

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: P1059320

Luminaire Tested: S123RDRP-S560D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059320
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-S560D950-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, 90 CRI LEDS
Ballast/Driver: -

Summary

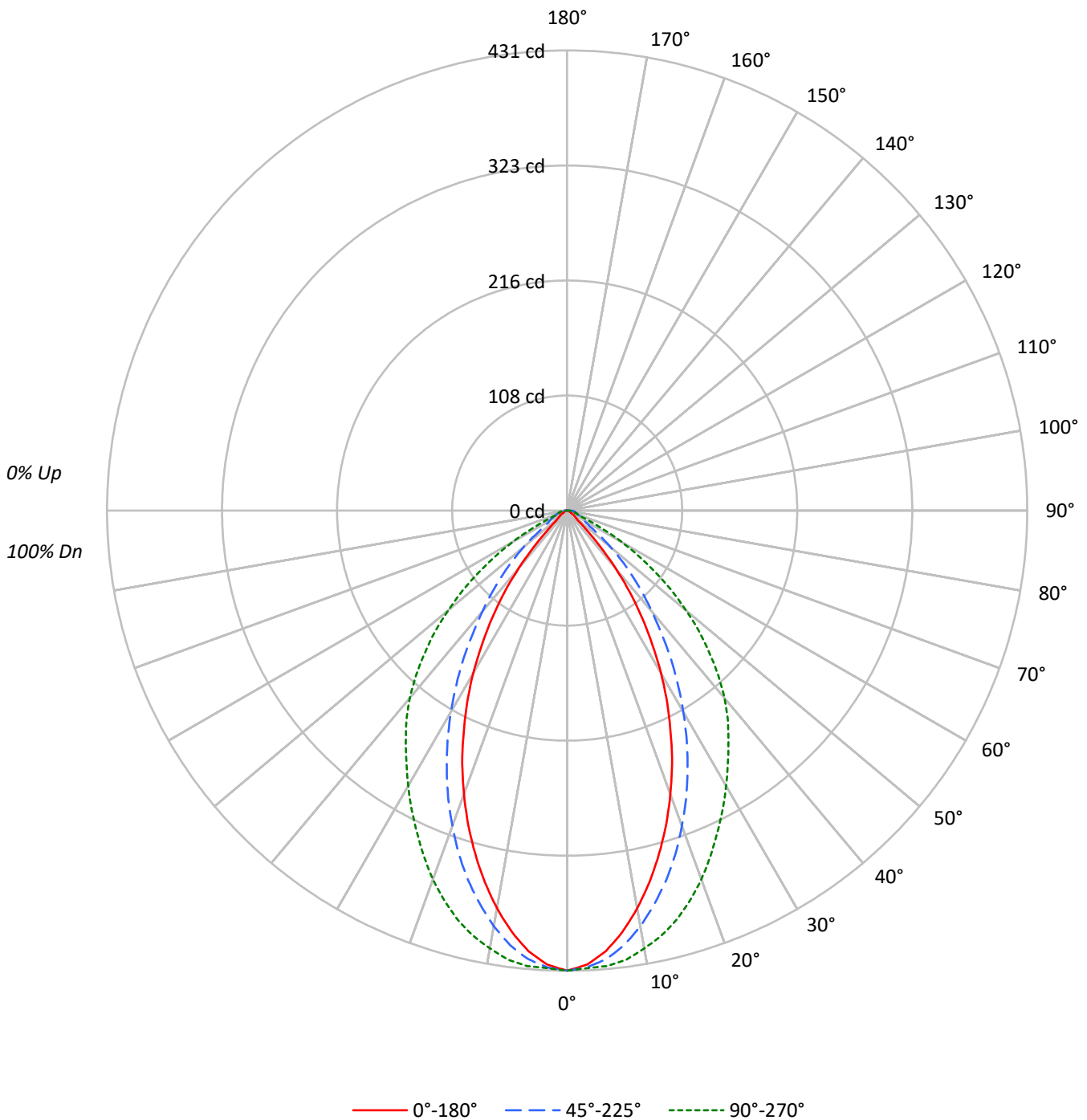
Lumens per Lamp: N/A
Luminaire Lumens: 517.5 lumens
Efficiency: N/A
Efficacy: 26.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5060	5060	5060
5°	4885	4970	5047
10°	4509	4713	4965
15°	4045	4357	4821
20°	3531	3928	4594
25°	2971	3457	4311
30°	2385	2948	4038
35°	1747	2427	3777
40°	1081	1888	3515
45°	415	1422	3129
50°	205	976	2647
55°	162	540	2078
60°	108	449	1393
65°	92	403	622
70°	89	360	360
75°	118	390	358
80°	176	487	399
85°	269	795	539

