

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: P1033529

Luminaire Tested: S124DIW-B350D770UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033529
REPORT IS A COMBINATION OF REPORTS P997607 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D770UB50-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

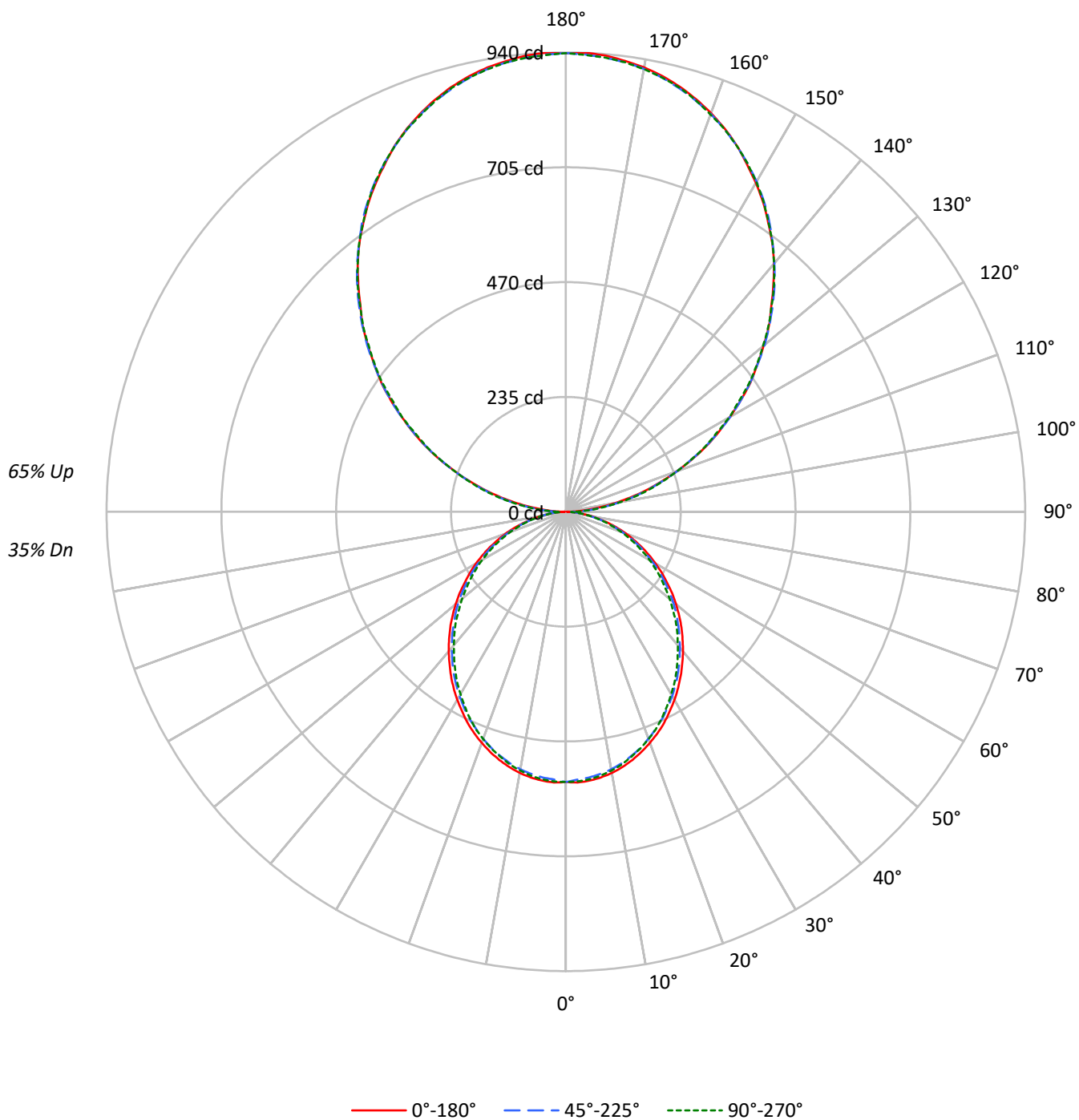
Lumens per Lamp: N/A
Luminaire Lumens: 4025.0 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43
1	94	90	86	83	85	82	78	76	66	64	62	51	50	48	38	37	36
2	86	79	73	68	77	71	66	62	58	54	51	45	42	40	33	32	30
3	78	69	62	56	71	63	57	52	51	46	43	40	37	34	29	27	26
4	72	61	53	48	65	56	49	44	45	40	36	35	32	29	26	24	22
5	66	54	46	41	59	49	43	37	40	35	31	32	28	25	24	21	19
6	60	49	41	35	54	44	37	32	36	31	27	29	25	22	21	19	17
7	56	44	36	31	50	40	33	28	33	28	24	26	22	19	19	17	15
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	18	15	13
9	48	36	29	24	43	33	27	22	27	22	19	22	18	15	16	14	12
10	45	33	26	21	41	30	24	20	25	20	17	20	16	14	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4509	4509	4509
5°	4512	4379	4384
10°	4474	4257	4227
15°	4409	4112	4050
20°	4327	3956	3867
25°	4235	3791	3671
30°	4124	3612	3454
35°	4009	3430	3245
40°	3889	3233	3023
45°	3763	3036	2815
50°	3623	2844	2585
55°	3472	2621	2356
60°	3317	2376	2118
65°	3139	2124	1849
70°	2936	1819	1563
75°	2631	1466	1251
80°	2242	1061	879
85°	1739	589	474

