

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: P1061867

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061867  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-H1090D850-X4F0-XX-UDD-BVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

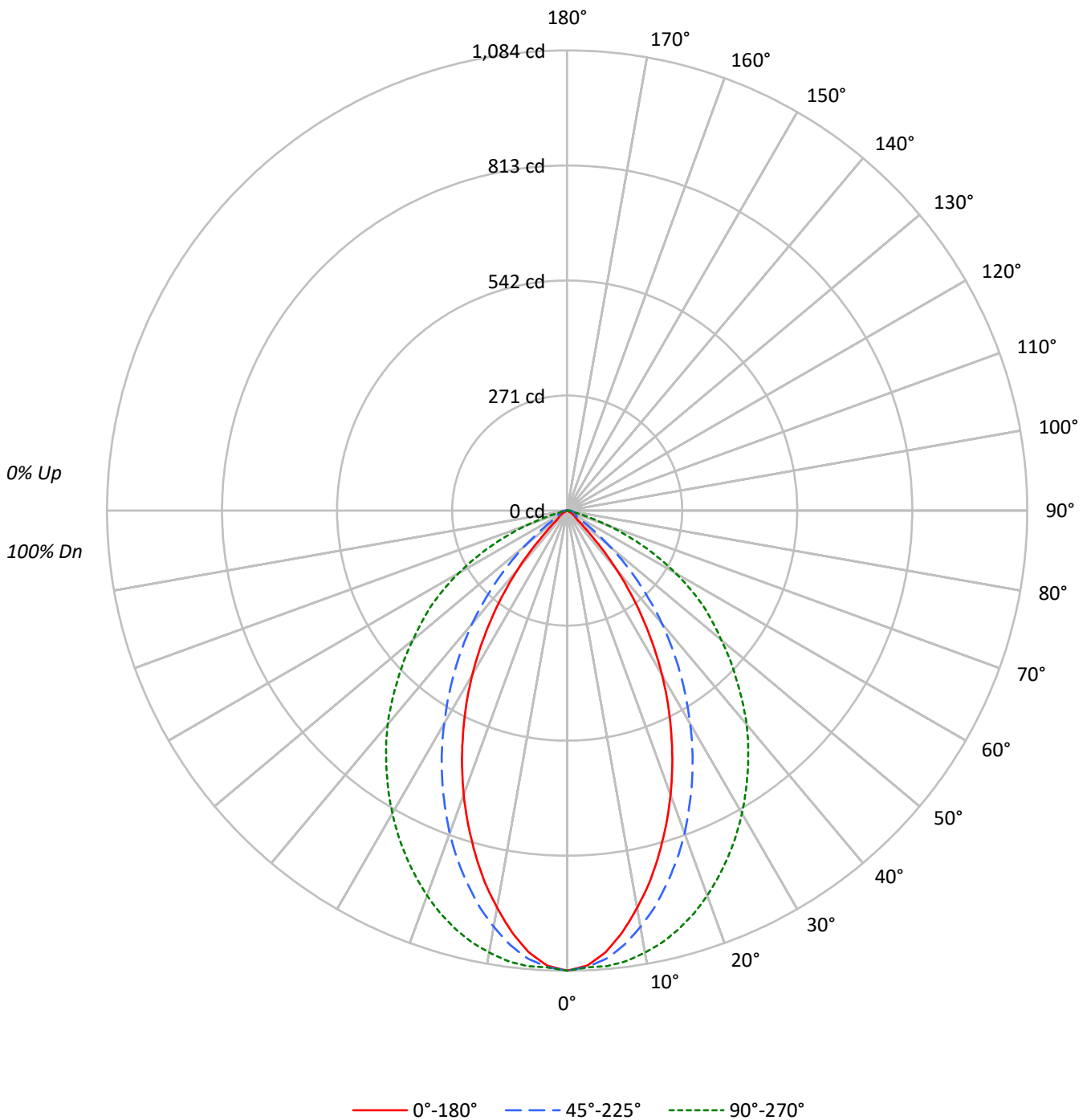
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1393.9 lumens  
Efficiency: N/A  
Efficacy: 44.7 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98  
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	0
RW	70	50	30	10	70	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
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	54
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	51	45	40	50	44	40	50	44	40	49	44	40	39

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

	0°	45°	90°
0°	7462	7462	7462
5°	7214	7325	7444
10°	6644	6961	7391
15°	5966	6479	7269
20°	5222	5926	7071
25°	4411	5293	6824
30°	3555	4606	6547
35°	2614	3882	6238
40°	1631	3131	5914
45°	611	2287	5498
50°	286	1430	5075
55°	209	593	4695
60°	147	313	4062
65°	86	370	3218
70°	81	431	2041
75°	106	426	638
80°	159	527	476
85°	316	845	632

