

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: P1059308

Luminaire Tested: S123RDRP-S560D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059308
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D935-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

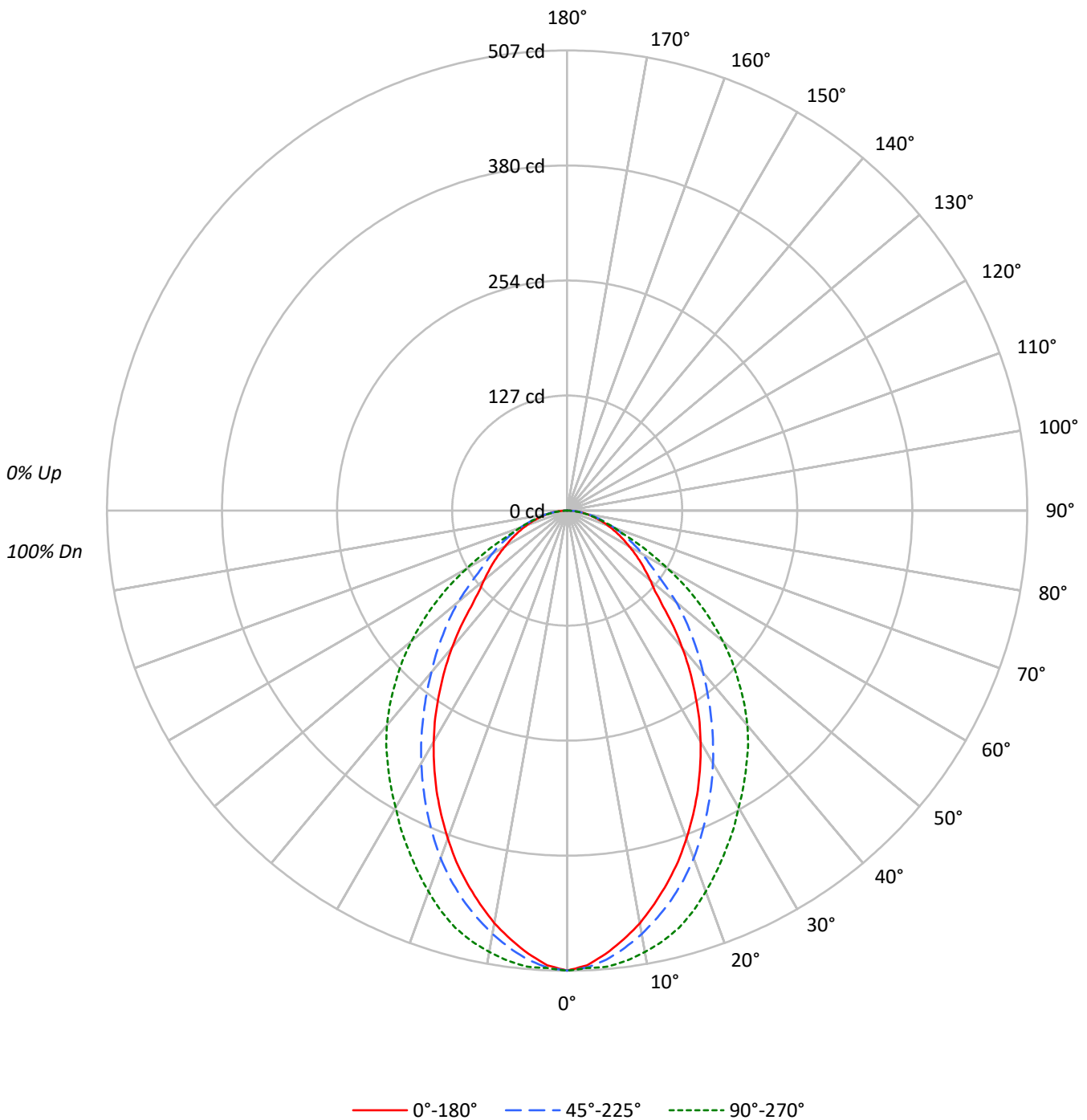
Lumens per Lamp: N/A
Luminaire Lumens: 915.5 lumens
Efficiency: N/A
Efficacy: 46.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (Ain): 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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5951	5951	5951
5°	5778	5855	5947
10°	5505	5647	5888
15°	5171	5396	5785
20°	4803	5093	5583
25°	4412	4734	5351
30°	3988	4359	5124
35°	3518	3961	4931
40°	3024	3570	4737
45°	2486	3217	4441
50°	2181	2866	4092
55°	2019	2444	3626
60°	1855	2248	2999
65°	1734	2064	2362
70°	1631	1878	1878
75°	1538	1724	1620
80°	1447	1569	1366
85°	1361	1522	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4441 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.9	5.1
10°-20°	125.6	13.7
20°-30°	170.3	18.6
30°-40°	178.1	19.5
40°-50°	154.5	16.9
50°-60°	114.9	12.6
60°-70°	73.7	8.1
70°-80°	39.5	4.3
80°-90°	11.9	1.3
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°	342.8	37.4
0°-40°	520.9	56.9
0°-60°	790.3	86.3
0°-90°	915.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	915.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	507	507	507	507	507	
5°	490	498	497	500	504	46
15°	425	436	444	462	476	119
25°	340	351	365	390	413	156
35°	245	257	276	311	344	153
45°	150	161	194	235	267	118
55°	99	101	119	153	177	88
65°	62	68	74	79	85	62
75°	34	39	38	36	36	36
85°	10	12	11	10	8	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	506.8	506.8	506.8	506.8	506.8
2.5°	501.5	508.6	503.9	503.9	504.5
5°	490.2	498.5	496.7	500.3	504.5
7.5°	476.5	485.4	486.0	494.4	500.3
10°	461.7	470.6	473.6	485.4	493.8
12.5°	443.9	454.0	459.3	474.2	486.0
15°	425.4	435.5	443.9	461.7	475.9
17.5°	405.8	415.9	426.6	446.8	462.3
20°	384.4	395.1	407.6	427.8	446.8
22.5°	362.5	373.7	386.8	408.8	430.2
25°	340.5	351.2	365.4	389.8	413.0
