

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: P1059275

Luminaire Tested: S123RDRP-S560D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059275
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

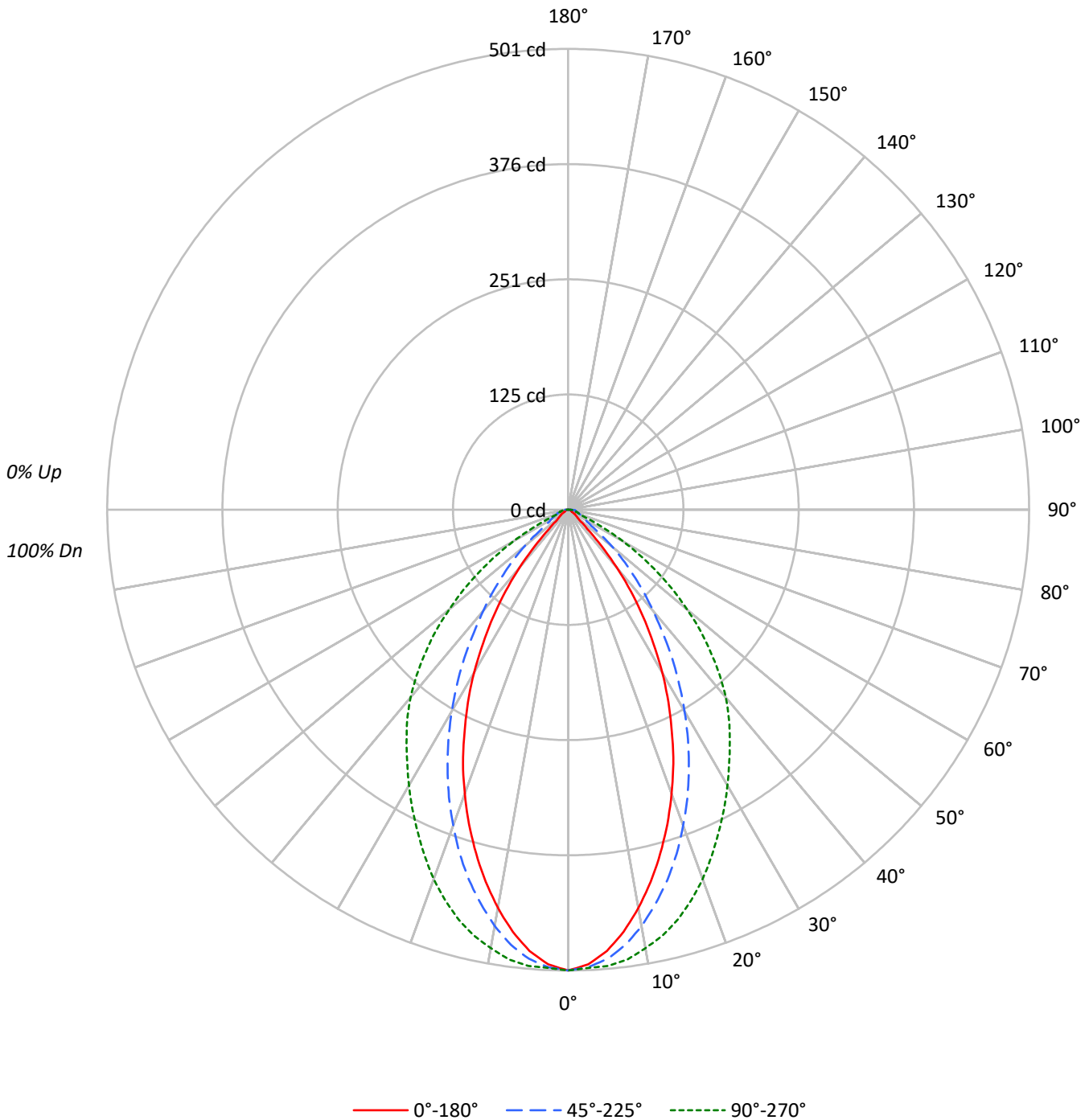
Lumens per Lamp: N/A
Luminaire Lumens: 601.6 lumens
Efficiency: N/A
Efficacy: 30.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5882	5882	5882
5°	5678	5777	5868
10°	5242	5479	5771
15°	4702	5064	5604
20°	4105	4565	5340
25°	3453	4019	5012
30°	2773	3426	4694
35°	2031	2821	4391
40°	1255	2195	4085
45°	483	1654	3637
50°	237	1133	3078
55°	188	626	2414
60°	127	521	1618
65°	106	467	722
70°	106	422	422
75°	141	454	417
80°	210	568	467
85°	310	930	620

