

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: P1033165

Luminaire Tested: S124DIW-B1020D1560UB35-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033165
REPORT IS A COMBINATION OF REPORTS P996796 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1560UB35-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

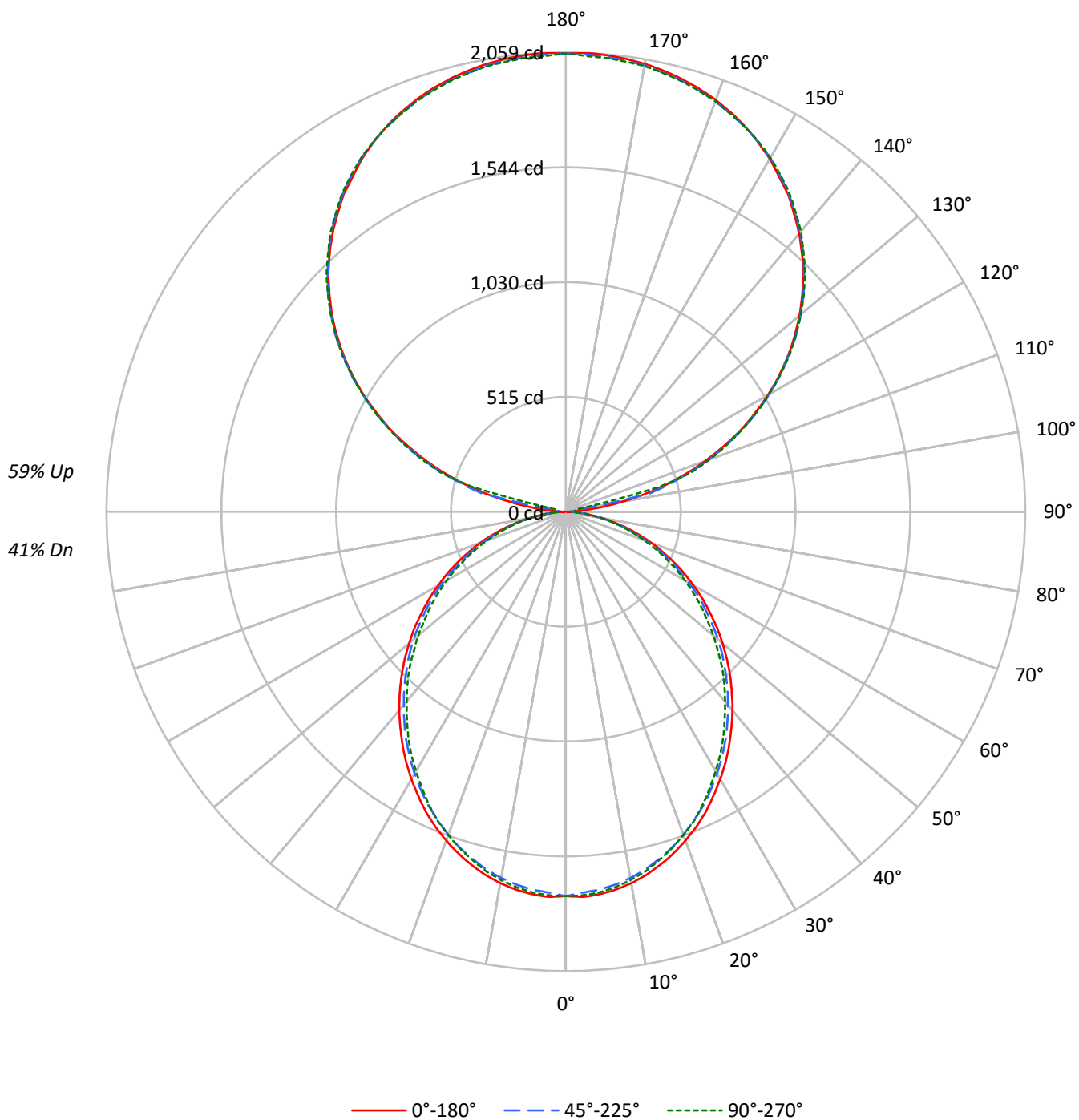
Lumens per Lamp: N/A
Luminaire Lumens: 10783.0 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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°	14045	14045	14045
5°	14058	13642	13658
10°	13938	13262	13170
15°	13739	12812	12620
20°	13483	12326	12049
25°	13196	11811	11436
30°	12849	11254	10762
35°	12491	10685	10110
40°	12116	10073	9418
45°	11723	9457	8771
50°	11289	8861	8053
55°	10818	8165	7341
60°	10334	7403	6598
65°	9781	6615	5762
70°	9145	5668	4866
75°	8193	4568	3897
80°	6984	3304	2741
85°	5421	1840	1476

