

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059713

Luminaire Tested: S123RDR-H560D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059713
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: S123RDR-H560D935-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

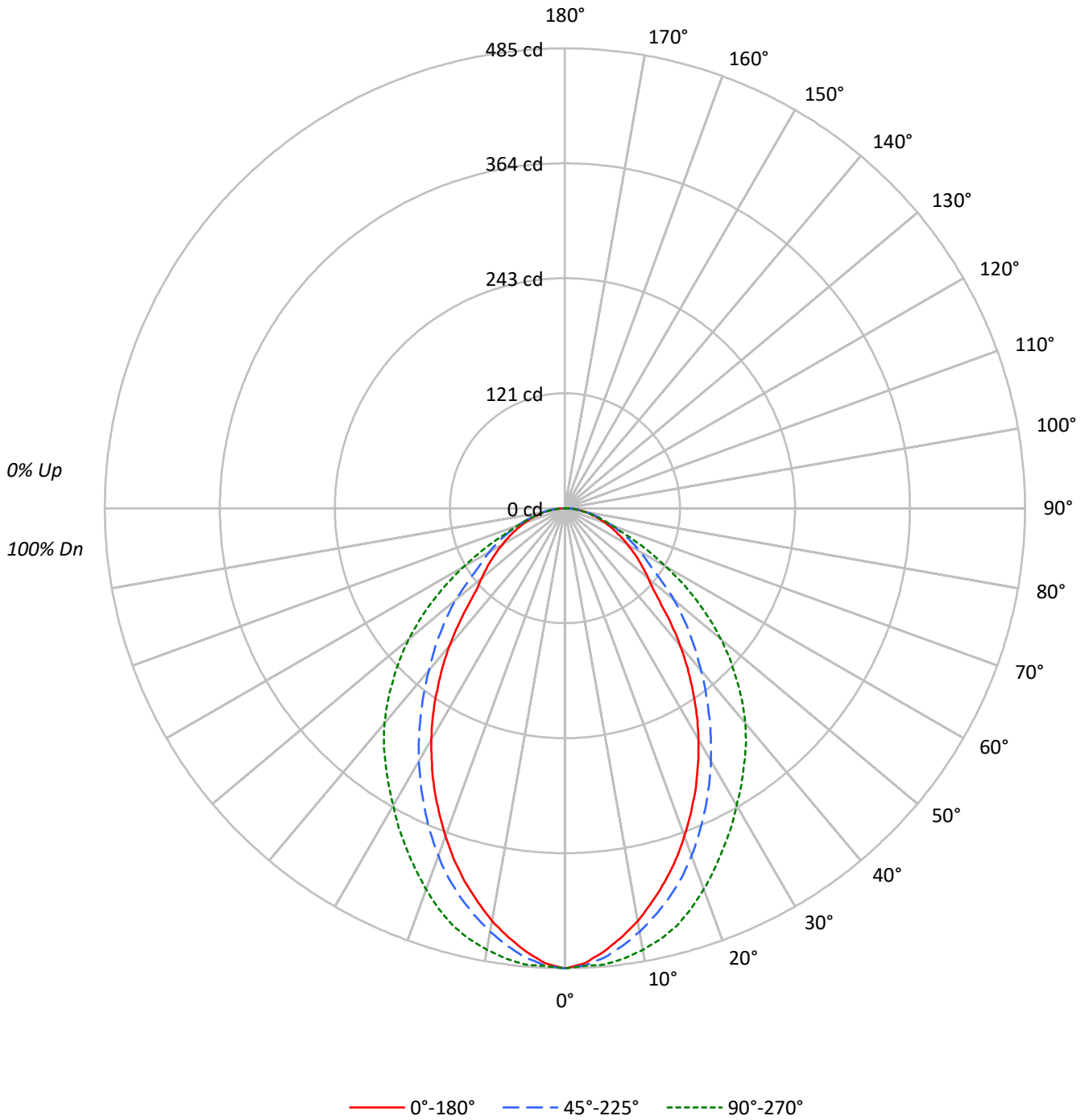
Lumens per Lamp: N/A
Luminaire Lumens: 876.6 lumens
Efficiency: N/A
Efficacy: 50.4 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100																
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			87																
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75			75																
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65			65																
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57			57																
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51			51																
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45			45																
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41			41																
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37			37																
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34			34																
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31			31																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5699	5699	5699
5°	5533	5606	5693
10°	5271	5406	5637
15°	4953	5167	5540
20°	4600	4877	5346
25°	4224	4533	5123
30°	3818	4173	4906
35°	3369	3793	4722
40°	2896	3418	4534
45°	2381	3080	4251
50°	2090	2744	3918
55°	1933	2342	3470
60°	1778	2151	2872
65°	1659	1976	2262
70°	1562	1796	1796
75°	1470	1651	1547
80°	1386	1501	1305
85°	1307	1455	997

