

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: P1060859

Luminaire Tested: S124RDRP-H350D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-H350D950-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

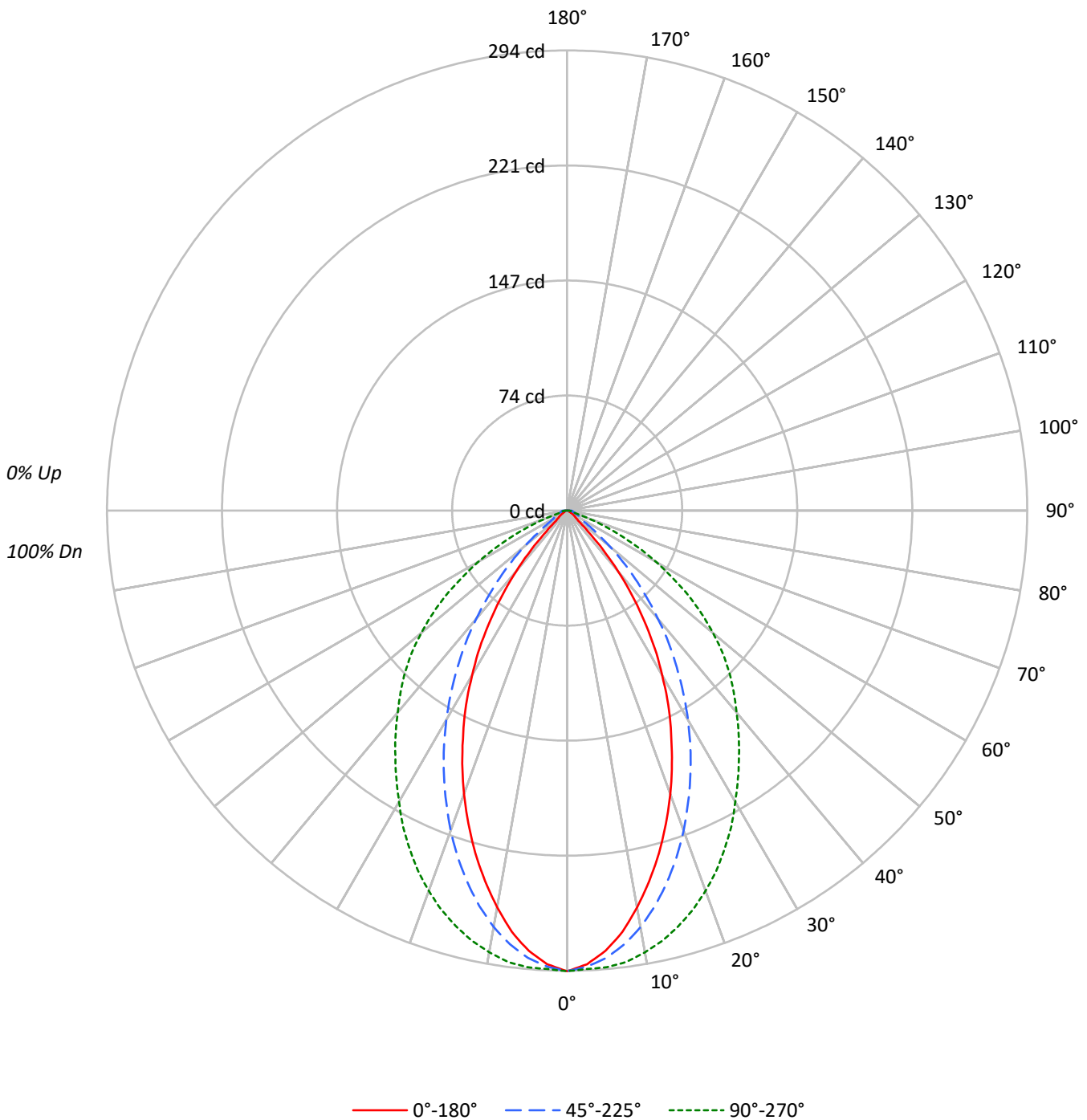
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 369.4 lumens  
Efficiency: N/A  
Efficacy: 31.6 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
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

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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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	2534	2534	2534
5°	2440	2480	2531
10°	2250	2363	2505
15°	2019	2193	2450
20°	1765	1993	2369
25°	1493	1771	2263
30°	1205	1535	2136
35°	898	1282	2012
40°	570	1016	1893
45°	228	745	1785
50°	99	476	1629
55°	77	246	1422
60°	53	167	1128
65°	39	167	770
70°	40	146	352
75°	53	156	143
80°	79	174	154
85°	158	306	227

