

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1061870

Luminaire Tested: S125RDRP-H1090D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061870  
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: S125RDRP-H1090D850-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: -

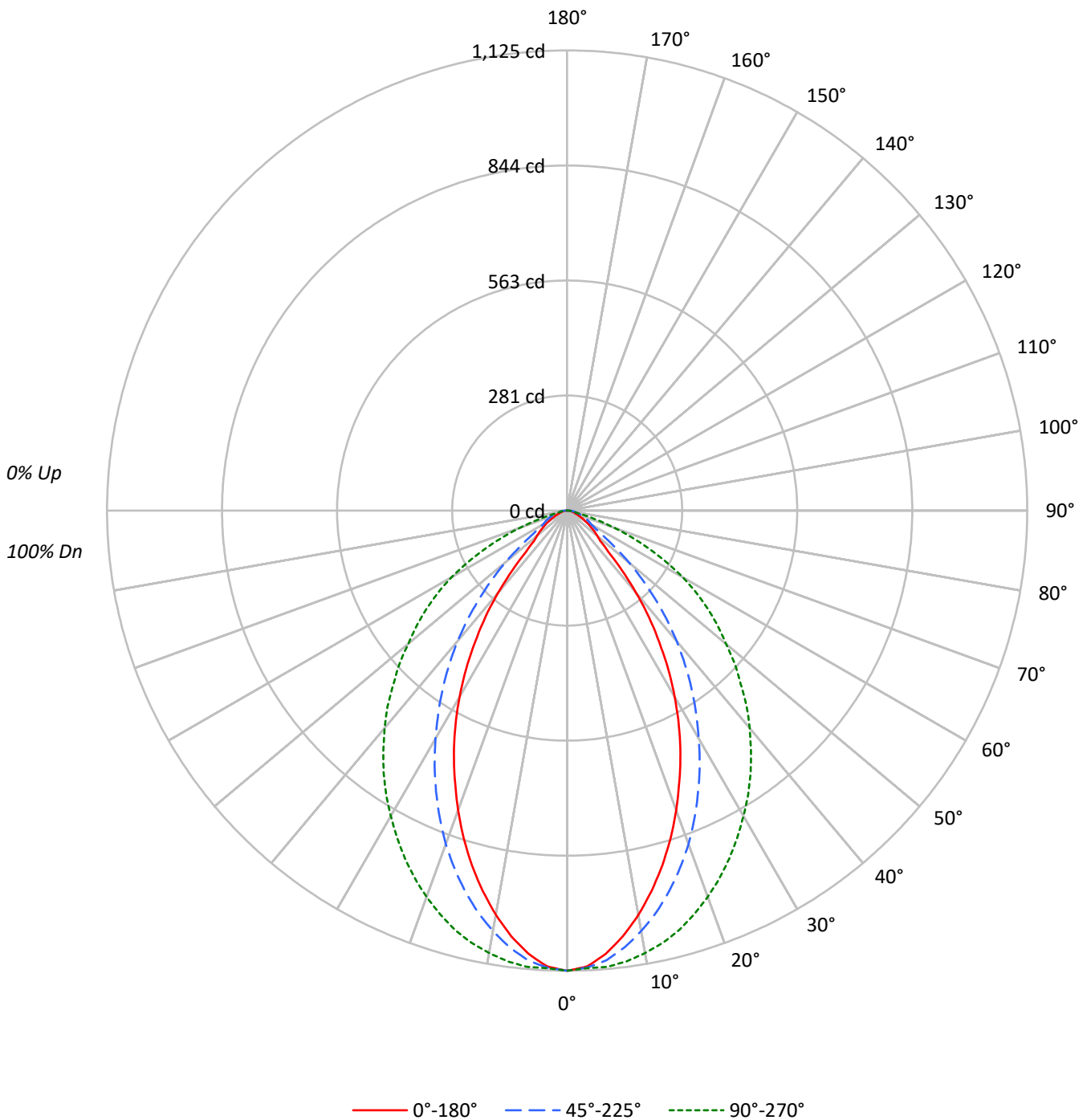
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1624.4 lumens  
Efficiency: N/A  
Efficacy: 52.1 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): 31.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81
3	96	88	81	76	94	87	80	76	84	79	74	81	77	73	79	75	72
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	41
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	47	41	38

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

	0°	45°	90°
0°	7746	7746	7746
5°	7517	7628	7739
10°	7016	7296	7679
15°	6402	6868	7562
20°	5711	6356	7363
25°	4978	5759	7128
30°	4180	5114	6854
35°	3297	4453	6573
40°	2363	3743	6237
45°	1390	2937	5847
50°	1029	2116	5432
55°	865	1282	5047
60°	698	938	4503
65°	544	891	3609
70°	457	833	2444
75°	426	745	1064
80°	424	741	686
85°	529	948	735

