

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: P1057988

Luminaire Tested: S122RDRP-S485D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057988
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D927-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

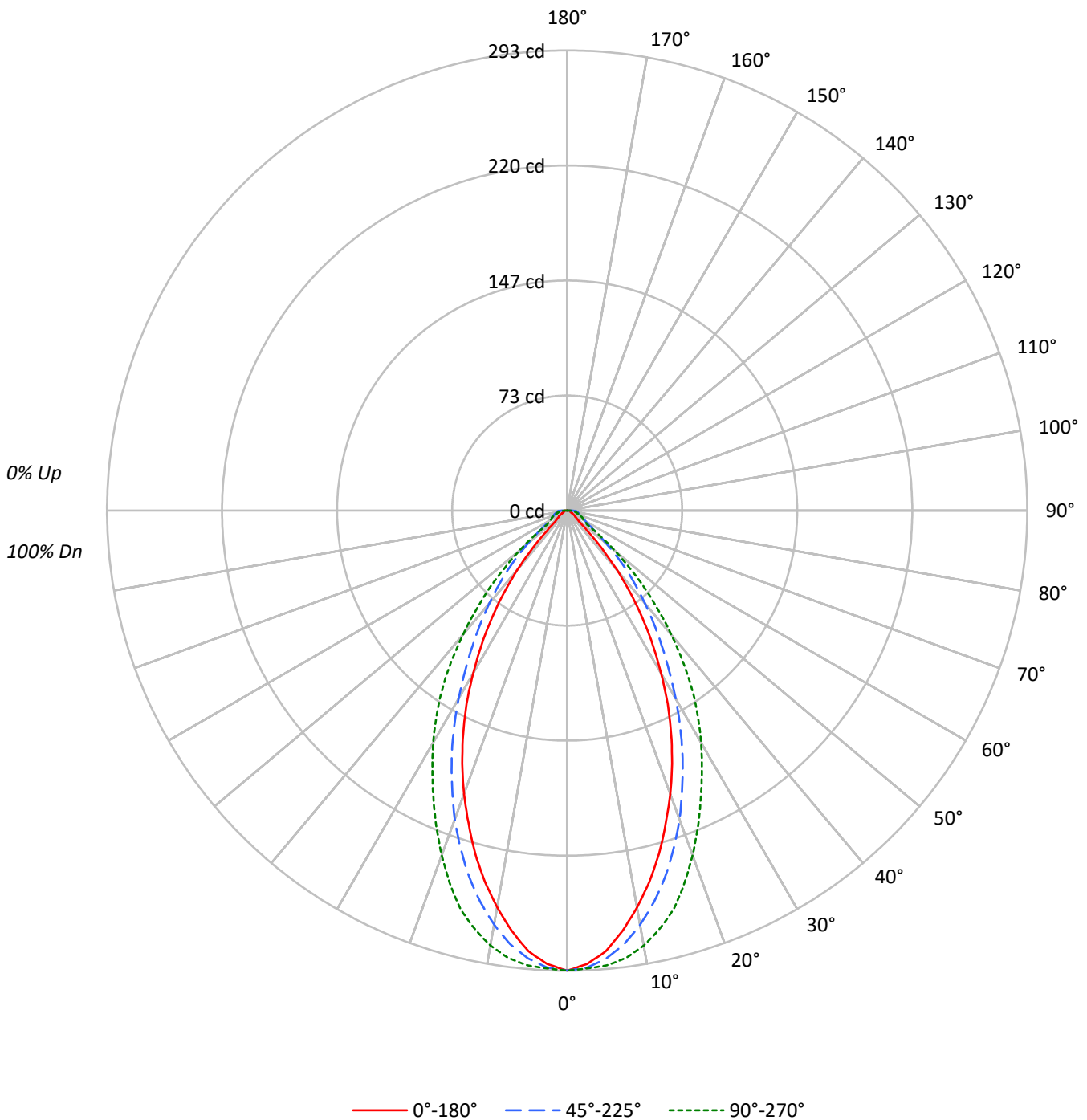
Lumens per Lamp: N/A
Luminaire Lumens: 315.8 lumens
Efficiency: N/A
Efficacy: 16.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5405	5405	5405
5°	5218	5301	5385
10°	4806	5016	5269
15°	4321	4610	5017
20°	3768	4110	4585
25°	3188	3543	4103
30°	2546	2943	3635
35°	1883	2363	3122
40°	1190	1852	2488
45°	470	1391	1829
50°	241	933	1128
55°	199	614	505
60°	144	498	454
65°	122	467	467
70°	119	486	453
75°	157	563	478
80°	234	712	542
85°	360	1186	720

