

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: P1058287

Luminaire Tested: S122RDR-H290D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058287
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: S122RDR-H290D835-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

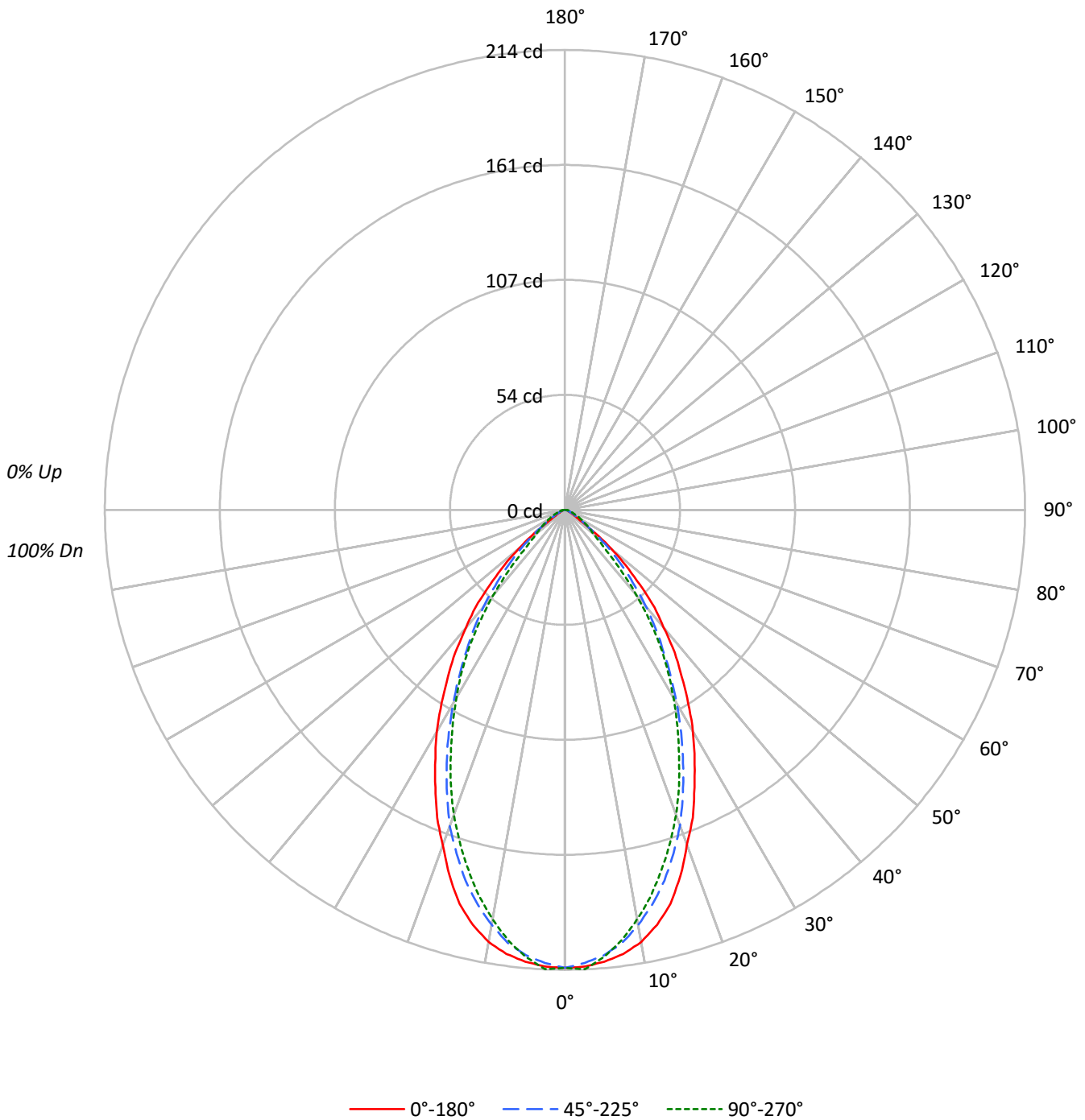
Lumens per Lamp: N/A
Luminaire Lumens: 229.2 lumens
Efficiency: N/A
Efficacy: 19.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	92	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	43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3932	3932	3932
5°	3908	3853	3868
10°	3826	3674	3626
15°	3624	3412	3314
20°	3258	3073	2965
25°	2901	2649	2555
30°	2538	2212	2148
35°	2135	1791	1735
40°	1722	1414	1250
45°	1287	1020	744
50°	807	660	488
55°	273	357	396
60°	159	221	314
65°	114	148	240
70°	92	113	183
75°	64	93	150
80°	43	96	138
85°	0	0	85