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5847 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.7	6.4
10°-20°	272.3	16.8
20°-30°	355.9	21.9
30°-40°	346.4	21.3
40°-50°	258.9	15.9
50°-60°	160.6	9.9
60°-70°	84.3	5.2
70°-80°	30.7	1.9
80°-90°	11.6	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°	731.8	45.1
0°-40°	1078.3	66.4
0°-60°	1497.7	92.2
0°-90°	1624.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1624.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1125	1125	1125	1125	1125	
5°	1088	1102	1104	1110	1120	101
15°	898	925	964	1022	1061	251
25°	655	689	758	861	938	299
35°	392	435	530	671	782	244
45°	143	187	302	471	600	120
55°	72	76	107	278	420	65
65°	33	36	55	117	222	35
75°	16	19	28	31	40	17
85°	7	12	12	12	9	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1125.0	1125.0	1125.0	1125.0	1125.0
2.5°	1115.6	1125.0	1118.3	1118.3	1119.7
5°	1087.6	1102.3	1103.6	1110.3	1119.7
7.5°	1048.9	1066.3	1076.9	1097.0	1111.6
10°	1003.5	1023.6	1043.6	1076.9	1098.3
12.5°	952.8	976.9	1006.2	1051.6	1082.3
15°	898.1	924.8	963.5	1022.2	1060.9
17.5°	840.7	868.8	916.8	987.5	1034.2
20°	779.4	810.0	867.4	947.5	1004.9
22.5°	716.6	751.3	814.0	904.8	972.9
25°	655.2	688.6	758.0	860.8	938.2
27.5°	591.2	625.9	702.0	815.4	900.8
30°	525.8	563.2	643.2	768.7	862.1
32.5°	460.4	499.1	585.8	720.6	823.4
35°	392.3	435.0	529.8	671.3	782.0
37.5°	328.3	373.7	472.4	620.5	738.0
40°	262.9	309.6	416.4	571.2	693.9
42.5°	198.8	246.9	359.0	520.5	649.9
45°	142.8	186.8	301.6	471.1	600.5
47.5°	109.4	134.8	248.2	420.4	556.5
50°	96.1	104.1	197.5	371.0	507.1
52.5°	84.1	89.4	146.8	323.0	464.4
55°	72.1	76.1	106.8	277.6	420.4
57.5°	61.4	65.4	81.4	236.2	375.0
60°	50.7	54.7	68.1	194.8	327.0
62.5°	42.7	44.0	61.4	156.1	273.6
65°	33.4	36.0	54.7	117.4	221.5
67.5°	28.0	29.4	48.0	84.1	170.8
70°	22.7	24.0	41.4	58.7	121.4
72.5°	20.0	20.0	34.7	42.7	77.4
75°	16.0	18.7	28.0	30.7	40.0
77.5°	13.3	18.7	24.0	22.7	21.4
80°	10.7	17.3	18.7	18.7	17.3
82.5°	9.3	14.7	16.0	14.7	13.3
85°	6.7	12.0	12.0	12.0	9.3
87.5°	5.3	10.7	9.3	9.3	6.7
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	6.90	8.25	7.26	8.56	8.88	16.60	17.95	16.97	18.27	18.58
	3H	7.74	8.94	8.12	9.27	9.63	17.52	18.71	17.89	19.04	19.41
	4H	8.10	9.22	8.50	9.57	9.95	17.61	18.73	18.02	19.08	19.46
	6H	8.47	9.50	8.89	9.87	10.26	17.60	18.63	18.01	19.00	19.39
	8H	8.65	9.62	9.08	10.01	10.42	17.59	18.56	18.02	18.95	19.36
	12H	8.81	9.74	9.25	10.13	10.56	17.57	18.50	18.01	18.89	19.32
4H	2H	7.73	8.85	8.13	9.20	9.58	16.45	17.57	16.86	17.92	18.30
	3H	8.79	9.70	9.20	10.10	10.51	17.44	18.36	17.86	18.76	19.16
	4H	9.24	10.06	9.68	10.48	10.92	17.57	18.39	18.01	18.81	19.25
	6H	9.80	10.50	10.26	10.95	11.42	17.60	18.31	18.07	18.76	19.22
	8H	10.06	10.72	10.53	11.16	11.63	17.60	18.26	18.07	18.71	19.18
	12H	10.30	10.88	10.79	11.37	11.84	17.61	18.20	18.10	18.68	19.15
8H	4H	9.80	10.46	10.26	10.90	11.37	17.50	18.16	17.97	18.60	19.07
	6H	10.57	11.11	11.07	11.61	12.09	17.56	18.10	18.06	18.59	19.07
	8H	10.99	11.47	11.51	11.99	12.48	17.59	18.07	18.11	18.58	19.08
	12H	11.41	11.83	11.92	12.33	12.90	17.64	18.07	18.15	18.56	19.13
12H	4H	9.86	10.44	10.34	10.92	11.40	17.46	18.05	17.95	18.53	19.00
	6H	10.72	11.20	11.24	11.72	12.21	17.52	18.01	18.04	18.52	19.01
	8H	11.24	11.67	11.76	12.17	12.74	17.59	18.02	18.10	18.51	19.08