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: P1033645

Luminaire Tested: S124DIW-B575D470UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

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Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1033645
	REPORT IS A COMBINATION OF REPORTS P997870 AND P1007351
Test Lab:	INNOVATION CENTER
Issue Date:	5/6/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	NEO-RAY
Catalog Number:	S124DIW-B575D470UB50-4F0-XX-W2A-F
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:	4211.0 lumens
Efficiency:	N/A
Efficacy:	113.2 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:	General Diffuse

Input Watts (W):	37.2
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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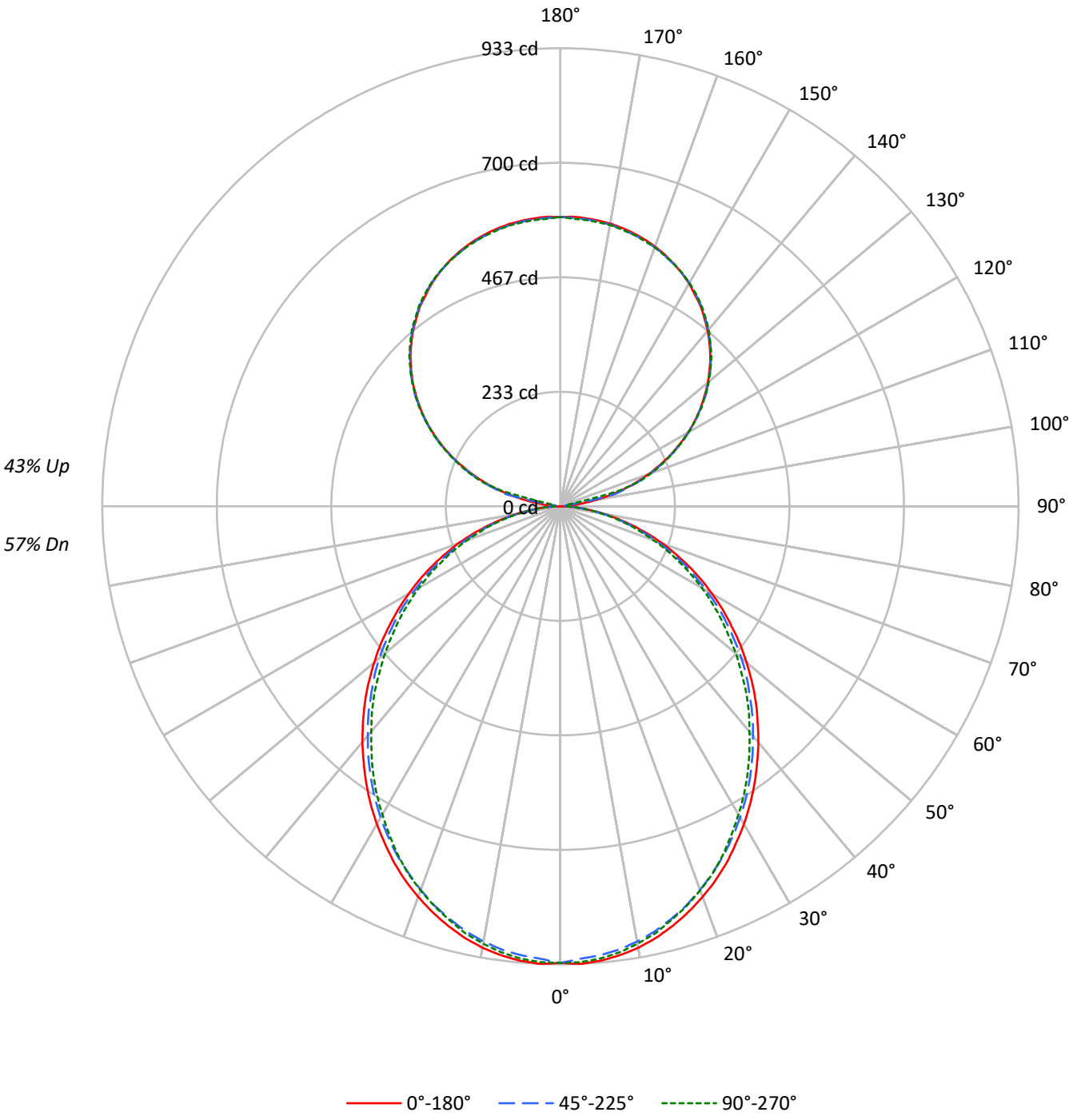
Luminous Intensity Polar Plot



