

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: P1033153

Luminaire Tested: S124DIW-B1020D1560UB27-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033153
REPORT IS A COMBINATION OF REPORTS P996757 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1560UB27-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

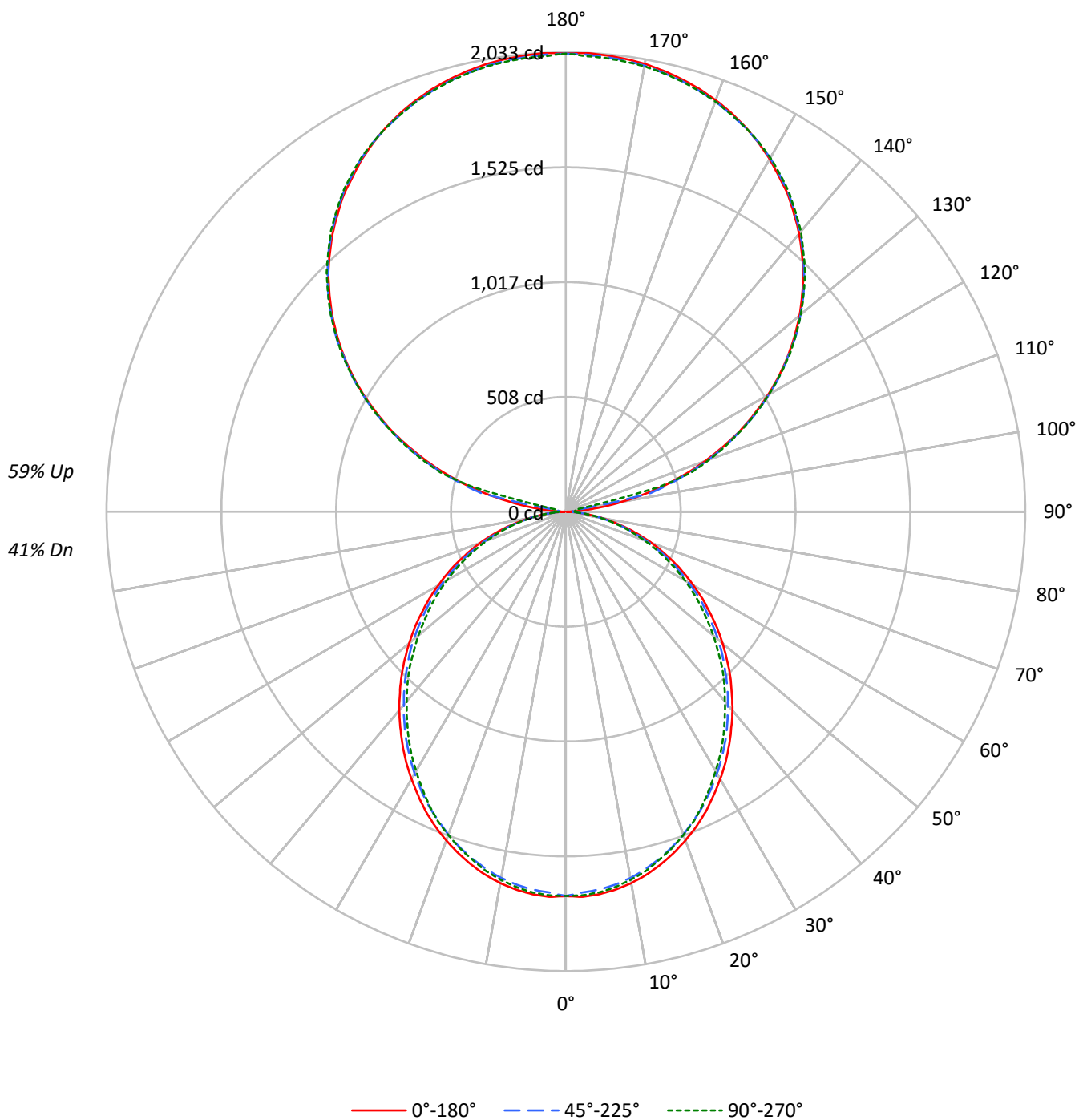
Lumens per Lamp: N/A
Luminaire Lumens: 10644.1 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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°	13864	13864	13864
5°	13876	13466	13482
10°	13758	13091	13000
15°	13561	12648	12456
20°	13310	12167	11894
25°	13026	11658	11288
30°	12684	11109	10623
35°	12329	10547	9980
40°	11960	9942	9296
45°	11573	9336	8657
50°	11144	8747	7948
55°	10678	8061	7246
60°	10201	7308	6513
65°	9655	6530	5688
70°	9027	5595	4803
75°	8086	4509	3847
80°	6893	3261	2707
85°	5356	1814	1457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11573 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.3	1.5
10°-20°	451.5	4.2
20°-30°	664.5	6.2
30°-40°	772.4	7.3
40°-50°	772.3	7.3
50°-60°	675.5	6.3
60°-70°	501.5	4.7
70°-80°	284.5	2.7
80°-90°	85.7	0.8
90°-100°	67.3	0.6
100°-110°	443.4	4.2
110°-120°	846.6	8.0
120°-130°	1074.8	10.1
130°-140°	1149.8	10.8
140°-150°	1075.1	10.1
150°-160°	867.0	8.1
160°-170°	559.1	5.3
170°-180°	192.7	1.8
0°-30°	1276.2	12.0
0°-40°	2048.6	19.2
0°-60°	3496.5	32.8
0°-90°	4368.2	41.0
90°-120°	1357.3	12.8
90°-150°	4657.0	43.8
90°-180°	6276.0	59.0
0°-180°	10644.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1699	1693	1678	1693	1691	161
15°	1617	1612	1591	1599	1595	456
25°	1465	1455	1436	1437	1432	674
35°	1260	1251	1232	1222	1215	788
45°	1029	1019	997	982	978	793
55°	778	774	755	738	730	697
65°	527	520	507	493	486	522
75°	281	274	267	262	260	298
85°	74	74	71	71	70	79
90°	5	21	33	42	46	9
95°	83	32	33	42	44	103
105°	457	466	473	487	432	478
115°	852	857	856	859	859	839
125°	1198	1204	1201	1206	1208	1070
135°	1487	1485	1491	1494	1497	1145
145°	1714	1719	1719	1720	1723	1071
155°	1880	1881	1876	1882	1878	867
165°	1983	1975	1975	1987	1974	560
175°	2028	2019	2021	2034	2016	193
180°	2028	2028	2028	2028	2028	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1700.2	1700.2	1700.2	1700.2	1700.2
2.5°	1705.7	1701.6	1686.6	1700.2	1698.9
5°	1698.9	1693.4	1678.4	1693.4	1690.7
7.5°	1686.6	1681.2	1664.8	1677.1	1675.7
10°	1668.9	1663.5	1645.7	1656.6	1653.9
12.5°	1645.7	1640.3	1621.2	1633.5	1629.4
15°	1617.1	1611.7	1591.3	1599.4	1595.3
17.5°	1584.4	1577.6	1558.6	1564.0	1561.3
