

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: P1062114

Luminaire Tested: S125RDR-H610D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062114
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H610D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

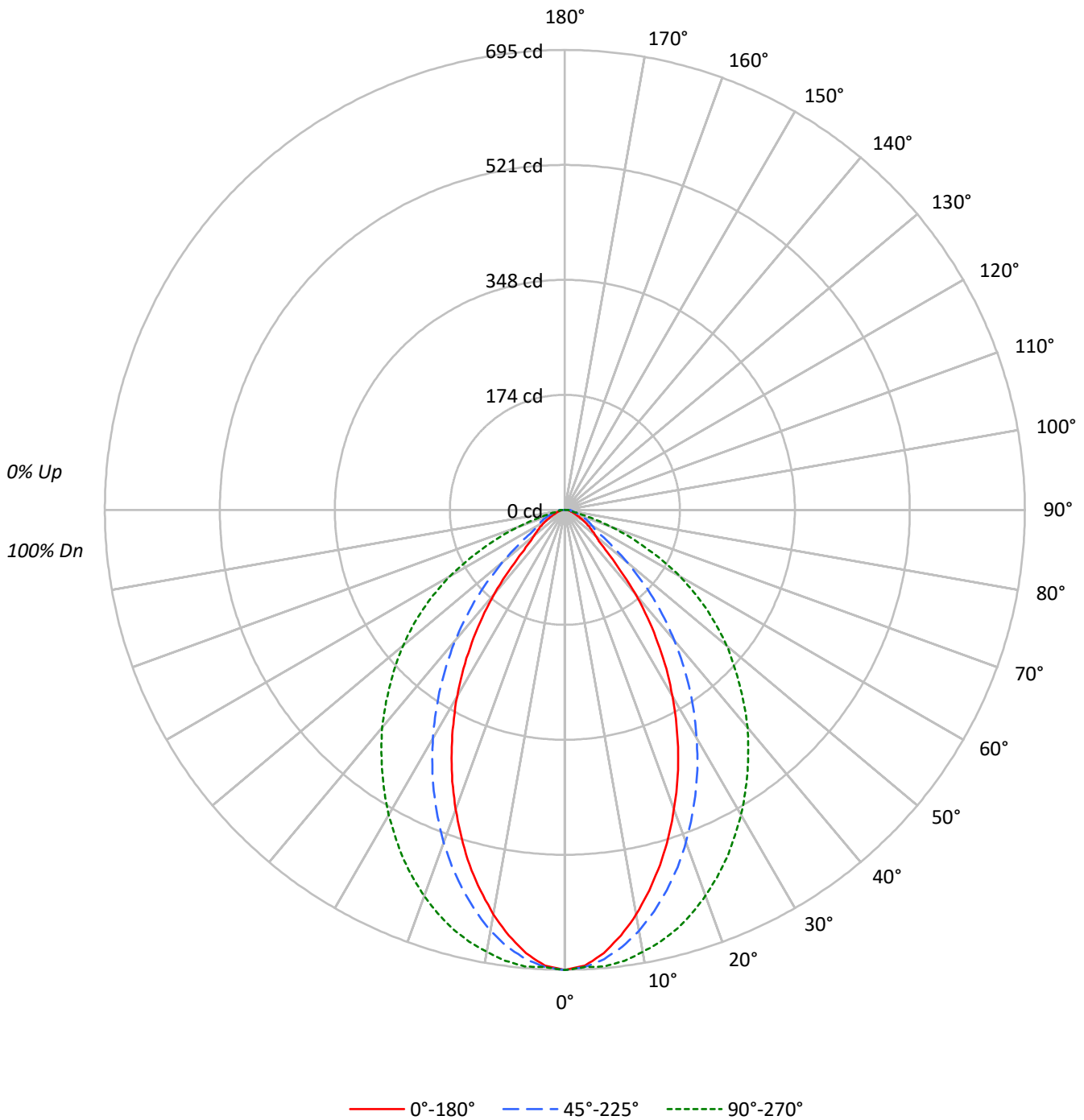
Lumens per Lamp: N/A
Luminaire Lumens: 1007.3 lumens
Efficiency: N/A
Efficacy: 57.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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

TEST NUMBER: P1062114

CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1062114

CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-SVL-W

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	111	108	104	101	109	105	103	100	101	99	97	98	96	94	94	92	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56				56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39				39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4788	4788	4788
5°	4648	4710	4786
10°	4340	4516	4743
15°	3961	4241	4672
20°	3530	3920	4549
25°	3077	3559	4402
30°	2585	3167	4230
35°	2056	2752	4044
40°	1481	2312	3859
45°	878	1834	3634
50°	649	1306	3419
55°	550	807	3132
60°	448	651	2758
65°	349	601	2180
70°	298	521	1457
75°	274	452	591
80°	293	468	408
85°	348	703	466