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1287 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.6	8.6
10°-20°	50.3	21.9
20°-30°	60.5	26.4
30°-40°	51.7	22.6
40°-50°	30.3	13.2
50°-60°	11.0	4.8
60°-70°	3.9	1.7
70°-80°	1.6	0.7
80°-90°	0.3	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°	130.5	56.9
0°-40°	182.2	79.5
0°-60°	223.5	97.5
0°-90°	229.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	229.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	213	213	213	213	213	
5°	211	211	208	209	209	20
15°	190	187	179	175	174	53
25°	142	136	130	128	126	65
35°	95	88	80	79	77	59
45°	49	44	39	33	28	38
55°	8	12	11	12	12	11
65°	3	3	3	5	6	3
75°	1	1	1	2	2	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	213.1	213.1	213.1	213.1	213.1
2.5°	212.7	213.1	211.0	213.1	213.9
5°	211.0	211.4	208.0	208.8	208.8
7.5°	208.4	208.0	203.3	202.4	202.0
10°	204.2	202.9	196.1	194.8	193.5
12.5°	197.8	195.2	188.0	185.9	184.2
15°	189.7	186.7	178.6	175.2	173.5
17.5°	178.6	175.2	167.6	164.2	162.5
20°	165.9	162.5	156.5	152.7	151.0
22.5°	155.2	149.7	143.3	140.8	138.7
25°	142.5	136.5	130.1	128.0	125.5
27.5°	130.6	123.3	117.0	115.3	113.1
30°	119.1	111.4	103.8	103.8	100.8
32.5°	106.8	99.5	91.4	91.0	89.3
35°	94.8	87.6	79.5	78.7	77.0
37.5°	83.8	76.6	68.9	66.3	64.2
40°	71.5	65.1	58.7	54.4	51.9
42.5°	61.7	54.4	48.1	43.0	39.6
45°	49.3	44.2	39.1	32.7	28.5
47.5°	38.3	34.9	30.6	23.4	21.3
50°	28.1	26.4	23.0	17.4	17.0
52.5°	17.9	18.7	16.6	13.6	14.9
55°	8.5	11.9	11.1	11.5	12.3
57.5°	5.5	6.0	8.1	9.4	10.2
60°	4.3	4.3	6.0	7.7	8.5
62.5°	3.4	3.4	4.7	6.4	6.8
65°	2.6	3.0	3.4	4.7	5.5
67.5°	2.1	2.1	2.6	3.8	4.3
70°	1.7	1.7	2.1	3.0	3.4
72.5°	1.3	1.3	1.7	2.6	2.6
75°	0.9	1.3	1.3	1.7	2.1
77.5°	0.9	0.9	0.9	1.3	1.7
80°	0.4	0.4	0.9	0.9	1.3
82.5°	0.4	0.4	0.4	0.4	0.9
85°	0.0	0.0	0.0	0.4	0.4
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	0.68	1.84	1.04	2.15	2.47	4.06	5.22	4.43	5.54	5.85
	3H	1.18	2.20	1.56	2.54	2.90	4.79	5.81	5.17	6.14	6.51
	4H	1.33	2.28	1.73	2.63	3.02	5.00	5.95	5.41	6.30	6.69
	6H	1.41	2.28	1.83	2.65	3.05	5.16	6.03	5.57	6.40	6.79
	8H	1.41	2.23	1.84	2.62	3.03	5.20	6.01	5.63	6.40	6.81
	12H	1.37	2.16	1.81	2.54	2.97	5.19	5.98	5.63	6.36	6.79
4H	2H	0.98	1.93	1.39	2.28	2.67	4.03	4.97	4.43	5.33	5.71
	3H	1.63	2.39	2.04	2.80	3.21	4.90	5.67	5.32	6.08	6.48
	4H	1.88	2.57	2.32	2.99	3.43	5.18	5.86	5.62	6.29	6.73
	6H	2.01	2.60	2.48	3.05	3.52	5.41	6.00	5.88	6.45	6.92
	8H	2.02	2.56	2.49	3.01	3.49	5.47	6.01	5.94	6.46	6.93
	12H	1.98	2.46	2.47	2.94	3.42	5.48	5.96	5.97	6.45	6.92
8H	4H	2.00	2.54	2.47	2.99	3.47	5.11	5.66	5.59	6.11	6.58
	6H	2.17	2.62	2.68	3.12	3.60	5.39	5.83	5.89	6.33	6.81
	8H	2.20	2.60	2.73	3.12	3.61	5.45	5.85	5.98	6.37	6.86
	12H	2.18	2.53	2.70	3.02	3.60	5.51	5.86	6.03	6.35	6.93
12H	4H	1.99	2.46	2.48	2.95	3.43	5.07	5.55	5.56	6.03	6.51
	6H	2.17	2.57	2.70	3.09	3.58	5.34	5.73	5.87	6.25	6.75
	8H	2.23	2.58	2.75	3.08	3.65	5.43	5.77	5.95	6.27	6.85