

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: P1060699

Luminaire Tested: S124RDRP-H1020D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060699  
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-H1020D950-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, 90 CRI LEDS  
Ballast/Driver: -

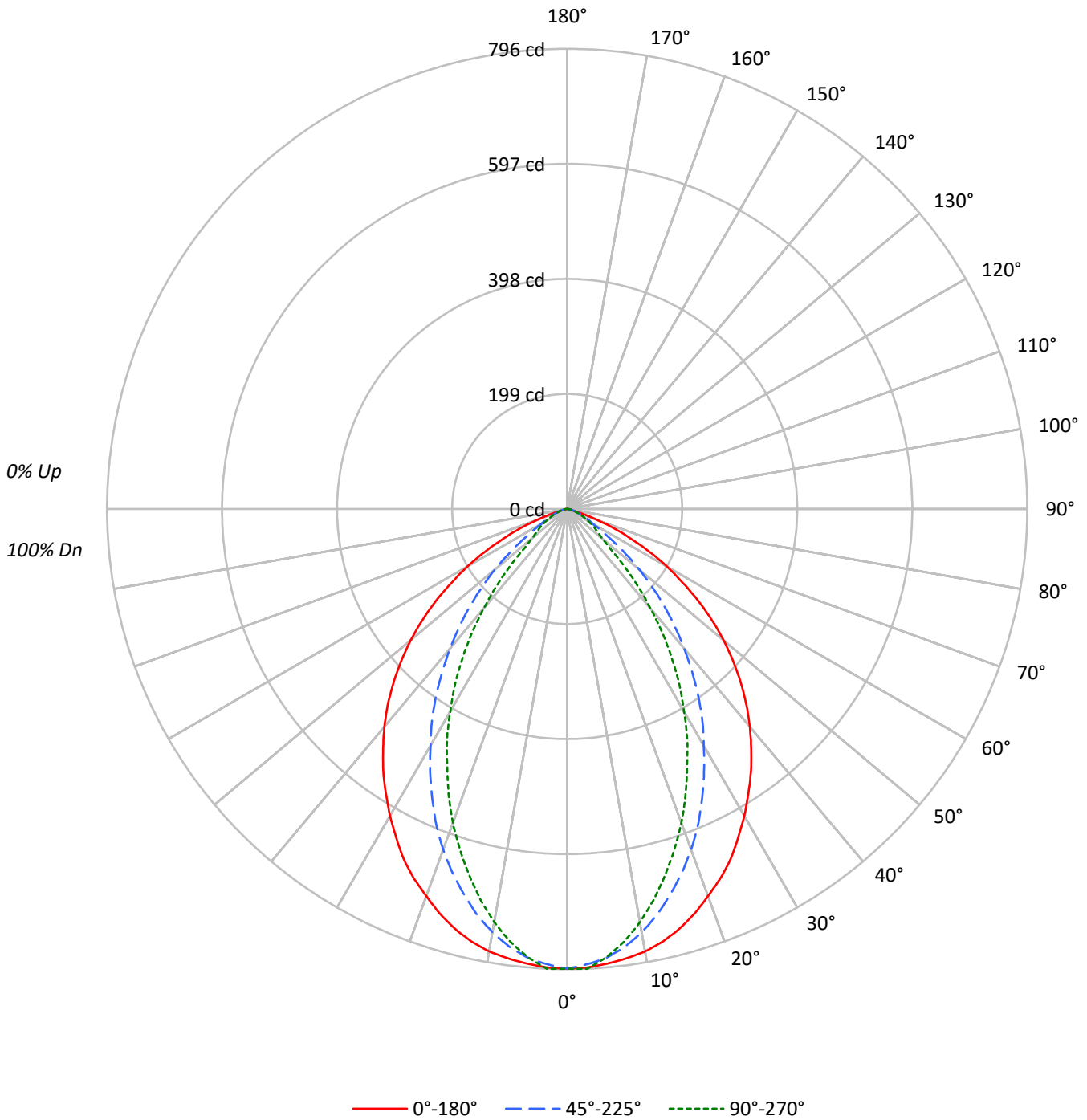
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1172.5 lumens  
Efficiency: N/A  
Efficacy: 37.6 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): 31.2  
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	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°	6848	6848	6848
5°	6826	6739	6729
10°	6797	6503	6346
15°	6700	6151	5842
20°	6528	5748	5297
25°	6354	5247	4661
30°	6092	4700	4021
35°	5828	4157	3321
40°	5527	3538	2518
45°	5170	2892	1692
50°	4726	2190	1050
55°	4154	1446	892
60°	3434	887	734
65°	2488	685	593
70°	1355	509	451
75°	299	373	409
80°	223	278	332
85°	217	217	336

