

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: P1033160

Luminaire Tested: S124DIW-B1020D1560UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033160
REPORT IS A COMBINATION OF REPORTS P996788 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-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

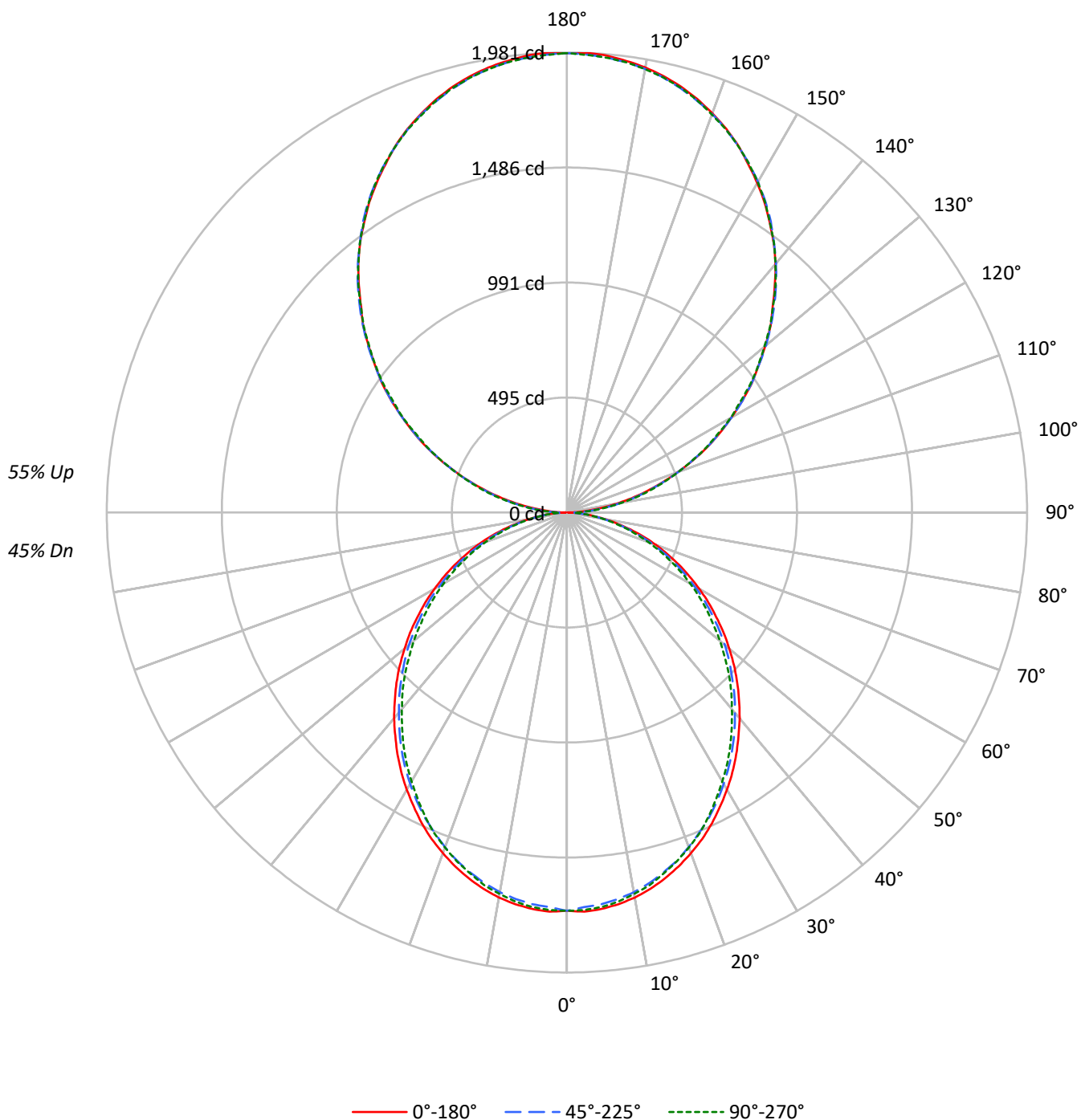
Lumens per Lamp: N/A
Luminaire Lumens: 9895.0 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	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	18	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°	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	1.6
10°-20°	455.4	4.6
20°-30°	670.3	6.8
30°-40°	779.1	7.9
40°-50°	779.0	7.9
50°-60°	681.4	6.9
60°-70°	505.9	5.1
70°-80°	287.0	2.9
80°-90°	86.4	0.9
90°-100°	129.0	1.3
100°-110°	386.2	3.9
110°-120°	656.1	6.6
120°-130°	865.3	8.7
130°-140°	971.9	9.8
140°-150°	955.2	9.7
150°-160°	803.4	8.1
160°-170°	534.5	5.4
170°-180°	187.2	1.9
0°-30°	1287.3	13.0
0°-40°	2066.5	20.9
0°-60°	3526.9	35.6
0°-90°	4406.2	44.5
90°-120°	1171.3	11.8
90°-150°	3963.7	40.1
90°-180°	5489.0	55.5
0°-180°	9895.0	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	12
95°	92	106	116	121	121	99
105°	356	358	364	369	373	378
115°	667	667	664	662	661	658
125°	972	972	970	967	964	866
135°	1253	1262	1262	1259	1254	969
145°	1522	1528	1530	1528	1524	953
155°	1744	1744	1743	1749	1743	803
165°	1899	1894	1891	1900	1894	535
175°	1975	1968	1966	1977	1966	188
180°	1978	1978	1978	1978	1978	

