

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: P1058321

Luminaire Tested: S122RDR-H290D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058321
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-H290D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

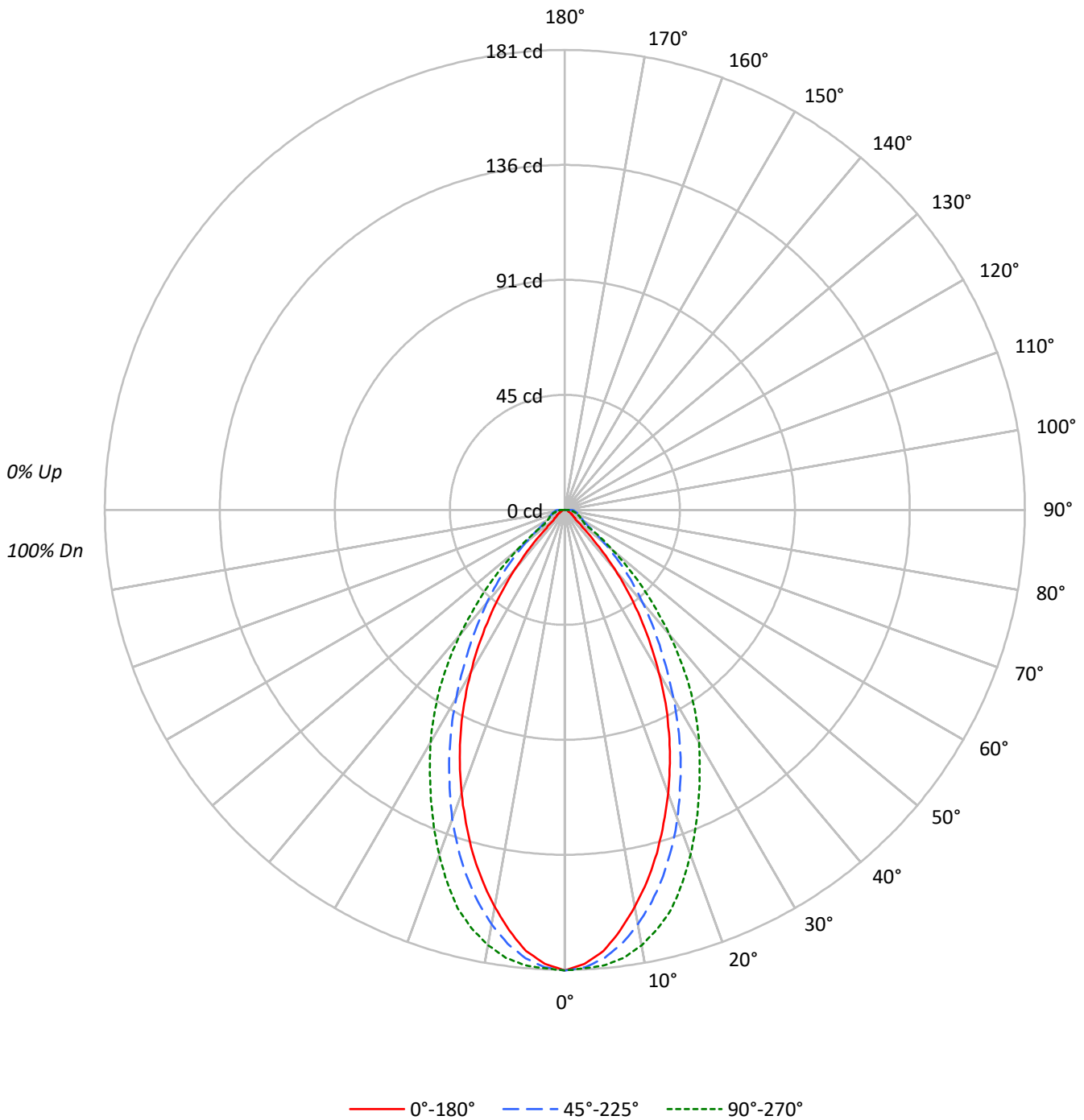
Lumens per Lamp: N/A
Luminaire Lumens: 195.4 lumens
Efficiency: N/A
Efficacy: 16.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3345	3345	3345
5°	3229	3280	3332
10°	2974	3103	3260
15°	2673	2852	3104
20°	2333	2543	2838
25°	1973	2193	2539
30°	1577	1820	2250
35°	1165	1462	1933
40°	737	1147	1539
45°	290	861	1133
50°	149	577	698
55°	122	380	312
60°	89	306	280
65°	74	288	288
70°	76	302	281
75°	100	349	299
80°	149	446	329
85°	212	741	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 1481 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.6	8.5
10°-20°	41.9	21.4
20°-30°	49.8	25.5
30°-40°	41.4	21.2
40°-50°	23.1	11.8
50°-60°	9.3	4.8
60°-70°	6.0	3.1
70°-80°	4.5	2.3
80°-90°	2.9	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°	108.2	55.4
0°-40°	149.6	76.6
0°-60°	182.1	93.2
0°-90°	195.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	195.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	181	181	181	181	181	
5°	174	178	177	178	180	16
15°	140	144	149	157	162	39
25°	97	101	108	116	125	44
35°	52	57	65	76	86	32
45°	11	19	33	38	43	10
55°	4	8	12	12	10	3
65°	2	7	7	6	7	2
75°	1	5	5	4	4	1
85°	1	3	4	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	181.3	181.3	181.3	181.3	181.3
2.5°	178.8	181.6	180.2	180.2	180.6
5°	174.3	177.5	177.1	178.5	179.9
7.5°	167.0	170.5	172.2	175.4	177.8
10°	158.7	162.5	165.6	170.5	174.0
12.5°	149.7	153.5	158.0	164.3	168.8
15°	139.9	144.1	149.3	157.0	162.5
17.5°	129.2	133.7	139.6	147.9	153.8
20°	118.8	123.3	129.5	137.9	144.5
22.5°	108.0	111.8	118.4	126.8	134.7
