

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: P1033502

Luminaire Tested: S124DIW-B350D770UB27-4F0-XX-W2A-D

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033502
REPORT IS A COMBINATION OF REPORTS P997546 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D770UB27-4F0-XX-W2A-D
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

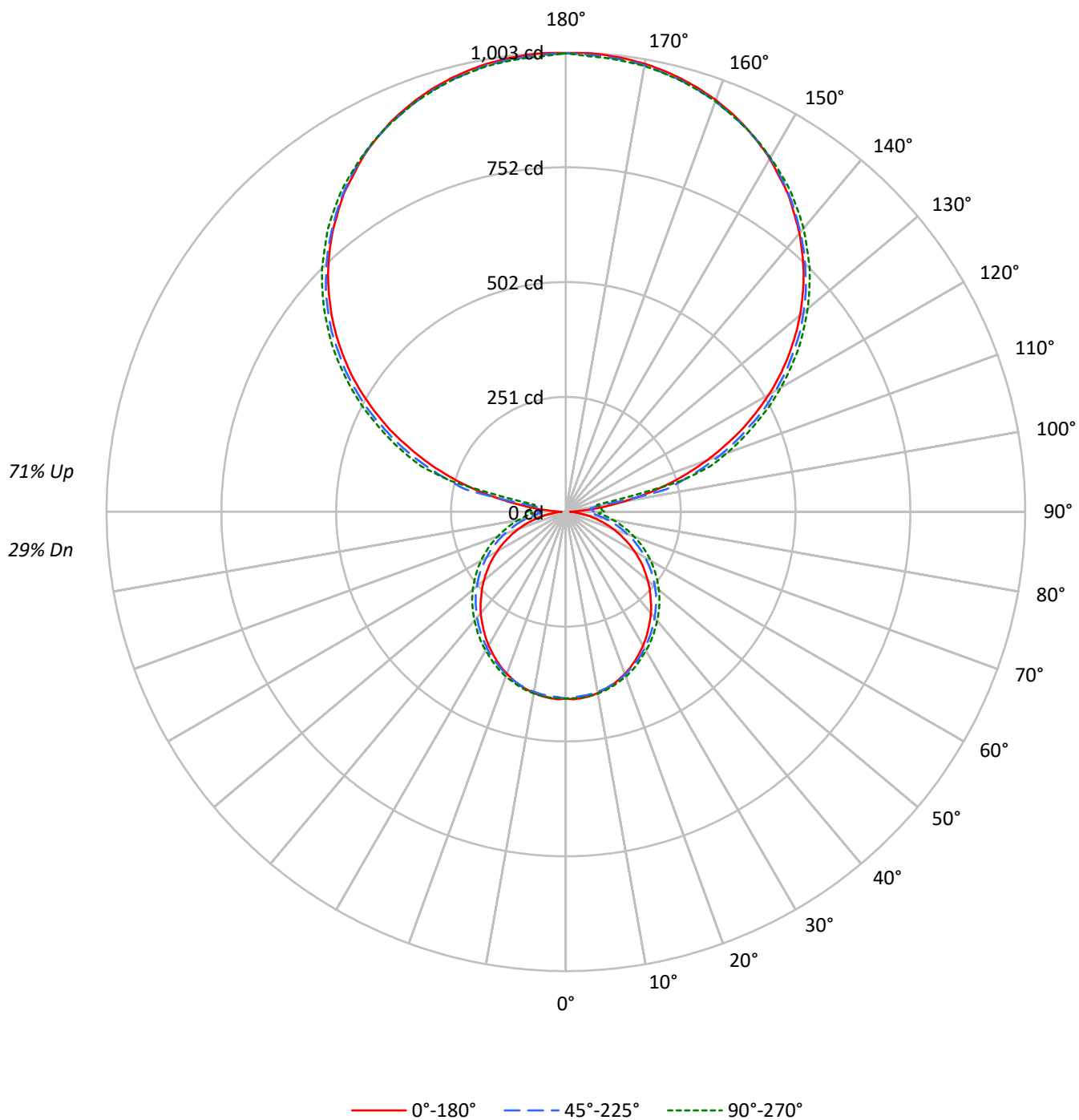
Lumens per Lamp: N/A
Luminaire Lumens: 4490.0 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 36.2
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37
1	92	88	84	80	83	79	75	72	62	59	57	46	44	43	31	30	30
2	84	76	70	65	75	69	63	59	54	50	47	40	38	35	27	26	24
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17
5	64	52	44	38	57	47	40	35	37	32	28	28	24	22	19	17	15
6	59	47	39	33	52	42	35	30	33	28	24	25	21	19	17	15	13
7	54	42	34	29	48	38	31	26	30	25	21	23	19	16	16	13	12
8	50	38	30	25	45	34	28	23	27	22	19	21	17	14	14	12	10
9	46	34	27	22	41	31	25	20	25	20	17	19	15	13	13	11	9
10	43	31	24	20	39	28	22	18	23	18	15	17	14	12	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3327	3327	3327
5°	3336	3240	3246
10°	3314	3176	3168
15°	3283	3105	3079
20°	3238	3027	2993
25°	3186	2942	2900
30°	3130	2857	2805
35°	3066	2770	2720
40°	3015	2687	2633
45°	2940	2609	2555
50°	2877	2520	2474
55°	2810	2435	2380
60°	2707	2328	2292
65°	2593	2214	2186
70°	2456	2082	2062
75°	2265	1937	1946
80°	2048	1789	1822
85°	1761	1640	1723

