

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: P1062176

Luminaire Tested: S125RDR-H850D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062176  
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-H850D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

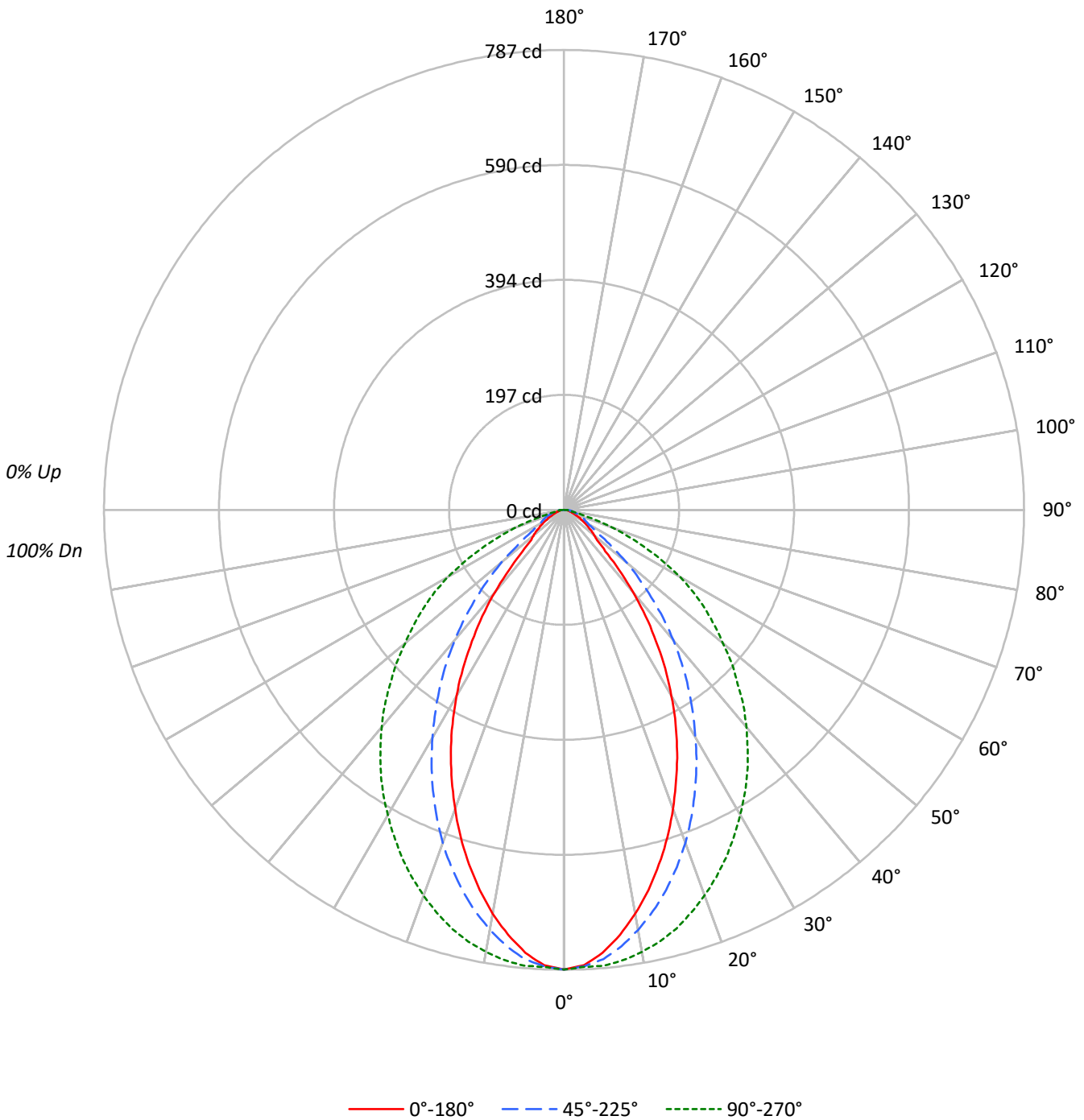
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1135.8 lumens  
Efficiency: N/A  
Efficacy: 48.3 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°	5416	5416	5416
5°	5256	5334	5411
10°	4906	5102	5369
15°	4476	4802	5288
20°	3993	4444	5148
25°	3480	4026	4984
30°	2923	3575	4792
35°	2306	3113	4596
40°	1652	2616	4361
45°	972	2054	4089
50°	720	1479	3798
55°	605	896	3528
60°	489	655	3148
65°	380	624	2524
70°	320	582	1709
75°	298	521	745
80°	297	519	480
85°	371	664	513

