

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: P1059277

Luminaire Tested: S123RDRP-S560D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059277  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D850-X4F0-XX-UDD-SVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

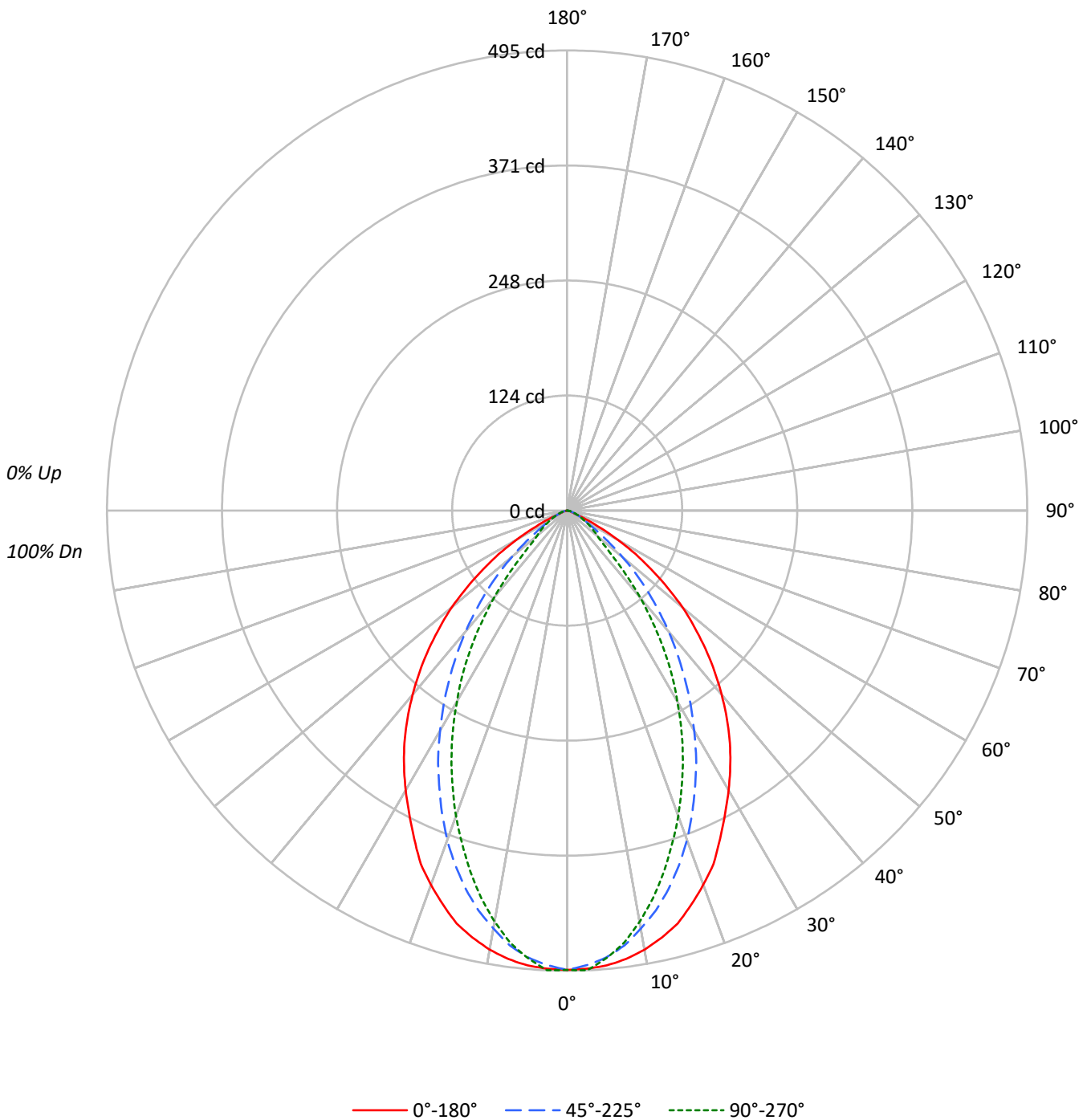
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 637.9 lumens  
Efficiency: N/A  
Efficacy: 32.5 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	5802	5802	5802
5°	5789	5689	5698
10°	5719	5444	5354
15°	5588	5123	4891
20°	5352	4712	4369
25°	5044	4221	3816
30°	4709	3703	3215
35°	4375	3158	2587
40°	3962	2603	1876
45°	3492	2019	1131
50°	2963	1412	769
55°	2254	846	643
60°	1473	538	503
65°	617	403	403
70°	209	288	316
75°	172	209	245
80°	101	156	210
85°	108	108	202