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4251 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	5.1
10°-20°	120.3	13.7
20°-30°	163.1	18.6
30°-40°	170.5	19.5
40°-50°	147.9	16.9
50°-60°	110.0	12.6
60°-70°	70.6	8.1
70°-80°	37.8	4.3
80°-90°	11.4	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°	328.3	37.4
0°-40°	498.8	56.9
0°-60°	756.7	86.3
0°-90°	876.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	876.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	485	485	485	485	485	
5°	469	477	476	479	483	44
15°	407	417	425	442	456	114
25°	326	336	350	373	395	149
35°	235	246	265	298	329	147
45°	143	154	186	225	256	113
55°	94	97	114	147	170	85
65°	60	65	71	76	81	59
75°	32	38	36	35	34	34
85°	10	12	11	9	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	485.3	485.3	485.3	485.3	485.3
2.5°	480.2	487.0	482.5	482.5	483.0
5°	469.4	477.3	475.6	479.0	483.0
7.5°	456.3	464.8	465.4	473.3	479.0
10°	442.1	450.6	453.4	464.8	472.8
12.5°	425.0	434.7	439.8	454.0	465.4
15°	407.4	417.0	425.0	442.1	455.7
17.5°	388.6	398.3	408.5	427.8	442.6
20°	368.1	378.3	390.3	409.6	427.8
22.5°	347.0	357.9	370.4	391.4	411.9
25°	326.0	336.2	349.9	373.2	395.4
27.5°	303.8	314.6	328.8	354.4	379.5
30°	281.6	292.4	307.8	335.1	361.8
32.5°	258.9	269.7	286.2	316.9	345.9
35°	235.0	246.3	264.6	298.1	329.4
37.5°	212.2	223.0	243.5	280.5	313.5
40°	188.9	200.3	223.0	262.8	295.8
42.5°	166.1	177.5	204.2	244.1	276.5
45°	143.4	154.2	185.5	225.3	256.0
47.5°	125.7	133.7	167.8	205.4	236.1
50°	114.4	117.2	150.2	186.0	214.5
52.5°	104.1	106.4	130.9	166.7	192.3
55°	94.4	96.7	114.4	146.8	169.5
57.5°	84.8	87.6	101.8	126.3	146.8
60°	75.7	79.1	91.6	108.1	122.3
62.5°	67.7	71.7	81.4	91.6	101.3
65°	59.7	64.9	71.1	75.7	81.4
67.5°	52.3	58.0	61.4	62.6	63.2
70°	45.5	51.2	52.3	52.3	52.3
72.5°	38.7	44.9	43.8	43.2	42.7
75°	32.4	37.5	36.4	34.7	34.1
77.5°	26.2	30.7	29.0	27.9	26.2
80°	20.5	23.9	22.2	21.1	19.3
82.5°	15.4	17.6	15.9	14.8	13.1
85°	9.7	11.9	10.8	9.1	7.4
87.5°	5.1	6.8	5.7	5.1	2.8
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	12.83	14.31	13.20	14.63	14.94	15.59	17.07	15.95	17.38	17.70
	3H	14.54	15.87	14.92	16.20	16.56	16.61	17.94	16.99	18.27	18.63
	4H	15.20	16.45	15.60	16.80	17.17	16.97	18.22	17.37	18.57	18.95
	6H	15.70	16.85	16.11	17.22	17.61	17.23	18.38	17.64	18.75	19.14
	8H	15.88	16.98	16.31	17.37	17.77	17.30	18.39	17.73	18.78	19.19
	12H	16.01	17.06	16.44	17.44	17.87	17.34	18.38	17.77	18.76	19.19
4H	2H	13.61	14.85	14.01	15.20	15.58	15.86	17.10	16.26	17.45	17.83
	3H	15.53	16.56	15.94	16.97	17.37	17.11	18.15	17.52	18.55	18.95
	4H	16.34	17.27	16.77	17.69	18.13	17.60	18.53	18.03	18.95	19.38
	6H	16.98	17.79	17.44	18.23	18.69	17.98	18.79	18.44	19.23	19.69
	8H	17.21	17.97	17.67	18.41	18.88	18.09	18.85	18.56	19.29	19.76
	12H	17.38	18.06	17.87	18.54	19.01	18.16	18.84	18.65	19.32	19.79
8H	4H	16.66	17.42	17.12	17.86	18.33	17.79	18.55	18.26	18.99	19.46
	6H	17.45	18.08	17.95	18.57	19.05	18.28	18.90	18.78	19.40	19.87
	8H	17.78	18.34	18.30	18.85	19.34	18.46	19.02	18.97	19.53	20.02
	12H	18.06	18.55	18.57	19.05	19.61	18.59	19.08	19.10	19.58	20.14
12H	4H	16.68	17.36	17.17	17.84	18.31	17.81	18.48	18.29	18.96	19.43
	6H	17.51	18.07	18.02	18.58	19.07	18.32	18.88	18.83	19.39	19.88
	8H	17.90	18.40	18.41	18.89	19.46	18.55	19.04	19.06	19.53	20.10