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4089 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.5	6.4
10°-20°	190.4	16.8
20°-30°	248.8	21.9
30°-40°	242.2	21.3
40°-50°	181.0	15.9
50°-60°	112.3	9.9
60°-70°	59.0	5.2
70°-80°	21.5	1.9
80°-90°	8.1	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°	511.7	45.1
0°-40°	753.9	66.4
0°-60°	1047.2	92.2
0°-90°	1135.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1135.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	787	787	787	787	787	
5°	760	771	772	776	783	71
15°	628	647	674	715	742	175
25°	458	482	530	602	656	209
35°	274	304	370	469	547	171
45°	100	131	211	329	420	84
55°	50	53	75	194	294	45
65°	23	25	38	82	155	24
75°	11	13	20	22	28	12
85°	5	8	8	8	6	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	786.6	786.6	786.6	786.6	786.6
2.5°	780.1	786.6	781.9	781.9	782.9
5°	760.5	770.7	771.7	776.3	782.9
7.5°	733.4	745.5	753.0	767.0	777.3
10°	701.7	715.7	729.7	753.0	767.9
12.5°	666.2	683.0	703.5	735.3	756.7
15°	628.0	646.6	673.7	714.7	741.8
17.5°	587.8	607.4	641.0	690.5	723.1
20°	544.9	566.4	606.5	662.5	702.6
22.5°	501.1	525.3	569.2	632.6	680.2
25°	458.1	481.5	530.0	601.8	656.0
27.5°	413.4	437.6	490.8	570.1	629.8
30°	367.6	393.8	449.7	537.5	602.8
32.5°	321.9	349.0	409.6	503.9	575.7
35°	274.3	304.2	370.4	469.3	546.8
37.5°	229.5	261.3	330.3	433.9	516.0
40°	183.8	216.5	291.1	399.4	485.2
42.5°	139.0	172.6	251.0	363.9	454.4
45°	99.8	130.6	210.9	329.4	419.9
47.5°	76.5	94.2	173.6	293.9	389.1
50°	67.2	72.8	138.1	259.4	354.6
52.5°	58.8	62.5	102.6	225.8	324.7
55°	50.4	53.2	74.6	194.1	293.9
57.5°	42.9	45.7	56.9	165.2	262.2
60°	35.5	38.3	47.6	136.2	228.6
62.5°	29.9	30.8	42.9	109.2	191.3
65°	23.3	25.2	38.3	82.1	154.9
67.5°	19.6	20.5	33.6	58.8	119.4
70°	15.9	16.8	28.9	41.1	84.9
72.5°	14.0	14.0	24.3	29.9	54.1
75°	11.2	13.1	19.6	21.5	28.0
77.5°	9.3	13.1	16.8	15.9	14.9
80°	7.5	12.1	13.1	13.1	12.1
82.5°	6.5	10.3	11.2	10.3	9.3
85°	4.7	8.4	8.4	8.4	6.5
87.5°	3.7	7.5	6.5	6.5	4.7
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	5.65	7.00	6.02	7.32	7.63	15.36	16.71	15.73	17.02	17.34
	3H	6.49	7.69	6.87	8.02	8.39	16.27	17.47	16.65	17.80	18.17
	4H	6.85	7.97	7.26	8.32	8.70	16.37	17.49	16.77	17.84	18.22
	6H	7.23	8.25	7.64	8.62	9.02	16.36	17.38	16.77	17.75	18.15
	8H	7.41	8.38	7.84	8.77	9.18	16.34	17.32	16.77	17.71	18.11
	12H	7.57	8.50	8.00	8.88	9.31	16.33	17.26	16.76	17.64	18.07
4H	2H	6.49	7.60	6.89	7.95	8.34	15.21	16.33	15.61	16.68	17.06
	3H	7.54	8.46	7.96	8.86	9.26	16.20	17.12	16.61	17.52	17.92
	4H	8.00	8.82	8.43	9.24	9.68	16.33	17.15	16.76	17.57	18.01
	6H	8.56	9.26	9.02	9.71	10.18	16.36	17.07	16.82	17.51	17.98
	8H	8.82	9.48	9.29	9.92	10.39	16.36	17.02	16.83	17.47	17.94
	12H	9.06	9.64	9.55	10.13	10.60	16.37	16.95	16.86	17.44	17.91
8H	4H	8.56	9.22	9.02	9.66	10.13	16.26	16.91	16.72	17.36	17.83
	6H	9.33	9.87	9.84	10.37	10.85	16.32	16.85	16.82	17.35	17.83
	8H	9.75	10.24	10.27	10.75	11.24	16.34	16.83	16.87	17.34	17.84
	12H	10.17	10.60	10.68	11.09	11.66	16.40	16.83	16.91	17.32	17.89
12H	4H	8.62	9.20	9.10	9.68	10.16	16.22	16.80	16.71	17.29	17.76
	6H	9.48	9.96	10.00	10.48	10.97	16.28	16.77	16.80	17.28	17.77
	8H	10.01	10.43	10.52	10.93	11.50	16.35	16.77	16.86	17.27	17.84