

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: P1060404

Luminaire Tested: S124RDRP-S350D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060404
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D840-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

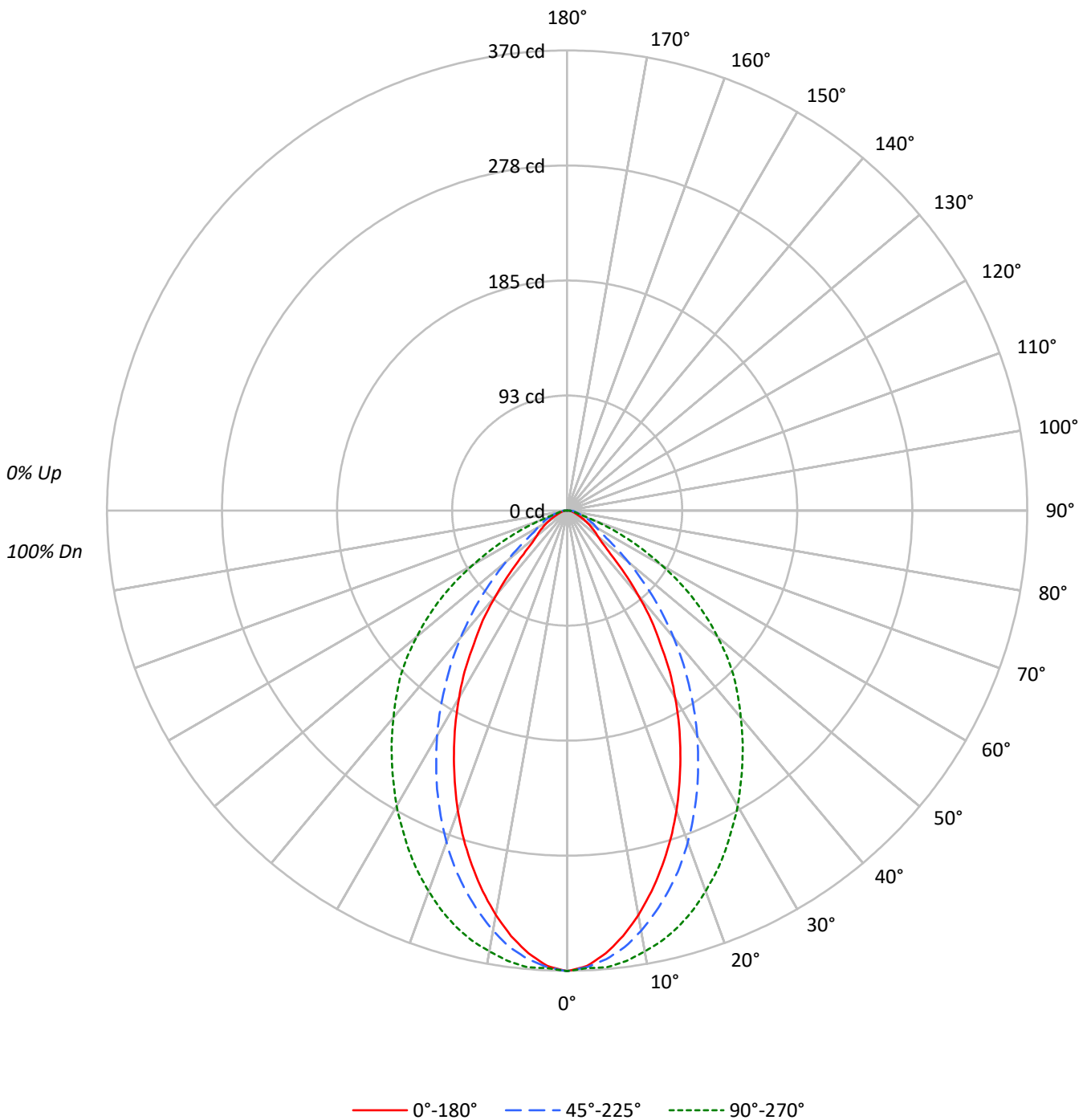
Lumens per Lamp: N/A
Luminaire Lumens: 524.0 lumens
Efficiency: N/A
Efficacy: 41.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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

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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									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	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																												
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																												
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79																												
3	97	88	82	76	94	87	81	76	84	79	75	81	77	73	79	75	72	70																												
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63																												
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57																												
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51																												
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47																												
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43																												
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3189	3189	3189
5°	3089	3129	3186
10°	2886	2999	3147
15°	2633	2818	3087
20°	2354	2601	2984
25°	2048	2351	2862
30°	1728	2081	2727
35°	1374	1791	2583
40°	999	1493	2442
45°	604	1179	2313
50°	433	853	2117
55°	366	578	1869
60°	300	470	1510
65°	236	422	1088
70°	199	355	574
75°	180	329	289
80°	183	327	288
85°	247	494	326

