

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: P1060409

Luminaire Tested: S124RDRP-S350D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060409  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S350D850-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

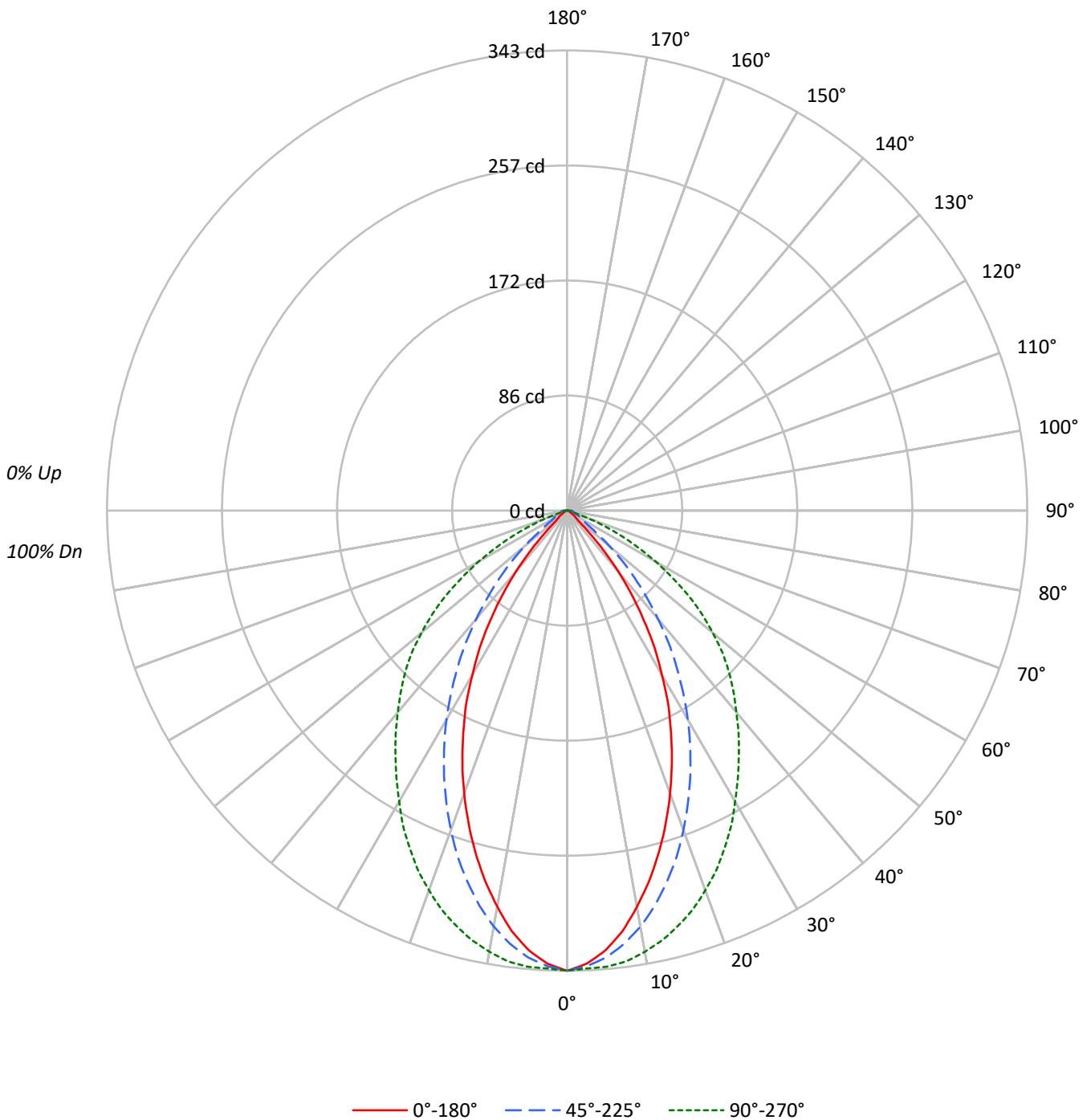
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 430.5 lumens  
Efficiency: N/A  
Efficacy: 34.4 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
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<sub>in</sub>): 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	88	85	83
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2954	2954	2954
5°	2843	2891	2949
10°	2621	2753	2920
15°	2354	2556	2855
20°	2056	2323	2760
25°	1740	2064	2638
30°	1405	1789	2489
35°	1046	1495	2345
40°	664	1185	2207
45°	265	868	2080
50°	115	553	1898
55°	89	287	1657
60°	62	196	1314
65°	47	194	899
70°	45	171	413
75°	60	183	166
80°	89	203	179
85°	178	356	267

