

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: P1033169

Luminaire Tested: S124DIW-B1020D1560UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033169
REPORT IS A COMBINATION OF REPORTS P996806 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1560UB40-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

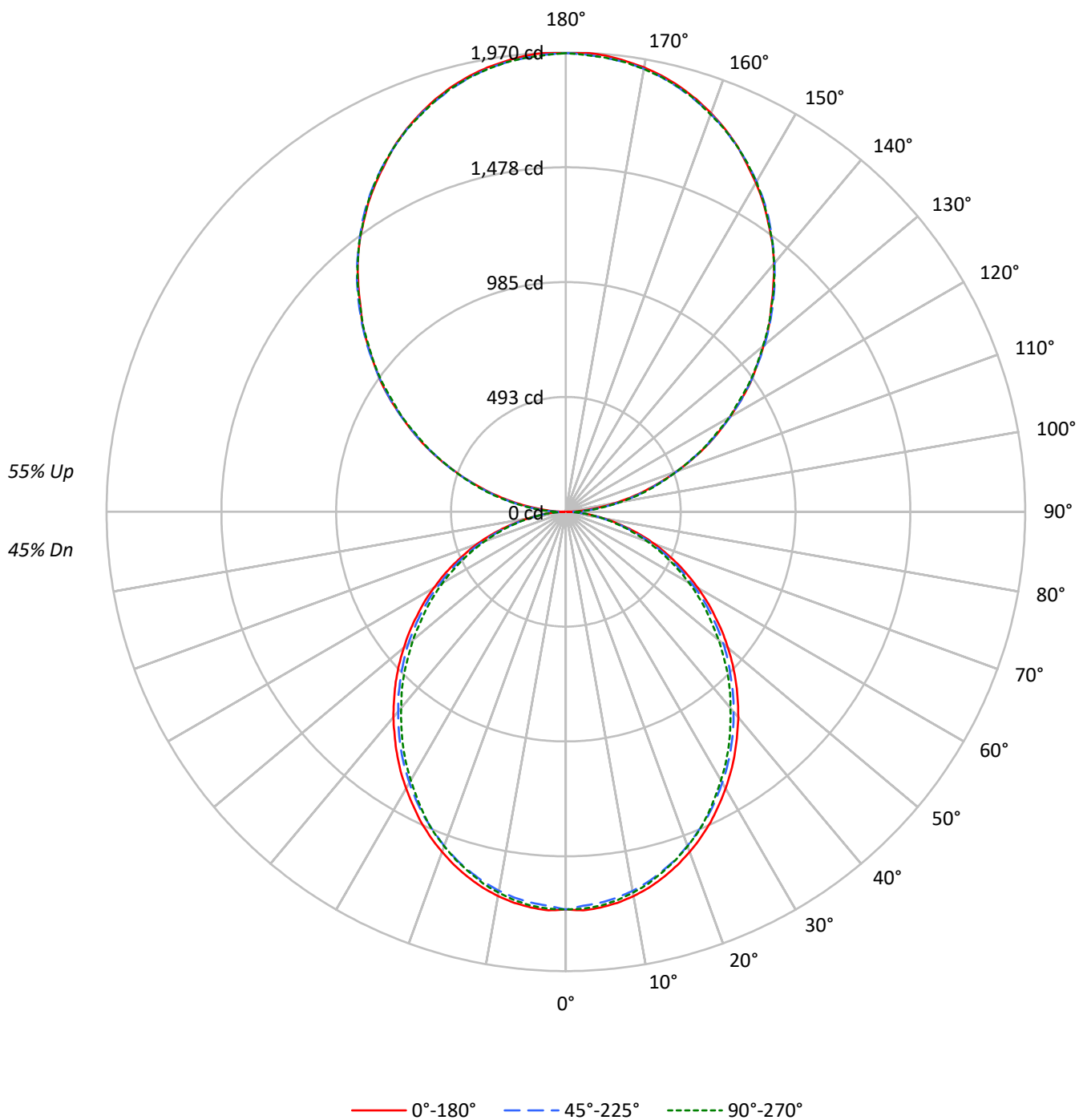
Lumens per Lamp: N/A
Luminaire Lumens: 9839.0 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	97	92	88	85	88	85	81	78	70	68	66	57	56	54	45	44	43
2	88	80	74	69	80	74	69	64	62	58	54	50	48	45	40	38	36
3	80	71	63	58	73	65	59	54	54	50	46	44	41	38	35	33	31
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	31	29	27
5	67	56	48	42	61	51	44	39	43	38	34	35	31	28	28	25	23
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18
8	53	41	33	28	49	38	31	26	32	27	23	27	23	19	22	18	16
9	49	37	30	25	45	35	28	23	29	24	20	24	20	17	20	17	15
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13906	13906	13906
5°	13917	13506	13522
10°	13800	13130	13039
15°	13602	12685	12494
20°	13349	12203	11929
25°	13064	11693	11321
30°	12721	11142	10654
35°	12365	10579	10010
40°	11995	9972	9324
45°	11608	9363	8683
50°	11177	8773	7973
55°	10710	8084	7267
60°	10231	7329	6533
65°	9684	6550	5705
70°	9053	5611	4818
75°	8112	4522	3859
80°	6914	3269	2714
85°	5370	1822	1461