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 3099 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	0.9
10°-20°	110.8	2.5
20°-30°	167.5	3.7
30°-40°	202.6	4.5
40°-50°	214.2	4.8
50°-60°	201.6	4.5
60°-70°	167.3	3.7
70°-80°	117.4	2.6
80°-90°	68.3	1.5
90°-100°	72.6	1.6
100°-110°	248.0	5.5
110°-120°	437.4	9.7
120°-130°	541.4	12.1
130°-140°	572.1	12.7
140°-150°	531.5	11.8
150°-160°	427.8	9.5
160°-170°	275.9	6.1
170°-180°	95.1	2.1
0°-30°	316.9	7.1
0°-40°	519.5	11.6
0°-60°	935.3	20.8
0°-90°	1288.2	28.7
90°-120°	758.0	16.9
90°-150°	2403.0	53.5
90°-180°	3202.0	71.3
0°-180°	4490.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	408	407	404	408	407	39
15°	392	392	391	395	394	110
25°	358	361	362	367	368	165
35°	313	319	324	330	331	196
45°	261	270	279	286	289	202
55°	205	214	228	237	240	182
65°	142	156	172	183	187	140
75°	79	96	115	128	132	84
85°	24	43	64	78	82	25
90°	10	36	62	80	85	7
95°	47	37	56	73	78	56
105°	229	243	264	282	258	240
115°	423	430	444	455	458	417
125°	593	596	606	617	620	530
135°	734	734	740	749	753	566
145°	846	848	848	852	855	529
155°	928	928	926	929	927	428
165°	978	975	975	981	974	276
175°	1001	996	997	1004	995	95
180°	1001	1001	1001	1001	1001	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	408.0	408.0	408.0	408.0	408.0
2.5°	409.8	408.4	404.8	408.0	407.5
5°	408.4	407.1	403.9	407.5	407.1
7.5°	405.7	404.8	402.0	406.2	405.7
10°	402.0	401.6	399.3	403.4	403.0
12.5°	397.0	397.0	395.7	399.3	399.3
15°	391.5	392.0	390.6	394.7	394.3
17.5°	384.2	385.6	385.1	389.3	388.8
20°	376.5	377.8	378.3	382.9	382.9
22.5°	367.8	369.6	370.5	375.1	376.0
25°	358.2	360.9	362.3	367.3	367.8
27.5°	347.7	351.8	353.6	358.2	358.6
30°	337.2	340.8	344.0	349.1	350.0
32.5°	325.8	330.3	334.0	339.9	340.8
35°	313.4	318.9	323.5	329.9	331.2
37.5°	301.1	307.5	313.0	319.4	320.7
40°	289.2	295.1	301.5	308.4	310.2
42.5°	275.5	282.3	290.1	297.9	299.3
45°	261.3	270.0	278.7	286.5	288.7
47.5°	248.1	256.8	266.8	274.6	277.3
