

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: P1058222

Luminaire Tested: S122RDR-H1005D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058222
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-H1005D850-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, 80 CRI LEDS
Ballast/Driver: -

Summary

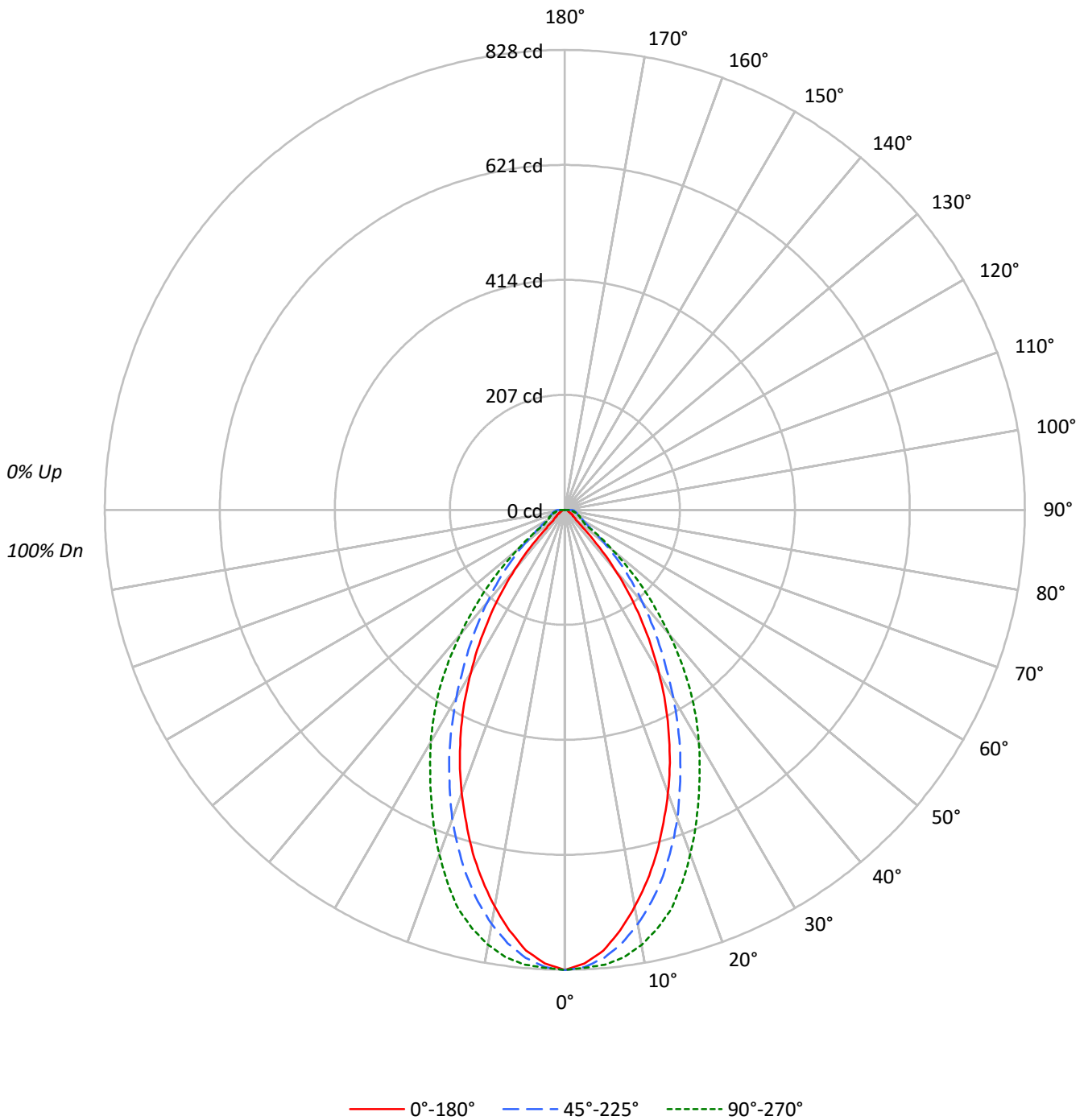
Lumens per Lamp: N/A
Luminaire Lumens: 893.1 lumens
Efficiency: N/A
Efficacy: 24.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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°	15288	15288	15288
5°	14759	14994	15228
10°	13590	14186	14900
15°	12219	13038	14190
20°	10659	11625	12966
25°	9015	10017	11601
30°	7204	8318	10281
35°	5327	6686	8830
40°	3365	5237	7034
45°	1326	3935	5177
50°	683	2644	3189
55°	563	1737	1428
60°	410	1406	1288
65°	345	1319	1319
70°	340	1370	1284
75°	449	1583	1355
80°	669	2019	1520
85°	1016	3366	2011

