

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: P1060460

Luminaire Tested: S124RDRP-S350D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060460  
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-S350D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

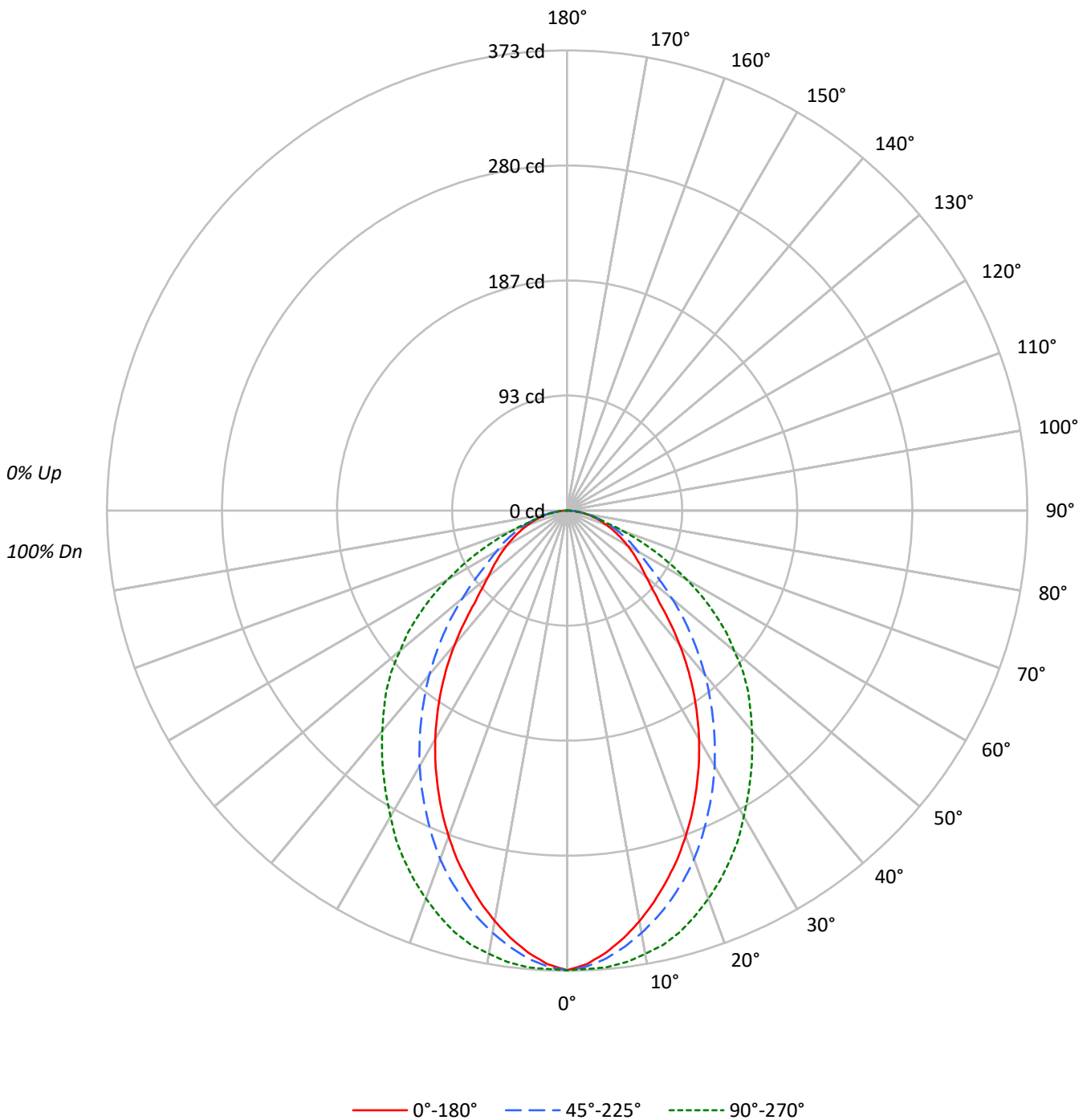
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 678.4 lumens  
Efficiency: N/A  
Efficacy: 54.3 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				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	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°	3209	3209	3209
5°	3109	3150	3211
10°	2955	3039	3190
15°	2772	2908	3151
20°	2573	2756	3067
25°	2356	2568	2969
30°	2125	2377	2847
35°	1872	2168	2731
40°	1594	1954	2621
45°	1293	1727	2526
50°	1120	1486	2366
55°	1037	1261	2193
60°	968	1137	1924
65°	907	1066	1599
70°	846	984	1209
75°	805	908	872
80°	754	833	734
85°	692	771	583

