

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: P1057907

Luminaire Tested: S122RDRP-S290D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057907
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-S290D927-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

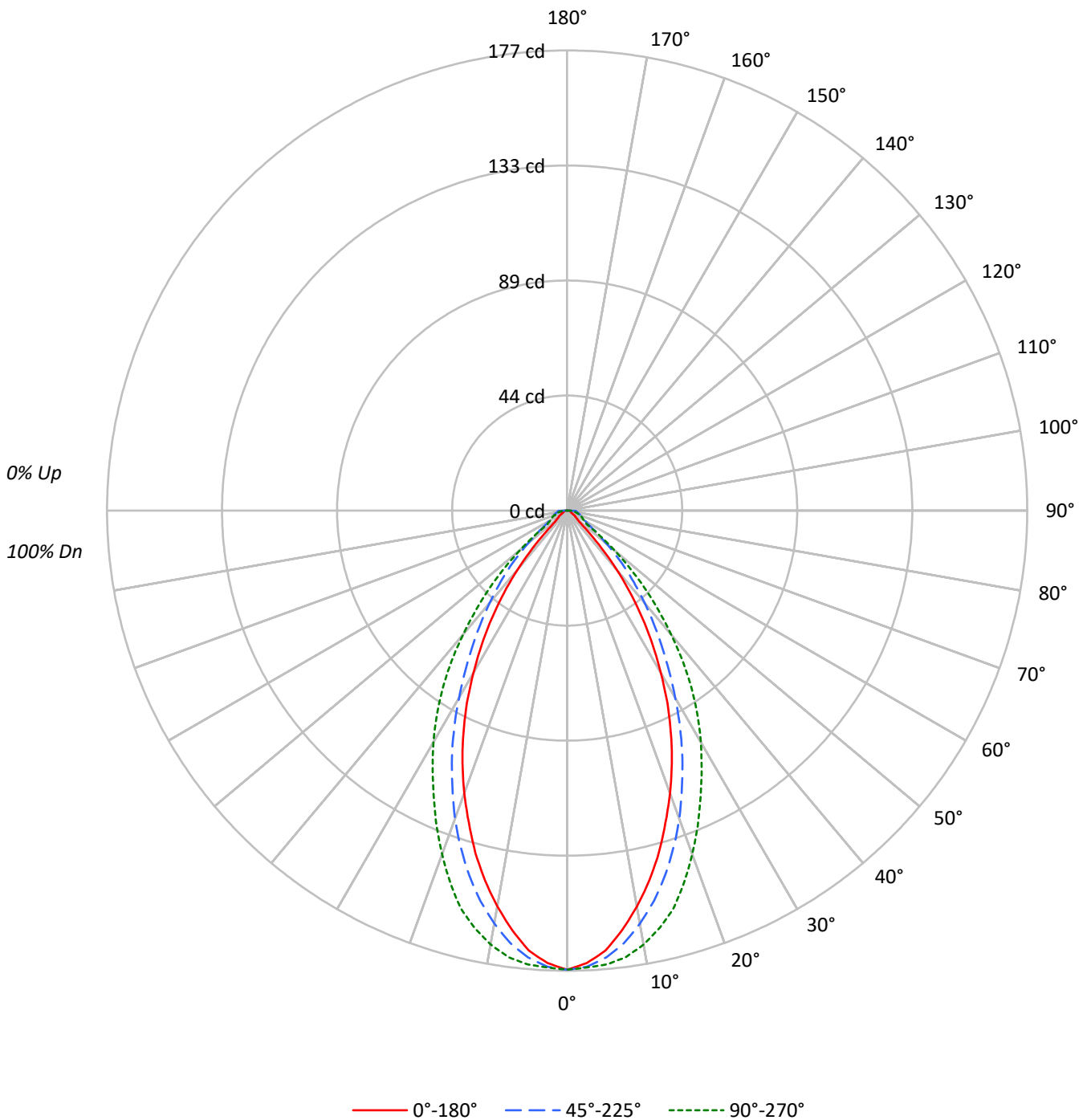
Lumens per Lamp: N/A
Luminaire Lumens: 190.3 lumens
Efficiency: N/A
Efficacy: 15.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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°	3259	3259	3259
5°	3145	3195	3245
10°	2897	3022	3176
15°	2604	2778	3024
20°	2272	2478	2763
25°	1922	2136	2472
30°	1534	1773	2190
35°	1135	1426	1881
40°	718	1115	1498
45°	282	838	1104
50°	146	563	680
55°	119	370	306
60°	89	299	273
65°	74	279	279
70°	76	291	275
75°	100	335	292
80°	149	436	319
85°	212	720	423

