

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: P1062194

Luminaire Tested: S125RDR-H850D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062194  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-86)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H850D850-X4F0-XX-UDD-SVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

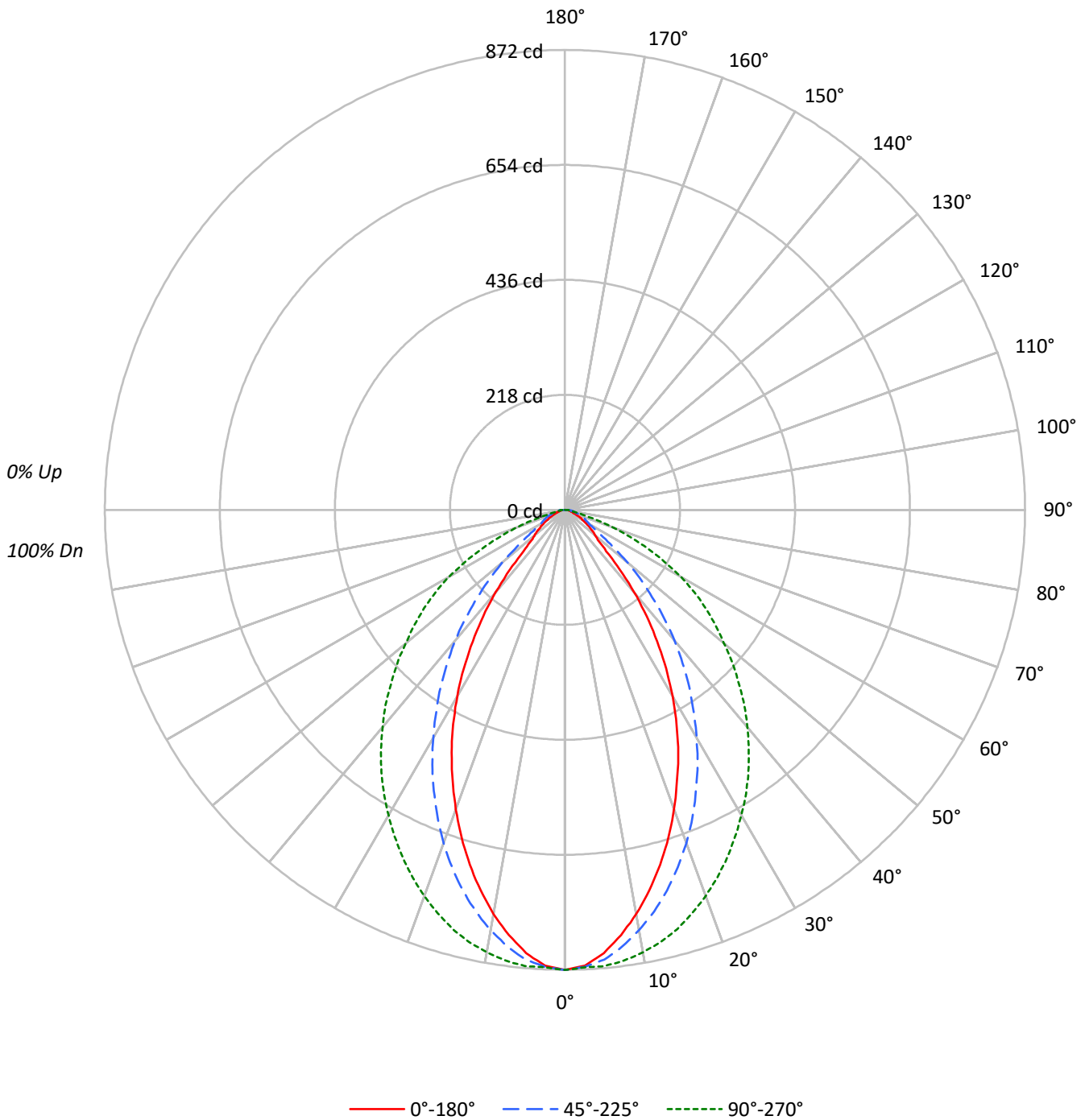
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1259.6 lumens  
Efficiency: N/A  
Efficacy: 53.6 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

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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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79				79
3	96	88	81	76	94	87	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	63				63
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56				56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	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	41	39				39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	47	41	38	36				36

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6006	6006	6006
5°	5829	5915	6001
10°	5441	5657	5954
15°	4964	5325	5864
20°	4428	4928	5709
25°	3860	4466	5527
30°	3241	3966	5315
35°	2557	3453	5097
40°	1833	2902	4836
45°	1078	2278	4535
50°	798	1640	4212
55°	671	994	3913
60°	541	727	3491
65°	422	691	2799
70°	354	646	1896
75°	330	577	825
80°	329	575	535
85°	411	735	569

