

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: P1060448

Luminaire Tested: S124RDRP-S350D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060448  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S350D940-X4F0-XX-UDD-SVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

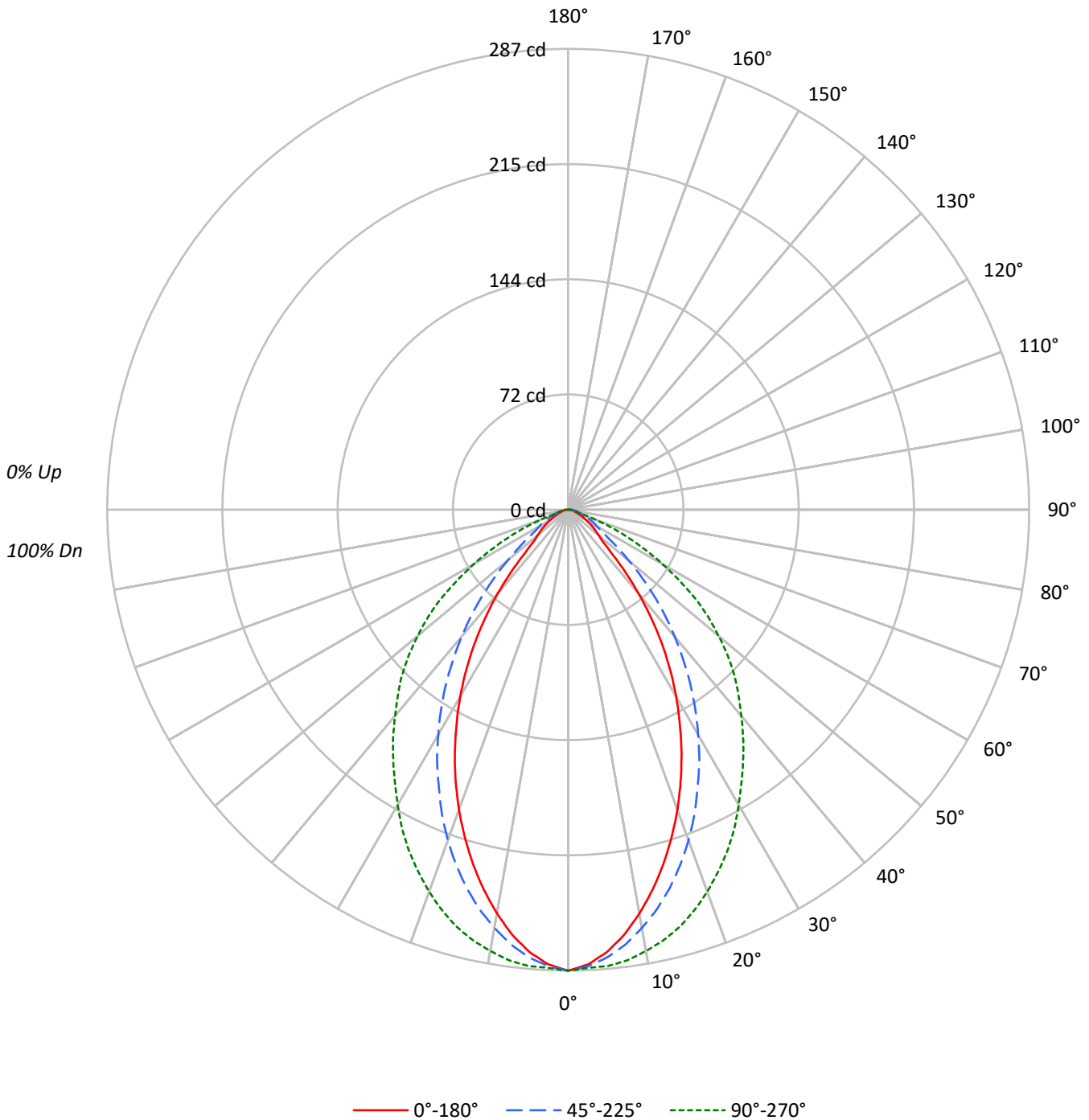
Lumens per Lamp: N/A  
Luminaire Lumens: 403.7 lumens  
Efficiency: N/A  
Efficacy: 32.3 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 12.5  
Input Voltage (V): 120  
Input Current (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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70					70			
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63					63			
5	84	73	66	61	82	72	65	60	70	64	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	49	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43					43			
9	65	54	46	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39					39			
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36					36			

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

	0°	45°	90°
0°	2472	2472	2472
5°	2390	2419	2465
10°	2232	2312	2440
15°	2038	2175	2396
20°	1821	2008	2319
25°	1586	1811	2228
30°	1336	1609	2110
35°	1067	1394	1996
40°	768	1158	1884
45°	463	912	1784
50°	332	660	1638
55°	279	444	1453
60°	226	353	1169
65°	179	320	842
70°	156	267	451
75°	146	243	220
80°	144	253	198
85°	217	366	257

