

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: P1058312

Luminaire Tested: S122RDR-H290D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058312
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: S122RDR-H290D927-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

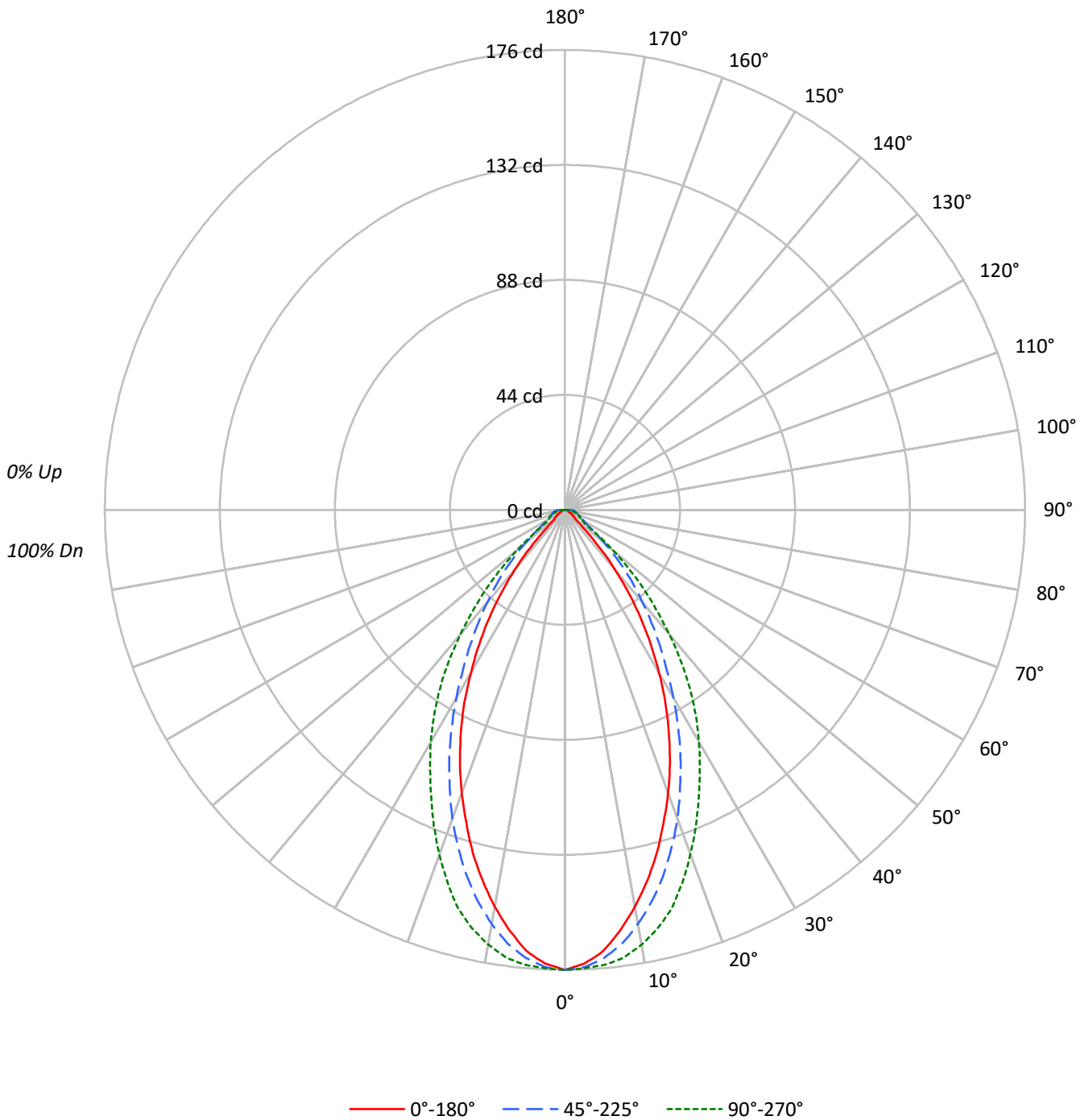
Lumens per Lamp: N/A
Luminaire Lumens: 189.8 lumens
Efficiency: N/A
Efficacy: 16.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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°	3249	3249	3249
5°	3138	3188	3238
10°	2889	3017	3167
15°	2598	2772	3016
20°	2266	2472	2757
25°	1916	2130	2466
30°	1532	1768	2186
35°	1133	1421	1876
40°	715	1113	1496
45°	282	838	1101
50°	146	563	677
55°	119	370	302
60°	89	299	273
65°	74	279	279
70°	70	291	275
75°	93	335	285
80°	138	425	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°	16.1	8.5
10°-20°	40.7	21.4
20°-30°	48.4	25.5
30°-40°	40.2	21.2
40°-50°	22.5	11.8
50°-60°	9.1	4.8
60°-70°	5.8	3.1
70°-80°	4.3	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°	105.2	55.4
0°-40°	145.4	76.6
0°-60°	176.9	93.2
0°-90°	189.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	189.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	176	176	176	176	176	
5°	169	172	172	173	175	16
15°	136	140	145	152	158	38
25°	94	98	105	113	121	43
35°	50	55	63	74	83	31
45°	11	18	32	38	42	10
55°	4	8	12	11	9	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°	176.1	176.1	176.1	176.1	176.1
2.5°	173.8	176.5	175.1	175.1	175.5
5°	169.4	172.4	172.1	173.4	174.8
7.5°	162.3	165.7	167.4	170.4	172.8
10°	154.2	157.9	161.0	165.7	169.0
12.5°	145.4	149.1	153.5	159.6	164.0
15°	136.0	140.0	145.1	152.5	157.9
17.5°	125.5	129.9	135.6	143.7	149.5
20°	115.4	119.8	125.9	134.0	140.4
22.5°	104.9	108.7	115.1	123.2	130.9
