Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P1032653

Luminaire Tested: S124DIW-B350D1560UB2750-4F0-XX-W2A-D_5000K

Issue Date: 5/7/2025

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Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1032653
	REPORT IS A COMBINATION OF REPORTS P997433 AND P1007351
Test Lab:	INNOVATION CENTER
Issue Date:	5/7/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	NEO-RAY
Catalog Number:	S124DIW-B350D1560UB2750-4F0-XX-W2A-D_5000K
Description:	Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7440.0 lumens
Efficiency:	N/A
Efficacy:	114.1 lumens/watt
Spacing Criteria (0/90/45):	1.23 / 1.28 / 1.39
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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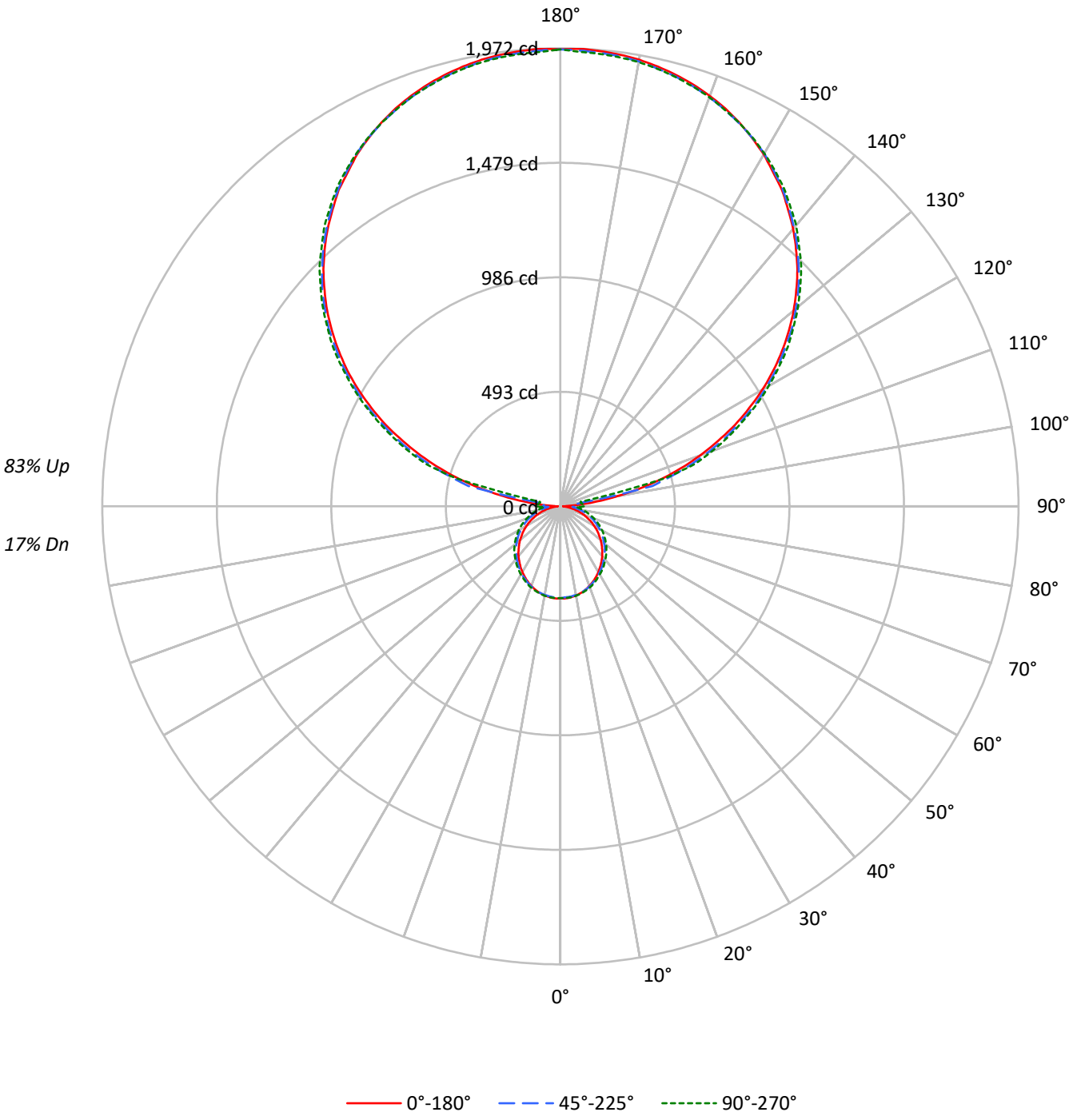
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	99	99	99	99	87	87	87	87	65	65	65	44	44	44	26	26	26	17
1	90	86	82	78	79	75	72	69	56	54	52	38	37	36	22	21	21	13
2	82	75	69	64	72	66	61	57	49	46	43	33	31	30	19	18	17	11
3	74	65	58	53	65	58	52	47	43	39	36	29	27	25	17	16	15	9
4	68	58	50	44	59	51	44	40	38	34	30	26	23	21	15	14	12	8
5	62	51	43	38	54	45	38	34	34	29	26	23	20	18	13	12	11	7
6	57	45	38	32	50	40	34	29	30	26	22	21	18	16	12	10	9	6
7	53	41	33	28	46	36	30	25	27	23	19	19	16	14	11	9	8	5
8	49	37	29	24	42	33	26	22	25	20	17	17	14	12	10	8	7	5
9	45	33	26	21	39	30	23	19	22	18	15	16	13	11	9	8	6	4
10	42	30	24	19	37	27	21	17	20	16	13	14	11	10	8	7	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3227	3227	3227
5°	3235	3143	3148
10°	3214	3081	3072
15°	3184	3011	2986
20°	3140	2936	2902
25°	3090	2853	2812
30°	3035	2770	2720
35°	2974	2686	2638
40°	2925	2605	2554
45°	2851	2530	2478
50°	2789	2444	2399
55°	2725	2361	2308
60°	2625	2258	2222
65°	2516	2147	2119
70°	2383	2020	2000
75°	2196	1878	1887
80°	1987	1734	1769
85°	1710	1589	1673

