

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: P1033453

Luminaire Tested: S124DIW-B350D1560UB30-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033453
REPORT IS A COMBINATION OF REPORTS P997447 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D1560UB30-4F0-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

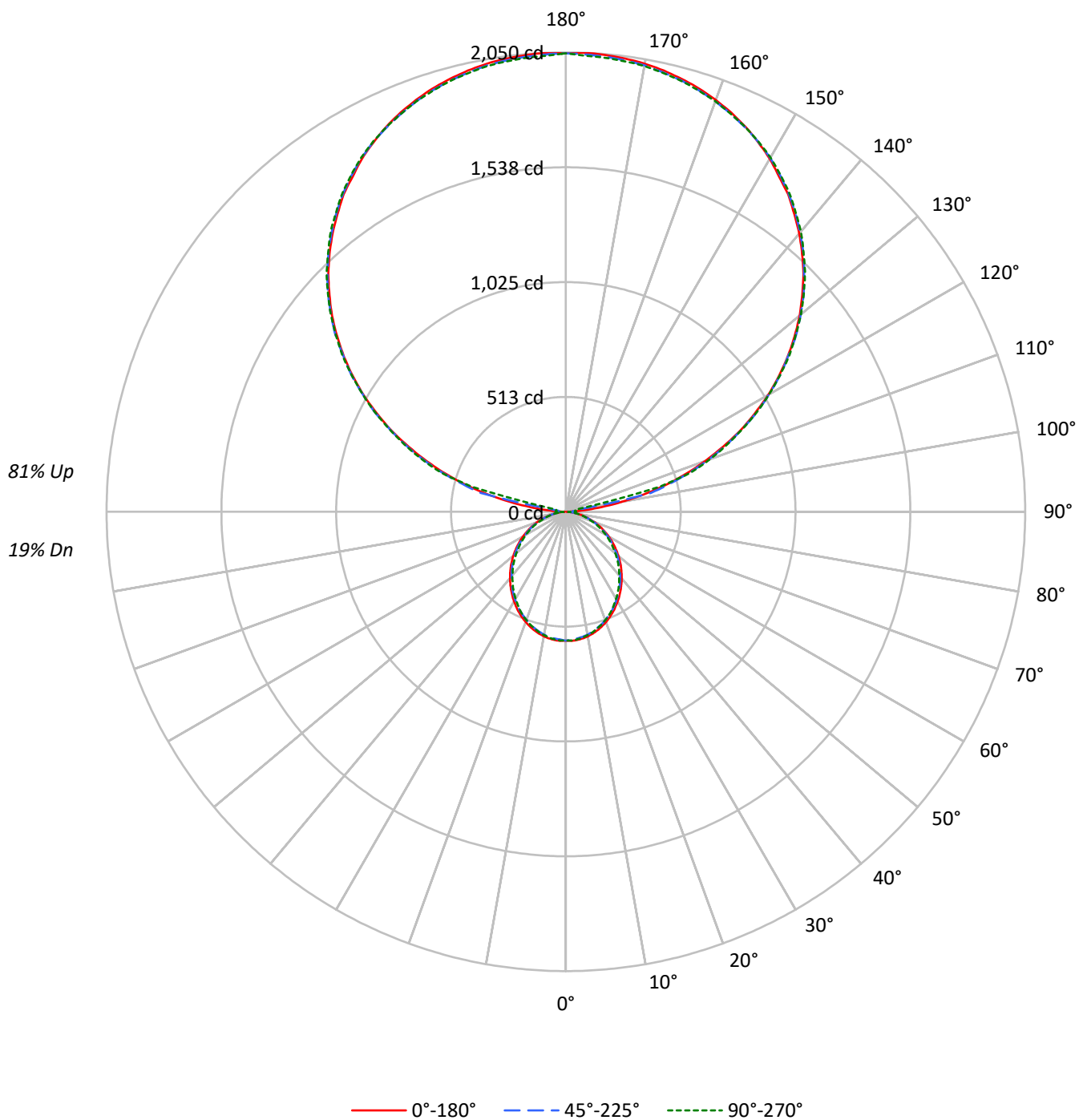
Lumens per Lamp: N/A
Luminaire Lumens: 7811.0 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 65.2
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	100	100	100	100	88	88	88	88	66	66	66	46	46	46	28	28	28
1	91	87	83	80	80	77	74	71	58	56	54	40	39	38	24	24	23
2	83	76	70	65	73	67	62	58	50	47	45	35	33	32	21	20	19
3	75	66	59	54	66	59	53	48	44	41	37	31	29	27	19	18	17
4	69	59	51	45	60	52	46	41	39	35	32	28	25	23	17	15	14
5	63	52	44	39	55	46	40	35	35	31	27	25	22	20	15	14	12
6	58	46	39	33	51	41	35	30	31	27	23	22	19	17	14	12	11
7	53	42	34	29	47	37	31	26	28	24	20	20	17	15	12	11	10
8	49	38	30	25	43	34	27	23	26	21	18	18	15	13	11	10	9
9	46	34	27	22	40	30	24	20	23	19	16	17	14	12	11	9	8
10	43	31	24	20	38	28	22	18	21	17	14	15	13	11	10	8	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4690	4690	4690
5°	4693	4555	4560
10°	4654	4428	4397
15°	4587	4278	4213
20°	4502	4115	4023
25°	4405	3944	3818
30°	4290	3758	3593
35°	4170	3567	3375
40°	4045	3363	3144
45°	3914	3157	2928
50°	3770	2959	2689
55°	3612	2726	2451
60°	3450	2471	2203
65°	3265	2209	1924
70°	3054	1892	1625
75°	2735	1525	1301
80°	2332	1103	916
85°	1812	615	493