25°	94.1	97.9	104.6	112.7	121.1
27.5°	83.3	87.1	93.8	102.2	111.7
30°	71.9	75.9	83.0	92.5	102.6
32.5°	61.1	65.1	72.5	83.0	93.1
35°	50.3	55.0	63.1	73.6	83.3
37.5°	39.8	45.2	54.3	64.1	72.9
40°	29.7	35.4	46.2	54.7	62.1
42.5°	19.6	26.3	38.8	45.9	51.6
45°	10.8	18.2	32.1	37.5	42.2
47.5°	6.1	11.8	25.3	29.7	32.4
50°	5.1	8.8	19.6	22.6	23.6
52.5°	4.0	8.1	14.8	16.5	15.9
55°	3.7	7.8	11.5	11.1	9.4
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	6.7	6.7
65°	1.7	6.7	6.4	6.1	6.4
67.5°	1.3	6.1	6.1	5.7	5.7
70°	1.3	5.7	5.4	5.1	5.1
72.5°	1.3	5.1	5.1	4.7	4.7
75°	1.3	4.7	4.7	4.4	4.0
77.5°	1.3	4.0	4.4	4.0	3.7
80°	1.3	3.7	4.0	3.7	3.0
82.5°	1.3	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	2.48	3.70	2.85	4.02	4.33	3.54	4.76	3.90	5.07	5.38
	3H	3.79	4.88	4.17	5.21	5.57	5.56	6.65	5.95	6.98	7.35
	4H	4.35	5.36	4.76	5.71	6.10	6.51	7.52	6.91	7.87	8.26
	6H	4.89	5.82	5.31	6.19	6.59	7.45	8.38	7.86	8.75	9.14
	8H	5.21	6.09	5.64	6.48	6.88	7.90	8.78	8.33	9.17	9.57
	12H	5.51	6.35	5.94	6.73	7.16	8.32	9.16	8.75	9.54	9.97
4H	2H	3.44	4.45	3.84	4.80	5.18	4.21	5.22	4.62	5.57	5.96
	3H	5.45	6.28	5.86	6.69	7.09	6.50	7.33	6.91	7.73	8.14
	4H	6.52	7.26	6.95	7.68	8.13	7.64	8.39	8.08	8.81	9.25
	6H	7.37	8.01	7.83	8.46	8.93	8.80	9.44	9.26	9.89	10.36
	8H	7.77	8.38	8.24	8.83	9.30	9.36	9.97	9.83	10.41	10.89
	12H	8.15	8.68	8.64	9.17	9.64	9.90	10.43	10.39	10.92	11.39
8H	4H	7.29	7.89	7.76	8.34	8.81	8.19	8.79	8.66	9.24	9.71
	6H	8.61	9.11	9.12	9.61	10.09	9.63	10.13	10.13	10.62	11.11
	8H	9.33	9.78	9.85	10.29	10.79	10.40	10.85	10.92	11.36	11.86
	12H	10.02	10.41	10.53	10.90	11.48	11.18	11.57	11.70	12.07	12.64
12H	4H	7.44	7.98	7.93	8.46	8.94	8.29	8.83	8.78	9.31	9.79
	6H	8.93	9.38	9.46	9.90	10.39	9.85	10.30	10.38	10.82	11.31
	8H	9.84	10.23	10.36	10.73	11.30	10.77	11.16	11.29	11.66	12.23