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2526 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.4	5.1
10°-20°	92.5	13.6
20°-30°	126.3	18.6
30°-40°	132.3	19.5
40°-50°	114.5	16.9
50°-60°	86.0	12.7
60°-70°	55.5	8.2
70°-80°	28.5	4.2
80°-90°	8.5	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°	253.1	37.3
0°-40°	385.4	56.8
0°-60°	586.0	86.4
0°-90°	678.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	678.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	373	373	373	373	373	
5°	360	365	364	367	372	34
15°	311	319	326	341	354	87
25°	248	257	270	291	312	114
35°	178	188	206	234	260	111
45°	106	117	142	177	207	84
55°	69	72	84	120	146	62
65°	44	45	52	63	78	44
75°	24	27	27	27	26	26
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°	372.6	372.6	372.6	372.6	372.6
2.5°	367.9	372.6	369.9	370.7	371.9
5°	359.7	365.2	364.4	367.2	371.5
7.5°	349.6	355.5	356.6	362.9	369.1
10°	337.9	344.5	347.6	357.0	364.8
12.5°	325.0	332.0	337.5	349.2	360.5
15°	310.9	318.7	326.2	341.0	353.5
17.5°	296.5	304.3	314.0	330.5	344.5
20°	280.8	289.4	300.8	318.0	334.7
22.5°	264.8	273.8	285.9	304.7	324.2
25°	248.0	257.4	270.3	291.4	312.5
27.5°	231.2	240.6	255.1	277.3	300.4
30°	213.7	223.4	239.1	263.3	286.3
32.5°	196.1	206.6	222.6	248.4	273.0
35°	178.1	188.3	206.2	233.6	259.8
37.5°	160.1	170.7	189.8	219.1	246.5
40°	141.8	152.7	173.8	204.7	233.2
42.5°	123.4	135.1	157.4	189.8	219.9
45°	106.2	117.2	141.8	176.6	207.4
47.5°	93.4	100.8	126.2	163.7	193.3
50°	83.6	87.5	110.9	149.6	176.6
52.5°	76.2	78.9	96.9	134.4	162.9
55°	69.1	71.5	84.0	119.9	146.1
57.5°	62.9	64.1	74.2	105.9	130.1
60°	56.2	57.4	66.0	90.6	111.7
62.5°	50.4	51.2	59.4	76.2	94.9
65°	44.5	45.3	52.3	63.3	78.5
67.5°	39.1	40.2	45.7	51.6	62.5
70°	33.6	35.9	39.1	41.8	48.0
72.5°	28.9	31.2	32.8	33.6	34.0
75°	24.2	27.0	27.3	27.0	26.2
77.5°	19.5	21.9	21.9	21.1	20.3
80°	15.2	17.2	16.8	16.0	14.8
82.5°	11.3	12.5	12.1	11.3	10.2
85°	7.0	8.2	7.8	7.4	5.9
87.5°	3.5	4.7	4.3	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	10.49	11.97	10.85	12.28	12.60	14.26	15.74	14.62	16.06	16.37
	3H	12.14	13.47	12.52	13.80	14.16	15.37	16.70	15.75	17.03	17.39
	4H	12.81	14.06	13.21	14.40	14.78	15.66	16.91	16.06	17.26	17.64
	6H	13.32	14.47	13.73	14.84	15.23	15.86	17.01	16.27	17.38	17.77
	8H	13.50	14.60	13.93	14.99	15.39	15.91	17.01	16.34	17.40	17.80
	12H	13.63	14.67	14.06	15.06	15.49	15.94	16.99	16.37	17.37	17.80
4H	2H	11.27	12.51	11.67	12.86	13.24	14.42	15.66	14.82	16.01	16.39
	3H	13.13	14.16	13.54	14.56	14.96	15.73	16.76	16.14	17.16	17.56
	4H	13.94	14.87	14.37	15.28	15.72	16.14	17.07	16.57	17.48	17.92
	6H	14.58	15.39	15.04	15.83	16.29	16.45	17.26	16.91	17.70	18.16
	8H	14.81	15.57	15.28	16.01	16.48	16.54	17.30	17.01	17.74	18.21
	12H	14.98	15.65	15.46	16.13	16.60	16.61	17.28	17.09	17.76	18.23
8H	4H	14.29	15.04	14.75	15.49	15.95	16.27	17.03	16.73	17.47	17.94
	6H	15.08	15.70	15.58	16.19	16.67	16.68	17.30	17.18	17.80	18.27
	8H	15.40	15.96	15.91	16.47	16.96	16.83	17.39	17.35	17.90	18.39
	12H	15.66	16.16	16.17	16.65	17.22	16.96	17.45	17.47	17.94	18.51
12H	4H	14.32	14.99	14.80	15.47	15.94	16.28	16.95	16.76	17.43	17.90
	6H	15.14	15.70	15.66	16.21	16.70	16.70	17.26	17.22	17.77	18.26
	8H	15.53	16.02	16.04	16.51	17.08	16.91	17.40	17.42	17.89	18.46