50°	233.5	243.5	253.6	262.7	265.4
52.5°	218.8	228.9	240.8	249.9	252.7
55°	204.7	214.3	228.0	237.1	239.9
57.5°	188.7	200.6	213.8	224.8	227.1
60°	173.2	185.0	200.1	210.6	214.3
62.5°	158.1	171.3	186.4	196.9	200.6
65°	141.6	156.3	171.8	183.2	186.9
67.5°	126.1	141.6	158.1	169.5	173.2
70°	110.1	125.6	143.0	155.3	158.5
72.5°	94.6	110.6	129.3	141.2	144.8
75°	78.6	95.5	114.7	127.5	131.6
77.5°	63.5	81.3	101.4	114.2	118.8
80°	49.8	68.1	88.2	101.9	105.5
82.5°	36.1	55.3	75.4	89.5	93.7
85°	24.2	43.4	64.0	77.7	82.2
87.5°	15.1	33.8	53.9	67.2	71.3
90°	9.5	36.1	61.7	79.5	84.6
92.5°	18.1	32.5	58.2	75.5	79.1
95°	47.1	36.7	56.2	73.1	77.9
97.5°	84.1	113.8	54.0	69.5	74.5
100°	127.8	153.1	67.6	67.3	71.3
102.5°	177.2	196.3	222.5	66.0	69.7
105°	229.4	243.0	263.8	281.9	258.5
107.5°	278.1	288.1	309.4	324.5	330.7
110°	327.1	335.7	356.1	368.1	374.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	374.5	384.5	401.1	410.3	417.0
115°	423.4	429.8	443.7	455.2	458.4
117.5°	467.6	473.4	489.3	498.2	501.8
120°	512.1	516.5	528.9	539.5	541.7
122.5°	554.0	555.5	569.3	579.2	580.9
125°	593.2	595.8	605.7	616.6	620.1
127.5°	631.3	631.7	644.5	652.0	654.4
130°	667.6	667.9	677.4	686.4	689.2
132.5°	701.3	702.3	710.8	719.4	721.3
135°	734.5	733.7	739.9	748.7	753.0
137.5°	764.4	764.0	769.6	777.9	779.4
140°	793.6	794.7	796.6	804.9	807.8
142.5°	819.4	822.4	822.7	829.2	831.1
145°	846.4	848.1	848.1	851.6	855.0
147.5°	867.3	871.3	870.6	871.8	874.4
150°	890.5	893.0	892.3	892.3	893.0
152.5°	909.5	911.8	910.3	911.8	911.0
155°	927.5	928.2	926.0	929.0	926.7
157.5°	943.2	943.2	940.2	943.9	940.2
160°	956.7	954.4	953.7	958.2	953.7
162.5°	968.6	965.7	964.9	969.4	964.2
165°	978.4	974.6	974.6	980.6	973.9
167.5°	986.6	982.9	982.1	988.9	981.4
170°	993.3	988.9	989.6	995.6	988.1
172.5°	997.8	993.3	994.1	1000.1	991.9
175°	1000.8	996.3	997.1	1003.8	994.8
177.5°	1003.1	997.8	999.3	1005.3	996.3
180°	1000.8	1000.8	1000.8	1000.8	1000.8

(END OF REPORT)