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5170 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.7	6.3
10°-20°	195.7	16.7
20°-30°	259.2	22.1
30°-40°	257.3	21.9
40°-50°	198.0	16.9
50°-60°	118.0	10.1
60°-70°	53.6	4.6
70°-80°	13.9	1.2
80°-90°	3.1	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°	528.6	45.1
0°-40°	785.9	67.0
0°-60°	1101.9	94.0
0°-90°	1172.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1172.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	790	791	780	780	778	75
15°	752	732	690	666	655	211
25°	669	620	552	506	491	307
35°	554	485	395	335	316	346
45°	424	342	238	166	139	327
55°	277	197	96	60	59	247
65°	122	73	34	29	29	123
75°	9	11	11	12	12	19
85°	2	2	2	3	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	795.3	795.3	795.3	795.3	795.3
2.5°	794.1	795.3	788.5	794.1	796.4
5°	789.7	790.8	779.6	779.6	778.5
7.5°	784.1	781.8	763.9	757.2	754.9
10°	777.3	769.5	743.7	730.3	725.8
12.5°	766.1	753.8	719.1	700.1	692.2
15°	751.6	732.5	690.0	666.5	655.3
17.5°	733.7	710.1	659.7	629.5	617.2
20°	712.4	681.0	627.2	589.2	578.0
22.5°	692.2	653.0	591.4	547.7	535.4
25°	668.7	620.5	552.2	506.3	490.6
27.5°	640.7	589.2	513.0	466.0	450.3
30°	612.7	555.6	472.7	423.4	404.4
32.5°	583.6	520.8	435.7	379.7	361.8
35°	554.4	485.0	395.4	334.9	315.9
37.5°	523.1	449.2	355.1	292.3	271.1
40°	491.7	414.4	314.7	250.9	224.0
42.5°	459.2	378.6	275.5	208.3	181.5
45°	424.5	341.6	237.5	165.8	138.9
47.5°	389.8	306.9	199.4	124.3	99.7
50°	352.8	269.9	163.5	90.7	78.4
52.5°	315.9	234.1	127.7	70.6	67.2
55°	276.7	197.1	96.3	60.5	59.4
57.5°	236.3	163.5	69.4	52.6	50.4
60°	199.4	132.2	51.5	44.8	42.6
62.5°	161.3	99.7	42.6	37.0	34.7
65°	122.1	72.8	33.6	29.1	29.1
67.5°	88.5	49.3	26.9	23.5	22.4
70°	53.8	30.2	20.2	19.0	17.9
72.5°	26.9	17.9	15.7	14.6	14.6
75°	9.0	11.2	11.2	12.3	12.3
77.5°	6.7	7.8	7.8	9.0	9.0
80°	4.5	5.6	5.6	6.7	6.7
82.5°	3.4	3.4	4.5	4.5	5.6
85°	2.2	2.2	2.2	3.4	3.4
87.5°	1.1	1.1	1.1	2.2	2.2
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	15.80	17.14	16.17	17.45	17.76	7.35	8.68	7.71	9.00	9.31
	3H	16.31	17.49	16.69	17.82	18.19	8.16	9.35	8.54	9.67	10.04
	4H	16.28	17.38	16.68	17.73	18.11	8.45	9.55	8.85	9.90	10.28
	6H	16.21	17.22	16.63	17.59	17.99	8.62	9.63	9.03	10.00	10.39
	8H	16.18	17.13	16.61	17.52	17.92	8.69	9.64	9.12	10.03	10.44
	12H	16.14	17.05	16.57	17.43	17.86	8.73	9.64	9.16	10.03	10.46
4H	2H	15.64	16.74	16.05	17.09	17.48	7.79	8.89	8.19	9.24	9.62
	3H	16.20	17.09	16.61	17.50	17.90	8.75	9.65	9.17	10.05	10.46
	4H	16.17	16.96	16.60	17.38	17.83	9.12	9.91	9.55	10.33	10.78
	6H	16.11	16.80	16.58	17.25	17.71	9.37	10.06	9.83	10.50	10.97
	8H	16.07	16.71	16.54	17.16	17.63	9.46	10.10	9.93	10.55	11.02
	12H	16.03	16.59	16.52	17.08	17.55	9.54	10.10	10.02	10.58	11.06
8H	4H	16.06	16.70	16.53	17.14	17.62	9.21	9.85	9.68	10.29	10.76
	6H	16.00	16.52	16.50	17.01	17.50	9.52	10.04	10.02	10.54	11.02
	8H	15.95	16.42	16.47	16.93	17.42	9.65	10.12	10.17	10.63	11.13
	12H	15.92	16.33	16.43	16.83	17.40	9.79	10.20	10.30	10.70	11.27
12H	4H	16.01	16.58	16.50	17.06	17.54	9.18	9.75	9.67	10.23	10.70
	6H	15.94	16.41	16.46	16.92	17.42	9.50	9.97	10.02	10.48	10.98
	8H	15.91	16.33	16.43	16.82	17.39	9.67	10.08	10.18	10.58	11.15