

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: P1057990

Luminaire Tested: S122RDRP-S485D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057990
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D927-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

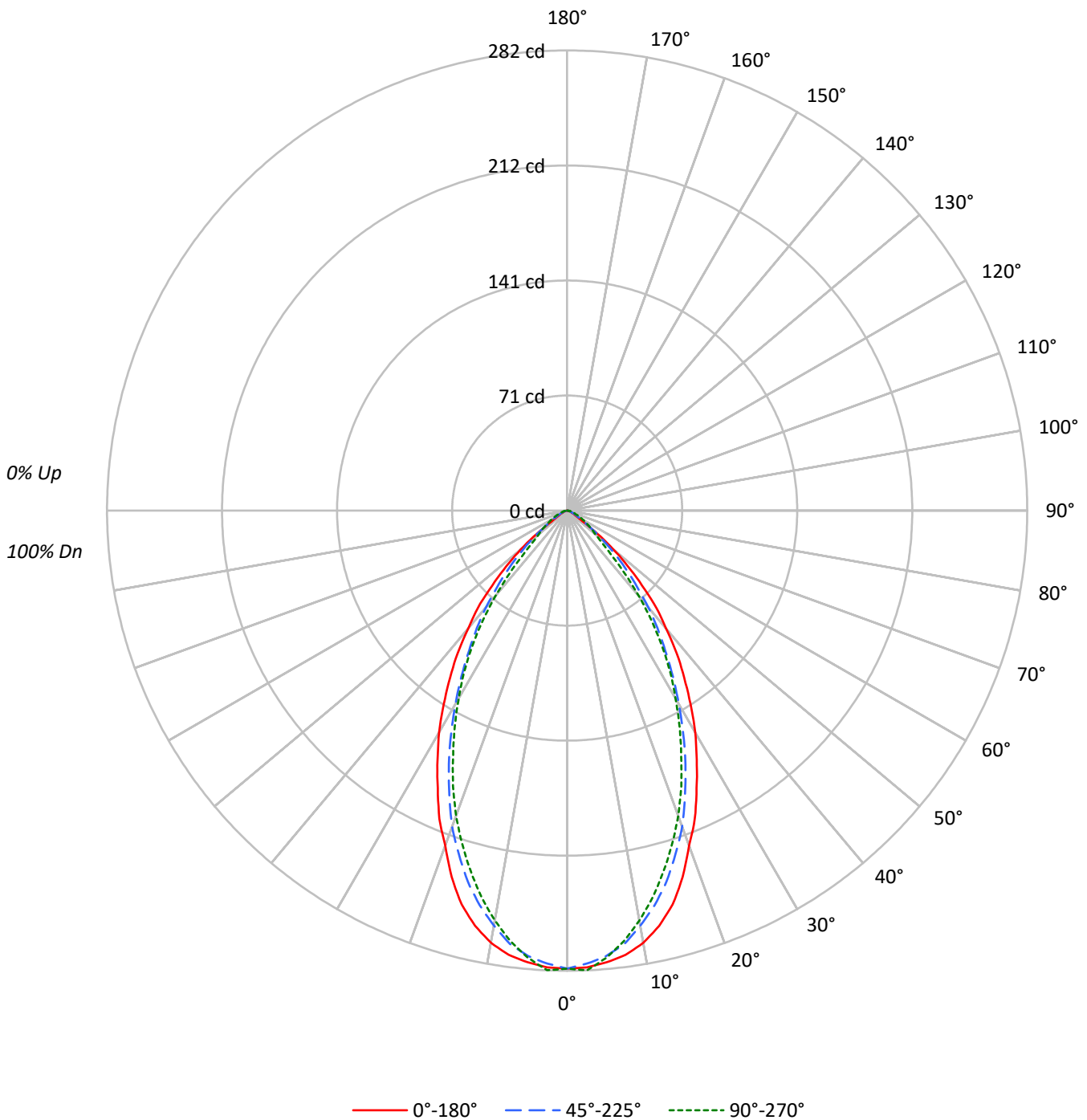
Lumens per Lamp: N/A
Luminaire Lumens: 301.9 lumens
Efficiency: N/A
Efficacy: 15.4 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5180	5180	5180
5°	5148	5075	5096
10°	5040	4840	4778
15°	4774	4497	4367
20°	4291	4049	3906
25°	3822	3492	3366
30°	3343	2913	2830
35°	2816	2361	2284
40°	2267	1862	1648
45°	1696	1347	979
50°	1062	870	643
55°	360	470	524
60°	207	288	413
65°	148	196	319
70°	119	151	243
75°	78	121	200
80°	64	117	181
85°	0	0	127