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5498 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.4	7.1
10°-20°	257.3	18.5
20°-30°	327.8	23.5
30°-40°	305.1	21.9
40°-50°	209.0	15.0
50°-60°	115.1	8.3
60°-70°	54.5	3.9
70°-80°	17.1	1.2
80°-90°	8.8	0.6
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°	684.4	49.1
0°-40°	989.5	71.0
0°-60°	1313.6	94.2
0°-90°	1393.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1393.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1084	1084	1084	1084	1084	
5°	1044	1057	1060	1068	1077	97
15°	837	864	909	977	1020	233
25°	581	617	697	809	898	265
35°	311	355	462	614	742	193
45°	63	105	235	416	565	60
55°	17	20	49	232	391	16
65°	5	7	23	85	198	6
75°	4	7	16	17	24	4
85°	4	9	11	9	8	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1083.8	1083.8	1083.8	1083.8	1083.8
2.5°	1073.1	1083.8	1075.8	1075.8	1077.1
5°	1043.8	1057.1	1059.8	1067.8	1077.1
7.5°	1001.0	1018.4	1031.7	1054.4	1070.4
10°	950.3	971.7	995.7	1033.1	1057.1
12.5°	896.9	919.6	955.7	1007.7	1041.1
15°	836.9	863.6	908.9	977.0	1019.7
17.5°	775.5	804.8	860.9	941.0	994.4
20°	712.7	743.4	808.8	898.3	965.0
22.5°	647.3	680.7	752.8	854.2	933.0
25°	580.6	616.6	696.7	808.8	898.3
27.5°	513.9	551.2	639.3	762.1	862.2
30°	447.1	485.8	579.3	714.1	823.5
32.5°	379.1	421.8	520.5	666.0	783.5
35°	311.0	355.0	461.8	614.0	742.1
37.5°	244.3	289.6	404.4	564.6	700.7
40°	181.5	226.9	348.4	515.2	658.0
42.5°	117.5	165.5	289.6	464.5	611.3
45°	62.7	105.4	234.9	416.4	564.6
47.5°	33.4	56.1	182.9	368.4	520.5
50°	26.7	30.7	133.5	320.3	473.8
52.5°	21.4	24.0	85.4	270.9	432.4
55°	17.4	20.0	49.4	232.2	391.1
57.5°	13.3	16.0	28.0	193.5	343.0
60°	10.7	12.0	22.7	154.8	295.0
62.5°	6.7	9.3	22.7	120.1	246.9
65°	5.3	6.7	22.7	85.4	197.5
67.5°	5.3	5.3	22.7	56.1	148.2
70°	4.0	4.0	21.4	36.0	101.4
72.5°	4.0	4.0	18.7	24.0	58.7
75°	4.0	6.7	16.0	17.4	24.0
77.5°	4.0	10.7	14.7	14.7	13.3
80°	4.0	10.7	13.3	12.0	12.0
82.5°	4.0	10.7	10.7	10.7	9.3
85°	4.0	9.3	10.7	9.3	8.0
87.5°	4.0	9.3	9.3	9.3	5.3
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	0.00	0.00	0.00	0.00	0.00	16.03	17.31	16.39	17.63	17.94
	3H	0.00	0.00	0.00	0.00	0.00	16.81	17.95	17.19	18.28	18.65
	4H	0.00	0.00	0.00	0.00	0.27	16.84	17.90	17.24	18.25	18.63
	6H	0.00	0.68	0.13	1.05	1.45	16.80	17.77	17.21	18.14	18.53
	8H	0.39	1.31	0.82	1.70	2.11	16.77	17.69	17.20	18.08	18.49
	12H	1.14	2.02	1.57	2.40	2.83	16.75	17.63	17.19	18.02	18.45
4H	2H	0.00	0.86	0.21	1.22	1.60	15.81	16.87	16.21	17.22	17.60
	3H	0.68	1.54	1.09	1.95	2.35	16.64	17.50	17.05	17.91	18.31
	4H	1.28	2.05	1.71	2.47	2.91	16.67	17.44	17.11	17.86	18.31
	6H	2.78	3.44	3.24	3.89	4.36	16.66	17.32	17.12	17.77	18.24
	8H	3.52	4.14	3.99	4.59	5.06	16.64	17.26	17.11	17.71	18.18
	12H	4.26	4.81	4.75	5.29	5.76	16.65	17.19	17.13	17.68	18.15
8H	4H	3.32	3.94	3.79	4.39	4.86	16.56	17.18	17.03	17.63	18.10
	6H	5.07	5.57	5.57	6.07	6.55	16.56	17.07	17.06	17.56	18.04
	8H	6.02	6.48	6.54	6.99	7.48	16.57	17.02	17.09	17.54	18.03
	12H	6.95	7.35	7.47	7.85	8.42	16.61	17.01	17.13	17.51	18.08
12H	4H	3.62	4.17	4.11	4.65	5.13	16.52	17.06	17.00	17.55	18.02
	6H	5.52	5.98	6.05	6.50	6.99	16.51	16.97	17.04	17.49	17.98
	8H	6.66	7.06	7.17	7.56	8.13	16.55	16.96	17.07	17.45	18.02