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 90°
Luminance: 3751 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.5	0.5
10°-20°	107.4	1.4
20°-30°	162.4	2.2
30°-40°	196.5	2.6
40°-50°	207.7	2.8
50°-60°	195.5	2.6
60°-70°	162.2	2.2
70°-80°	113.8	1.5
80°-90°	68.2	0.9
90°-100°	103.5	1.4
100°-110°	458.3	6.2
110°-120°	840.1	11.3
120°-130°	1053.1	14.2
130°-140°	1119.8	15.1
140°-150°	1043.7	14.0
150°-160°	840.9	11.3
160°-170°	542.3	7.3
170°-180°	186.9	2.5
0°-30°	307.3	4.1
0°-40°	503.8	6.8
0°-60°	907.0	12.2
0°-90°	1251.3	16.8
90°-120°	1402.0	18.8
90°-150°	4618.5	62.1
90°-180°	6189.0	83.2
0°-180°	7440.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	396	396	396	396	396	
5°	396	395	392	395	395	38
15°	380	380	379	383	382	107
25°	347	350	351	356	357	160
35°	304	309	314	320	321	190
45°	253	262	270	278	280	196
55°	198	208	221	230	233	177
65°	137	152	167	178	181	136
75°	76	93	111	124	128	81
85°	24	42	62	75	80	24
90°	12	45	76	98	104	9
95°	87	51	71	92	97	104
105°	447	464	488	513	463	468
115°	830	838	851	863	866	817
125°	1164	1170	1178	1190	1195	1040
135°	1443	1441	1450	1460	1466	1112
145°	1663	1667	1667	1671	1676	1039
155°	1823	1824	1820	1826	1822	841
165°	1923	1916	1916	1927	1914	543
175°	1967	1958	1960	1973	1955	187
180°	1967	1967	1967	1967	1967	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	395.7	395.7	395.7	*395.7*	395.7
2.5°	397.4	396.1	392.6	*395.7*	395.2
5°	396.1	394.8	391.7	*395.2*	394.8
7.5°	393.5	392.6	389.9	*393.9*	393.5
10°	389.9	389.5	387.3	*391.2*	390.8
12.5°	385.0	385.0	383.7	*387.3*	387.3
15°	379.7	380.2	378.8	*382.8*	382.4
17.5°	372.6	374.0	373.5	*377.5*	377.1
20°	365.1	366.4	366.9	*371.3*	371.3
22.5°	356.7	358.5	359.3	*363.8*	364.7
25°	347.4	350.0	351.4	*356.2*	356.7
27.5°	337.2	341.2	342.9	*347.4*	347.8
30°	327.0	330.5	333.6	*338.5*	339.4
32.5°	315.9	320.3	323.9	*329.7*	330.5
35°	304.0	309.3	313.7	*319.9*	321.2
37.5°	292.0	298.2	303.5	*309.7*	311.0
40°	280.5	286.2	292.4	*299.1*	300.9
42.5°	267.2	273.8	281.4	*288.9*	290.2
45°	253.4	261.9	270.3	*277.8*	280.0
47.5°	240.6	249.0	258.8	*266.3*	268.9
50°	226.4	236.2	245.9	*254.8*	257.4
