

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: P1033448

Luminaire Tested: S124DIW-B350D1560UB27-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033448
REPORT IS A COMBINATION OF REPORTS P997418 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D1560UB27-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

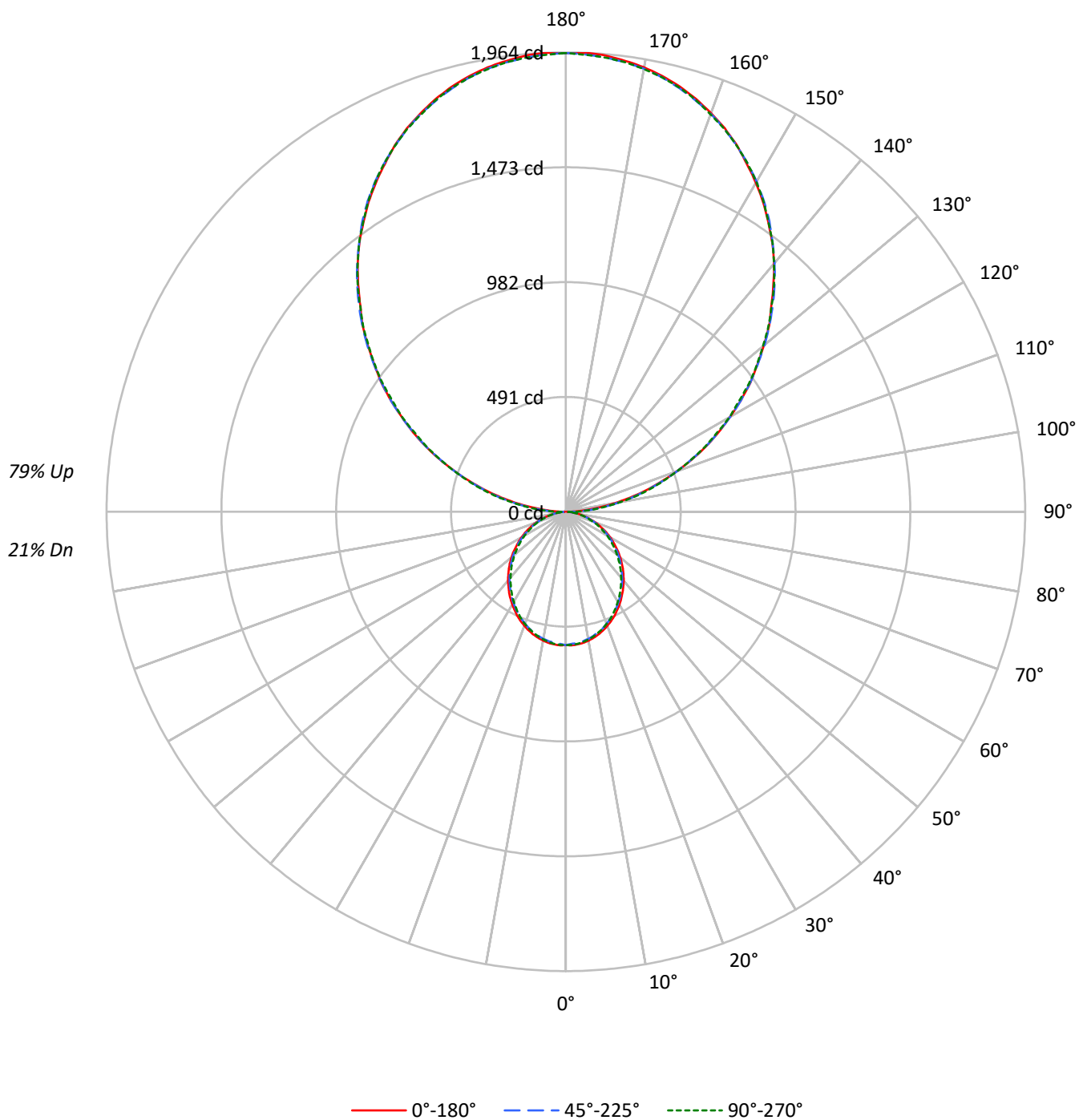
Lumens per Lamp: N/A
Luminaire Lumens: 6909.0 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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	89	89	89	89	67	67	67	48	48	48	30	30	30
1	91	87	83	80	81	77	74	71	59	57	55	42	41	39	26	26	25
2	83	76	70	65	73	67	63	59	51	48	45	37	35	33	23	22	21
3	76	67	60	54	67	59	53	49	45	41	38	32	30	28	20	19	18
4	69	59	51	46	61	52	46	41	40	36	32	29	26	24	18	17	15
5	63	52	45	39	56	47	40	35	36	31	28	26	23	20	16	15	13
6	58	47	39	33	51	42	35	30	32	27	24	23	20	18	15	13	12
7	54	42	34	29	47	37	31	26	29	24	21	21	18	16	13	12	10
8	50	38	31	26	44	34	28	23	26	22	18	19	16	14	12	11	9
9	46	34	27	23	41	31	25	20	24	19	16	17	14	12	11	10	8
10	43	31	25	20	38	28	22	18	22	18	15	16	13	11	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4648	4648	4648
5°	4652	4514	4520
10°	4612	4389	4359
15°	4546	4240	4176
20°	4461	4079	3988
25°	4367	3909	3784
30°	4252	3724	3561
35°	4134	3536	3346
40°	4010	3333	3116
45°	3879	3129	2902
50°	3736	2932	2665
55°	3580	2702	2429
60°	3420	2450	2184
65°	3238	2189	1907
70°	3025	1876	1611
75°	2712	1511	1289
80°	2311	1093	907
85°	1797	607	488