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3914 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.2	0.7
10°-20°	152.7	2.0
20°-30°	224.7	2.9
30°-40°	261.2	3.3
40°-50°	261.2	3.3
50°-60°	228.5	2.9
60°-70°	169.6	2.2
70°-80°	96.2	1.2
80°-90°	31.8	0.4
90°-100°	67.9	0.9
100°-110°	447.3	5.7
110°-120°	854.0	10.9
120°-130°	1084.2	13.9
130°-140°	1159.8	14.8
140°-150°	1084.5	13.9
150°-160°	874.6	11.2
160°-170°	564.0	7.2
170°-180°	194.4	2.5
0°-30°	431.6	5.5
0°-40°	692.9	8.9
0°-60°	1182.6	15.1
0°-90°	1480.2	19.0
90°-120°	1369.2	17.5
90°-150°	4697.7	60.1
90°-180°	6331.0	81.1
0°-180°	7811.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	575	575	575	575	575	
5°	575	573	568	573	572	55
15°	547	545	538	541	540	154
25°	495	492	486	486	484	228
35°	426	423	416	413	411	267
45°	348	345	337	332	331	268
55°	263	262	255	250	247	236
65°	178	176	171	167	164	176
75°	95	93	90	88	88	101
85°	25	25	24	24	24	27
90°	5	21	34	43	46	6
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°	575.1	575.1	575.1	575.1	575.1
2.5°	576.9	575.5	570.5	575.1	574.6
5°	574.6	572.8	567.7	572.8	571.8
7.5°	570.5	568.6	563.1	567.2	566.8
10°	564.5	562.6	556.6	560.3	559.4
12.5°	556.6	554.8	548.3	552.5	551.1
15°	547.0	545.1	538.2	541.0	539.6
17.5°	535.9	533.6	527.1	529.0	528.1
20°	523.5	521.1	514.2	515.6	514.7
22.5°	510.1	506.9	500.0	502.7	500.9
25°	495.3	492.1	485.7	486.1	484.3
27.5°	478.8	475.5	469.5	468.6	466.3
30°	462.2	458.5	452.5	450.6	448.3
32.5°	444.7	441.4	435.0	432.7	430.4
35°	426.2	423.0	416.5	413.3	411.0
37.5°	406.9	404.1	397.2	394.0	390.7
40°	388.0	384.3	377.4	372.8	370.5
42.5°	367.7	365.9	358.0	352.5	351.1
45°	347.9	344.7	337.3	332.2	330.8
47.5°	327.2	324.9	317.9	312.4	308.7
50°	306.0	304.1	297.7	291.2	288.5
52.5°	285.2	282.9	276.0	270.5	266.8
55°	263.1	261.7	255.3	249.7	247.0
57.5°	242.4	241.0	234.5	229.0	226.2
60°	220.7	218.4	212.4	208.3	206.0
62.5°	199.5	197.7	191.2	187.5	185.2
65°	178.3	176.0	171.4	166.8	164.5
67.5°	156.7	154.8	150.2	145.6	145.1
70°	136.9	133.6	129.9	126.3	124.9
72.5°	115.7	112.4	109.7	106.9	105.5
75°	94.9	92.6	90.3	88.5	88.0
77.5°	74.6	73.7	71.4	71.0	69.6
80°	56.7	55.3	54.4	53.5	53.0
82.5°	39.2	38.7	38.7	38.2	37.8
85°	24.9	24.9	24.0	24.0	23.5
87.5°	12.0	11.5	11.1	11.1	11.1
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)