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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°	39.8	59.7	67.3	71.9	73.4
95°	91.8	105.6	116.3	120.9	120.9
97.5°	146.9	159.1	171.4	177.5	177.5
100°	214.2	220.3	234.1	237.1	237.1
102.5°	284.6	286.1	298.3	302.9	304.5
105°	356.5	358.0	364.1	368.7	373.3
107.5°	431.4	433.0	434.5	440.6	439.1
110°	507.9	511.0	509.5	506.4	511.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	587.5	587.5	584.4	584.4	584.4
115°	667.0	667.0	664.0	662.5	660.9
117.5°	742.0	742.0	740.5	735.9	731.3
120°	817.0	823.1	818.5	810.9	813.9
122.5°	895.0	896.5	895.0	890.4	882.8
125°	971.5	971.5	970.0	966.9	963.9
127.5°	1040.4	1044.9	1041.9	1038.8	1037.3
130°	1113.8	1118.4	1118.4	1115.3	1109.2
132.5°	1188.8	1191.8	1190.3	1187.2	1185.7
135°	1253.0	1262.2	1262.2	1259.1	1254.5
137.5°	1324.9	1329.5	1332.6	1328.0	1329.5
140°	1396.8	1399.9	1399.9	1398.4	1396.8
142.5°	1462.6	1465.7	1464.1	1464.1	1464.1
145°	1522.3	1528.4	1529.9	1528.4	1523.8
147.5°	1583.5	1591.1	1589.6	1588.1	1586.5
150°	1638.6	1644.7	1644.7	1644.7	1643.1
152.5°	1690.6	1693.6	1695.2	1699.8	1695.2
155°	1744.1	1744.1	1742.6	1748.7	1742.6
157.5°	1790.0	1787.0	1787.0	1791.5	1787.0
160°	1829.8	1828.3	1826.7	1831.3	1823.7
162.5°	1866.5	1861.9	1860.4	1869.6	1861.9
165°	1898.6	1894.1	1891.0	1900.2	1894.1
167.5°	1924.7	1918.5	1918.5	1927.7	1918.5
170°	1946.1	1938.4	1939.9	1949.1	1938.4
172.5°	1961.4	1955.2	1955.2	1966.0	1955.2
175°	1975.1	1967.5	1966.0	1976.7	1966.0
177.5°	1981.3	1973.6	1973.6	1984.3	1972.1
180°	1978.2	1978.2	1978.2	1978.2	1978.2

(END OF REPORT)