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3879 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	0.8
10°-20°	151.4	2.2
20°-30°	222.8	3.2
30°-40°	258.9	3.7
40°-50°	258.9	3.7
50°-60°	226.5	3.3
60°-70°	168.1	2.4
70°-80°	95.4	1.4
80°-90°	31.5	0.5
90°-100°	127.8	1.9
100°-110°	382.9	5.5
110°-120°	650.5	9.4
120°-130°	857.9	12.4
130°-140°	963.6	13.9
140°-150°	947.0	13.7
150°-160°	796.5	11.5
160°-170°	530.0	7.7
170°-180°	185.6	2.7
0°-30°	427.8	6.2
0°-40°	686.8	9.9
0°-60°	1172.2	17.0
0°-90°	1467.2	21.2
90°-120°	1161.2	16.8
90°-150°	3929.7	56.9
90°-180°	5442.0	78.8
0°-180°	6909.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	570	568	563	568	567	54
15°	542	540	534	536	535	153
25°	491	488	481	482	480	226
35°	422	419	413	410	407	264
45°	345	342	334	329	328	266
55°	261	259	253	248	245	234
65°	177	174	170	165	163	175
75°	94	92	90	88	87	100
85°	25	25	24	24	23	27
90°	5	21	33	42	46	8
95°	91	105	115	120	120	99
105°	353	355	361	366	370	375
115°	661	661	658	657	655	652
125°	963	963	962	959	956	859
135°	1242	1251	1251	1248	1244	961
145°	1509	1515	1517	1515	1511	945
155°	1729	1729	1728	1734	1728	796
165°	1882	1878	1875	1884	1878	531
175°	1958	1951	1949	1960	1949	186
180°	1961	1961	1961	1961	1961	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	570.0	570.0	570.0	570.0	570.0
2.5°	571.8	570.5	565.4	570.0	569.5
5°	569.5	567.7	562.7	567.7	566.8
7.5°	565.4	563.6	558.1	562.2	561.8
10°	559.5	557.7	551.7	555.4	554.5
12.5°	551.7	549.9	543.5	547.6	546.2
15°	542.1	540.3	533.5	536.2	534.8
17.5°	531.2	528.9	522.5	524.3	523.4
20°	518.8	516.6	509.7	511.1	510.2
22.5°	505.6	502.4	495.5	498.3	496.5
25°	491.0	487.8	481.4	481.8	480.0
27.5°	474.5	471.3	465.4	464.5	462.2
30°	458.1	454.4	448.5	446.7	444.4
32.5°	440.7	437.5	431.1	428.9	426.6
35°	422.5	419.3	412.9	409.7	407.4
37.5°	403.3	400.5	393.7	390.5	387.3
40°	384.6	380.9	374.1	369.5	367.2
42.5°	364.5	362.6	354.9	349.4	348.0
45°	344.8	341.6	334.3	329.3	327.9
47.5°	324.3	322.0	315.1	309.7	306.0
50°	303.3	301.4	295.0	288.7	285.9