27.5°	317.3	328.6	343.4	370.2	396.3
30°	294.1	305.4	321.5	350.0	377.9
32.5°	270.4	281.6	298.9	331.0	361.3
35°	245.4	257.3	276.3	311.4	344.0
37.5°	221.6	232.9	254.3	292.9	327.4
40°	197.3	209.2	232.9	274.5	309.0
42.5°	173.5	185.4	213.3	254.9	288.8
45°	149.7	161.0	193.7	235.3	267.4
47.5°	131.3	139.6	175.3	214.5	246.6
50°	119.4	122.4	156.9	194.3	224.0
52.5°	108.7	111.1	136.7	174.1	200.8
55°	98.6	101.0	119.4	153.3	177.1
57.5°	88.5	91.5	106.4	131.9	153.3
60°	79.0	82.6	95.7	112.9	127.7
62.5°	70.7	74.9	85.0	95.7	105.8
65°	62.4	67.7	74.3	79.0	85.0
67.5°	54.7	60.6	64.2	65.4	66.0
70°	47.5	53.5	54.7	54.7	54.7
72.5°	40.4	46.9	45.8	45.2	44.6
75°	33.9	39.2	38.0	36.2	35.7
77.5°	27.3	32.1	30.3	29.1	27.3
80°	21.4	25.0	23.2	22.0	20.2
82.5°	16.0	18.4	16.6	15.4	13.7
85°	10.1	12.5	11.3	9.5	7.7
87.5°	5.3	7.1	5.9	5.3	3.0
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	12.98	14.46	13.35	14.78	15.09	15.74	17.22	16.10	17.54	17.85
	3H	14.69	16.02	15.07	16.35	16.71	16.76	18.09	17.14	18.42	18.78
	4H	15.35	16.60	15.75	16.95	17.33	17.13	18.37	17.53	18.72	19.10
	6H	15.85	17.00	16.27	17.37	17.76	17.38	18.53	17.79	18.90	19.29
	8H	16.03	17.13	16.46	17.52	17.92	17.45	18.55	17.88	18.94	19.34
	12H	16.16	17.21	16.59	17.59	18.02	17.49	18.53	17.92	18.92	19.35
4H	2H	13.76	15.00	14.16	15.35	15.73	16.01	17.26	16.41	17.60	17.98
	3H	15.69	16.72	16.10	17.12	17.52	17.27	18.30	17.68	18.70	19.10
	4H	16.49	17.42	16.93	17.84	18.28	17.75	18.68	18.19	19.10	19.54
	6H	17.14	17.94	17.59	18.39	18.85	18.13	18.94	18.59	19.38	19.84
	8H	17.36	18.12	17.83	18.56	19.03	18.24	19.00	18.71	19.44	19.91
	12H	17.54	18.21	18.02	18.69	19.16	18.32	18.99	18.80	19.47	19.94
8H	4H	16.81	17.57	17.28	18.01	18.48	17.94	18.70	18.41	19.14	19.61
	6H	17.61	18.23	18.11	18.72	19.20	18.43	19.06	18.93	19.55	20.03
	8H	17.93	18.49	18.45	19.01	19.49	18.61	19.17	19.12	19.68	20.17
	12H	18.21	18.71	18.72	19.20	19.77	18.74	19.23	19.25	19.73	20.29
12H	4H	16.84	17.51	17.32	17.99	18.46	17.96	18.63	18.44	19.11	19.58
	6H	17.66	18.22	18.18	18.73	19.22	18.47	19.03	18.98	19.54	20.03
	8H	18.05	18.55	18.56	19.04	19.61	18.70	19.19	19.21	19.69	20.25