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1696 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.9	8.6
10°-20°	66.2	21.9
20°-30°	79.8	26.4
30°-40°	68.1	22.6
40°-50°	39.9	13.2
50°-60°	14.4	4.8
60°-70°	5.1	1.7
70°-80°	2.0	0.7
80°-90°	0.4	0.1
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°	171.9	56.9
0°-40°	240.0	79.5
0°-60°	294.4	97.5
0°-90°	301.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	301.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	281	281	281	281	281	
5°	278	278	274	275	275	26
15°	250	246	235	231	229	69
25°	188	180	172	169	165	86
35°	125	115	105	104	101	78
45°	65	58	52	43	38	50
55°	11	16	15	15	16	14
65°	3	4	4	6	7	4
75°	1	2	2	2	3	1
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	280.7	280.7	280.7	280.7	280.7
2.5°	280.2	280.7	277.9	280.7	281.9
5°	277.9	278.5	274.0	275.1	275.1
7.5°	274.6	274.0	267.9	266.7	266.2
10°	269.0	267.3	258.3	256.6	255.0
12.5°	260.6	257.2	247.7	244.9	242.6
15°	249.9	246.0	235.4	230.9	228.6
17.5°	235.4	230.9	220.8	216.3	214.1
20°	218.5	214.1	206.2	201.2	198.9
22.5°	204.5	197.3	188.8	185.5	182.7
25°	187.7	179.9	171.5	168.7	165.3
27.5°	172.0	162.5	154.1	151.9	149.1
30°	156.9	146.8	136.7	136.7	132.8
32.5°	140.7	131.1	120.5	119.9	117.7
35°	125.0	115.4	104.8	103.7	101.4
37.5°	110.4	100.9	90.8	87.4	84.6
40°	94.1	85.7	77.3	71.7	68.4
42.5°	81.3	71.7	63.3	56.6	52.1
45°	65.0	58.3	51.6	43.1	37.5
47.5°	50.4	46.0	40.3	30.8	28.0
50°	37.0	34.7	30.3	23.0	22.4
52.5°	23.5	24.7	21.9	17.9	19.6
55°	11.2	15.7	14.6	15.1	16.3
57.5°	7.3	7.8	10.6	12.3	13.4
60°	5.6	5.6	7.8	10.1	11.2
62.5°	4.5	4.5	6.2	8.4	9.0
65°	3.4	3.9	4.5	6.2	7.3
67.5°	2.8	2.8	3.4	5.0	5.6
70°	2.2	2.2	2.8	3.9	4.5
72.5°	1.7	1.7	2.2	3.4	3.4
75°	1.1	1.7	1.7	2.2	2.8
77.5°	1.1	1.1	1.1	1.7	2.2
80°	0.6	0.6	1.1	1.1	1.7
82.5°	0.6	0.6	0.6	0.6	1.1
85°	0.0	0.0	0.0	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0
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	1.57	2.73	1.93	3.04	3.36	4.98	6.14	5.34	6.45	6.77
	3H	2.08	3.11	2.47	3.44	3.81	5.71	6.73	6.09	7.06	7.43
	4H	2.22	3.17	2.63	3.52	3.91	5.92	6.87	6.33	7.22	7.61
	6H	2.30	3.16	2.71	3.54	3.93	6.07	6.94	6.49	7.31	7.71
	8H	2.31	3.13	2.74	3.52	3.93	6.10	6.92	6.54	7.31	7.72
	12H	2.28	3.06	2.71	3.44	3.87	6.11	6.89	6.54	7.27	7.70
4H	2H	1.89	2.83	2.29	3.19	3.57	4.95	5.90	5.35	6.25	6.63
	3H	2.54	3.31	2.95	3.71	4.12	5.82	6.59	6.24	7.00	7.40
	4H	2.79	3.47	3.22	3.89	4.34	6.10	6.78	6.54	7.21	7.65
	6H	2.91	3.49	3.38	3.94	4.41	6.33	6.91	6.79	7.36	7.83
	8H	2.94	3.48	3.41	3.93	4.40	6.37	6.92	6.84	7.37	7.84
	12H	2.90	3.38	3.39	3.87	4.34	6.40	6.87	6.89	7.36	7.84
8H	4H	2.89	3.44	3.36	3.89	4.36	6.03	6.58	6.50	7.03	7.50
	6H	3.07	3.51	3.57	4.01	4.49	6.29	6.73	6.80	7.23	7.72
	8H	3.13	3.52	3.65	4.04	4.54	6.35	6.75	6.88	7.27	7.76
	12H	3.11	3.46	3.63	3.95	4.53	6.43	6.77	6.94	7.27	7.85
12H	4H	2.88	3.35	3.37	3.84	4.32	5.98	6.46	6.47	6.95	7.42
	6H	3.06	3.46	3.59	3.98	4.47	6.24	6.64	6.77	7.16	7.65
	8H	3.16	3.50	3.67	4.00	4.58	6.33	6.68	6.85	7.18	7.75