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4535 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.4	6.4
10°-20°	211.2	16.8
20°-30°	276.0	21.9
30°-40°	268.6	21.3
40°-50°	200.8	15.9
50°-60°	124.5	9.9
60°-70°	65.4	5.2
70°-80°	23.8	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°	567.5	45.1
0°-40°	836.1	66.4
0°-60°	1161.4	92.2
0°-90°	1259.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1259.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	843	855	856	861	868	78
15°	696	717	747	793	823	194
25°	508	534	588	667	728	232
35°	304	337	411	520	606	189
45°	111	145	234	365	466	93
55°	56	59	83	215	326	50
65°	26	28	42	91	172	27
75°	12	14	22	24	31	13
85°	5	9	9	9	7	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	872.3	872.3	872.3	872.3	872.3
2.5°	865.1	872.3	867.2	867.2	868.2
5°	843.4	854.7	855.8	860.9	868.2
7.5°	813.3	826.8	835.1	850.6	862.0
10°	778.2	793.7	809.2	835.1	851.6
12.5°	738.8	757.5	780.2	815.4	839.2
15°	696.4	717.1	747.1	792.7	822.7
17.5°	651.9	673.7	710.9	765.7	802.0
20°	604.3	628.1	672.6	734.7	779.2
22.5°	555.7	582.6	631.2	701.6	754.4
25°	508.1	534.0	587.8	667.4	727.5
27.5°	458.4	485.3	544.3	632.3	698.5
30°	407.7	436.7	498.8	596.0	668.5
32.5°	357.0	387.0	454.3	558.8	638.5
35°	304.2	337.3	410.8	520.5	606.4
37.5°	254.6	289.7	366.3	481.2	572.2
40°	203.9	240.1	322.9	442.9	538.1
42.5°	154.2	191.4	278.4	403.6	503.9
45°	110.7	144.9	233.9	365.3	465.7
47.5°	84.9	104.5	192.5	326.0	431.5
50°	74.5	80.7	153.1	287.7	393.2
52.5°	65.2	69.3	113.8	250.4	360.1
55°	55.9	59.0	82.8	215.2	326.0
57.5°	47.6	50.7	63.1	183.2	290.8
60°	39.3	42.4	52.8	151.1	253.5
62.5°	33.1	34.1	47.6	121.1	212.1
65°	25.9	27.9	42.4	91.1	171.8
67.5°	21.7	22.8	37.3	65.2	132.5
70°	17.6	18.6	32.1	45.5	94.2
72.5°	15.5	15.5	26.9	33.1	60.0
75°	12.4	14.5	21.7	23.8	31.0
77.5°	10.3	14.5	18.6	17.6	16.6
80°	8.3	13.5	14.5	14.5	13.5
82.5°	7.2	11.4	12.4	11.4	10.3
85°	5.2	9.3	9.3	9.3	7.2
87.5°	4.1	8.3	7.2	7.2	5.2
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	6.01	7.36	6.38	7.68	7.99	15.72	17.07	16.09	17.38	17.70
	3H	6.85	8.05	7.23	8.38	8.75	16.63	17.83	17.01	18.16	18.53
	4H	7.21	8.33	7.61	8.68	9.06	16.73	17.85	17.13	18.20	18.58
	6H	7.59	8.61	8.00	8.98	9.38	16.72	17.74	17.13	18.11	18.51
	8H	7.77	8.74	8.19	9.13	9.53	16.70	17.68	17.13	18.07	18.47
	12H	7.93	8.86	8.36	9.24	9.67	16.69	17.62	17.12	18.00	18.43
4H	2H	6.84	7.96	7.25	8.31	8.69	15.57	16.69	15.97	17.04	17.42
	3H	7.90	8.82	8.31	9.22	9.62	16.56	17.48	16.97	17.88	18.28
	4H	8.36	9.17	8.79	9.59	10.04	16.69	17.51	17.12	17.93	18.37
	6H	8.91	9.62	9.38	10.07	10.53	16.72	17.43	17.18	17.87	18.34
	8H	9.17	9.83	9.64	10.28	10.75	16.72	17.38	17.19	17.83	18.30
	12H	9.42	10.00	9.90	10.48	10.96	16.73	17.31	17.22	17.80	18.27
8H	4H	8.91	9.57	9.38	10.02	10.49	16.61	17.27	17.08	17.72	18.19
	6H	9.69	10.23	10.19	10.73	11.21	16.67	17.21	17.18	17.71	18.19
	8H	10.11	10.59	10.63	11.11	11.60	16.70	17.19	17.22	17.70	18.19
	12H	10.52	10.95	11.04	11.45	12.02	16.76	17.18	17.27	17.68	18.25
12H	4H	8.97	9.56	9.46	10.04	10.51	16.58	17.16	17.07	17.65	18.12
	6H	9.83	10.32	10.36	10.83	11.33	16.64	17.13	17.16	17.64	18.13
	8H	10.36	10.79	10.88	11.28	11.86	16.71	17.13	17.22	17.63	18.20