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11723 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.3	1.5
10°-20°	457.4	4.2
20°-30°	673.1	6.2
30°-40°	782.5	7.3
40°-50°	782.4	7.3
50°-60°	684.3	6.3
60°-70°	508.0	4.7
70°-80°	288.3	2.7
80°-90°	86.8	0.8
90°-100°	68.2	0.6
100°-110°	449.2	4.2
110°-120°	857.7	8.0
120°-130°	1088.8	10.1
130°-140°	1164.8	10.8
140°-150°	1089.2	10.1
150°-160°	878.3	8.1
160°-170°	566.4	5.3
170°-180°	195.2	1.8
0°-30°	1292.9	12.0
0°-40°	2075.4	19.2
0°-60°	3542.1	32.8
0°-90°	4425.2	41.0
90°-120°	1375.0	12.8
90°-150°	4717.8	43.8
90°-180°	6358.0	59.0
0°-180°	10783.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1722	1722	1722	1722	1722	
5°	1721	1716	1700	1716	1713	163
15°	1638	1633	1612	1620	1616	462
25°	1484	1474	1455	1456	1451	683
35°	1277	1267	1248	1238	1231	798
45°	1042	1032	1010	995	991	803
55°	788	784	765	748	740	706
65°	534	527	513	500	493	529
75°	284	277	270	265	264	302
85°	74	74	72	72	70	80
90°	5	22	34	43	46	9
95°	84	32	34	43	45	104
105°	463	472	480	493	438	484
115°	864	868	867	870	870	850
125°	1214	1220	1217	1222	1223	1084
135°	1506	1504	1511	1514	1517	1160
145°	1736	1741	1741	1743	1746	1085
155°	1904	1906	1901	1907	1902	878
165°	2008	2001	2001	2013	1999	568
175°	2055	2045	2047	2061	2042	196
180°	2055	2055	2055	2055	2055	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1722.4	1722.4	1722.4	1722.4	1722.4
2.5°	1728.0	1723.8	1708.6	1722.4	1721.1
5°	1721.1	1715.5	1700.4	1715.5	1712.8
7.5°	1708.6	1703.1	1686.6	1699.0	1697.6
10°	1690.7	1685.2	1667.2	1678.3	1675.5
12.5°	1667.2	1661.7	1642.4	1654.8	1650.7
15°	1638.3	1632.7	1612.0	1620.3	1616.2
17.5°	1605.1	1598.2	1578.9	1584.4	1581.7
20°	1567.9	1561.0	1540.3	1544.4	1541.6
22.5°	1527.8	1518.2	1497.5	1505.8	1500.2
25°	1483.7	1474.0	1454.7	1456.1	1450.6
27.5°	1434.0	1424.3	1406.4	1403.6	1396.7
30°	1384.3	1373.3	1355.3	1349.8	1342.9
32.5°	1331.9	1322.2	1302.9	1296.0	1289.1
35°	1276.7	1267.0	1247.7	1238.0	1231.1
37.5°	1218.7	1210.4	1189.7	1180.0	1170.4
40°	1162.1	1151.1	1130.4	1116.6	1109.7
42.5°	1101.4	1095.9	1072.4	1055.8	1051.7
45°	1042.0	1032.4	1010.3	995.1	991.0
47.5°	979.9	973.0	952.3	935.8	924.7
50°	916.4	910.9	891.6	872.3	864.0
52.5°	854.3	847.4	826.7	810.2	799.1
55°	788.1	783.9	764.6	748.1	739.8
57.5°	726.0	721.8	702.5	685.9	677.7
60°	661.1	654.2	636.3	623.8	616.9
62.5°	597.6	592.1	572.8	561.7	554.8
65°	534.1	527.2	513.4	499.6	492.7
67.5°	469.3	463.7	449.9	436.1	434.8
70°	409.9	400.2	389.2	378.2	374.0
72.5°	346.4	336.8	328.5	320.2	316.1
75°	284.3	277.4	270.5	265.0	263.6
77.5°	223.6	220.8	213.9	212.5	208.4
80°	169.8	165.6	162.9	160.1	158.7
82.5°	117.3	115.9	115.9	114.6	113.2
85°	74.5	74.5	71.8	71.8	70.4
87.5°	35.9	34.5	33.1	33.1	33.1
90°	4.6	21.5	33.8	43.0	46.1
92.5°	23.1	20.0	32.3	41.5	41.5
95°	84.5	32.3	33.8	43.0	44.6
97.5°	161.4	195.2	33.8	41.5	43.0
100°	252.0	279.7	67.6	41.5	43.0
102.5°	353.5	371.9	390.3	44.6	44.6
105°	462.6	471.8	479.5	493.3	438.0
107.5°	562.4	567.1	577.8	585.5	591.6
110°	663.9	668.5	677.7	680.8	685.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	762.2	771.4	774.5	773.0	779.1
115°	863.7	868.3	866.7	869.8	869.8
117.5°	954.3	960.5	965.1	963.5	963.5
120°	1046.5	1052.7	1051.1	1054.2	1051.1
122.5°	1132.6	1135.7	1138.7	1140.3	1137.2
125°	1214.0	1220.2	1217.1	1221.7	1223.3
127.5°	1292.4	1293.9	1301.6	1300.1	1298.6
130°	1367.7	1369.2	1373.9	1375.4	1375.4
132.5°	1436.9	1439.9	1446.1	1447.6	1446.1
135°	1506.0	1504.5	1510.6	1513.7	1516.8
137.5°	1567.5	1567.5	1575.2	1578.2	1576.7
140°	1627.4	1630.5	1633.6	1638.2	1639.7
142.5°	1681.2	1687.3	1688.9	1692.0	1692.0
145°	1736.5	1741.1	1741.1	1742.7	1745.7
147.5°	1779.6	1788.8	1787.2	1788.8	1790.3
150°	1827.2	1833.3	1831.8	1831.8	1833.3
152.5°	1867.1	1871.8	1868.7	1871.8	1870.2
155°	1904.0	1905.6	1901.0	1907.1	1902.5
157.5°	1936.3	1936.3	1930.2	1937.8	1930.2
160°	1964.0	1959.4	1957.8	1967.0	1957.8
162.5°	1988.6	1982.4	1980.9	1990.1	1979.3
165°	2008.5	2000.8	2000.8	2013.1	1999.3
167.5°	2025.4	2017.8	2016.2	2030.0	2014.7
170°	2039.3	2030.0	2031.6	2043.9	2028.5
172.5°	2048.5	2039.3	2040.8	2053.1	2036.2
175°	2054.6	2045.4	2046.9	2060.8	2042.3
177.5°	2059.2	2048.5	2051.6	2063.9	2045.4
180°	2054.6	2054.6	2054.6	2054.6	2054.6

(END OF REPORT)