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1784 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.4	6.5
10°-20°	69.0	17.1
20°-30°	89.6	22.2
30°-40°	86.1	21.3
40°-50°	63.9	15.8
50°-60°	39.1	9.7
60°-70°	19.0	4.7
70°-80°	7.2	1.8
80°-90°	3.3	0.8
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°	185.0	45.8
0°-40°	271.1	67.2
0°-60°	374.1	92.7
0°-90°	403.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	403.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	287	287	287	287	287	
5°	276	280	280	282	285	26
15°	229	235	244	259	269	64
25°	167	175	191	215	234	76
35°	102	111	133	164	190	63
45°	38	48	75	114	146	32
55°	19	19	30	67	97	17
65°	9	10	16	25	41	9
75°	4	7	7	7	7	5
85°	2	4	4	3	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	287.1	287.1	287.1	287.1	287.1
2.5°	283.4	286.7	284.5	285.2	285.6
5°	276.5	280.5	279.8	282.3	285.2
7.5°	267.0	271.7	273.2	278.3	283.0
10°	255.3	261.1	264.4	272.8	279.0
12.5°	242.5	248.7	254.9	266.2	274.6
15°	228.6	235.2	244.0	258.6	268.8
17.5°	214.0	221.3	231.9	249.4	261.5
20°	198.7	206.3	219.1	238.5	253.1
22.5°	183.0	191.0	205.3	226.8	244.0
25°	166.9	175.3	190.6	215.1	234.5
27.5°	150.5	159.2	176.8	202.7	223.9
30°	134.4	142.8	161.8	189.9	212.2
32.5°	118.0	126.7	147.2	176.8	200.9
35°	101.5	110.7	132.6	164.0	189.9
37.5°	84.7	94.6	117.6	151.6	179.0
40°	68.3	77.8	103.0	138.8	167.6
42.5°	52.2	62.5	89.1	126.0	157.0
45°	38.0	47.5	74.9	114.3	146.5
47.5°	28.5	34.3	61.7	103.4	134.8
50°	24.8	25.9	49.3	91.3	122.3
52.5°	21.5	22.3	38.3	78.2	109.9
55°	18.6	19.4	29.6	66.8	96.8
57.5°	15.7	16.4	23.7	55.9	81.8
60°	13.1	13.9	20.5	44.6	67.9
62.5°	11.0	11.3	18.3	34.0	54.4
65°	8.8	9.5	15.7	24.8	41.3
67.5°	7.3	8.0	12.8	17.2	28.9
70°	6.2	8.0	10.6	12.1	17.9
72.5°	5.1	7.3	8.8	8.4	8.4
75°	4.4	6.9	7.3	6.6	6.6
77.5°	3.7	6.2	5.8	5.5	5.1
80°	2.9	5.1	5.1	4.4	4.0
82.5°	2.6	4.0	4.0	4.0	3.3
85°	2.2	3.7	3.7	3.3	2.6
87.5°	1.5	2.9	3.3	2.9	1.8
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	2.95	4.28	3.31	4.60	4.91	12.06	13.40	12.42	13.71	14.03
	3H	3.99	5.18	4.37	5.51	5.87	12.56	13.75	12.94	14.08	14.44
	4H	4.50	5.61	4.91	5.96	6.34	12.58	13.68	12.98	14.03	14.42
	6H	4.96	5.98	5.37	6.35	6.74	12.57	13.59	12.99	13.96	14.36
	8H	5.15	6.12	5.58	6.51	6.91	12.57	13.53	13.00	13.93	14.33
	12H	5.37	6.29	5.80	6.68	7.11	12.57	13.49	13.00	13.88	14.31
4H	2H	4.04	5.15	4.45	5.50	5.88	11.95	13.05	12.35	13.41	13.79
	3H	5.31	6.22	5.73	6.62	7.03	12.53	13.43	12.94	13.84	14.24
	4H	6.02	6.83	6.45	7.24	7.69	12.58	13.39	13.01	13.80	14.25
	6H	6.65	7.35	7.11	7.79	8.26	12.63	13.33	13.09	13.77	14.24
	8H	6.90	7.55	7.37	8.00	8.47	12.64	13.30	13.11	13.75	14.22
	12H	7.18	7.76	7.66	8.24	8.71	12.68	13.26	13.17	13.74	14.21
8H	4H	6.44	7.10	6.91	7.54	8.01	12.52	13.18	12.99	13.62	14.10
	6H	7.32	7.86	7.82	8.35	8.83	12.62	13.15	13.12	13.65	14.13
	8H	7.73	8.21	8.25	8.73	9.22	12.68	13.16	13.20	13.67	14.17
	12H	8.22	8.64	8.73	9.14	9.71	12.78	13.20	13.29	13.70	14.27
12H	4H	6.49	7.06	6.97	7.55	8.02	12.50	13.07	12.98	13.56	14.03
	6H	7.43	7.91	7.95	8.43	8.92	12.60	13.08	13.12	13.59	14.08
	8H	7.95	8.38	8.47	8.87	9.44	12.70	13.13	13.22	13.62	14.19