

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: P1059709

Luminaire Tested: S123RDR-H560D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059709
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: S123RDR-H560D935-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

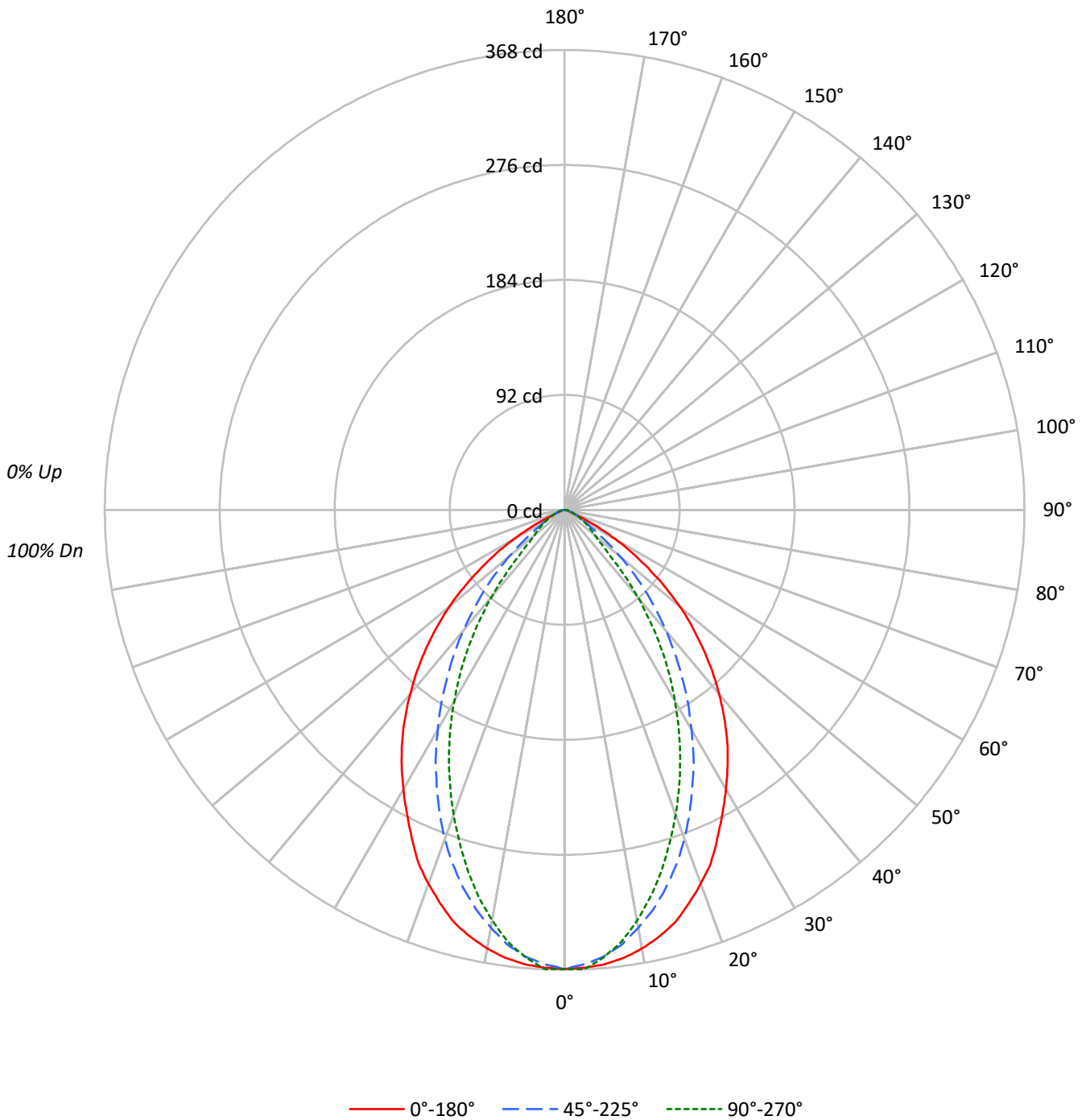
Lumens per Lamp: N/A
Luminaire Lumens: 474.2 lumens
Efficiency: N/A
Efficacy: 27.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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	71	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	49	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°	4313	4313	4313
5°	4302	4229	4236
10°	4251	4048	3980
15°	4154	3809	3636
20°	3979	3503	3246
25°	3750	3138	2836
30°	3500	2752	2390
35°	3253	2348	1924
40°	2946	1934	1395
45°	2597	1501	840
50°	2201	1049	572
55°	1677	628	477
60°	1094	402	373
65°	458	300	300
70°	154	216	233
75°	127	154	181
80°	74	115	156
85°	81	81	148

