

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: P1060411

Luminaire Tested: S124RDRP-S350D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060411  
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-S350D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

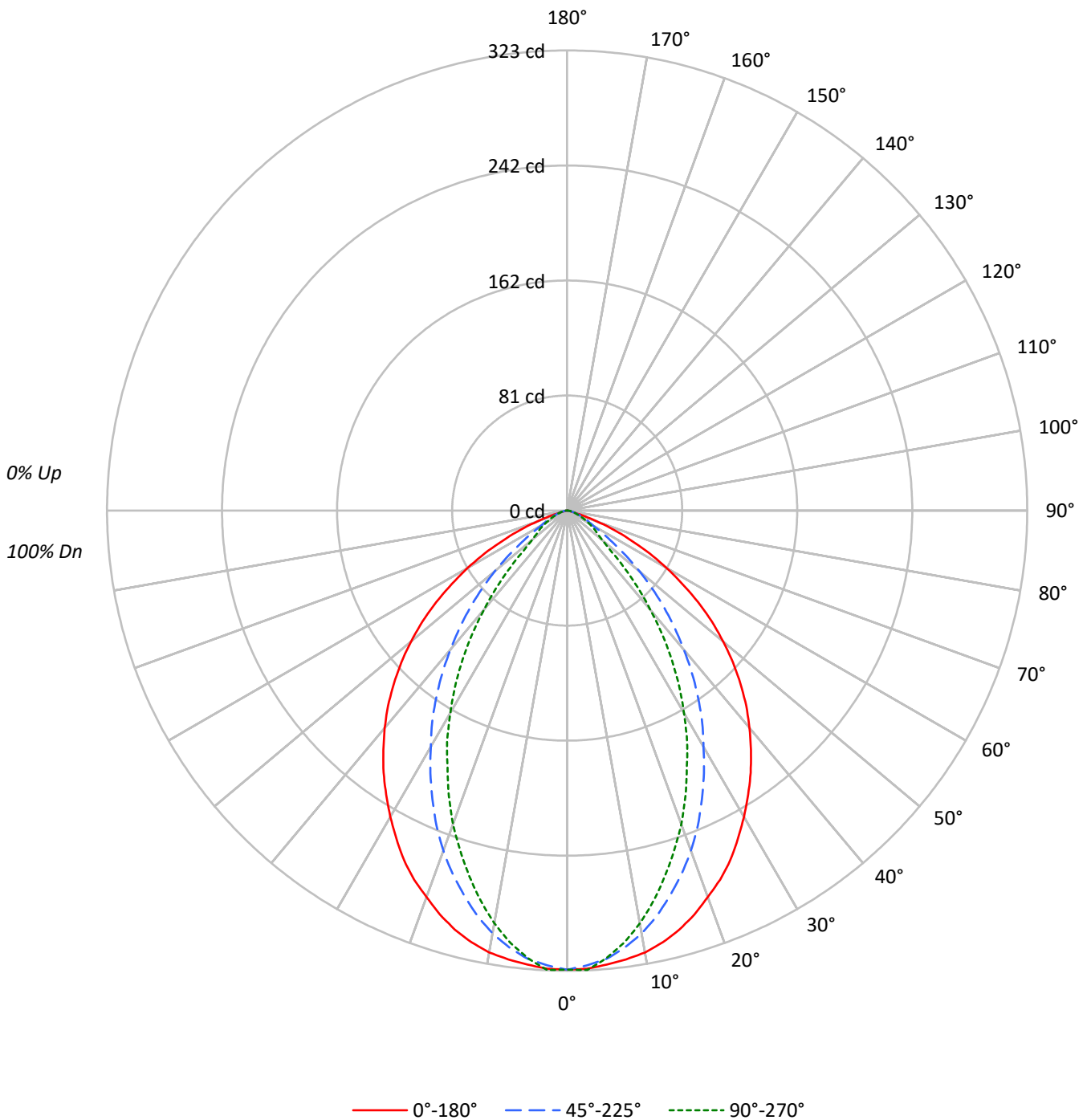
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 475.1 lumens  
Efficiency: N/A  
Efficacy: 38.0 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): 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									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	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90																												
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80																												
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71																												
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63																												
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57																												
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51																												
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47																												
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43																												
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																												

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

	0°	45°	90°
0°	2775	2775	2775
5°	2765	2731	2726
10°	2753	2635	2572
15°	2715	2492	2367
20°	2645	2329	2146
25°	2574	2125	1889
30°	2468	1904	1629
35°	2361	1684	1346
40°	2239	1433	1021
45°	2095	1172	686
50°	1916	888	426
55°	1683	586	362
60°	1392	360	296
65°	1009	277	240
70°	549	206	184
75°	120	150	166
80°	89	114	134
85°	89	89	138

