

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: P1060413

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060413  
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-S350D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

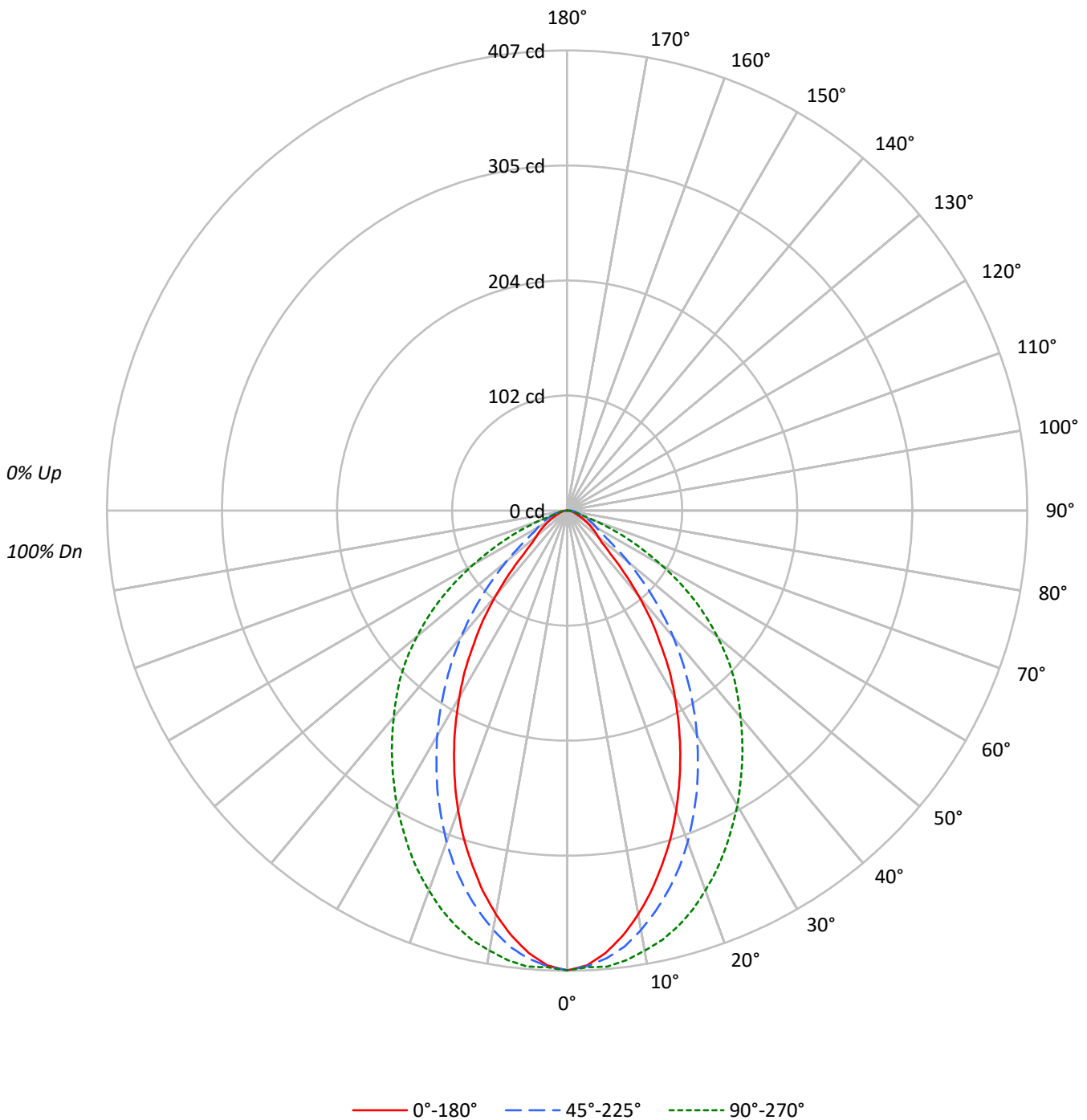
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 575.5 lumens  
Efficiency: N/A  
Efficacy: 46.0 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 (Ain): 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	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	77	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°	3501	3501	3501
5°	3393	3436	3499
10°	3170	3293	3456
15°	2892	3094	3390
20°	2585	2856	3276
25°	2249	2582	3142
30°	1897	2286	2995
35°	1510	1968	2837
40°	1098	1639	2681
45°	664	1295	2539
50°	474	938	2324
55°	402	635	2052
60°	329	517	1659
65°	259	463	1194
70°	217	388	629
75°	196	363	316
80°	203	362	317
85°	267	543	356