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11608 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	1.6
10°-20°	452.8	4.6
20°-30°	666.4	6.8
30°-40°	774.7	7.9
40°-50°	774.6	7.9
50°-60°	677.5	6.9
60°-70°	503.0	5.1
70°-80°	285.4	2.9
80°-90°	85.9	0.9
90°-100°	128.2	1.3
100°-110°	384.0	3.9
110°-120°	652.4	6.6
120°-130°	860.4	8.7
130°-140°	966.4	9.8
140°-150°	949.8	9.7
150°-160°	798.9	8.1
160°-170°	531.5	5.4
170°-180°	186.1	1.9
0°-30°	1280.0	13.0
0°-40°	2054.7	20.9
0°-60°	3506.8	35.6
0°-90°	4381.2	44.5
90°-120°	1164.7	11.8
90°-150°	3941.3	40.1
90°-180°	5458.0	55.5
0°-180°	9839.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1704	1698	1683	1698	1696	162
15°	1622	1616	1596	1604	1600	457
25°	1469	1459	1440	1442	1436	676
35°	1264	1254	1235	1226	1219	790
45°	1032	1022	1000	985	981	795
55°	780	776	757	741	732	699
65°	529	522	508	495	488	523
75°	282	275	268	262	261	299
85°	74	74	71	71	70	79
90°	5	21	34	43	46	12
95°	91	105	116	120	120	99
105°	354	356	362	367	371	376
115°	663	663	660	659	657	654
125°	966	966	964	962	958	861
135°	1246	1255	1255	1252	1248	964
145°	1514	1520	1521	1520	1515	947
155°	1734	1734	1733	1739	1733	798
165°	1888	1883	1880	1889	1883	532
175°	1964	1956	1955	1966	1955	186
180°	1967	1967	1967	1967	1967	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1705.3	1705.3	1705.3	1705.3	1705.3
2.5°	1710.8	1706.7	1691.6	1705.3	1703.9
5°	1703.9	1698.5	1683.4	1698.5	1695.7
7.5°	1691.6	1686.2	1669.8	1682.1	1680.7
10°	1673.9	1668.4	1650.6	1661.6	1658.8
12.5°	1650.6	1645.2	1626.1	1638.4	1634.3
15°	1622.0	1616.5	1596.0	1604.2	1600.1
17.5°	1589.2	1582.3	1563.2	1568.7	1565.9
20°	1552.3	1545.4	1524.9	1529.0	1526.3
22.5°	1512.6	1503.1	1482.6	1490.8	1485.3
25°	1468.9	1459.3	1440.2	1441.6	1436.1
27.5°	1419.7	1410.2	1392.4	1389.7	1382.8
30°	1370.5	1359.6	1341.8	1336.4	1329.5
32.5°	1318.6	1309.0	1289.9	1283.1	1276.2
35°	1263.9	1254.4	1235.3	1225.7	1218.9
37.5°	1206.6	1198.4	1177.9	1168.3	1158.7
40°	1150.5	1139.6	1119.1	1105.4	1098.6
42.5°	1090.4	1084.9	1061.7	1045.3	1041.2
45°	1031.7	1022.1	1000.2	985.2	981.1