52.5°	212.2	222.0	233.5	*242.4*	245.0
55°	198.5	207.8	221.1	*230.0*	232.6
57.5°	183.0	194.5	207.4	*218.0*	220.2
60°	167.9	179.4	194.1	*204.3*	207.8
62.5°	153.3	166.2	180.8	*191.0*	194.5
65°	137.4	151.5	166.6	*177.7*	181.2
67.5°	122.3	137.4	153.3	*164.4*	167.9
70°	106.8	121.8	138.7	*150.6*	153.7
72.5°	91.7	107.2	125.4	*136.9*	140.5
75°	76.2	92.6	111.2	*123.6*	127.6
77.5°	61.6	78.9	98.4	*110.8*	115.2
80°	48.3	66.0	85.5	*98.8*	102.4
82.5°	35.0	53.6	73.1	*86.8*	90.8
85°	23.5	42.1	62.0	*75.3*	79.8
87.5°	14.6	32.8	52.3	*65.1*	69.1
90°	11.5	45.4	76.3	*97.9*	104.4
92.5°	28.7	41.3	72.1	*93.3*	96.9
95°	86.7	51.3	70.9	*91.7*	97.2
97.5°	159.8	205.1	68.7	*87.6*	93.0
100°	246.2	284.2	98.4	*85.3*	89.9
102.5°	343.3	370.7	405.2	*85.7*	89.2
105°	446.9	464.5	488.2	*512.6*	463.2
107.5°	542.5	554.4	580.2	*598.7*	607.6
110°	639.1	649.7	674.1	*687.2*	695.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	732.9	747.0	764.5	*772.9*	782.2
115°	829.6	837.9	850.6	*863.3*	866.4
117.5°	916.4	924.9	942.6	*950.4*	954.0
120°	1004.1	1011.3	1022.8	*1034.6*	1035.2
122.5°	1086.5	1089.5	1104.4	*1114.7*	1114.9
125°	1164.1	1169.5	1177.7	*1190.5*	1194.6
127.5°	1239.2	1240.1	1256.4	*1262.9*	1264.5
130°	1310.7	1311.8	1323.3	*1332.8*	1335.4
132.5°	1377.0	1379.5	1390.7	*1399.7*	1400.9
135°	1442.8	1441.3	1450.3	*1460.3*	1465.9
137.5°	1501.6	1501.1	1510.3	*1519.9*	1520.6
140°	1559.0	1561.4	1564.9	*1575.0*	1578.8
142.5°	1610.0	1615.9	1616.9	*1624.8*	1626.5
145°	1663.0	1667.0	1667.0	*1671.1*	1675.8
147.5°	1704.2	1712.6	1711.1	*1713.0*	1716.3
150°	1749.8	1755.2	1753.8	*1753.8*	1755.2
152.5°	1787.6	1792.0	1789.1	*1792.0*	1790.6
155°	1822.9	1824.4	1820.0	*1825.9*	1821.5
157.5°	1853.8	1853.8	1847.9	*1855.3*	1847.9
160°	1880.3	1875.9	1874.4	*1883.2*	1874.4
162.5°	1903.8	1898.0	1896.5	*1905.3*	1895.0
165°	1923.0	1915.6	1915.6	*1927.4*	1914.1
167.5°	1939.2	1931.8	1930.3	*1943.6*	1928.9
170°	1952.4	1943.6	1945.0	*1956.8*	1942.1
172.5°	1961.2	1952.4	1953.9	*1965.6*	1949.5
175°	1967.1	1958.3	1959.8	*1973.0*	1955.3
177.5°	*1971.5*	*1961.2*	*1964.2*	*1975.9*	*1958.3*
180°	1967.1	1967.1	1967.1	*1967.1*	1967.1

(END OF REPORT)