

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: P1060816

Luminaire Tested: S124RDRP-H350D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060816  
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-H350D850-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

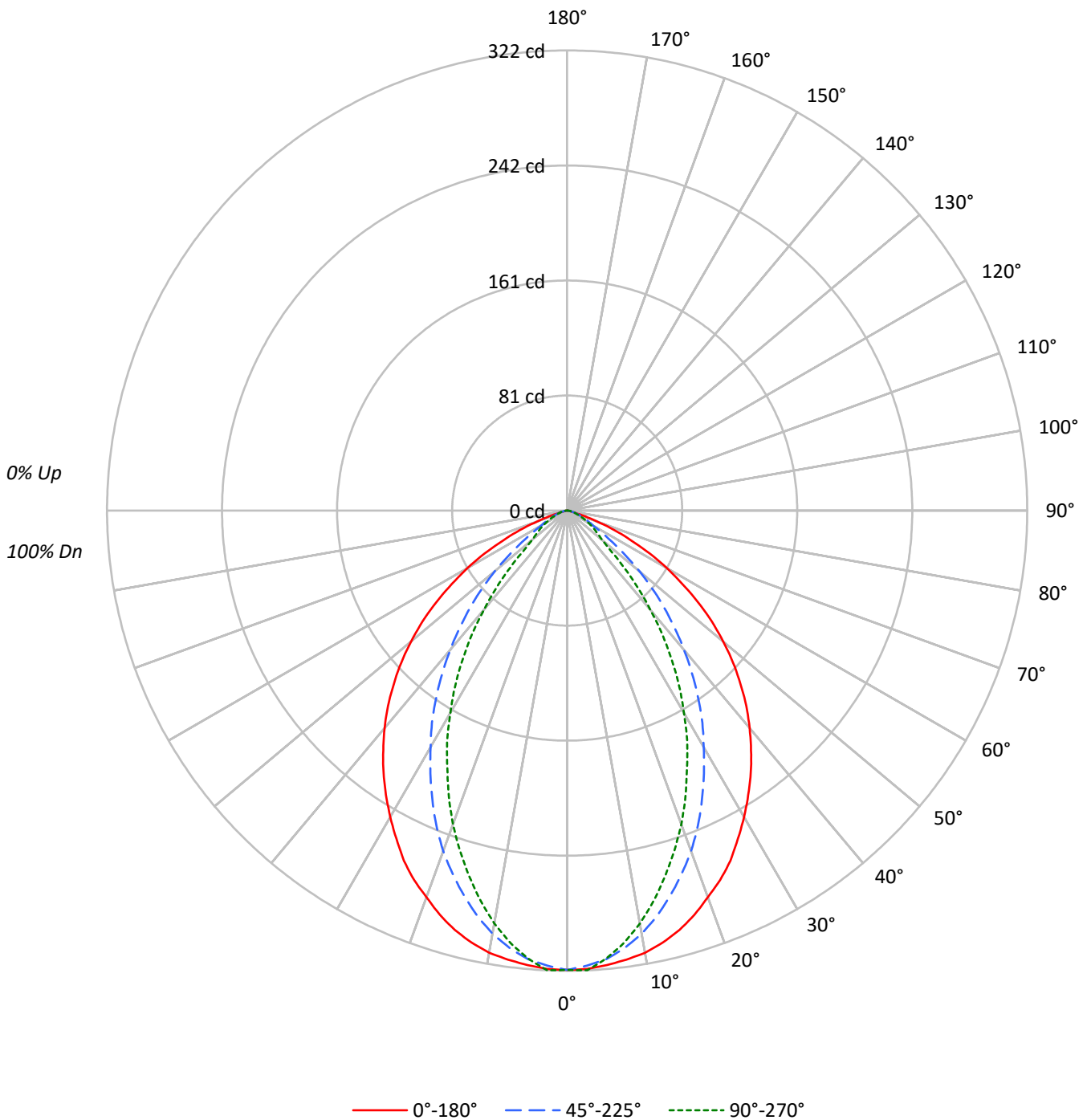
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 473.9 lumens  
Efficiency: N/A  
Efficacy: 40.5 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): 11.7  
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

TEST NUMBER: P1060816

CATALOG NUMBER: S124RDRP-H350D850-X4F0-XX-UDD-SVL-B

### Luminous Intensity Polar Plot



TEST NUMBER: P1060816

CATALOG NUMBER: S124RDRP-H350D850-X4F0-XX-UDD-SVL-B

**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	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°	2768	2768	2768
5°	2759	2724	2719
10°	2747	2628	2565
15°	2708	2486	2361
20°	2638	2323	2141
25°	2568	2121	1884
30°	2462	1899	1625
35°	2356	1680	1342
40°	2234	1430	1017
45°	2090	1169	683
50°	1910	886	425
55°	1678	584	360
60°	1388	358	296
65°	1005	277	240
70°	546	204	181
75°	120	150	166
80°	89	114	134
85°	89	89	138