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3492 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.6	7.2
10°-20°	119.4	18.7
20°-30°	153.2	24.0
30°-40°	143.7	22.5
40°-50°	100.3	15.7
50°-60°	51.8	8.1
60°-70°	17.7	2.8
70°-80°	5.1	0.8
80°-90°	1.1	0.2
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°	318.2	49.9
0°-40°	461.9	72.4
0°-60°	614.0	96.3
0°-90°	637.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	637.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	491	490	483	485	483	47
15°	460	448	421	408	402	129
25°	389	365	326	304	294	179
35°	305	268	220	192	180	190
45°	210	172	122	84	68	162
55°	110	83	41	32	31	99
65°	22	19	14	14	14	26
75°	4	4	5	5	5	4
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	494.1	494.1	494.1	494.1	494.1
2.5°	493.3	494.1	489.5	494.1	494.9
5°	491.1	490.3	482.6	484.9	483.4
7.5°	486.5	484.2	471.9	468.9	468.9
10°	479.6	475.0	456.6	451.3	449.0
12.5°	470.4	464.3	440.6	430.6	426.8
15°	459.7	448.2	421.4	407.7	402.3
17.5°	444.4	429.1	400.0	384.0	375.6
20°	428.3	409.2	377.1	358.0	349.6
22.5°	411.5	388.6	351.8	331.2	322.0
25°	389.3	364.8	325.8	303.7	294.5
27.5°	367.9	341.9	300.6	275.4	266.2
30°	347.3	316.7	273.1	248.6	237.1
32.5°	326.6	292.2	247.1	220.3	209.6
35°	305.2	267.7	220.3	192.0	180.5
37.5°	282.2	244.0	195.0	164.4	150.7
40°	258.5	218.8	169.8	135.4	122.4
42.5°	234.8	195.8	144.6	109.4	94.1
45°	210.3	172.1	121.6	84.1	68.1
47.5°	185.9	148.4	99.4	61.2	51.2
50°	162.2	126.2	77.3	45.1	42.1
52.5°	136.1	104.8	58.1	37.5	36.7
55°	110.1	82.6	41.3	32.1	31.4
57.5°	87.2	64.2	29.8	26.8	26.0
60°	62.7	45.9	22.9	22.2	21.4
62.5°	41.3	31.4	18.4	17.6	17.6
65°	22.2	19.1	14.5	13.8	14.5
67.5°	9.2	10.7	10.7	11.5	11.5
70°	6.1	6.9	8.4	9.2	9.2
72.5°	4.6	5.4	6.1	6.9	6.9
75°	3.8	3.8	4.6	5.4	5.4
77.5°	2.3	3.1	3.1	3.8	4.6
80°	1.5	2.3	2.3	3.1	3.1
82.5°	0.8	1.5	1.5	2.3	2.3
85°	0.8	0.8	0.8	0.8	1.5
87.5°	0.0	0.0	0.0	0.0	0.8
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	12.44	13.70	12.80	14.01	14.32	5.95	7.21	6.32	7.52	7.84
	3H	12.39	13.50	12.77	13.83	14.20	6.73	7.84	7.11	8.17	8.54
	4H	12.34	13.37	12.74	13.72	14.10	6.93	7.96	7.34	8.32	8.70
	6H	12.27	13.21	12.68	13.58	13.98	7.08	8.02	7.49	8.39	8.79
	8H	12.22	13.12	12.66	13.51	13.91	7.12	8.01	7.55	8.40	8.81
	12H	12.18	13.03	12.62	13.42	13.85	7.13	7.98	7.57	8.37	8.80
4H	2H	12.28	13.31	12.69	13.66	14.05	6.21	7.24	6.61	7.59	7.97
	3H	12.27	13.10	12.68	13.51	13.91	7.12	7.95	7.53	8.36	8.76
	4H	12.22	12.96	12.65	13.38	13.82	7.39	8.14	7.83	8.56	9.00
	6H	12.16	12.80	12.63	13.25	13.71	7.61	8.25	8.08	8.70	9.17
	8H	12.11	12.70	12.58	13.15	13.62	7.67	8.27	8.14	8.72	9.19
	12H	12.06	12.59	12.55	13.07	13.55	7.71	8.23	8.20	8.72	9.19
8H	4H	12.10	12.70	12.58	13.15	13.62	7.38	7.97	7.85	8.42	8.89
	6H	12.04	12.53	12.55	13.02	13.51	7.65	8.13	8.15	8.63	9.11
	8H	11.99	12.43	12.52	12.94	13.44	7.76	8.19	8.28	8.71	9.20
	12H	11.95	12.34	12.47	12.83	13.41	7.83	8.22	8.35	8.71	9.28
12H	4H	12.06	12.58	12.55	13.07	13.54	7.34	7.86	7.83	8.35	8.82
	6H	11.98	12.42	12.51	12.94	13.43	7.61	8.05	8.13	8.56	9.06
	8H	11.95	12.34	12.47	12.83	13.41	7.75	8.13	8.27	8.63	9.20