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1785 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.9	7.3
10°-20°	69.5	18.8
20°-30°	87.8	23.8
30°-40°	80.6	21.8
40°-50°	55.0	14.9
50°-60°	29.8	8.1
60°-70°	12.6	3.4
70°-80°	4.4	1.2
80°-90°	2.8	0.7
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°	184.2	49.9
0°-40°	264.8	71.7
0°-60°	349.6	94.6
0°-90°	369.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	369.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	294	294	294	294	294	
5°	282	286	287	289	293	26
15°	226	234	246	264	275	63
25°	157	167	186	215	238	72
35°	85	97	122	160	191	53
45°	19	30	61	108	147	17
55°	5	6	16	60	95	5
65°	2	2	8	19	38	2
75°	2	4	5	4	4	2
85°	2	3	3	3	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	294.3	294.3	294.3	294.3	294.3
2.5°	290.1	293.6	291.6	292.4	293.2
5°	282.3	286.5	286.9	289.3	292.8
7.5°	271.3	276.4	279.5	285.4	290.8
10°	257.3	263.5	270.2	279.5	286.5
12.5°	242.5	249.1	258.9	272.1	281.5
15°	226.5	233.9	246.0	263.5	274.8
17.5°	209.7	217.9	232.4	253.0	267.4
20°	192.6	201.6	217.5	240.9	258.5
22.5°	175.0	184.4	201.9	228.5	249.1
25°	157.1	167.2	186.4	215.2	238.2
27.5°	140.0	149.3	170.4	201.9	227.3
30°	121.2	131.8	154.4	188.3	214.8
32.5°	104.1	114.2	138.0	174.3	203.1
35°	85.4	96.7	122.0	160.2	191.4
37.5°	67.8	78.8	106.4	147.0	180.1
40°	50.7	62.0	90.4	133.7	168.4
42.5°	33.9	46.0	75.2	120.1	157.5
45°	18.7	30.0	61.2	108.4	146.6
47.5°	9.7	16.4	48.0	96.7	134.9
50°	7.4	9.0	35.5	83.8	121.6
52.5°	6.2	6.6	24.2	71.0	108.4
55°	5.1	5.5	16.4	59.6	94.7
57.5°	3.9	4.3	11.7	48.7	79.5
60°	3.1	3.5	9.7	37.4	65.5
62.5°	2.3	2.7	9.4	27.7	51.5
65°	1.9	2.3	8.2	18.7	37.8
67.5°	1.6	2.3	7.0	12.1	25.3
70°	1.6	3.1	5.8	7.8	14.0
72.5°	1.6	3.5	5.1	5.1	5.1
75°	1.6	4.3	4.7	4.3	4.3
77.5°	1.6	3.9	3.9	3.9	3.9
80°	1.6	3.5	3.5	3.5	3.1
82.5°	1.6	3.1	3.5	3.5	2.7
85°	1.6	3.1	3.1	3.1	2.3
87.5°	1.2	3.1	3.1	3.1	1.6
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	0.00	0.00	0.00	0.00	0.00	11.67	12.95	12.04	13.26	13.57
	3H	0.00	0.00	0.00	0.00	0.00	12.02	13.15	12.40	13.48	13.85
	4H	0.00	0.00	0.00	0.00	0.00	11.99	13.04	12.40	13.39	13.78
	6H	0.00	0.00	0.00	0.00	0.00	11.97	12.93	12.38	13.30	13.69
	8H	0.00	0.00	0.00	0.00	0.39	11.96	12.87	12.39	13.26	13.66
	12H	0.00	0.37	0.00	0.76	1.19	11.95	12.82	12.39	13.21	13.64
4H	2H	0.00	0.00	0.00	0.00	0.00	11.47	12.52	11.88	12.87	13.26
	3H	0.00	0.00	0.00	0.06	0.46	11.87	12.72	12.28	13.13	13.53
	4H	0.26	1.02	0.69	1.44	1.89	11.85	12.61	12.28	13.03	13.48
	6H	1.51	2.17	1.98	2.62	3.09	11.87	12.52	12.33	12.97	13.44
	8H	2.09	2.70	2.56	3.15	3.62	11.87	12.49	12.35	12.94	13.41
	12H	2.77	3.32	3.26	3.80	4.28	11.91	12.45	12.40	12.94	13.41
8H	4H	1.33	1.95	1.80	2.40	2.87	11.75	12.36	12.22	12.81	13.28
	6H	2.94	3.45	3.45	3.94	4.43	11.80	12.30	12.30	12.80	13.28
	8H	3.78	4.23	4.30	4.74	5.24	11.85	12.31	12.38	12.82	13.32
	12H	4.75	5.15	5.26	5.64	6.21	11.97	12.37	12.48	12.86	13.44
12H	4H	1.52	2.06	2.01	2.55	3.02	11.71	12.25	12.20	12.74	13.21
	6H	3.29	3.74	3.81	4.26	4.75	11.77	12.22	12.29	12.73	13.23
	8H	4.30	4.70	4.82	5.20	5.77	11.87	12.27	12.38	12.76	13.34