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3763 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	1.3
10°-20°	146.8	3.6
20°-30°	216.1	5.4
30°-40°	251.2	6.2
40°-50°	251.1	6.2
50°-60°	219.6	5.5
60°-70°	163.1	4.1
70°-80°	92.5	2.3
80°-90°	28.5	0.7
90°-100°	61.2	1.5
100°-110°	183.2	4.6
110°-120°	311.3	7.7
120°-130°	410.5	10.2
130°-140°	461.1	11.5
140°-150°	453.2	11.3
150°-160°	381.1	9.5
160°-170°	253.6	6.3
170°-180°	88.8	2.2
0°-30°	415.0	10.3
0°-40°	666.1	16.6
0°-60°	1136.9	28.2
0°-90°	1421.0	35.3
90°-120°	555.7	13.8
90°-150°	1880.4	46.7
90°-180°	2604.0	64.7
0°-180°	4025.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	553	553	553	553	553	
5°	552	551	546	551	550	52
15°	526	524	517	520	519	148
25°	476	473	467	467	466	219
35°	410	407	400	397	395	256
45°	334	331	324	319	318	258
55°	253	252	245	240	237	227
65°	171	169	165	160	158	170
75°	91	89	87	85	85	97
85°	24	24	23	23	23	26
90°	2	10	16	20	22	5
95°	44	50	55	57	57	47
105°	169	170	173	175	177	179
115°	316	316	315	314	314	312
125°	461	461	460	459	457	411
135°	594	599	599	597	595	460
145°	722	725	726	725	723	452
155°	827	827	827	830	827	381
165°	901	899	897	902	899	254
175°	937	933	933	938	933	89
180°	938	938	938	938	938	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	552.9	552.9	552.9	552.9	552.9
2.5°	554.6	553.3	548.4	552.9	552.4
5°	552.4	550.6	545.8	550.6	549.8
7.5°	548.4	546.6	541.3	545.3	544.9
10°	542.7	540.9	535.1	538.7	537.8
12.5°	535.1	533.4	527.2	531.1	529.8
15°	525.8	524.1	517.4	520.1	518.7
17.5°	515.2	513.0	506.8	508.6	507.7
20°	503.2	501.0	494.4	495.7	494.8
22.5°	490.4	487.3	480.6	483.3	481.5
25°	476.2	473.1	466.9	467.4	465.6
27.5°	460.3	457.2	451.4	450.5	448.3
30°	444.3	440.8	435.0	433.2	431.0
32.5°	427.5	424.4	418.2	416.0	413.8
35°	409.8	406.7	400.5	397.4	395.1
37.5°	391.2	388.5	381.9	378.8	375.7
40°	373.0	369.5	362.8	358.4	356.2
42.5°	353.5	351.7	344.2	338.9	337.6
45°	334.5	331.4	324.3	319.4	318.1