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3637 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.9	7.6
10°-20°	117.6	19.5
20°-30°	145.9	24.3
30°-40°	130.7	21.7
40°-50°	85.9	14.3
50°-60°	43.1	7.2
60°-70°	17.0	2.8
70°-80°	9.5	1.6
80°-90°	6.0	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°	309.4	51.4
0°-40°	440.1	73.2
0°-60°	569.1	94.6
0°-90°	601.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	601.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	501	501	501	501	501	
5°	482	489	490	493	498	45
15°	387	399	417	445	461	108
25°	266	283	310	354	387	122
35°	142	161	197	257	306	88
45°	29	48	100	168	219	28
55°	9	11	31	83	118	8
65°	4	11	17	21	26	4
75°	3	10	10	9	9	3
85°	2	7	7	7	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	500.9	500.9	500.9	500.9	500.9
2.5°	494.7	501.6	497.8	497.8	498.6
5°	481.7	489.4	490.1	493.2	497.8
7.5°	462.6	472.5	477.1	486.3	493.2
10°	439.6	450.3	459.5	475.6	484.0
12.5°	414.3	425.0	438.8	461.0	474.1
15°	386.8	399.0	416.6	445.0	461.0
17.5°	358.4	370.7	392.1	424.3	445.0
20°	328.5	342.3	365.3	402.1	427.3
22.5°	298.7	314.0	338.5	378.3	407.4
25°	266.5	283.4	310.2	353.8	386.8
27.5°	235.9	253.5	281.8	329.3	366.8
30°	204.5	222.1	252.7	304.0	346.2
32.5°	172.3	192.2	224.4	280.3	325.5
35°	141.7	160.8	196.8	257.3	306.3
37.5°	111.8	131.0	168.5	235.1	287.2
40°	81.9	101.9	143.2	213.7	266.5
42.5°	53.6	74.3	121.0	192.2	243.5
45°	29.1	48.2	99.6	167.7	219.0
47.5°	16.1	26.0	80.4	144.7	195.3
50°	13.0	14.6	62.0	123.3	168.5
52.5°	10.7	12.3	44.4	102.6	144.0
55°	9.2	10.7	30.6	82.7	117.9
57.5°	7.7	9.2	24.5	63.6	92.7
60°	5.4	9.2	22.2	46.7	68.9
62.5°	4.6	9.2	19.1	32.2	46.0
65°	3.8	10.7	16.8	21.4	26.0
67.5°	3.1	10.7	14.6	13.8	13.8
70°	3.1	10.7	12.3	11.5	12.3
72.5°	3.1	11.5	11.5	10.7	10.7
75°	3.1	10.0	10.0	9.2	9.2
77.5°	3.1	9.2	9.2	8.4	8.4
80°	3.1	8.4	8.4	7.7	6.9
82.5°	3.1	7.7	7.7	6.9	6.1
85°	2.3	6.9	6.9	6.9	4.6
87.5°	2.3	6.1	6.9	6.1	3.8
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	0.00	0.00	0.00	0.20	0.51	12.71	13.96	13.07	14.27	14.59
	3H	1.15	2.26	1.53	2.59	2.96	12.78	13.90	13.17	14.23	14.59
	4H	2.32	3.36	2.73	3.71	4.10	12.85	13.88	13.25	14.23	14.62
	6H	3.38	4.33	3.80	4.70	5.10	12.95	13.90	13.36	14.27	14.66
	8H	3.93	4.83	4.36	5.22	5.62	13.01	13.90	13.44	14.30	14.70
	12H	4.41	5.27	4.84	5.65	6.08	13.07	13.93	13.51	14.32	14.75
4H	2H	1.87	2.90	2.27	3.25	3.64	12.56	13.60	12.97	13.95	14.34
	3H	4.34	5.18	4.75	5.59	5.99	12.74	13.59	13.15	13.99	14.39
	4H	5.69	6.45	6.13	6.87	7.31	12.87	13.62	13.30	14.04	14.49
	6H	6.83	7.48	7.29	7.93	8.40	13.08	13.74	13.55	14.18	14.65
	8H	7.34	7.95	7.81	8.40	8.87	13.21	13.82	13.68	14.27	14.74
	12H	7.80	8.34	8.29	8.82	9.30	13.37	13.91	13.85	14.39	14.86
8H	4H	6.61	7.22	7.08	7.67	8.14	12.87	13.48	13.34	13.93	14.40
	6H	8.21	8.71	8.71	9.20	9.69	13.20	13.70	13.70	14.20	14.68
	8H	9.04	9.49	9.56	10.01	10.50	13.43	13.88	13.95	14.40	14.89
	12H	9.82	10.22	10.34	10.71	11.29	13.75	14.15	14.27	14.65	15.22
12H	4H	6.78	7.32	7.26	7.80	8.28	12.86	13.40	13.35	13.88	14.36
	6H	8.52	8.97	9.05	9.49	9.98	13.23	13.68	13.76	14.20	14.69
	8H	9.54	9.94	10.05	10.43	11.01	13.54	13.94	14.06	14.44	15.01