

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: P1058510

Luminaire Tested: S122RDR-H675D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058510
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-H675D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

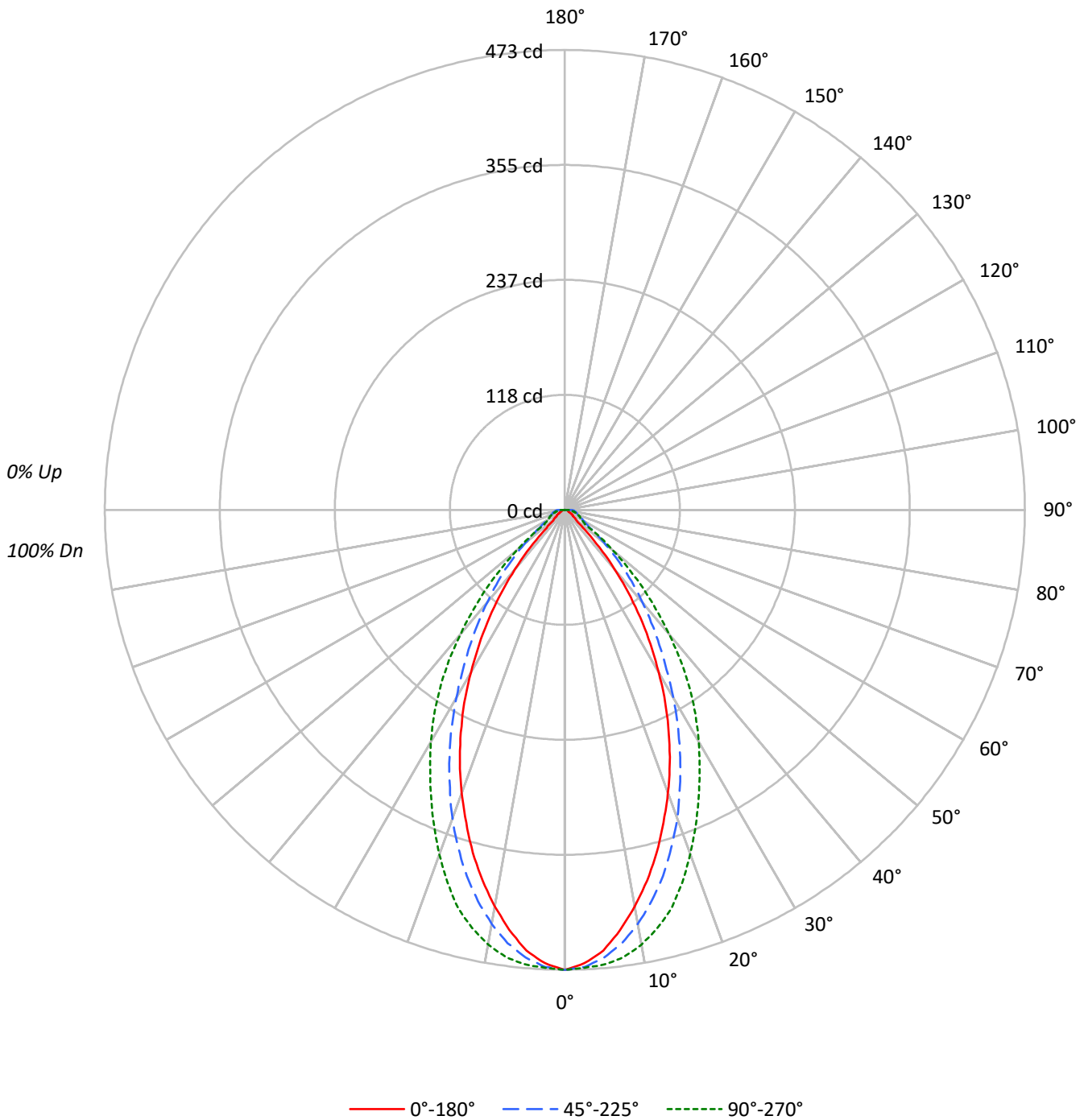
Lumens per Lamp: N/A
Luminaire Lumens: 510.0 lumens
Efficiency: N/A
Efficacy: 21.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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°	8730	8730	8730
5°	8426	8561	8695
10°	7761	8100	8507
15°	6977	7445	8102
20°	6085	6637	7403
25°	5147	5719	6625
30°	4112	4749	5870
35°	3041	3818	5041
40°	1922	2992	4018
45°	757	2247	2957
50°	390	1510	1820
55°	322	991	817
60°	233	805	734
65°	196	751	751
70°	194	782	734
75°	257	905	777
80°	383	1158	871
85°	572	1927	1143

