

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: P1059242

Luminaire Tested: S123RDRP-S340D950-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059242  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S340D950-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

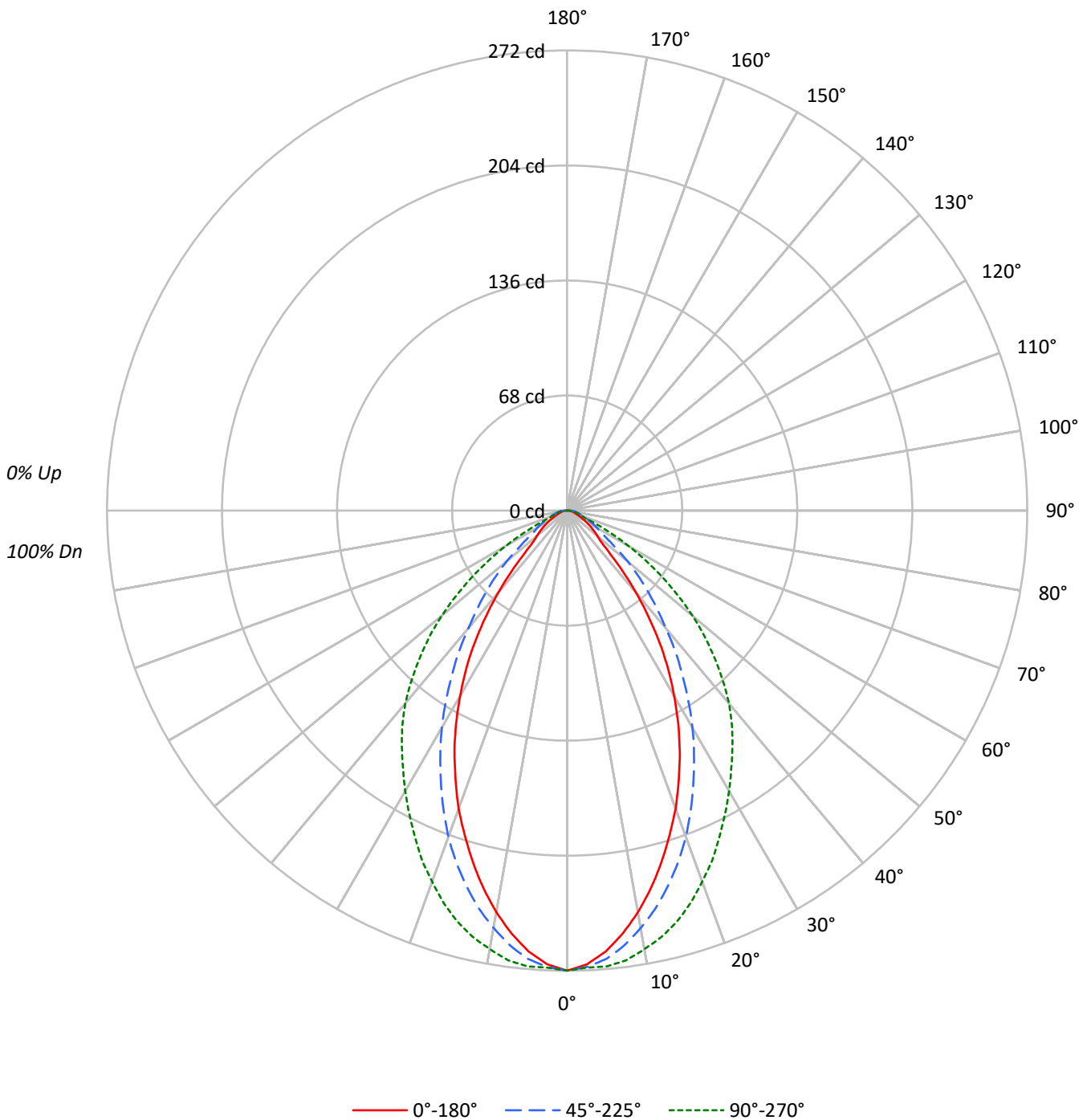
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 364.2 lumens  
Efficiency: N/A  
Efficacy: 29.1 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98  
Luminous Opening: Rectangular (W 0.23' 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	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	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																			79									
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71																			71									
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64																			64									
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58																			58									
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52																			52									
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48																			48									
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44																			44									
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40																			40									
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37																			37									

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

	0°	45°	90°
0°	3193	3193	3193
5°	3084	3135	3187
10°	2874	2987	3138
15°	2616	2795	3055
20°	2342	2565	2917
25°	2042	2289	2757
30°	1717	2008	2595
35°	1366	1702	2441
40°	973	1387	2282
45°	580	1114	2044
50°	427	848	1770
55°	358	577	1406
60°	289	474	989
65°	231	408	531
70°	192	354	326
75°	181	340	304
80°	189	379	298
85°	269	539	377

