

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: P1060388

Luminaire Tested: S124RDRP-S350D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060388  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S350D830-X4F0-XX-UDD-WVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

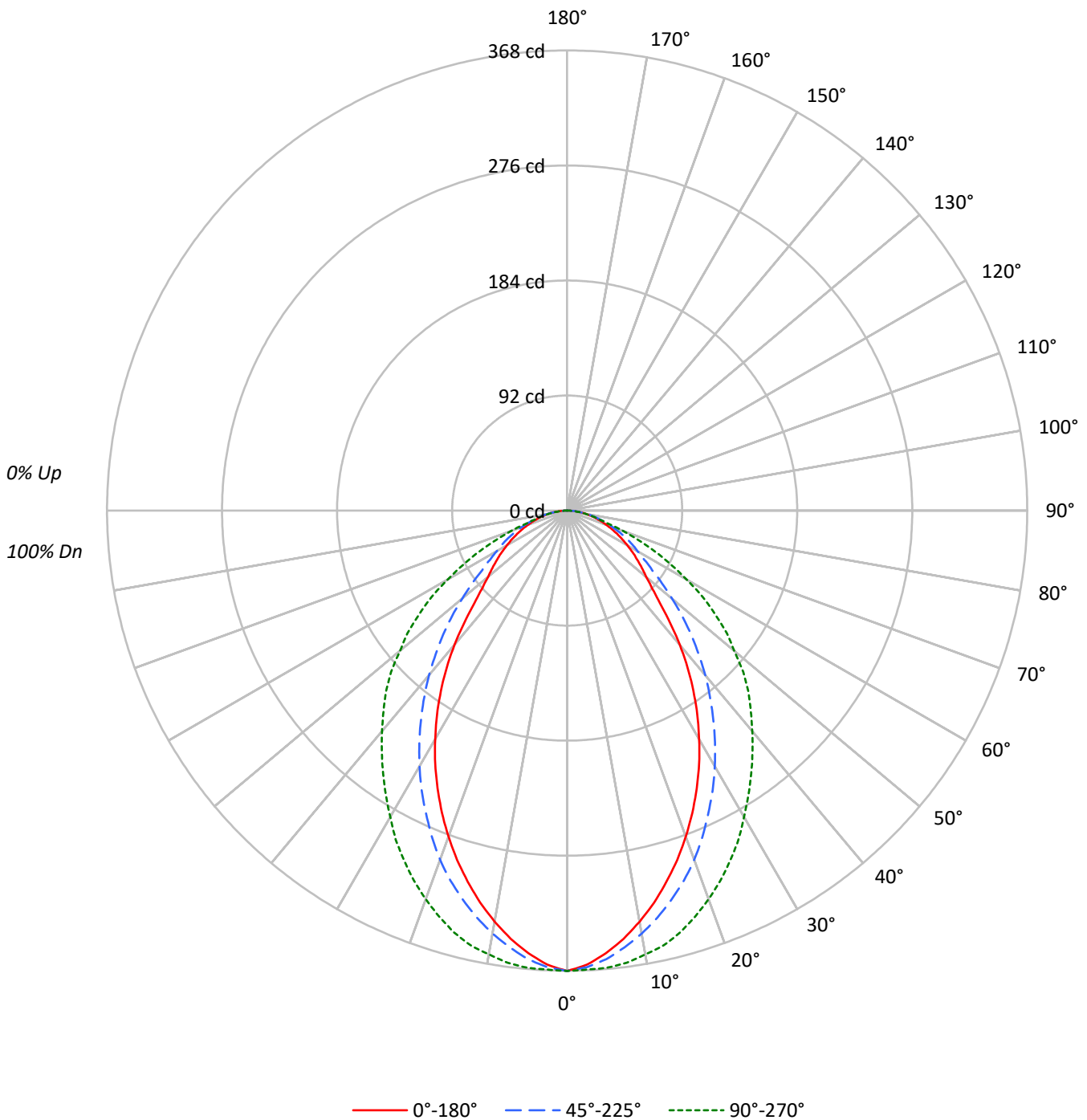
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 670.3 lumens  
Efficiency: N/A  
Efficacy: 53.6 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1  
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																		
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																												
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																												
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																												
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50																												
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41																												
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37																												
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31																												

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

	0°	45°	90°
0°	3171	3171	3171
5°	3072	3113	3172
10°	2919	3004	3151
15°	2739	2872	3114
20°	2543	2723	3030
25°	2329	2538	2933
30°	2099	2349	2813
35°	1850	2142	2697
40°	1575	1930	2590
45°	1279	1706	2495
50°	1107	1468	2336
55°	1025	1246	2166
60°	958	1123	1901
65°	897	1053	1581
70°	836	972	1196
75°	795	898	862
80°	749	823	729
85°	682	761	573