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 2369 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.8	8.5
10°-20°	67.7	21.4
20°-30°	80.4	25.5
30°-40°	66.9	21.2
40°-50°	37.4	11.8
50°-60°	15.1	4.8
60°-70°	9.6	3.1
70°-80°	7.2	2.3
80°-90°	4.6	1.5
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°	174.9	55.4
0°-40°	241.8	76.6
0°-60°	294.3	93.2
0°-90°	315.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	315.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	293	293	293	293	293	
5°	282	287	286	288	291	26
15°	226	233	241	254	263	63
25°	157	163	174	187	202	71
35°	84	92	105	122	139	52
45°	18	30	53	62	70	17
55°	6	13	19	18	16	5
65°	3	11	11	10	11	3
75°	2	8	8	7	7	2
85°	2	5	6	5	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	292.9	292.9	292.9	292.9	292.9
2.5°	289.0	293.5	291.3	291.3	291.8
5°	281.7	286.8	286.2	288.5	290.7
7.5°	269.9	275.5	278.4	283.4	287.3
10°	256.5	262.6	267.7	275.5	281.2
12.5°	241.9	248.0	255.3	265.4	272.7
15°	226.2	232.9	241.3	253.7	262.6
17.5°	208.8	216.1	225.6	239.1	248.6
20°	191.9	199.2	209.3	222.8	233.5
22.5°	174.5	180.7	191.4	204.8	217.7
25°	156.6	162.7	174.0	187.4	201.5
27.5°	138.6	144.8	156.0	170.0	185.8
30°	119.5	126.3	138.1	153.8	170.6
32.5°	101.6	108.3	120.7	138.1	154.9
35°	83.6	91.5	104.9	122.3	138.6
37.5°	66.2	75.2	90.4	106.6	121.2
40°	49.4	58.9	76.9	90.9	103.3
42.5°	32.5	43.8	64.5	76.3	85.9
45°	18.0	30.3	53.3	62.3	70.1
47.5°	10.1	19.6	42.1	49.4	53.9
50°	8.4	14.6	32.5	37.6	39.3
52.5°	6.7	13.5	24.7	27.5	26.4
55°	6.2	12.9	19.1	18.5	15.7
57.5°	5.1	12.9	15.2	13.5	13.5
60°	3.9	12.3	13.5	11.8	12.3
62.5°	3.4	11.8	12.3	11.2	11.2
65°	2.8	11.2	10.7	10.1	10.7
67.5°	2.2	10.1	10.1	9.5	9.5
70°	2.2	9.5	9.0	8.4	8.4
72.5°	2.2	8.4	8.4	7.9	7.9
75°	2.2	7.9	7.9	7.3	6.7
77.5°	2.2	6.7	7.3	6.7	6.2
80°	2.2	6.2	6.7	6.2	5.1
82.5°	2.2	5.6	6.2	5.6	4.5
85°	1.7	5.1	5.6	5.1	3.4
87.5°	1.7	5.1	5.6	4.5	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	4.23	5.45	4.59	5.76	6.07	5.32	6.54	5.68	6.85	7.16
	3H	5.55	6.63	5.93	6.96	7.33	7.33	8.41	7.71	8.74	9.11
	4H	6.12	7.13	6.52	7.48	7.87	8.29	9.30	8.69	9.65	10.03
	6H	6.67	7.60	7.09	7.98	8.37	9.24	10.17	9.66	10.54	10.94
	8H	6.99	7.87	7.43	8.26	8.67	9.69	10.57	10.12	10.96	11.37
	12H	7.30	8.14	7.74	8.53	8.96	10.12	10.96	10.55	11.34	11.77
4H	2H	5.20	6.21	5.60	6.56	6.94	6.00	7.01	6.40	7.36	7.74
	3H	7.21	8.04	7.62	8.45	8.85	8.26	9.10	8.68	9.50	9.91
	4H	8.30	9.05	8.73	9.47	9.91	9.41	10.16	9.85	10.58	11.03
	6H	9.16	9.81	9.63	10.26	10.72	10.59	11.24	11.05	11.68	12.15
	8H	9.57	10.17	10.04	10.62	11.09	11.15	11.76	11.62	12.21	12.68
	12H	9.95	10.48	10.44	10.97	11.44	11.70	12.24	12.19	12.72	13.20
8H	4H	9.07	9.68	9.54	10.12	10.60	9.96	10.57	10.43	11.02	11.49
	6H	10.41	10.90	10.91	11.40	11.88	11.42	11.92	11.93	12.42	12.90
	8H	11.12	11.56	11.64	12.08	12.57	12.19	12.63	12.71	13.15	13.64
	12H	11.82	12.21	12.33	12.71	13.28	12.98	13.38	13.50	13.87	14.44
12H	4H	9.23	9.76	9.71	10.24	10.72	10.07	10.60	10.56	11.09	11.56
	6H	10.73	11.17	11.25	11.69	12.18	11.65	12.10	12.17	12.61	13.10
	8H	11.63	12.02	12.14	12.52	13.09	12.56	12.95	13.07	13.45	14.02