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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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	99	95	91	87	92	88	85	82	76	74	71	65	63	62	55	54	53	48
2	90	83	77	71	84	77	72	67	67	63	59	57	54	52	48	46	44	40
3	82	73	65	59	76	68	61	56	59	54	50	51	47	44	43	40	38	34
4	75	64	56	50	70	60	53	48	52	47	42	45	41	37	38	35	32	29
5	69	57	49	43	64	54	46	41	47	41	37	41	36	32	35	31	28	25
6	64	52	43	37	59	48	41	36	42	36	32	37	32	28	31	28	25	22
7	59	47	39	33	55	44	37	31	38	33	28	33	29	25	29	25	22	20
8	55	42	35	29	51	40	33	28	35	29	25	31	26	22	26	23	20	18
9	51	39	31	26	48	36	30	25	32	27	23	28	24	20	24	21	18	16
10	48	36	28	23	44	34	27	22	30	24	20	26	22	18	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7584	7584	7584
5°	7589	7366	7375
10°	7526	7161	7111
15°	7417	6918	6813
20°	7280	6655	6506
25°	7125	6377	6174
30°	6937	6077	5811
35°	6744	5769	5459
40°	6541	5438	5085
45°	6330	5106	4735
50°	6095	4785	4348
55°	5841	4408	3963
60°	5579	3997	3563
65°	5282	3572	3111
70°	4937	3059	2627
75°	4424	2467	2104
80°	3771	1783	1480
85°	2925	992	797