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 1438 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.2	8.5
10°-20°	40.8	21.4
20°-30°	48.5	25.5
30°-40°	40.3	21.2
40°-50°	22.5	11.8
50°-60°	9.1	4.8
60°-70°	5.8	3.1
70°-80°	4.4	2.3
80°-90°	2.8	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°	105.4	55.4
0°-40°	145.7	76.6
0°-60°	177.4	93.2
0°-90°	190.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	190.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	177	177	177	177	177	
5°	170	173	172	174	175	16
15°	136	140	145	153	158	38
25°	94	98	105	113	121	43
35°	50	55	63	74	84	31
45°	11	18	32	38	42	10
55°	4	8	12	11	10	3
65°	2	7	6	6	6	2
75°	1	5	5	4	4	1
85°	1	3	3	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	176.6	176.6	176.6	176.6	176.6
2.5°	174.2	176.9	175.6	175.6	175.9
5°	169.8	172.8	172.5	173.9	175.2
7.5°	162.7	166.1	167.8	170.8	173.2
10°	154.6	158.3	161.3	166.1	169.5
12.5°	145.8	149.5	153.9	160.0	164.4
15°	136.3	140.4	145.4	152.9	158.3
17.5°	125.8	130.2	136.0	144.1	149.8
20°	115.7	120.1	126.2	134.3	140.7
22.5°	105.2	108.9	115.3	123.5	131.2
25°	94.4	98.1	104.9	113.0	121.4
27.5°	83.5	87.3	94.0	102.5	112.0
30°	72.0	76.1	83.2	92.7	102.8
32.5°	61.2	65.3	72.7	83.2	93.4
35°	50.4	55.1	63.3	73.7	83.5
37.5°	39.9	45.3	54.5	64.3	73.1
40°	29.8	35.5	46.3	54.8	62.2
42.5°	19.6	26.4	38.9	46.0	51.8
45°	10.8	18.3	32.1	37.5	42.3
47.5°	6.1	11.8	25.4	29.8	32.5
50°	5.1	8.8	19.6	22.7	23.7
52.5°	4.1	8.1	14.9	16.6	15.9
55°	3.7	7.8	11.5	11.2	9.5
57.5°	3.0	7.8	9.1	8.1	8.1
60°	2.4	7.4	8.1	7.1	7.4
62.5°	2.0	7.1	7.4	6.8	6.8
65°	1.7	6.8	6.4	6.1	6.4
67.5°	1.4	6.1	6.1	5.8	5.8
70°	1.4	5.8	5.4	5.1	5.1
72.5°	1.4	5.1	5.1	4.7	4.7
75°	1.4	4.7	4.7	4.4	4.1
77.5°	1.4	4.1	4.4	4.1	3.7
80°	1.4	3.7	4.1	3.7	3.0
82.5°	1.4	3.4	3.7	3.4	2.7
85°	1.0	3.0	3.4	3.0	2.0
87.5°	1.0	3.0	3.4	2.7	1.7
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	2.47	3.69	2.84	4.01	4.32	3.53	4.75	3.89	5.06	5.38
	3H	3.83	4.91	4.21	5.25	5.61	5.59	6.67	5.97	7.00	7.37
	4H	4.41	5.42	4.81	5.77	6.16	6.54	7.55	6.95	7.91	8.29
	6H	4.99	5.92	5.41	6.30	6.69	7.48	8.41	7.89	8.78	9.17
	8H	5.33	6.21	5.76	6.60	7.01	7.92	8.80	8.35	9.19	9.60
	12H	5.63	6.47	6.07	6.86	7.29	8.34	9.18	8.77	9.56	9.99
4H	2H	3.43	4.44	3.83	4.79	5.17	4.20	5.21	4.61	5.56	5.95
	3H	5.48	6.31	5.89	6.72	7.12	6.51	7.34	6.93	7.75	8.15
	4H	6.55	7.30	6.99	7.72	8.17	7.66	8.41	8.10	8.83	9.27
	6H	7.44	8.09	7.90	8.53	9.00	8.82	9.47	9.29	9.92	10.38
	8H	7.86	8.46	8.33	8.91	9.38	9.38	9.99	9.85	10.43	10.91
	12H	8.23	8.77	8.72	9.25	9.73	9.92	10.45	10.40	10.93	11.41
8H	4H	7.32	7.93	7.79	8.38	8.85	8.21	8.82	8.68	9.27	9.74
	6H	8.67	9.17	9.18	9.67	10.15	9.66	10.16	10.16	10.65	11.14
	8H	9.39	9.84	9.92	10.36	10.85	10.42	10.87	10.95	11.38	11.88
	12H	10.07	10.47	10.59	10.96	11.53	11.20	11.59	11.71	12.08	12.66
12H	4H	7.48	8.01	7.97	8.50	8.97	8.32	8.85	8.81	9.34	9.81
	6H	8.99	9.44	9.52	9.95	10.45	9.89	10.33	10.41	10.85	11.34
	8H	9.90	10.29	10.41	10.79	11.36	10.79	11.18	11.31	11.68	12.25