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2044 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.0	6.9
10°-20°	64.9	17.8
20°-30°	82.8	22.7
30°-40°	77.9	21.4
40°-50°	56.0	15.4
50°-60°	32.1	8.8
60°-70°	14.7	4.0
70°-80°	7.4	2.0
80°-90°	3.6	1.0
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°	172.7	47.4
0°-40°	250.5	68.8
0°-60°	338.6	93.0
0°-90°	364.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	364.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	272	272	272	272	272	
5°	262	267	266	268	270	24
15°	215	223	230	242	251	60
25°	158	165	177	196	213	72
35°	95	102	119	146	170	59
45°	35	42	67	99	123	29
55°	18	18	28	52	69	16
65°	8	12	15	16	19	8
75°	4	8	8	7	7	4
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	271.9	271.9	271.9	271.9	271.9
2.5°	268.4	272.3	270.0	270.0	270.4
5°	261.6	266.8	266.0	268.0	270.4
7.5°	252.1	257.7	259.2	264.0	268.0
10°	241.0	247.3	250.5	258.1	263.2
12.5°	228.7	235.8	241.0	250.5	258.1
15°	215.2	222.7	229.9	242.2	251.3
17.5°	201.3	208.8	218.0	232.2	243.0
20°	187.4	194.9	205.3	220.3	233.4
22.5°	172.3	179.8	191.0	208.0	223.9
25°	157.6	164.8	176.7	195.7	212.8
27.5°	142.1	149.3	162.4	183.0	202.1
30°	126.6	133.8	148.1	170.3	191.4
32.5°	111.2	117.9	133.4	158.0	180.6
35°	95.3	102.0	118.7	145.7	170.3
37.5°	79.0	85.8	105.2	134.6	160.0
40°	63.5	71.1	90.5	123.5	148.9
42.5°	48.4	56.4	78.6	111.6	136.2
45°	34.9	42.5	67.1	98.9	123.1
47.5°	26.6	30.6	56.8	86.2	110.4
50°	23.4	23.8	46.4	74.6	96.9
52.5°	20.2	20.6	36.1	63.5	82.6
55°	17.5	17.9	28.2	52.0	68.7
57.5°	14.7	15.5	23.0	41.3	55.2
60°	12.3	13.9	20.2	31.4	42.1
62.5°	9.9	12.7	17.5	23.0	30.2
65°	8.3	11.5	14.7	16.3	19.1
67.5°	6.7	10.7	12.3	11.5	11.5
70°	5.6	9.5	10.3	9.5	9.5
72.5°	4.8	9.1	8.7	7.9	7.9
75°	4.0	7.9	7.5	6.7	6.7
77.5°	3.6	6.7	6.4	6.0	5.6
80°	2.8	5.6	5.6	5.2	4.4
82.5°	2.4	4.8	4.8	4.4	3.6
85°	2.0	4.0	4.0	3.6	2.8
87.5°	1.6	3.6	3.6	3.2	2.0
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	4.03	5.34	4.39	5.66	5.97	11.24	12.56	11.61	12.87	13.19
	3H	5.42	6.59	5.80	6.92	7.28	11.48	12.65	11.86	12.98	13.34
	4H	5.98	7.07	6.38	7.42	7.80	11.58	12.67	11.99	13.02	13.41
	6H	6.44	7.45	6.86	7.82	8.21	11.69	12.69	12.11	13.06	13.46
	8H	6.63	7.58	7.06	7.97	8.38	11.74	12.69	12.17	13.08	13.49
	12H	6.83	7.73	7.26	8.12	8.55	11.79	12.70	12.23	13.08	13.51
4H	2H	5.10	6.19	5.50	6.54	6.92	11.20	12.29	11.61	12.65	13.03
	3H	6.78	7.67	7.19	8.07	8.48	11.57	12.46	11.98	12.87	13.27
	4H	7.61	8.41	8.04	8.83	9.27	11.75	12.55	12.19	12.97	13.41
	6H	8.27	8.96	8.73	9.41	9.87	11.98	12.67	12.44	13.12	13.58
	8H	8.53	9.18	9.00	9.62	10.09	12.08	12.73	12.55	13.17	13.64
	12H	8.79	9.36	9.28	9.84	10.32	12.20	12.77	12.69	13.25	13.73
8H	4H	8.04	8.69	8.51	9.14	9.61	11.80	12.44	12.26	12.89	13.36
	6H	9.00	9.53	9.51	10.03	10.51	12.14	12.67	12.64	13.16	13.64
	8H	9.48	9.95	10.00	10.47	10.96	12.33	12.81	12.85	13.32	13.81
	12H	9.96	10.38	10.48	10.88	11.45	12.56	12.99	13.08	13.48	14.05
12H	4H	8.11	8.68	8.59	9.16	9.63	11.79	12.36	12.28	12.84	13.32
	6H	9.15	9.63	9.68	10.15	10.64	12.16	12.64	12.68	13.16	13.65
	8H	9.76	10.18	10.27	10.67	11.24	12.43	12.85	12.94	13.34	13.92