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 3850 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	8.5
10°-20°	109.3	21.4
20°-30°	129.9	25.5
30°-40°	108.0	21.2
40°-50°	60.3	11.8
50°-60°	24.4	4.8
60°-70°	15.6	3.1
70°-80°	11.7	2.3
80°-90°	7.5	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°	282.4	55.4
0°-40°	390.5	76.6
0°-60°	475.2	93.2
0°-90°	510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	510.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	473	473	473	473	473	
5°	455	463	462	466	469	42
15°	365	376	390	410	424	102
25°	253	263	281	303	325	115
35°	135	148	170	198	224	84
45°	29	49	86	101	113	27
55°	10	21	31	30	25	9
65°	4	18	17	16	17	5
75°	4	13	13	12	11	4
85°	3	8	9	8	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	473.1	473.1	473.1	473.1	473.1
2.5°	466.7	474.0	470.4	470.4	471.3
5°	454.9	463.1	462.2	465.8	469.4
7.5°	435.9	445.0	449.5	457.7	464.0
10°	414.2	424.1	432.3	445.0	454.0
12.5°	390.6	400.6	412.4	428.7	440.4
15°	365.2	376.1	389.7	409.6	424.1
17.5°	337.1	348.9	364.3	386.1	401.5
20°	309.9	321.7	338.0	359.8	377.0
22.5°	281.9	291.8	309.0	330.8	351.6
25°	252.8	262.8	280.9	302.7	325.4
27.5°	223.8	233.8	251.9	274.6	300.0
30°	193.0	203.9	222.9	248.3	275.5
32.5°	164.0	174.9	194.8	222.9	250.1
35°	135.0	147.7	169.5	197.6	223.8
37.5°	106.9	121.4	145.9	172.2	195.8
40°	79.8	95.2	124.2	146.8	166.8
42.5°	52.6	70.7	104.2	123.3	138.7
45°	29.0	48.9	86.1	100.6	113.3
47.5°	16.3	31.7	68.0	79.8	87.0
50°	13.6	23.6	52.6	60.7	63.4
52.5°	10.9	21.8	39.9	44.4	42.6
55°	10.0	20.8	30.8	29.9	25.4
57.5°	8.2	20.8	24.5	21.8	21.8
60°	6.3	19.9	21.8	19.0	19.9
62.5°	5.4	19.0	19.9	18.1	18.1
65°	4.5	18.1	17.2	16.3	17.2
67.5°	3.6	16.3	16.3	15.4	15.4
70°	3.6	15.4	14.5	13.6	13.6
72.5°	3.6	13.6	13.6	12.7	12.7
75°	3.6	12.7	12.7	11.8	10.9
77.5°	3.6	10.9	11.8	10.9	10.0
80°	3.6	10.0	10.9	10.0	8.2
82.5°	3.6	9.1	10.0	9.1	7.3
85°	2.7	8.2	9.1	8.2	5.4
87.5°	2.7	8.2	9.1	7.3	4.5
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	5.88	7.10	6.25	7.41	7.73	6.98	8.20	7.35	8.51	8.83
	3H	7.21	8.30	7.60	8.63	9.00	9.00	10.09	9.39	10.42	10.79
	4H	7.79	8.80	8.19	9.15	9.54	9.96	10.97	10.37	11.32	11.71
	6H	8.35	9.28	8.77	9.65	10.05	10.91	11.84	11.33	12.21	12.61
	8H	8.68	9.56	9.11	9.95	10.36	11.37	12.24	11.80	12.64	13.04
	12H	8.98	9.83	9.42	10.21	10.64	11.79	12.63	12.22	13.01	13.44
4H	2H	6.85	7.86	7.25	8.21	8.59	7.65	8.66	8.06	9.02	9.40
	3H	8.88	9.71	9.29	10.11	10.52	9.93	10.77	10.35	11.17	11.57
	4H	9.96	10.71	10.40	11.13	11.57	11.08	11.83	11.52	12.25	12.70
	6H	10.83	11.48	11.30	11.93	12.40	12.26	12.91	12.72	13.35	13.82
	8H	11.24	11.85	11.72	12.30	12.77	12.82	13.43	13.29	13.88	14.35
	12H	11.62	12.16	12.11	12.64	13.12	13.37	13.90	13.85	14.39	14.86
8H	4H	10.73	11.34	11.20	11.79	12.26	11.63	12.24	12.11	12.69	13.16
	6H	12.08	12.57	12.58	13.07	13.55	13.09	13.59	13.60	14.09	14.57
	8H	12.80	13.24	13.32	13.76	14.25	13.86	14.31	14.39	14.83	15.32
	12H	13.49	13.88	14.01	14.38	14.95	14.65	15.04	15.17	15.54	16.11
12H	4H	10.89	11.43	11.38	11.91	12.38	11.74	12.28	12.23	12.76	13.24
	6H	12.40	12.85	12.93	13.36	13.86	13.32	13.77	13.85	14.28	14.78
	8H	13.31	13.70	13.82	14.20	14.77	14.23	14.63	14.75	15.12	15.69