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2095 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.8	6.3
10°-20°	79.3	16.7
20°-30°	105.0	22.1
30°-40°	104.2	21.9
40°-50°	80.2	16.9
50°-60°	47.8	10.1
60°-70°	21.7	4.6
70°-80°	5.6	1.2
80°-90°	1.3	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°	214.2	45.1
0°-40°	318.4	67.0
0°-60°	446.4	94.0
0°-90°	475.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	475.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	322	322	322	322	322	
5°	320	320	316	316	315	30
15°	304	297	280	270	266	86
25°	271	251	224	205	199	124
35°	225	196	160	136	128	140
45°	172	138	96	67	56	132
55°	112	80	39	24	24	100
65°	50	30	14	12	12	50
75°	4	4	4	5	5	8
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	322.2	322.2	322.2	322.2	322.2
2.5°	321.8	322.2	319.5	321.8	322.7
5°	319.9	320.4	315.9	315.9	315.4
7.5°	317.7	316.8	309.5	306.8	305.9
10°	314.9	311.8	301.3	295.9	294.1
12.5°	310.4	305.4	291.3	283.6	280.5
15°	304.5	296.8	279.5	270.0	265.5
17.5°	297.2	287.7	267.3	255.0	250.0
20°	288.6	275.9	254.1	238.7	234.2
22.5°	280.5	264.6	239.6	221.9	216.9
25°	270.9	251.4	223.7	205.1	198.8
27.5°	259.6	238.7	207.8	188.8	182.4
30°	248.2	225.1	191.5	171.5	163.8
32.5°	236.4	211.0	176.5	153.8	146.6
35°	224.6	196.5	160.2	135.7	128.0
37.5°	211.9	182.0	143.9	118.4	109.8
40°	199.2	167.9	127.5	101.7	90.8
42.5°	186.1	153.4	111.6	84.4	73.5
45°	172.0	138.4	96.2	67.2	56.3
47.5°	157.9	124.3	80.8	50.4	40.4
50°	143.0	109.4	66.3	36.8	31.8
52.5°	128.0	94.8	51.7	28.6	27.2
55°	112.1	79.9	39.0	24.5	24.1
57.5°	95.8	66.3	28.1	21.3	20.4
60°	80.8	53.5	20.9	18.2	17.2
62.5°	65.3	40.4	17.2	15.0	14.1
65°	49.5	29.5	13.6	11.8	11.8
67.5°	35.9	20.0	10.9	9.5	9.1
70°	21.8	12.3	8.2	7.7	7.3
72.5°	10.9	7.3	6.4	5.9	5.9
75°	3.6	4.5	4.5	5.0	5.0
77.5°	2.7	3.2	3.2	3.6	3.6
80°	1.8	2.3	2.3	2.7	2.7
82.5°	1.4	1.4	1.8	1.8	2.3
85°	0.9	0.9	0.9	1.4	1.4
87.5°	0.5	0.5	0.5	0.9	0.9
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	12.67	14.00	13.03	14.31	14.63	4.21	5.54	4.57	5.85	6.17
	3H	13.18	14.36	13.56	14.69	15.05	5.03	6.21	5.41	6.54	6.90
	4H	13.14	14.24	13.55	14.59	14.98	5.31	6.41	5.71	6.76	7.14
	6H	13.08	14.09	13.49	14.46	14.85	5.48	6.48	5.89	6.85	7.25
	8H	13.04	14.00	13.47	14.39	14.79	5.54	6.50	5.97	6.89	7.29
	12H	13.00	13.91	13.44	14.30	14.73	5.59	6.50	6.02	6.89	7.32
4H	2H	12.51	13.61	12.91	13.96	14.34	4.65	5.75	5.05	6.10	6.48
	3H	13.07	13.96	13.48	14.36	14.77	5.61	6.51	6.03	6.91	7.32
	4H	13.03	13.83	13.47	14.25	14.69	5.98	6.78	6.41	7.20	7.64
	6H	12.98	13.67	13.44	14.11	14.58	6.23	6.91	6.69	7.36	7.82
	8H	12.93	13.57	13.40	14.02	14.49	6.32	6.96	6.78	7.40	7.87
	12H	12.90	13.46	13.38	13.94	14.42	6.40	6.96	6.88	7.44	7.92
8H	4H	12.92	13.56	13.39	14.01	14.48	6.07	6.71	6.54	7.16	7.63
	6H	12.86	13.38	13.36	13.88	14.36	6.38	6.90	6.88	7.39	7.87
	8H	12.82	13.28	13.34	13.80	14.29	6.51	6.97	7.03	7.49	7.98
	12H	12.78	13.20	13.30	13.69	14.26	6.65	7.06	7.16	7.56	8.13
12H	4H	12.88	13.45	13.37	13.93	14.40	6.04	6.61	6.53	7.09	7.57
	6H	12.81	13.28	13.33	13.79	14.28	6.35	6.82	6.88	7.34	7.83
	8H	12.78	13.19	13.30	13.69	14.26	6.53	6.94	7.04	7.43	8.01