47.5°	314.5	312.3	305.7	300.3	296.8
50°	294.1	292.4	286.2	280.0	277.3
52.5°	274.2	272.0	265.4	260.0	256.5
55°	252.9	251.6	245.4	240.1	237.4
57.5°	233.0	231.7	225.5	220.2	217.5
60°	212.2	210.0	204.2	200.2	198.0
62.5°	191.8	190.0	183.8	180.3	178.1
65°	171.4	169.2	164.8	160.4	158.1
67.5°	150.6	148.8	144.4	140.0	139.5
70°	131.6	128.5	124.9	121.4	120.1
72.5°	111.2	108.1	105.4	102.8	101.4
75°	91.3	89.0	86.8	85.1	84.6
77.5°	71.8	70.9	68.7	68.2	66.9
80°	54.5	53.2	52.3	51.4	50.9
82.5°	37.7	37.2	37.2	36.8	36.3
85°	23.9	23.9	23.0	23.0	22.6
87.5°	11.5	11.1	10.6	10.6	10.6
90°	2.2	10.2	16.0	20.3	21.8
92.5°	18.9	28.3	31.9	34.1	34.8
95°	43.5	50.1	55.2	57.3	57.3
97.5°	69.7	75.5	81.3	84.2	84.2
100°	101.6	104.5	111.1	112.5	112.5
102.5°	135.0	135.7	141.5	143.7	144.4
105°	169.1	169.8	172.7	174.9	177.1
107.5°	204.7	205.4	206.1	209.0	208.3
110°	241.0	242.4	241.7	240.3	242.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	278.7	278.7	277.3	277.3	277.3
115°	316.5	316.5	315.0	314.3	313.6
117.5°	352.0	352.0	351.3	349.1	346.9
120°	387.6	390.5	388.3	384.7	386.1
122.5°	424.6	425.3	424.6	422.4	418.8
125°	460.9	460.9	460.2	458.7	457.3
127.5°	493.6	495.7	494.3	492.8	492.1
130°	528.4	530.6	530.6	529.1	526.2
132.5°	564.0	565.4	564.7	563.2	562.5
135°	594.5	598.8	598.8	597.4	595.2
137.5°	628.6	630.7	632.2	630.0	630.7
140°	662.7	664.1	664.1	663.4	662.7
142.5°	693.9	695.3	694.6	694.6	694.6
145°	722.2	725.1	725.8	725.1	722.9
147.5°	751.2	754.9	754.1	753.4	752.7
150°	777.4	780.3	780.3	780.3	779.5
152.5°	802.0	803.5	804.2	806.4	804.2
155°	827.4	827.4	826.7	829.6	826.7
157.5°	849.2	847.8	847.8	849.9	847.8
160°	868.1	867.4	866.6	868.8	865.2
162.5°	885.5	883.3	882.6	887.0	883.3
165°	900.8	898.6	897.1	901.5	898.6
167.5°	913.1	910.2	910.2	914.5	910.2
170°	923.3	919.6	920.4	924.7	919.6
172.5°	930.5	927.6	927.6	932.7	927.6
175°	937.0	933.4	932.7	937.8	932.7
177.5°	940.0	936.3	936.3	941.4	935.6
180°	938.5	938.5	938.5	938.5	938.5

(END OF REPORT)