20°	1547.7	1540.8	1520.4	1524.5	1521.8
22.5°	1508.1	1498.6	1478.2	1486.3	1480.9
25°	1464.6	1455.0	1435.9	1437.3	1431.9
27.5°	1415.5	1406.0	1388.3	1385.5	1378.7
30°	1366.5	1355.6	1337.8	1332.4	1325.6
32.5°	1314.7	1305.2	1286.1	1279.3	1272.5
35°	1260.2	1250.7	1231.6	1222.0	1215.2
37.5°	1203.0	1194.8	1174.4	1164.8	1155.3
40°	1147.1	1136.2	1115.8	1102.2	1095.3
42.5°	1087.2	1081.7	1058.6	1042.2	1038.1
45°	1028.6	1019.1	997.3	982.3	978.2
47.5°	967.3	960.5	940.0	923.7	912.8
50°	904.6	899.2	880.1	861.0	852.8
52.5°	843.3	836.5	816.1	799.7	788.8
55°	777.9	773.8	754.8	738.4	730.2
57.5°	716.6	712.5	693.4	677.1	668.9
60°	652.6	645.8	628.1	615.8	609.0
62.5°	589.9	584.5	565.4	554.5	547.7
65°	527.2	520.4	506.8	493.2	486.4
67.5°	463.2	457.8	444.1	430.5	429.1
70°	404.6	395.1	384.2	373.3	369.2
72.5°	342.0	332.4	324.2	316.1	312.0
75°	280.6	273.8	267.0	261.6	260.2
77.5°	220.7	218.0	211.2	209.8	205.7
80°	167.6	163.5	160.8	158.0	156.7
82.5°	115.8	114.4	114.4	113.1	111.7
85°	73.6	73.6	70.8	70.8	69.5
87.5°	35.4	34.1	32.7	32.7	32.7
90°	4.6	21.2	33.4	42.5	45.5
92.5°	22.8	19.7	31.9	41.0	41.0
95°	83.4	31.9	33.4	42.5	44.0
97.5°	159.3	192.7	33.4	41.0	42.5
100°	248.8	276.1	66.7	41.0	42.5
102.5°	348.9	367.1	385.3	44.0	44.0
105°	456.6	465.7	473.3	486.9	432.3
107.5°	555.2	559.8	570.4	578.0	584.0
110°	655.3	659.9	669.0	672.0	676.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	752.4	761.5	764.5	763.0	769.1
115°	852.5	857.1	855.6	858.6	858.6
117.5°	942.0	948.1	952.6	951.1	951.1
120°	1033.0	1039.1	1037.6	1040.6	1037.6
122.5°	1118.0	1121.0	1124.1	1125.6	1122.5
125°	1198.4	1204.5	1201.4	1206.0	1207.5
127.5°	1275.7	1277.3	1284.8	1283.3	1281.8
130°	1350.1	1351.6	1356.1	1357.7	1357.7
132.5°	1418.3	1421.4	1427.4	1429.0	1427.4
135°	1486.6	1485.1	1491.2	1494.2	1497.2
137.5°	1547.3	1547.3	1554.9	1557.9	1556.4
140°	1606.4	1609.5	1612.5	1617.1	1618.6
142.5°	1659.5	1665.6	1667.1	1670.2	1670.2
145°	1714.1	1718.7	1718.7	1720.2	1723.2
147.5°	1756.6	1765.7	1764.2	1765.7	1767.2
150°	1803.6	1809.7	1808.2	1808.2	1809.7
152.5°	1843.1	1847.6	1844.6	1847.6	1846.1
155°	1879.5	1881.0	1876.5	1882.5	1878.0
157.5°	1911.3	1911.3	1905.3	1912.9	1905.3
160°	1938.7	1934.1	1932.6	1941.7	1932.6
162.5°	1962.9	1956.9	1955.3	1964.4	1953.8
165°	1982.6	1975.1	1975.1	1987.2	1973.5
167.5°	1999.3	1991.7	1990.2	2003.9	1988.7
170°	2013.0	2003.9	2005.4	2017.5	2002.4
172.5°	2022.1	2013.0	2014.5	2026.6	2009.9
175°	2028.2	2019.0	2020.6	2034.2	2016.0
177.5°	2032.7	2022.1	2025.1	2037.3	2019.0
180°	2028.2	2028.2	2028.2	2028.2	2028.2

(END OF REPORT)