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 6726 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.8	8.5
10°-20°	191.4	21.4
20°-30°	227.4	25.5
30°-40°	189.2	21.2
40°-50°	105.7	11.8
50°-60°	42.7	4.8
60°-70°	27.3	3.1
70°-80°	20.5	2.3
80°-90°	13.1	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°	494.6	55.4
0°-40°	683.8	76.6
0°-60°	832.2	93.2
0°-90°	893.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	893.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	797	811	810	816	822	74
15°	640	659	682	717	743	178
25°	443	460	492	530	570	202
35°	236	259	297	346	392	147
45°	51	86	151	176	198	48
55°	18	36	54	52	44	15
65°	8	32	30	29	30	8
75°	6	22	22	21	19	7
85°	5	14	16	14	10	5
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	828.5	828.5	828.5	828.5	828.5
2.5°	817.4	830.1	823.7	823.7	825.3
5°	796.8	811.0	809.5	815.8	822.1
7.5°	763.4	779.3	787.2	801.5	812.6
10°	725.3	742.8	757.1	779.3	795.2
12.5°	684.1	701.5	722.2	750.7	771.4
15°	639.6	658.7	682.5	717.4	742.8
17.5°	590.4	611.1	638.0	676.1	703.1
20°	542.8	563.4	592.0	630.1	660.3
22.5°	493.6	511.1	541.2	579.3	615.8
25°	442.8	460.3	492.0	530.1	569.8
27.5°	392.0	409.5	441.2	480.9	525.3
30°	338.1	357.1	390.4	434.9	482.5
32.5°	287.3	306.3	341.2	390.4	438.1
35°	236.5	258.7	296.8	346.0	392.0
37.5°	187.3	212.7	255.5	301.6	342.8
40°	139.7	166.7	217.4	257.1	292.0
42.5°	92.1	123.8	182.5	215.9	242.8
45°	50.8	85.7	150.8	176.2	198.4
47.5°	28.6	55.6	119.0	139.7	152.4
50°	23.8	41.3	92.1	106.3	111.1
52.5°	19.0	38.1	69.8	77.8	74.6
55°	17.5	36.5	54.0	52.4	44.4
57.5°	14.3	36.5	42.9	38.1	38.1
60°	11.1	34.9	38.1	33.3	34.9
62.5°	9.5	33.3	34.9	31.7	31.7
65°	7.9	31.7	30.2	28.6	30.2
67.5°	6.3	28.6	28.6	27.0	27.0
70°	6.3	27.0	25.4	23.8	23.8
72.5°	6.3	23.8	23.8	22.2	22.2
75°	6.3	22.2	22.2	20.6	19.0
77.5°	6.3	19.0	20.6	19.0	17.5
80°	6.3	17.5	19.0	17.5	14.3
82.5°	6.3	15.9	17.5	15.9	12.7
85°	4.8	14.3	15.9	14.3	9.5
87.5°	4.8	14.3	15.9	12.7	7.9
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	7.84	9.06	8.21	9.37	9.69	8.92	10.14	9.28	10.45	10.76
	3H	9.17	10.25	9.55	10.59	10.95	10.95	12.03	11.33	12.36	12.73
	4H	9.74	10.75	10.15	11.10	11.49	11.90	12.91	12.30	13.26	13.65
	6H	10.30	11.23	10.72	11.60	12.00	12.85	13.78	13.26	14.15	14.54
	8H	10.63	11.51	11.06	11.90	12.30	13.30	14.18	13.73	14.57	14.97
	12H	10.94	11.78	11.37	12.16	12.59	13.72	14.56	14.15	14.94	15.37
4H	2H	8.81	9.82	9.21	10.17	10.55	9.60	10.61	10.00	10.96	11.34
	3H	10.83	11.66	11.25	12.07	12.47	11.88	12.71	12.29	13.11	13.52
	4H	11.91	12.66	12.34	13.08	13.52	13.02	13.77	13.46	14.19	14.63
	6H	12.78	13.43	13.24	13.87	14.34	14.19	14.84	14.66	15.29	15.76
	8H	13.19	13.79	13.66	14.24	14.71	14.76	15.36	15.23	15.81	16.28
	12H	13.57	14.10	14.06	14.59	15.06	15.30	15.83	15.79	16.32	16.79
8H	4H	12.68	13.28	13.15	13.73	14.20	13.57	14.18	14.04	14.62	15.10
	6H	14.02	14.51	14.52	15.01	15.49	15.03	15.52	15.53	16.02	16.50
	8H	14.74	15.18	15.26	15.70	16.19	15.79	16.24	16.32	16.76	17.25
	12H	15.43	15.82	15.95	16.32	16.89	16.58	16.97	17.10	17.47	18.04
12H	4H	12.83	13.37	13.32	13.85	14.33	13.68	14.21	14.17	14.70	15.17
	6H	14.34	14.79	14.86	15.30	15.80	15.26	15.70	15.78	16.22	16.71
	8H	15.25	15.64	15.76	16.13	16.71	16.16	16.56	16.68	17.05	17.63