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3634 cd/sqm



TEST NUMBER: P1062114

CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	6.4
10°-20°	168.3	16.7
20°-30°	220.0	21.8
30°-40°	214.3	21.3
40°-50°	160.8	16.0
50°-60°	100.8	10.0
60°-70°	52.5	5.2
70°-80°	19.0	1.9
80°-90°	7.5	0.7
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°	452.4	44.9
0°-40°	666.8	66.2
0°-60°	928.3	92.2
0°-90°	1007.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1007.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	672	681	681	686	692	63
15°	556	572	595	632	656	155
25°	405	427	468	532	579	185
35°	245	270	327	415	481	152
45°	90	117	188	291	373	76
55°	46	48	67	176	261	41
65°	21	23	37	71	134	22
75°	10	14	17	18	22	11
85°	4	7	9	8	6	5
90°	0	0	0	0	0	

TEST NUMBER: P1062114

CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	695.4	695.4	695.4	695.4	695.4
2.5°	689.5	696.1	691.7	691.7	691.7
5°	672.5	681.4	681.4	686.5	692.4
7.5°	648.8	659.2	665.8	678.4	687.3
10°	620.8	633.3	645.9	666.6	678.4
12.5°	589.0	603.8	621.5	650.3	668.1
15°	555.7	572.0	594.9	631.8	655.5
17.5°	519.5	538.7	566.1	610.4	639.2
20°	481.8	501.0	535.0	585.3	620.8
22.5°	444.1	464.8	501.8	558.7	600.8
25°	405.0	427.1	468.5	532.1	579.4
27.5°	365.1	388.0	433.8	504.7	555.7
30°	325.2	348.8	398.3	475.2	532.1
32.5°	285.3	310.4	362.8	444.9	507.0
35°	244.6	270.5	327.4	414.6	481.1
37.5°	205.4	231.3	291.9	383.5	455.2
40°	164.8	192.9	257.2	352.5	429.4
42.5°	124.9	153.7	222.4	321.5	401.3
45°	90.2	116.8	188.4	291.2	373.2
47.5°	69.5	84.2	153.7	260.1	345.9
50°	60.6	65.0	121.9	231.3	319.2
52.5°	52.5	55.4	91.6	204.7	290.4
55°	45.8	48.0	67.2	175.9	260.9
57.5°	38.4	41.4	53.2	147.8	230.6
60°	32.5	34.0	47.3	121.9	200.3
62.5°	26.6	28.1	42.1	96.1	166.3
65°	21.4	22.9	36.9	70.9	133.8
67.5°	17.7	18.5	31.0	50.3	102.7
70°	14.8	15.5	25.9	34.7	72.4
72.5°	12.6	14.8	20.7	25.1	45.8
75°	10.3	14.0	17.0	17.7	22.2
77.5°	8.9	13.3	14.0	14.0	12.6
80°	7.4	11.1	11.8	11.1	10.3
82.5°	5.9	8.9	9.6	9.6	8.1
85°	4.4	7.4	8.9	8.1	5.9
87.5°	3.0	6.7	7.4	6.7	4.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062114
 CATALOG NUMBER: S125RDR-H610D850-X4F0-XX-UDD-SVL-W

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	5.36	6.71	5.73	7.03	7.34	14.97	16.32	15.34	16.64	16.95
	3H	6.22	7.42	6.60	7.75	8.11	15.81	17.01	16.19	17.34	17.71
	4H	6.64	7.76	7.04	8.11	8.49	15.89	17.01	16.29	17.36	17.74
	6H	7.07	8.10	7.48	8.47	8.86	15.87	16.90	16.28	17.27	17.66
	8H	7.25	8.22	7.68	8.61	9.02	15.86	16.83	16.29	17.22	17.63
	12H	7.41	8.34	7.84	8.72	9.15	15.85	16.78	16.28	17.16	17.59
4H	2H	6.32	7.44	6.72	7.79	8.17	14.84	15.95	15.24	16.30	16.69
	3H	7.37	8.29	7.79	8.69	9.10	15.75	16.66	16.16	17.07	17.47
	4H	7.93	8.75	8.37	9.17	9.61	15.85	16.67	16.28	17.09	17.53
	6H	8.54	9.24	9.00	9.69	10.15	15.87	16.58	16.34	17.03	17.49
	8H	8.77	9.44	9.24	9.88	10.35	15.87	16.54	16.34	16.98	17.45
	12H	9.00	9.58	9.48	10.07	10.54	15.89	16.47	16.37	16.95	17.43
8H	4H	8.40	9.07	8.87	9.51	9.98	15.77	16.43	16.24	16.88	17.35
	6H	9.22	9.76	9.72	10.26	10.74	15.83	16.37	16.33	16.86	17.34
	8H	9.60	10.09	10.12	10.60	11.09	15.86	16.34	16.38	16.86	17.35
	12H	9.99	10.42	10.51	10.92	11.49	15.92	16.35	16.44	16.85	17.42
12H	4H	8.46	9.04	8.94	9.52	10.00	15.74	16.32	16.22	16.81	17.28
	6H	9.34	9.83	9.86	10.34	10.83	15.79	16.28	16.31	16.79	17.28
	8H	9.83	10.26	10.35	10.76	11.33	15.86	16.29	16.38	16.79	17.36