25°	96.9	100.7	107.7	116.0	124.7
27.5°	85.8	89.6	96.5	105.2	114.9
30°	74.0	78.1	85.4	95.2	105.6
32.5°	62.9	67.0	74.7	85.4	95.8
35°	51.7	56.6	64.9	75.7	85.8
37.5°	41.0	46.5	55.9	66.0	75.0
40°	30.6	36.5	47.6	56.3	63.9
42.5°	20.1	27.1	39.9	47.2	53.1
45°	11.1	18.8	33.0	38.5	43.4
47.5°	6.3	12.2	26.0	30.6	33.3
50°	5.2	9.0	20.1	23.3	24.3
52.5°	4.2	8.3	15.3	17.0	16.3
55°	3.8	8.0	11.8	11.5	9.7
57.5°	3.1	8.0	9.4	8.3	8.3
60°	2.4	7.6	8.3	7.3	7.6
62.5°	2.1	7.3	7.6	6.9	6.9
65°	1.7	6.9	6.6	6.3	6.6
67.5°	1.4	6.3	6.3	5.9	5.9
70°	1.4	5.9	5.6	5.2	5.2
72.5°	1.4	5.2	5.2	4.9	4.9
75°	1.4	4.9	4.9	4.5	4.2
77.5°	1.4	4.2	4.5	4.2	3.8
80°	1.4	3.8	4.2	3.8	3.1
82.5°	1.4	3.5	3.8	3.5	2.8
85°	1.0	3.1	3.5	3.1	2.1
87.5°	1.0	3.1	3.5	2.8	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	2.56	3.78	2.93	4.09	4.41	3.61	4.83	3.97	5.14	5.46
	3H	3.91	4.99	4.29	5.32	5.69	5.65	6.73	6.03	7.06	7.43
	4H	4.49	5.50	4.89	5.85	6.23	6.62	7.63	7.02	7.98	8.36
	6H	5.06	5.98	5.47	6.36	6.75	7.56	8.49	7.97	8.86	9.25
	8H	5.38	6.26	5.81	6.65	7.06	8.01	8.89	8.44	9.28	9.69
	12H	5.68	6.52	6.11	6.90	7.33	8.44	9.28	8.87	9.66	10.09
4H	2H	3.53	4.54	3.93	4.89	5.27	4.29	5.30	4.70	5.65	6.04
	3H	5.56	6.39	5.97	6.80	7.20	6.59	7.42	7.00	7.82	8.23
	4H	6.65	7.40	7.09	7.82	8.27	7.74	8.49	8.18	8.91	9.35
	6H	7.52	8.17	7.99	8.62	9.09	8.91	9.56	9.37	10.00	10.47
	8H	7.94	8.54	8.41	8.99	9.46	9.47	10.08	9.95	10.53	11.00
	12H	8.31	8.84	8.79	9.32	9.80	10.02	10.56	10.51	11.04	11.52
8H	4H	7.42	8.03	7.89	8.48	8.95	8.30	8.90	8.77	9.35	9.82
	6H	8.76	9.26	9.26	9.76	10.24	9.75	10.24	10.25	10.74	11.22
	8H	9.48	9.93	10.00	10.44	10.94	10.52	10.96	11.04	11.48	11.97
	12H	10.16	10.55	10.67	11.05	11.62	11.31	11.70	11.82	12.20	12.77
12H	4H	7.58	8.11	8.07	8.60	9.07	8.40	8.94	8.89	9.42	9.90
	6H	9.08	9.53	9.60	10.04	10.54	9.97	10.42	10.50	10.94	11.43
	8H	9.99	10.38	10.50	10.87	11.45	10.89	11.28	11.40	11.78	12.35