52.5°	282.7	280.4	273.6	268.1	264.4
55°	260.8	259.4	253.0	247.5	244.8
57.5°	240.2	238.9	232.5	227.0	224.3
60°	218.8	216.5	210.6	206.4	204.2
62.5°	197.8	195.9	189.5	185.9	183.6
65°	176.8	174.5	169.9	165.3	163.1
67.5°	155.3	153.5	148.9	144.3	143.9
70°	135.6	132.5	128.8	125.1	123.8
72.5°	114.6	111.4	108.7	106.0	104.6
75°	94.1	91.8	89.5	87.7	87.2
77.5°	74.0	73.1	70.8	70.3	69.0
80°	56.2	54.8	53.9	53.0	52.5
82.5°	38.8	38.4	38.4	37.9	37.5
85°	24.7	24.7	23.7	23.7	23.3
87.5°	11.9	11.4	11.0	11.0	11.0
90°	4.6	21.2	33.4	42.5	45.5
92.5°	39.4	59.2	66.7	71.3	72.8
95°	91.0	104.7	115.3	119.8	119.8
97.5°	145.6	157.8	169.9	176.0	176.0
100°	212.4	218.4	232.1	235.1	235.1
102.5°	282.1	283.6	295.8	300.3	301.9
105°	353.4	354.9	361.0	365.6	370.1
107.5°	427.7	429.3	430.8	436.8	435.3
110°	503.6	506.6	505.1	502.1	506.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	582.5	582.5	579.4	579.4	579.4
115°	661.3	661.3	658.3	656.8	655.3
117.5°	735.7	735.7	734.1	729.6	725.0
120°	810.0	816.1	811.5	803.9	807.0
122.5°	887.4	888.9	887.4	882.8	875.2
125°	963.2	963.2	961.7	958.6	955.6
127.5°	1031.4	1036.0	1033.0	1029.9	1028.4
130°	1104.3	1108.8	1108.8	1105.8	1099.7
132.5°	1178.6	1181.6	1180.1	1177.1	1175.5
135°	1242.3	1251.4	1251.4	1248.4	1243.8
137.5°	1313.6	1318.1	1321.2	1316.6	1318.1
140°	1384.9	1387.9	1387.9	1386.4	1384.9
142.5°	1450.1	1453.1	1451.6	1451.6	1451.6
145°	1509.3	1515.3	1516.8	1515.3	1510.8
147.5°	1569.9	1577.5	1576.0	1574.5	1573.0
150°	1624.5	1630.6	1630.6	1630.6	1629.1
152.5°	1676.1	1679.1	1680.7	1685.2	1680.7
155°	1729.2	1729.2	1727.7	1733.7	1727.7
157.5°	1774.7	1771.7	1771.7	1776.2	1771.7
160°	1814.1	1812.6	1811.1	1815.7	1808.1
162.5°	1850.5	1846.0	1844.5	1853.6	1846.0
165°	1882.4	1877.8	1874.8	1883.9	1877.8
167.5°	1908.2	1902.1	1902.1	1911.2	1902.1
170°	1929.4	1921.8	1923.4	1932.5	1921.8
172.5°	1944.6	1938.5	1938.5	1949.1	1938.5
175°	1958.2	1950.7	1949.1	1959.8	1949.1
177.5°	1964.3	1956.7	1956.7	1967.3	1955.2
180°	1961.3	1961.3	1961.3	1961.3	1961.3

(END OF REPORT)