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2495 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.0	5.1
10°-20°	91.4	13.6
20°-30°	124.8	18.6
30°-40°	130.7	19.5
40°-50°	113.1	16.9
50°-60°	85.0	12.7
60°-70°	54.8	8.2
70°-80°	28.1	4.2
80°-90°	8.4	1.3
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°	250.1	37.3
0°-40°	380.8	56.8
0°-60°	579.0	86.4
0°-90°	670.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	670.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	368	368	368	368	368	
5°	355	361	360	363	367	33
15°	307	315	322	337	349	86
25°	245	254	267	288	309	112
35°	176	186	204	231	257	110
45°	105	116	140	174	205	83
55°	68	71	83	118	144	61
65°	44	45	52	62	78	44
75°	24	27	27	27	26	25
85°	7	8	8	7	6	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	368.2	368.2	368.2	368.2	368.2
2.5°	363.5	368.2	365.5	366.2	367.4
5°	355.4	360.8	360.1	362.8	367.0
7.5°	345.4	351.2	352.3	358.5	364.7
10°	333.8	340.4	343.5	352.7	360.4
12.5°	321.1	328.0	333.4	345.0	356.2
15°	307.2	314.9	322.2	336.9	349.3
17.5°	292.9	300.6	310.3	326.5	340.4
20°	277.5	286.0	297.2	314.1	330.7
22.5°	261.6	270.5	282.5	301.0	320.3
25°	245.1	254.3	267.1	287.9	308.7
27.5°	228.5	237.7	252.0	274.0	296.8
30°	211.1	220.7	236.2	260.1	282.9
32.5°	193.7	204.1	220.0	245.4	269.8
35°	176.0	186.0	203.8	230.8	256.6
37.5°	158.2	168.6	187.6	216.5	243.5
40°	140.1	150.9	171.7	202.2	230.4
42.5°	121.9	133.5	155.5	187.6	217.3
45°	105.0	115.8	140.1	174.4	204.9
47.5°	92.2	99.6	124.7	161.7	191.0
50°	82.6	86.4	109.6	147.8	174.4
52.5°	75.3	78.0	95.7	132.8	160.9
55°	68.3	70.6	83.0	118.5	144.3
57.5°	62.1	63.3	73.3	104.6	128.5
60°	55.6	56.7	65.2	89.5	110.4
62.5°	49.8	50.6	58.7	75.3	93.8
65°	44.0	44.8	51.7	62.5	77.6
67.5°	38.6	39.7	45.2	50.9	61.7
70°	33.2	35.5	38.6	41.3	47.5
72.5°	28.6	30.9	32.4	33.2	33.6
75°	23.9	26.6	27.0	26.6	25.9
77.5°	19.3	21.6	21.6	20.8	20.1
80°	15.1	17.0	16.6	15.8	14.7
82.5°	11.2	12.3	12.0	11.2	10.0
85°	6.9	8.1	7.7	7.3	5.8
87.5°	3.5	4.6	4.2	3.9	2.3
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	10.44	11.92	10.81	12.24	12.55	14.22	15.70	14.58	16.01	16.33
	3H	12.10	13.42	12.47	13.75	14.12	15.33	16.66	15.71	16.99	17.35
	4H	12.77	14.01	13.17	14.36	14.74	15.62	16.86	16.02	17.21	17.59
	6H	13.28	14.43	13.69	14.80	15.19	15.82	16.97	16.23	17.33	17.73
	8H	13.46	14.56	13.89	14.95	15.35	15.87	16.96	16.30	17.35	17.76
	12H	13.59	14.63	14.02	15.02	15.44	15.90	16.94	16.33	17.33	17.75
4H	2H	11.22	12.47	11.62	12.82	13.20	14.37	15.62	14.77	15.97	16.35
	3H	13.09	14.12	13.50	14.52	14.92	15.69	16.72	16.10	17.12	17.52
	4H	13.89	14.82	14.33	15.24	15.68	16.09	17.02	16.53	17.44	17.88
	6H	14.54	15.35	15.00	15.79	16.25	16.41	17.22	16.87	17.66	18.12
	8H	14.77	15.52	15.23	15.97	16.44	16.50	17.26	16.97	17.70	18.17
	12H	14.94	15.61	15.42	16.09	16.56	16.56	17.24	17.05	17.72	18.19
8H	4H	14.24	15.00	14.71	15.44	15.91	16.23	16.98	16.69	17.42	17.89
	6H	15.04	15.66	15.53	16.15	16.63	16.64	17.26	17.14	17.75	18.23
	8H	15.36	15.92	15.87	16.43	16.92	16.79	17.35	17.30	17.86	18.35
	12H	15.62	16.11	16.13	16.61	17.17	16.91	17.41	17.42	17.90	18.46
12H	4H	14.27	14.94	14.75	15.42	15.90	16.23	16.90	16.71	17.38	17.85
	6H	15.10	15.66	15.61	16.17	16.66	16.66	17.22	17.17	17.73	18.22
	8H	15.48	15.98	16.00	16.47	17.04	16.86	17.36	17.37	17.85	18.41