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2080 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.4	7.3
10°-20°	81.0	18.8
20°-30°	102.3	23.8
30°-40°	94.0	21.8
40°-50°	64.1	14.9
50°-60°	34.7	8.1
60°-70°	14.7	3.4
70°-80°	5.1	1.2
80°-90°	3.2	0.7
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°	214.7	49.9
0°-40°	308.6	71.7
0°-60°	407.4	94.6
0°-90°	430.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	430.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	343	343	343	343	343	
5°	329	334	334	337	341	30
15°	264	273	287	307	320	74
25°	183	195	217	251	278	84
35°	100	113	142	187	223	62
45°	22	35	71	126	171	20
55°	6	6	19	70	110	5
65°	2	3	10	22	44	2
75°	2	5	6	5	5	2
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	343.0	343.0	343.0	343.0	343.0
2.5°	338.0	342.1	339.8	340.7	341.6
5°	328.9	333.9	334.4	337.1	341.2
7.5°	316.2	322.1	325.7	332.6	338.9
10°	299.8	307.1	314.8	325.7	333.9
12.5°	282.6	290.3	301.7	317.1	328.0
15°	264.0	272.6	286.7	307.1	320.3
17.5°	244.4	254.0	270.8	294.8	311.7
20°	224.4	234.9	253.5	280.8	301.2
22.5°	204.0	214.9	235.3	266.2	290.3
25°	183.1	194.9	217.2	250.8	277.6
27.5°	163.1	174.0	198.5	235.3	264.9
30°	141.3	153.6	179.9	219.4	250.3
32.5°	121.3	133.1	160.8	203.1	236.7
35°	99.5	112.7	142.2	186.7	223.1
37.5°	79.1	91.8	124.0	171.3	209.9
40°	59.1	72.2	105.4	155.8	196.3
42.5°	39.5	53.6	87.7	139.9	183.5
45°	21.8	35.0	71.3	126.3	170.8
47.5°	11.4	19.1	55.9	112.7	157.2
50°	8.6	10.4	41.3	97.7	141.7
52.5°	7.3	7.7	28.2	82.7	126.3
55°	5.9	6.4	19.1	69.5	110.4
57.5°	4.5	5.0	13.6	56.8	92.7
60°	3.6	4.1	11.4	43.6	76.3
62.5°	2.7	3.2	10.9	32.3	60.0
65°	2.3	2.7	9.5	21.8	44.1
67.5°	1.8	2.7	8.2	14.1	29.5
70°	1.8	3.6	6.8	9.1	16.4
72.5°	1.8	4.1	5.9	5.9	5.9
75°	1.8	5.0	5.5	5.0	5.0
77.5°	1.8	4.5	4.5	4.5	4.5
80°	1.8	4.1	4.1	4.1	3.6
82.5°	1.8	3.6	4.1	4.1	3.2
85°	1.8	3.6	3.6	3.6	2.7
87.5°	1.4	3.6	3.6	3.6	1.8
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	0.00	0.00	0.00	0.00	0.00	12.21	13.48	12.57	13.79	14.11
	3H	0.00	0.00	0.00	0.00	0.00	12.56	13.69	12.94	14.02	14.39
	4H	0.00	0.00	0.00	0.00	0.00	12.53	13.58	12.93	13.93	14.31
	6H	0.00	0.00	0.00	0.00	0.16	12.50	13.47	12.92	13.84	14.23
	8H	0.00	0.02	0.00	0.41	0.82	12.49	13.40	12.92	13.79	14.20
	12H	0.00	0.78	0.34	1.16	1.59	12.49	13.36	12.92	13.74	14.17
4H	2H	0.00	0.00	0.00	0.00	0.00	12.01	13.06	12.41	13.41	13.79
	3H	0.00	0.16	0.00	0.56	0.96	12.40	13.26	12.82	13.66	14.07
	4H	0.76	1.52	1.19	1.94	2.38	12.38	13.15	12.82	13.57	14.01
	6H	2.00	2.65	2.46	3.10	3.57	12.40	13.06	12.87	13.51	13.97
	8H	2.56	3.18	3.03	3.62	4.09	12.41	13.03	12.88	13.47	13.95
	12H	3.23	3.77	3.72	4.25	4.73	12.45	12.99	12.93	13.47	13.95
8H	4H	1.83	2.45	2.30	2.90	3.37	12.28	12.90	12.75	13.35	13.82
	6H	3.44	3.95	3.95	4.44	4.93	12.33	12.84	12.84	13.33	13.81
	8H	4.27	4.72	4.79	5.24	5.73	12.39	12.84	12.91	13.36	13.85
	12H	5.23	5.62	5.74	6.12	6.69	12.51	12.91	13.02	13.40	13.97
12H	4H	2.02	2.57	2.51	3.05	3.52	12.25	12.79	12.73	13.27	13.75
	6H	3.79	4.24	4.32	4.76	5.25	12.30	12.75	12.82	13.27	13.76
	8H	4.81	5.20	5.32	5.70	6.27	12.41	12.81	12.92	13.30	13.87