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3129 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.5	7.6
10°-20°	101.1	19.5
20°-30°	125.5	24.3
30°-40°	112.5	21.7
40°-50°	73.9	14.3
50°-60°	37.0	7.2
60°-70°	14.6	2.8
70°-80°	8.2	1.6
80°-90°	5.1	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°	266.2	51.4
0°-40°	378.6	73.2
0°-60°	489.6	94.6
0°-90°	517.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	517.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	431	431	431	431	431	
5°	414	421	422	424	428	38
15°	333	343	358	383	397	93
25°	229	244	267	304	333	105
35°	122	138	169	221	264	76
45°	25	42	86	144	188	24
55°	8	9	26	71	102	7
65°	3	9	14	18	22	3
75°	3	9	9	8	8	3
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	430.9	430.9	430.9	430.9	430.9
2.5°	425.6	431.5	428.2	428.2	428.9
5°	414.4	421.0	421.6	424.3	428.2
7.5°	397.9	406.5	410.4	418.3	424.3
10°	378.2	387.4	395.3	409.1	416.4
12.5°	356.4	365.6	377.5	396.6	407.8
15°	332.7	343.2	358.4	382.8	396.6
17.5°	308.3	318.9	337.3	365.0	382.8
20°	282.6	294.5	314.3	345.9	367.6
22.5°	256.9	270.1	291.2	325.5	350.5
25°	229.3	243.8	266.8	304.4	332.7
27.5°	202.9	218.1	242.4	283.3	315.6
30°	175.9	191.1	217.4	261.5	297.8
32.5°	148.2	165.4	193.0	241.1	280.0
35°	121.9	138.3	169.3	221.4	263.5
37.5°	96.2	112.7	144.9	202.3	247.1
40°	70.5	87.6	123.2	183.8	229.3
42.5°	46.1	63.9	104.1	165.4	209.5
45°	25.0	41.5	85.6	144.3	188.4
47.5°	13.8	22.4	69.2	124.5	168.0
50°	11.2	12.5	53.4	106.1	144.9
52.5°	9.2	10.5	38.2	88.3	123.9
55°	7.9	9.2	26.4	71.2	101.5
57.5°	6.6	7.9	21.1	54.7	79.7
60°	4.6	7.9	19.1	40.2	59.3
62.5°	4.0	7.9	16.5	27.7	39.5
65°	3.3	9.2	14.5	18.4	22.4
67.5°	2.6	9.2	12.5	11.9	11.9
70°	2.6	9.2	10.5	9.9	10.5
72.5°	2.6	9.9	9.9	9.2	9.2
75°	2.6	8.6	8.6	7.9	7.9
77.5°	2.6	7.9	7.9	7.2	7.2
80°	2.6	7.2	7.2	6.6	5.9
82.5°	2.6	6.6	6.6	5.9	5.3
85°	2.0	5.9	5.9	5.9	4.0
87.5°	2.0	5.3	5.9	5.3	3.3
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	0.00	0.00	12.18	13.44	12.55	13.75	14.07
	3H	0.60	1.71	0.98	2.04	2.40	12.26	13.37	12.64	13.70	14.07
	4H	1.76	2.80	2.17	3.15	3.53	12.32	13.36	12.73	13.71	14.09
	6H	2.80	3.75	3.22	4.13	4.52	12.42	13.37	12.83	13.74	14.14
	8H	3.34	4.24	3.77	4.63	5.03	12.48	13.38	12.91	13.77	14.18
	12H	3.82	4.68	4.26	5.07	5.50	12.55	13.41	12.98	13.79	14.22
4H	2H	1.35	2.39	1.76	2.74	3.12	12.04	13.08	12.44	13.43	13.81
	3H	3.81	4.65	4.22	5.06	5.46	12.22	13.06	12.63	13.47	13.87
	4H	5.16	5.91	5.59	6.34	6.78	12.34	13.10	12.78	13.52	13.96
	6H	6.28	6.93	6.74	7.38	7.85	12.56	13.21	13.02	13.66	14.12
	8H	6.78	7.40	7.26	7.84	8.32	12.68	13.29	13.15	13.74	14.21
	12H	7.24	7.78	7.73	8.27	8.74	12.84	13.38	13.33	13.87	14.34
8H	4H	6.08	6.69	6.55	7.13	7.61	12.35	12.96	12.82	13.40	13.88
	6H	7.66	8.16	8.17	8.66	9.14	12.67	13.17	13.18	13.67	14.15
	8H	8.49	8.94	9.01	9.46	9.95	12.90	13.35	13.42	13.87	14.36
	12H	9.27	9.67	9.78	10.16	10.74	13.23	13.63	13.74	14.12	14.69
12H	4H	6.24	6.78	6.73	7.27	7.74	12.33	12.87	12.82	13.36	13.83
	6H	7.98	8.43	8.50	8.95	9.44	12.70	13.15	13.23	13.67	14.16
	8H	8.99	9.39	9.50	9.88	10.45	13.01	13.41	13.53	13.91	14.48