

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



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060483

Luminaire Tested: S124RDRP-S575D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060483
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S575D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

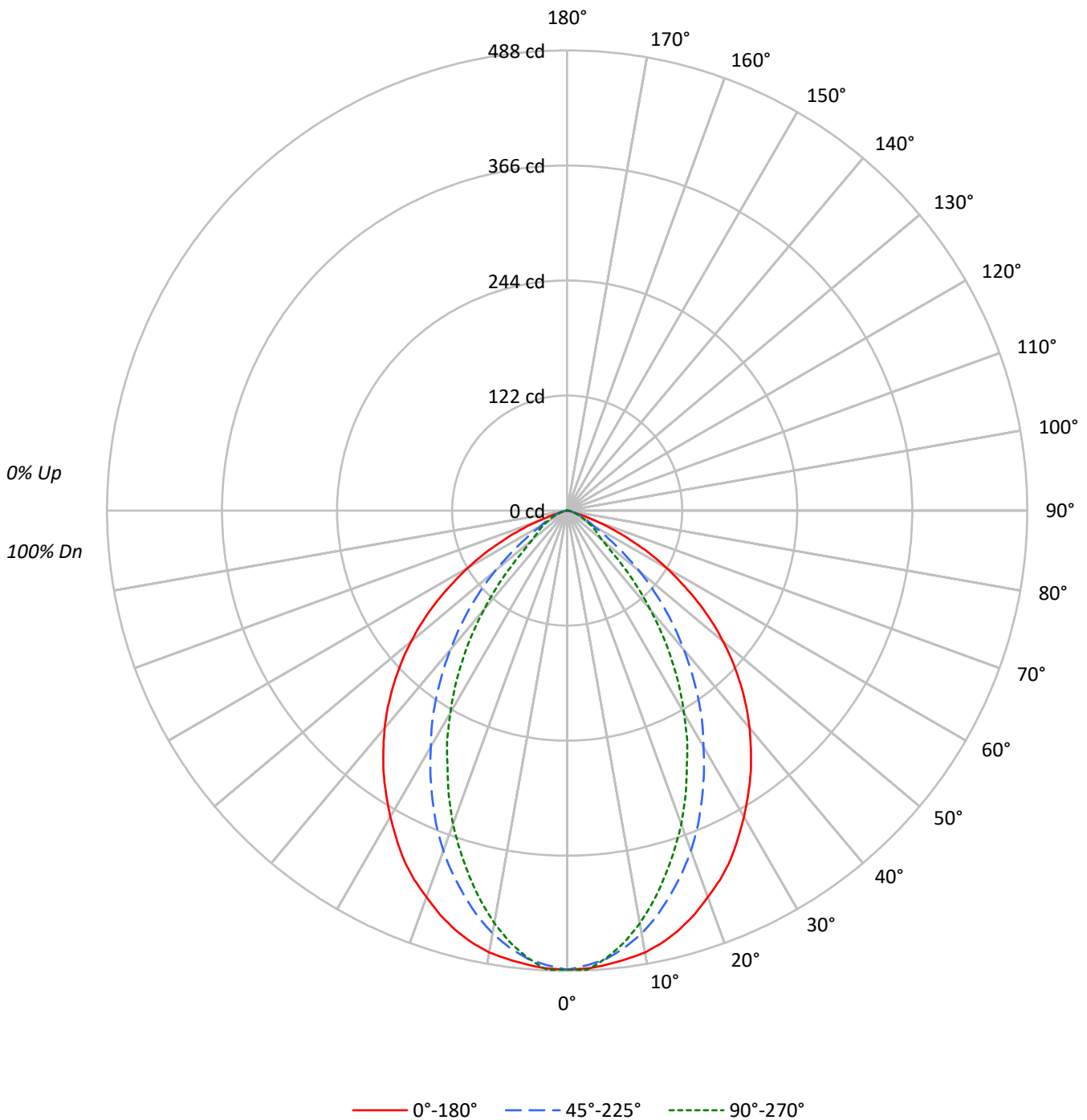
Lumens per Lamp: N/A
Luminaire Lumens: 717.7 lumens
Efficiency: N/A
Efficacy: 36.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P1060483