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2313 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	6.5
10°-20°	89.3	17.0
20°-30°	115.8	22.1
30°-40°	111.5	21.3
40°-50°	83.0	15.8
50°-60°	51.0	9.7
60°-70°	25.1	4.8
70°-80°	9.8	1.9
80°-90°	4.5	0.9
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°	239.3	45.7
0°-40°	350.8	66.9
0°-60°	484.7	92.5
0°-90°	524.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	524.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	370	370	370	370	370	
5°	357	363	362	365	369	33
15°	295	305	316	335	346	83
25°	216	227	247	278	301	99
35°	131	143	170	213	246	82
45°	50	62	97	149	190	41
55°	24	25	38	88	124	22
65°	12	12	21	33	53	12
75°	5	10	10	9	9	6
85°	2	5	5	5	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	370.3	370.3	370.3	370.3	370.3
2.5°	366.5	370.7	367.4	367.8	368.2
5°	357.4	362.8	362.0	365.3	368.6
7.5°	345.0	351.2	354.1	360.7	365.3
10°	330.1	337.2	343.0	353.7	359.9
12.5°	313.6	321.9	330.1	344.6	354.1
15°	295.4	304.9	316.1	335.1	346.3
17.5°	276.8	286.3	300.8	322.7	336.7
20°	256.9	267.2	283.8	308.2	325.6
22.5°	236.2	247.4	265.6	293.3	314.0
25°	215.5	227.1	247.4	278.4	301.2
27.5°	194.8	206.0	227.9	262.7	287.5
30°	173.8	185.3	209.3	245.7	274.3
32.5°	153.5	164.2	189.9	229.6	259.8
35°	130.7	143.1	170.4	213.1	245.7
37.5°	111.3	122.5	151.8	196.5	231.7
40°	88.9	101.4	132.8	180.4	217.2
42.5°	68.3	80.7	114.6	164.2	203.5
45°	49.6	61.6	96.8	149.3	189.9
47.5°	37.6	44.7	79.4	134.9	174.6
50°	32.3	34.3	63.7	119.1	158.0
52.5°	28.5	29.4	49.6	103.4	141.5
55°	24.4	25.2	38.5	87.7	124.5
57.5°	20.7	21.1	31.0	72.8	106.3
60°	17.4	17.8	27.3	58.3	87.7
62.5°	14.5	14.9	24.4	45.1	69.9
65°	11.6	12.4	20.7	33.1	53.4
67.5°	9.5	11.2	17.4	23.2	37.2
70°	7.9	10.8	14.1	16.1	22.8
72.5°	6.6	9.9	12.0	11.6	11.2
75°	5.4	9.5	9.9	9.1	8.7
77.5°	4.6	8.3	8.3	7.4	7.0
80°	3.7	6.6	6.6	6.6	5.8
82.5°	3.3	5.4	5.8	5.8	4.6
85°	2.5	4.6	5.0	5.0	3.3
87.5°	1.7	4.1	4.6	4.1	2.5
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	3.81	5.16	4.18	5.47	5.78	12.98	14.32	13.35	14.63	14.95
	3H	4.93	6.12	5.31	6.45	6.82	13.49	14.68	13.87	15.01	15.37
	4H	5.45	6.56	5.85	6.91	7.29	13.51	14.62	13.91	14.97	15.35
	6H	5.88	6.90	6.30	7.27	7.67	13.52	14.54	13.93	14.91	15.30
	8H	6.07	7.04	6.50	7.43	7.83	13.52	14.49	13.95	14.88	15.28
	12H	6.25	7.18	6.69	7.56	7.99	13.52	14.45	13.96	14.83	15.26
4H	2H	4.96	6.07	5.36	6.42	6.80	12.87	13.98	13.27	14.33	14.72
	3H	6.31	7.21	6.72	7.62	8.02	13.46	14.37	13.87	14.77	15.18
	4H	7.04	7.85	7.47	8.27	8.71	13.52	14.33	13.96	14.75	15.20
	6H	7.65	8.35	8.11	8.80	9.26	13.60	14.30	14.06	14.74	15.21
	8H	7.89	8.55	8.36	8.99	9.46	13.63	14.28	14.09	14.73	15.20
	12H	8.13	8.71	8.61	9.19	9.67	13.67	14.25	14.15	14.73	15.21
8H	4H	7.50	8.16	7.97	8.61	9.08	13.48	14.14	13.95	14.58	15.05
	6H	8.35	8.89	8.85	9.39	9.87	13.60	14.14	14.11	14.64	15.12
	8H	8.76	9.24	9.28	9.76	10.25	13.69	14.17	14.21	14.69	15.18
	12H	9.19	9.62	9.70	10.11	10.68	13.81	14.24	14.33	14.73	15.30
12H	4H	7.56	8.14	8.04	8.62	9.09	13.45	14.03	13.94	14.51	14.99
	6H	8.48	8.97	9.01	9.48	9.97	13.59	14.07	14.11	14.58	15.08
	8H	9.01	9.44	9.52	9.93	10.50	13.72	14.15	14.24	14.64	15.21