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2090 cd/sqm



TEST NUMBER: P1060816

CATALOG NUMBER: S124RDRP-H350D850-X4F0-XX-UDD-SVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.8	6.3
10°-20°	79.1	16.7
20°-30°	104.8	22.1
30°-40°	104.0	21.9
40°-50°	80.0	16.9
50°-60°	47.7	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°	213.6	45.1
0°-40°	317.6	67.0
0°-60°	445.3	94.0
0°-90°	473.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	473.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	321	321	321	321	321	
5°	319	320	315	315	315	30
15°	304	296	279	269	265	85
25°	270	251	223	205	198	124
35°	224	196	160	135	128	140
45°	172	138	96	67	56	132
55°	112	80	39	24	24	100
65°	49	29	14	12	12	50
75°	4	4	4	5	5	8
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: P1060816

CATALOG NUMBER: S124RDRP-H350D850-X4F0-XX-UDD-SVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	321.4	321.4	321.4	321.4	321.4
2.5°	321.0	321.4	318.7	321.0	321.9
5°	319.2	319.6	315.1	315.1	314.6
7.5°	316.9	316.0	308.7	306.0	305.1
10°	314.2	311.0	300.6	295.2	293.3
12.5°	309.6	304.7	290.6	282.9	279.8
15°	303.8	296.1	278.9	269.4	264.8
17.5°	296.5	287.0	266.6	254.4	249.4
20°	287.9	275.2	253.5	238.1	233.6
22.5°	279.8	263.9	239.0	221.4	216.4
25°	270.3	250.8	223.2	204.6	198.3
27.5°	258.9	238.1	207.3	188.3	182.0
30°	247.6	224.5	191.0	171.1	163.4
32.5°	235.9	210.5	176.1	153.5	146.2
35°	224.1	196.0	159.8	135.4	127.7
37.5°	211.4	181.5	143.5	118.2	109.6
40°	198.7	167.5	127.2	101.4	90.5
42.5°	185.6	153.0	111.4	84.2	73.3
45°	171.6	138.1	96.0	67.0	56.1
47.5°	157.5	124.0	80.6	50.2	40.3
50°	142.6	109.1	66.1	36.7	31.7
52.5°	127.7	94.6	51.6	28.5	27.2
55°	111.8	79.7	38.9	24.4	24.0
57.5°	95.5	66.1	28.1	21.3	20.4
60°	80.6	53.4	20.8	18.1	17.2
62.5°	65.2	40.3	17.2	14.9	14.0
65°	49.3	29.4	13.6	11.8	11.8
67.5°	35.8	19.9	10.9	9.5	9.1
70°	21.7	12.2	8.1	7.7	7.2
72.5°	10.9	7.2	6.3	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



TEST NUMBER: P1060816  
 CATALOG NUMBER: S124RDRP-H350D850-X4F0-XX-UDD-SVL-B

**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	12.66	13.99	13.02	14.30	14.62	4.21	5.55	4.58	5.86	6.17
	3H	13.16	14.35	13.54	14.67	15.04	5.03	6.21	5.41	6.54	6.90
	4H	13.13	14.23	13.53	14.58	14.96	5.31	6.41	5.71	6.76	7.14
	6H	13.07	14.07	13.48	14.44	14.84	5.48	6.49	5.89	6.86	7.25
	8H	13.03	13.98	13.46	14.37	14.78	5.55	6.50	5.98	6.89	7.30
	12H	12.99	13.90	13.42	14.28	14.71	5.60	6.51	6.03	6.89	7.32
4H	2H	12.50	13.60	12.90	13.95	14.33	4.65	5.75	5.06	6.10	6.49
	3H	13.05	13.95	13.46	14.35	14.75	5.62	6.51	6.03	6.91	7.32
	4H	13.02	13.82	13.45	14.24	14.68	5.98	6.78	6.42	7.20	7.64
	6H	12.97	13.65	13.43	14.10	14.57	6.23	6.91	6.69	7.36	7.83
	8H	12.92	13.56	13.39	14.01	14.48	6.32	6.96	6.79	7.41	7.88
	12H	12.88	13.45	13.37	13.93	14.40	6.40	6.96	6.89	7.45	7.92
8H	4H	12.91	13.55	13.38	14.00	14.47	6.07	6.71	6.54	7.16	7.63
	6H	12.85	13.37	13.35	13.87	14.35	6.38	6.90	6.88	7.39	7.88
	8H	12.80	13.27	13.32	13.79	14.28	6.51	6.98	7.03	7.49	7.98
	12H	12.77	13.18	13.29	13.68	14.25	6.65	7.07	7.17	7.56	8.13
12H	4H	12.87	13.43	13.35	13.91	14.39	6.04	6.61	6.53	7.09	7.57
	6H	12.79	13.26	13.32	13.78	14.27	6.36	6.82	6.88	7.34	7.83
	8H	12.77	13.18	13.28	13.68	14.25	6.53	6.94	7.04	7.44	8.01