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2539 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.4	6.5
10°-20°	98.1	17.0
20°-30°	127.2	22.1
30°-40°	122.5	21.3
40°-50°	91.1	15.8
50°-60°	56.0	9.7
60°-70°	27.5	4.8
70°-80°	10.7	1.9
80°-90°	4.9	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°	262.7	45.7
0°-40°	385.2	66.9
0°-60°	532.4	92.5
0°-90°	575.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	575.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	407	407	407	407	407	
5°	392	398	398	401	405	37
15°	324	335	347	368	380	91
25°	237	249	272	306	331	108
35°	144	157	187	234	270	90
45°	54	68	106	164	208	45
55°	27	28	42	96	137	24
65°	13	14	23	36	59	13
75°	6	10	11	10	10	6
85°	3	5	6	6	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	406.6	406.6	406.6	406.6	406.6
2.5°	402.5	407.1	403.4	403.9	404.3
5°	392.5	398.4	397.5	401.1	404.8
7.5°	378.9	385.7	388.9	396.2	401.1
10°	362.5	370.3	376.6	388.4	395.2
12.5°	344.4	353.4	362.5	378.4	388.9
15°	324.4	334.8	347.1	368.0	380.3
17.5°	303.9	314.4	330.3	354.4	369.8
20°	282.1	293.5	311.7	338.5	357.5
22.5°	259.4	271.7	291.7	322.1	344.8
25°	236.7	249.4	271.7	305.7	330.7
27.5°	214.0	226.2	250.3	288.5	315.7
30°	190.8	203.5	229.9	269.9	301.2
32.5°	168.5	180.4	208.5	252.1	285.3
35°	143.6	157.2	187.2	234.0	269.9
37.5°	122.2	134.5	166.7	215.8	254.4
40°	97.7	111.3	145.8	198.1	238.5
42.5°	75.0	88.6	125.8	180.4	223.5
45°	54.5	67.7	106.3	164.0	208.5
47.5°	41.3	49.1	87.2	148.1	191.7
50°	35.4	37.7	70.0	130.8	173.5
52.5°	31.3	32.3	54.5	113.6	155.4
55°	26.8	27.7	42.3	96.3	136.7
57.5°	22.7	23.2	34.1	80.0	116.8
60°	19.1	19.5	30.0	64.1	96.3
62.5°	15.9	16.4	26.8	49.5	76.8
65°	12.7	13.6	22.7	36.3	58.6
67.5°	10.4	12.3	19.1	25.4	40.9
70°	8.6	11.8	15.4	17.7	25.0
72.5°	7.3	10.9	13.2	12.7	12.3
75°	5.9	10.4	10.9	10.0	9.5
77.5°	5.0	9.1	9.1	8.2	7.7
80°	4.1	7.3	7.3	7.3	6.4
82.5°	3.6	5.9	6.4	6.4	5.0
85°	2.7	5.0	5.5	5.5	3.6
87.5°	1.8	4.5	5.0	4.5	2.7
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	4.14	5.49	4.51	5.80	6.11	13.31	14.65	13.67	14.96	15.28
	3H	5.25	6.44	5.63	6.77	7.14	13.82	15.01	14.20	15.34	15.70
	4H	5.77	6.88	6.17	7.23	7.61	13.84	14.95	14.24	15.30	15.68
	6H	6.20	7.22	6.62	7.59	7.99	13.85	14.87	14.26	15.24	15.63
	8H	6.39	7.36	6.82	7.75	8.15	13.85	14.82	14.28	15.21	15.61
	12H	6.57	7.49	7.00	7.88	8.31	13.85	14.78	14.28	15.16	15.59
4H	2H	5.29	6.40	5.69	6.75	7.13	13.20	14.31	13.60	14.66	15.05
	3H	6.62	7.53	7.04	7.94	8.34	13.79	14.70	14.20	15.10	15.51
	4H	7.35	8.17	7.79	8.59	9.03	13.85	14.66	14.28	15.08	15.52
	6H	7.97	8.67	8.43	9.12	9.58	13.92	14.63	14.39	15.07	15.54
	8H	8.21	8.86	8.68	9.31	9.78	13.95	14.61	14.42	15.06	15.53
	12H	8.44	9.02	8.93	9.50	9.98	14.00	14.58	14.48	15.06	15.53
8H	4H	7.82	8.48	8.29	8.93	9.40	13.81	14.46	14.28	14.91	15.38
	6H	8.68	9.21	9.18	9.71	10.19	13.93	14.47	14.44	14.97	15.45
	8H	9.08	9.57	9.60	10.08	10.57	14.02	14.50	14.54	15.02	15.51
	12H	9.50	9.93	10.02	10.42	10.99	14.14	14.57	14.65	15.06	15.63
12H	4H	7.88	8.46	8.36	8.94	9.41	13.78	14.36	14.27	14.84	15.32
	6H	8.81	9.29	9.33	9.81	10.30	13.92	14.40	14.44	14.92	15.41
	8H	9.33	9.76	9.85	10.26	10.83	14.05	14.48	14.57	14.97	15.54