47.5°	970.2	963.3	942.8	926.4	915.5
50°	907.3	901.8	882.7	863.6	855.4
52.5°	845.8	839.0	818.5	802.1	791.2
55°	780.2	776.1	757.0	740.6	732.4
57.5°	718.7	714.6	695.5	679.1	670.9
60°	654.5	647.7	629.9	617.6	610.8
62.5°	591.7	586.2	567.1	556.1	549.3
65°	528.8	522.0	508.3	494.6	487.8
67.5°	464.6	459.1	445.5	431.8	430.4
70°	405.8	396.3	385.3	374.4	370.3
72.5°	343.0	333.4	325.2	317.0	312.9
75°	281.5	274.7	267.8	262.4	261.0
77.5°	221.4	218.6	211.8	210.4	206.3
80°	168.1	164.0	161.2	158.5	157.1
82.5°	116.1	114.8	114.8	113.4	112.0
85°	73.8	73.8	71.1	71.1	69.7
87.5°	35.5	34.2	32.8	32.8	32.8
90°	4.6	21.3	33.5	42.6	45.6
92.5°	39.6	59.3	66.9	71.5	73.0
95°	91.3	105.0	115.6	120.2	120.2
97.5°	146.0	158.2	170.4	176.5	176.5
100°	213.0	219.1	232.8	235.8	235.8
102.5°	283.0	284.5	296.7	301.2	302.7
105°	354.5	356.0	362.1	366.6	371.2
107.5°	429.0	430.5	432.0	438.1	436.6
110°	505.1	508.1	506.6	503.5	508.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	584.2	584.2	581.1	581.1	581.1
115°	663.3	663.3	660.2	658.7	657.2
117.5°	737.8	737.8	736.3	731.7	727.2
120°	812.4	818.5	813.9	806.3	809.3
122.5°	890.0	891.5	890.0	885.4	877.8
125°	966.0	966.0	964.5	961.5	958.4
127.5°	1034.5	1039.0	1036.0	1033.0	1031.4
130°	1107.5	1112.1	1112.1	1109.0	1102.9
132.5°	1182.0	1185.1	1183.6	1180.5	1179.0
135°	1245.9	1255.1	1255.1	1252.0	1247.5
137.5°	1317.4	1322.0	1325.0	1320.5	1322.0
140°	1388.9	1392.0	1392.0	1390.5	1388.9
142.5°	1454.4	1457.4	1455.9	1455.9	1455.9
145°	1513.7	1519.8	1521.3	1519.8	1515.2
147.5°	1574.5	1582.1	1580.6	1579.1	1577.6
150°	1629.3	1635.4	1635.4	1635.4	1633.9
152.5°	1681.0	1684.1	1685.6	1690.2	1685.6
155°	1734.3	1734.3	1732.8	1738.8	1732.8
157.5°	1779.9	1776.9	1776.9	1781.4	1776.9
160°	1819.5	1817.9	1816.4	1821.0	1813.4
162.5°	1856.0	1851.4	1849.9	1859.0	1851.4
165°	1887.9	1883.4	1880.3	1889.4	1883.4
167.5°	1913.8	1907.7	1907.7	1916.8	1907.7
170°	1935.1	1927.5	1929.0	1938.1	1927.5
172.5°	1950.3	1944.2	1944.2	1954.9	1944.2
175°	1964.0	1956.4	1954.9	1965.5	1954.9
177.5°	1970.1	1962.5	1962.5	1973.1	1960.9
180°	1967.0	1967.0	1967.0	1967.0	1967.0

(END OF REPORT)