

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: P1062168

Luminaire Tested: S125RDR-H850D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062168  
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-H850D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

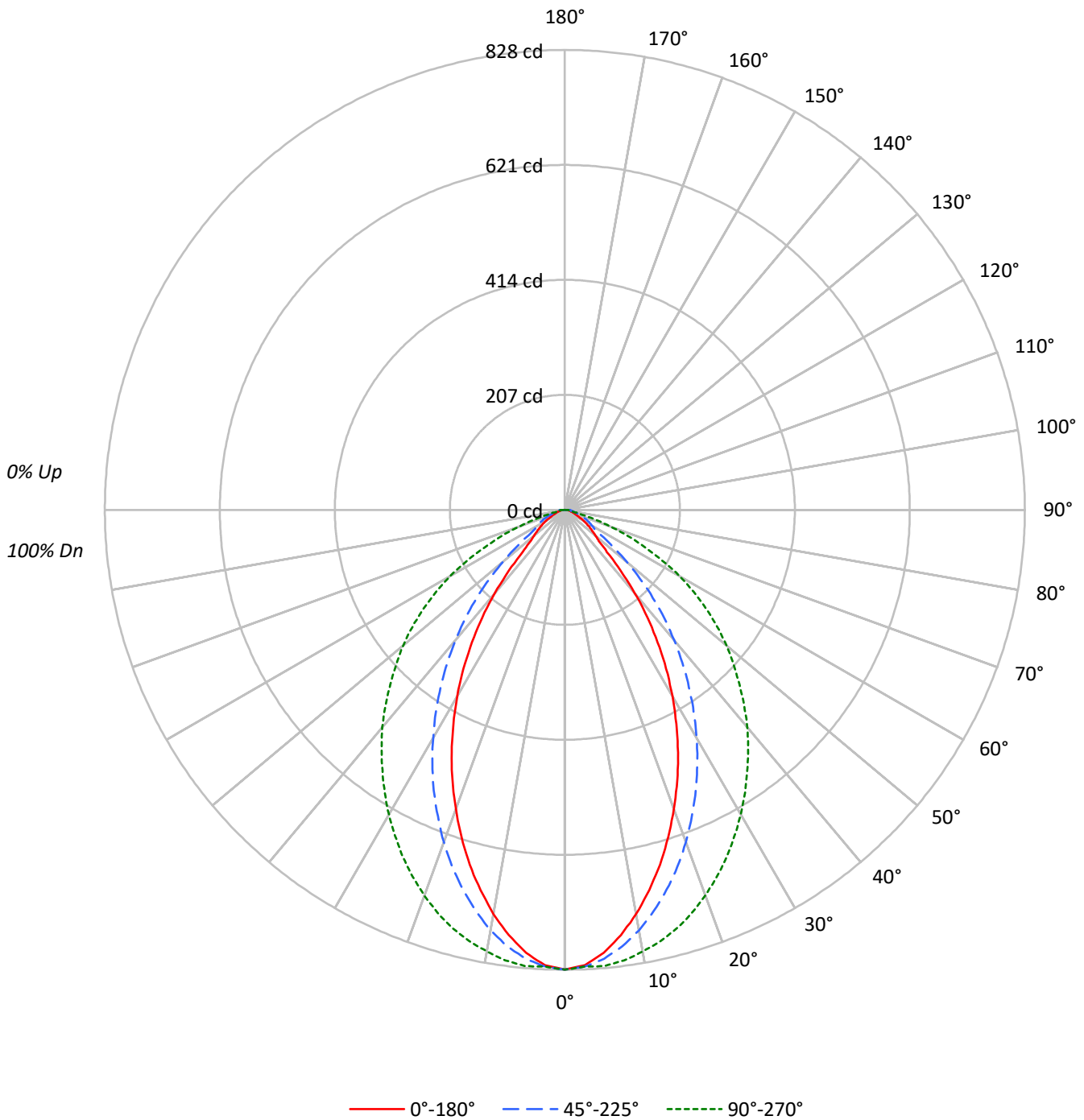
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1198.9 lumens  
Efficiency: N/A  
Efficacy: 51.0 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): 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

TEST NUMBER: P1062168

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-SVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1062168

CATALOG NUMBER: S125RDR-H850D830-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°	5699	5699	5699
5°	5533	5605	5696
10°	5166	5375	5646
15°	4715	5047	5561
20°	4202	4666	5414
25°	3662	4237	5239
30°	3077	3769	5035
35°	2448	3276	4813
40°	1763	2751	4594
45°	1045	2184	4325
50°	772	1554	4070
55°	654	960	3727
60°	533	775	3283
65°	415	717	2594
70°	354	620	1735
75°	327	537	702
80°	349	559	488
85°	419	837	553