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 6330 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.7	2.1
10°-20°	247.0	5.9
20°-30°	363.4	8.6
30°-40°	422.5	10.0
40°-50°	422.5	10.0
50°-60°	369.5	8.8
60°-70°	274.3	6.5
70°-80°	155.6	3.7
80°-90°	45.8	1.1
90°-100°	19.6	0.5
100°-110°	128.8	3.1
110°-120°	245.9	5.8
120°-130°	312.2	7.4
130°-140°	333.9	7.9
140°-150°	312.3	7.4
150°-160°	251.8	6.0
160°-170°	162.4	3.9
170°-180°	56.0	1.3
0°-30°	698.1	16.6
0°-40°	1120.5	26.6
0°-60°	1912.5	45.4
0°-90°	2388.2	56.7
90°-120°	394.2	9.4
90°-150°	1352.6	32.1
90°-180°	1823.0	43.3
0°-180°	4211.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	930	930	930	930	930	
5°	929	926	918	926	925	88
15°	884	882	870	875	873	249
25°	801	796	785	786	783	369
35°	689	684	674	668	665	431
45°	563	557	546	537	535	434
55°	426	423	413	404	399	381
65°	288	285	277	270	266	285
75°	154	150	146	143	142	163
85°	40	40	39	39	38	43
90°	1	6	10	12	13	4
95°	24	9	10	12	13	30
105°	133	135	138	141	126	139
115°	248	249	248	249	249	244
125°	348	350	349	350	351	311
135°	432	431	433	434	435	333
145°	498	499	499	500	500	311
155°	546	546	545	547	545	252
165°	576	574	574	577	573	163
175°	589	586	587	591	586	56
180°	589	589	589	589	589	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	*930.0*	930.0	930.0	930.0	930.0
2.5°	*933.0*	*930.7*	*922.5*	*930.0*	*929.2*
5°	*929.2*	926.3	918.1	926.3	924.8
7.5°	*922.5*	919.6	910.6	917.3	916.6
10°	*912.9*	909.9	900.2	906.1	904.7
12.5°	*900.2*	897.2	886.8	893.5	891.2
15°	*884.5*	881.6	870.4	874.8	872.6
17.5°	*866.6*	862.9	852.5	855.5	854.0
20°	*846.5*	842.8	831.6	833.9	832.4
22.5°	*824.9*	819.7	808.5	813.0	810.0
25°	*801.1*	795.9	785.4	786.2	783.2
27.5°	*774.2*	769.0	759.3	757.9	754.1
30°	*747.4*	741.5	731.8	728.8	725.1
32.5°	*719.1*	713.9	703.5	699.7	696.0
35°	*689.3*	684.1	673.6	668.4	664.7
37.5°	*658.0*	653.5	642.3	637.1	631.9
40°	*627.4*	621.5	610.3	602.9	599.1
42.5°	*594.7*	591.7	579.0	570.1	567.8
45°	*562.6*	557.4	545.5	537.3	535.0
47.5°	*529.1*	525.4	514.2	505.2	499.3
50°	*494.8*	491.8	481.4	471.0	466.5
52.5°	*461.3*	457.5	446.4	437.4	431.5
55°	*425.5*	423.3	412.8	403.9	399.4
57.5°	*392.0*	389.7	379.3	370.4	365.9
60°	*356.9*	353.2	343.5	336.8	333.1
62.5°	*322.7*	319.7	309.3	303.3	299.6
65°	*288.4*	284.7	277.2	269.8	266.0
67.5°	*253.4*	250.4	242.9	235.5	234.7
70°	*221.3*	216.1	210.1	204.2	201.9
72.5°	*187.0*	181.8	177.4	172.9	170.6
75°	*153.5*	149.8	146.1	143.1	142.3
77.5°	*120.7*	119.2	115.5	114.8	112.5
80°	*91.7*	89.4	87.9	86.4	85.7
82.5°	*63.3*	62.6	62.6	61.9	61.1
85°	*40.2*	40.2	38.7	38.7	38.0
87.5°	*19.4*	18.6	17.9	17.9	17.9
90°	*1.3*	6.2	9.7	12.3	13.2
92.5°	*6.6*	5.7	9.3	11.9	11.9
95°	*24.2*	9.3	9.7	12.3	12.8
97.5°	*46.3*	56.0	9.7	11.9	12.3
100°	*72.3*	80.2	19.4	11.9	12.3
102.5°	*101.3*	106.6	111.9	12.8	12.8
105°	*132.6*	135.3	137.5	141.4	125.6
107.5°	*161.3*	162.6	165.7	167.9	169.6
110°	*190.3*	191.7	194.3	195.2	196.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	*218.5*	221.2	222.1	221.6	223.4
115°	*247.6*	248.9	248.5	249.4	249.4
117.5°	*273.6*	275.4	276.7	276.2	276.2
120°	*300.0*	301.8	301.4	302.2	301.4
122.5°	*324.7*	325.6	326.5	326.9	326.0
125°	*348.1*	349.8	348.9	350.3	350.7
127.5°	*370.5*	371.0	373.2	372.7	372.3
130°	*392.1*	392.6	393.9	394.3	394.3
132.5°	*412.0*	412.8	414.6	415.0	414.6
135°	*431.8*	431.3	433.1	434.0	434.9
137.5°	*449.4*	449.4	451.6	452.5	452.0
140°	*466.6*	467.5	468.3	469.7	470.1
142.5°	*482.0*	483.8	484.2	485.1	485.1
145°	*497.9*	499.2	499.2	499.6	500.5
147.5°	*510.2*	512.8	512.4	512.8	513.3
150°	*523.9*	525.6	525.2	525.2	525.6
152.5°	*535.3*	536.6	535.8	536.6	536.2
155°	*545.9*	546.3	545.0	546.8	545.4
157.5°	*555.1*	555.1	553.4	555.6	553.4
160°	*563.1*	561.8	561.3	564.0	561.3
162.5°	*570.1*	568.4	567.9	570.6	567.5
165°	*575.9*	573.6	573.6	577.2	573.2
167.5°	*580.7*	578.5	578.1	582.0	577.6
170°	*584.7*	582.0	582.5	586.0	581.6
172.5°	*587.3*	584.7	585.1	588.6	583.8
175°	*589.1*	586.4	586.9	590.8	585.5
177.5°	*590.4*	587.3	588.2	591.7	586.4
180°	*589.1*	589.1	589.1	589.1	589.1

(END OF REPORT)