	251.0	278.5	67.3	41.3	42.8
102.5°	352.0	370.3	388.7	44.4	44.4
105°	460.6	469.8	477.4	491.2	436.1
107.5°	560.1	564.7	575.4	583.0	589.1
110°	661.1	665.6	674.8	677.9	682.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	759.0	768.2	771.2	769.7	775.8
115°	860.0	864.6	863.0	866.1	866.1
117.5°	950.3	956.4	961.0	959.5	959.5
120°	1042.1	1048.2	1046.7	1049.7	1046.7
122.5°	1127.8	1130.8	1133.9	1135.4	1132.4
125°	1208.9	1215.0	1211.9	1216.5	1218.1
127.5°	1286.9	1288.5	1296.1	1294.6	1293.0
130°	1361.9	1363.4	1368.0	1369.6	1369.6
132.5°	1430.8	1433.8	1439.9	1441.5	1439.9
135°	1499.6	1498.1	1504.2	1507.3	1510.3
137.5°	1560.8	1560.8	1568.5	1571.5	1570.0
140°	1620.5	1623.6	1626.6	1631.2	1632.8
142.5°	1674.1	1680.2	1681.7	1684.8	1684.8
145°	1729.2	1733.7	1733.7	1735.3	1738.3
147.5°	1772.0	1781.2	1779.7	1781.2	1782.7
150°	1819.4	1825.6	1824.0	1824.0	1825.6
152.5°	1859.2	1863.8	1860.8	1863.8	1862.3
155°	1896.0	1897.5	1892.9	1899.0	1894.4
157.5°	1928.1	1928.1	1922.0	1929.6	1922.0
160°	1955.6	1951.0	1949.5	1958.7	1949.5
162.5°	1980.1	1974.0	1972.5	1981.6	1970.9
165°	2000.0	1992.4	1992.4	2004.6	1990.8
167.5°	2016.8	2009.2	2007.7	2021.4	2006.1
170°	2030.6	2021.4	2023.0	2035.2	2019.9
172.5°	2039.8	2030.6	2032.1	2044.4	2027.5
175°	2045.9	2036.7	2038.3	2052.0	2033.7
177.5°	2050.5	2039.8	2042.9	2055.1	2036.7
180°	2045.9	2045.9	2045.9	2045.9	2045.9

(END OF REPORT)