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2597 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.9	7.2
10°-20°	88.8	18.7
20°-30°	113.8	24.0
30°-40°	106.8	22.5
40°-50°	74.5	15.7
50°-60°	38.5	8.1
60°-70°	13.2	2.8
70°-80°	3.8	0.8
80°-90°	0.8	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°	236.6	49.9
0°-40°	343.4	72.4
0°-60°	456.5	96.3
0°-90°	474.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	474.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	367	367	367	367	367	
5°	365	364	359	360	359	35
15°	342	333	313	303	299	96
25°	289	271	242	226	219	133
35°	227	199	164	143	134	141
45°	156	128	90	62	51	120
55°	82	61	31	24	23	74
65°	16	14	11	10	11	19
75°	3	3	3	4	4	3
85°	1	1	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	367.3	367.3	367.3	367.3	367.3
2.5°	366.7	367.3	363.9	367.3	367.9
5°	365.0	364.5	358.8	360.5	359.4
7.5°	361.6	359.9	350.8	348.5	348.5
10°	356.5	353.1	339.5	335.5	333.8
12.5°	349.7	345.1	327.5	320.1	317.3
15°	341.7	333.2	313.3	303.1	299.1
17.5°	330.4	319.0	297.4	285.4	279.2
20°	318.4	304.2	280.3	266.1	259.8
22.5°	305.9	288.8	261.6	246.2	239.4
25°	289.4	271.2	242.2	225.7	218.9
27.5°	273.5	254.2	223.5	204.7	197.9
30°	258.1	235.4	203.0	184.8	176.3
32.5°	242.8	217.2	183.7	163.8	155.8
35°	226.9	199.0	163.8	142.7	134.2
37.5°	209.8	181.4	145.0	122.2	112.0
40°	192.2	162.6	126.2	100.6	91.0
42.5°	174.6	145.6	107.5	81.3	69.9
45°	156.4	127.9	90.4	62.5	50.6
47.5°	138.2	110.3	73.9	45.5	38.1
50°	120.5	93.8	57.4	33.5	31.3
52.5°	101.2	77.9	43.2	27.9	27.3
55°	81.9	61.4	30.7	23.9	23.3
57.5°	64.8	47.8	22.2	19.9	19.3
60°	46.6	34.1	17.1	16.5	15.9
62.5°	30.7	23.3	13.6	13.1	13.1
65°	16.5	14.2	10.8	10.2	10.8
67.5°	6.8	8.0	8.0	8.5	8.5
70°	4.5	5.1	6.3	6.8	6.8
72.5°	3.4	4.0	4.5	5.1	5.1
75°	2.8	2.8	3.4	4.0	4.0
77.5°	1.7	2.3	2.3	2.8	3.4
80°	1.1	1.7	1.7	2.3	2.3
82.5°	0.6	1.1	1.1	1.7	1.7
85°	0.6	0.6	0.6	0.6	1.1
87.5°	0.0	0.0	0.0	0.0	0.6
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	11.41	12.67	11.78	12.99	13.30	4.91	6.17	5.28	6.49	6.80
	3H	11.37	12.48	11.75	12.81	13.17	5.68	6.79	6.06	7.12	7.49
	4H	11.31	12.34	11.72	12.69	13.08	5.89	6.92	6.29	7.27	7.65
	6H	11.24	12.19	11.66	12.56	12.95	6.03	6.97	6.45	7.35	7.74
	8H	11.20	12.09	11.63	12.48	12.89	6.07	6.96	6.50	7.35	7.76
	12H	11.16	12.01	11.59	12.39	12.82	6.08	6.94	6.52	7.32	7.75
4H	2H	11.26	12.29	11.66	12.64	13.03	5.17	6.20	5.57	6.55	6.94
	3H	11.25	12.08	11.66	12.49	12.89	6.07	6.91	6.49	7.31	7.72
	4H	11.19	11.94	11.63	12.36	12.80	6.35	7.09	6.78	7.51	7.96
	6H	11.14	11.77	11.60	12.22	12.69	6.56	7.20	7.03	7.65	8.12
	8H	11.08	11.68	11.55	12.13	12.60	6.63	7.22	7.10	7.67	8.14
	12H	11.04	11.56	11.53	12.05	12.52	6.66	7.19	7.15	7.67	8.15
8H	4H	11.08	11.67	11.55	12.12	12.60	6.33	6.93	6.80	7.38	7.85
	6H	11.02	11.50	11.52	12.00	12.48	6.60	7.09	7.11	7.58	8.07
	8H	10.97	11.40	11.49	11.92	12.41	6.71	7.14	7.23	7.66	8.15
	12H	10.93	11.31	11.45	11.81	12.38	6.78	7.17	7.30	7.66	8.24
12H	4H	11.03	11.56	11.52	12.04	12.52	6.29	6.82	6.78	7.30	7.78
	6H	10.96	11.39	11.48	11.91	12.40	6.56	7.00	7.09	7.51	8.01
	8H	10.93	11.31	11.44	11.81	12.38	6.70	7.09	7.22	7.58	8.16