CATALOG NUMBER: S124RDRP-S575D840-X4F0-XX-UDD-SVL-B

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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80					80			
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71					71			
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63					63			
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57					57			
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51					51			
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43					43			
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39					39			
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4192	4192	4192
5°	4179	4125	4119
10°	4160	3981	3885
15°	4101	3765	3576
20°	3996	3518	3242
25°	3889	3211	2853
30°	3729	2877	2461
35°	3568	2544	2032
40°	3384	2166	1541
45°	3164	1771	1035
50°	2894	1341	643
55°	2542	886	545
60°	2101	543	450
65°	1522	420	363
70°	828	310	277
75°	183	230	250
80°	134	169	203
85°	138	138	207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3164 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.1	6.3
10°-20°	119.8	16.7
20°-30°	158.7	22.1
30°-40°	157.5	21.9
40°-50°	121.2	16.9
50°-60°	72.2	10.1
60°-70°	32.8	4.6
70°-80°	8.5	1.2
80°-90°	1.9	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	323.6	45.1
0°-40°	481.1	67.0
0°-60°	674.5	94.0
0°-90°	717.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	717.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	487	487	487	487	487	
5°	483	484	477	477	476	46
15°	460	448	422	408	401	129
25°	409	380	338	310	300	188
35°	339	297	242	205	193	212
45°	260	209	145	102	85	200
55°	169	121	59	37	36	151
65°	75	45	21	18	18	75
75°	6	7	7	8	8	11
85°	1	1	1	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	486.8	486.8	486.8	486.8	486.8
2.5°	486.1	486.8	482.7	486.1	487.5
5°	483.4	484.0	477.2	477.2	476.5
7.5°	479.9	478.6	467.6	463.5	462.1
10°	475.8	471.0	455.3	447.0	444.3
12.5°	469.0	461.4	440.2	428.5	423.7
15°	460.0	448.4	422.3	407.9	401.1
17.5°	449.1	434.7	403.8	385.3	377.8
20°	436.1	416.9	383.9	360.6	353.8
22.5°	423.7	399.7	362.0	335.3	327.7
25°	409.3	379.8	338.0	309.9	300.3
27.5°	392.2	360.6	314.0	285.2	275.6
30°	375.0	340.1	289.3	259.2	247.5
32.5°	357.2	318.8	266.7	232.4	221.5
35°	339.4	296.9	242.0	205.0	193.3
37.5°	320.2	274.9	217.3	178.9	165.9
40°	301.0	253.7	192.7	153.6	137.1
42.5°	281.1	231.7	168.7	127.5	111.1
45°	259.8	209.1	145.4	101.5	85.0
47.5°	238.6	187.9	122.0	76.1	61.0
50°	216.0	165.2	100.1	55.5	48.0
52.5°	193.3	143.3	78.2	43.2	41.1
55°	169.3	120.7	59.0	37.0	36.3
57.5°	144.7	100.1	42.5	32.2	30.9
60°	122.0	80.9	31.5	27.4	26.1
62.5°	98.7	61.0	26.1	22.6	21.3
65°	74.7	44.6	20.6	17.8	17.8
67.5°	54.2	30.2	16.5	14.4	13.7
70°	32.9	18.5	12.3	11.7	11.0
72.5°	16.5	11.0	9.6	8.9	8.9
75°	5.5	6.9	6.9	7.5	7.5
77.5°	4.1	4.8	4.8	5.5	5.5
80°	2.7	3.4	3.4	4.1	4.1
82.5°	2.1	2.1	2.7	2.7	3.4
85°	1.4	1.4	1.4	2.1	2.1
87.5°	0.7	0.7	0.7	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.10	15.43	14.46	15.75	16.06	5.64	6.98	6.01	7.29	7.61
	3H	14.61	15.79	14.99	16.12	16.48	6.46	7.64	6.84	7.97	8.34
	4H	14.57	15.67	14.98	16.02	16.41	6.74	7.84	7.15	8.19	8.58
	6H	14.51	15.52	14.92	15.89	16.28	6.92	7.92	7.33	8.29	8.69
	8H	14.47	15.43	14.90	15.82	16.22	6.98	7.93	7.41	8.32	8.73
	12H	14.43	15.34	14.87	15.73	16.16	7.03	7.94	7.46	8.32	8.75
4H	2H	13.94	15.04	14.34	15.39	15.77	6.09	7.19	6.49	7.54	7.92
	3H	14.50	15.39	14.91	15.79	16.20	7.05	7.95	7.47	8.35	8.76
	4H	14.46	15.26	14.90	15.68	16.12	7.41	8.21	7.85	8.63	9.07
	6H	14.41	15.10	14.87	15.54	16.01	7.67	8.35	8.13	8.80	9.26
	8H	14.36	15.00	14.83	15.45	15.92	7.75	8.39	8.22	8.84	9.31
	12H	14.33	14.89	14.81	15.37	15.85	7.83	8.39	8.32	8.88	9.35
8H	4H	14.35	14.99	14.82	15.44	15.91	7.50	8.14	7.97	8.59	9.06
	6H	14.29	14.81	14.79	15.31	15.79	7.81	8.34	8.32	8.83	9.31
	8H	14.24	14.71	14.77	15.23	15.72	7.94	8.41	8.46	8.93	9.42
	12H	14.21	14.63	14.73	15.12	15.69	8.08	8.49	8.60	8.99	9.56
12H	4H	14.31	14.88	14.80	15.36	15.83	7.48	8.04	7.96	8.52	9.00
	6H	14.24	14.71	14.76	15.22	15.71	7.79	8.26	8.31	8.78	9.27
	8H	14.21	14.62	14.73	15.12	15.69	7.96	8.37	8.47	8.87	9.44