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4325 cd/sqm

TEST NUMBER: P1062168

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-SVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.3	6.4
10°-20°	200.4	16.7
20°-30°	261.9	21.8
30°-40°	255.1	21.3
40°-50°	191.3	16.0
50°-60°	120.0	10.0
60°-70°	62.4	5.2
70°-80°	22.6	1.9
80°-90°	9.0	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°	538.5	44.9
0°-40°	793.6	66.2
0°-60°	1104.9	92.2
0°-90°	1198.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1198.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	800	811	811	817	824	74
15°	662	681	708	752	780	185
25°	482	508	558	633	690	220
35°	291	322	390	494	573	181
45°	107	139	224	347	444	90
55°	54	57	80	209	310	49
65°	26	27	44	84	159	26
75°	12	17	20	21	26	13
85°	5	9	11	10	7	5
90°	0	0	0	0	0	



TEST NUMBER: P1062168

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-SVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	827.7	827.7	827.7	827.7	827.7
2.5°	820.7	828.6	823.3	823.3	823.3
5°	800.5	811.0	811.0	817.2	824.2
7.5°	772.3	784.6	792.5	807.5	818.0
10°	738.9	753.8	768.8	793.4	807.5
12.5°	701.1	718.6	739.8	774.1	795.2
15°	661.5	680.8	708.1	752.1	780.2
17.5°	618.4	641.2	673.8	726.6	760.9
20°	573.5	596.4	636.8	696.7	738.9
22.5°	528.7	553.3	597.3	665.0	715.1
25°	482.0	508.4	557.7	633.3	689.6
27.5°	434.5	461.8	516.3	600.8	661.5
30°	387.0	415.2	474.1	565.6	633.3
32.5°	339.5	369.4	431.9	529.5	603.4
35°	291.2	321.9	389.7	493.5	572.6
37.5°	244.5	275.3	347.4	456.5	541.8
40°	196.2	229.6	306.1	419.6	511.1
42.5°	148.7	183.0	264.8	382.6	477.6
45°	107.3	139.0	224.3	346.6	444.2
47.5°	82.7	100.3	183.0	309.6	411.7
50°	72.1	77.4	145.1	275.3	380.0
52.5°	62.5	66.0	109.1	243.7	345.7
55°	54.5	57.2	80.0	209.3	310.5
57.5°	45.7	49.3	63.3	175.9	274.4
60°	38.7	40.5	56.3	145.1	238.4
62.5°	31.7	33.4	50.1	114.4	197.9
65°	25.5	27.3	44.0	84.4	159.2
67.5°	21.1	22.0	36.9	59.8	122.3
70°	17.6	18.5	30.8	41.3	86.2
72.5°	15.0	17.6	24.6	29.9	54.5
75°	12.3	16.7	20.2	21.1	26.4
77.5°	10.6	15.8	16.7	16.7	15.0
80°	8.8	13.2	14.1	13.2	12.3
82.5°	7.0	10.6	11.4	11.4	9.7
85°	5.3	8.8	10.6	9.7	7.0
87.5°	3.5	7.9	8.8	7.9	5.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062168  
 CATALOG NUMBER: S125RDR-H850D830-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	5.97	7.32	6.33	7.63	7.95	15.58	16.93	15.94	17.24	17.56
	3H	6.83	8.03	7.21	8.36	8.72	16.42	17.62	16.80	17.95	18.31
	4H	7.25	8.37	7.65	8.72	9.10	16.49	17.61	16.89	17.96	18.34
	6H	7.68	8.71	8.09	9.08	9.47	16.47	17.50	16.89	17.87	18.27
	8H	7.86	8.83	8.29	9.22	9.63	16.46	17.44	16.89	17.83	18.23
	12H	8.02	8.95	8.45	9.33	9.76	16.45	17.38	16.88	17.76	18.19
4H	2H	6.93	8.05	7.33	8.40	8.78	15.44	16.56	15.84	16.91	17.29
	3H	7.98	8.90	8.40	9.30	9.71	16.35	17.27	16.76	17.67	18.07
	4H	8.54	9.36	8.98	9.78	10.22	16.45	17.27	16.89	17.69	18.13
	6H	9.14	9.85	9.61	10.30	10.76	16.48	17.19	16.94	17.63	18.10
	8H	9.38	10.04	9.85	10.49	10.96	16.48	17.14	16.95	17.59	18.06
	12H	9.61	10.19	10.09	10.68	11.15	16.49	17.08	16.98	17.56	18.03
8H	4H	9.01	9.68	9.48	10.12	10.59	16.38	17.04	16.84	17.48	17.95
	6H	9.83	10.37	10.33	10.86	11.35	16.43	16.97	16.93	17.47	17.95
	8H	10.21	10.69	10.73	11.21	11.70	16.46	16.95	16.98	17.46	17.96
	12H	10.60	11.03	11.12	11.53	12.10	16.53	16.96	17.04	17.45	18.02
12H	4H	9.07	9.65	9.55	10.13	10.61	16.34	16.93	16.83	17.41	17.88
	6H	9.95	10.44	10.47	10.95	11.44	16.40	16.88	16.92	17.40	17.89
	8H	10.44	10.87	10.95	11.36	11.93	16.47	16.90	16.98	17.39	17.96