

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: P1061861

Luminaire Tested: S125RDR-H1090D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061861  
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-H1090D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

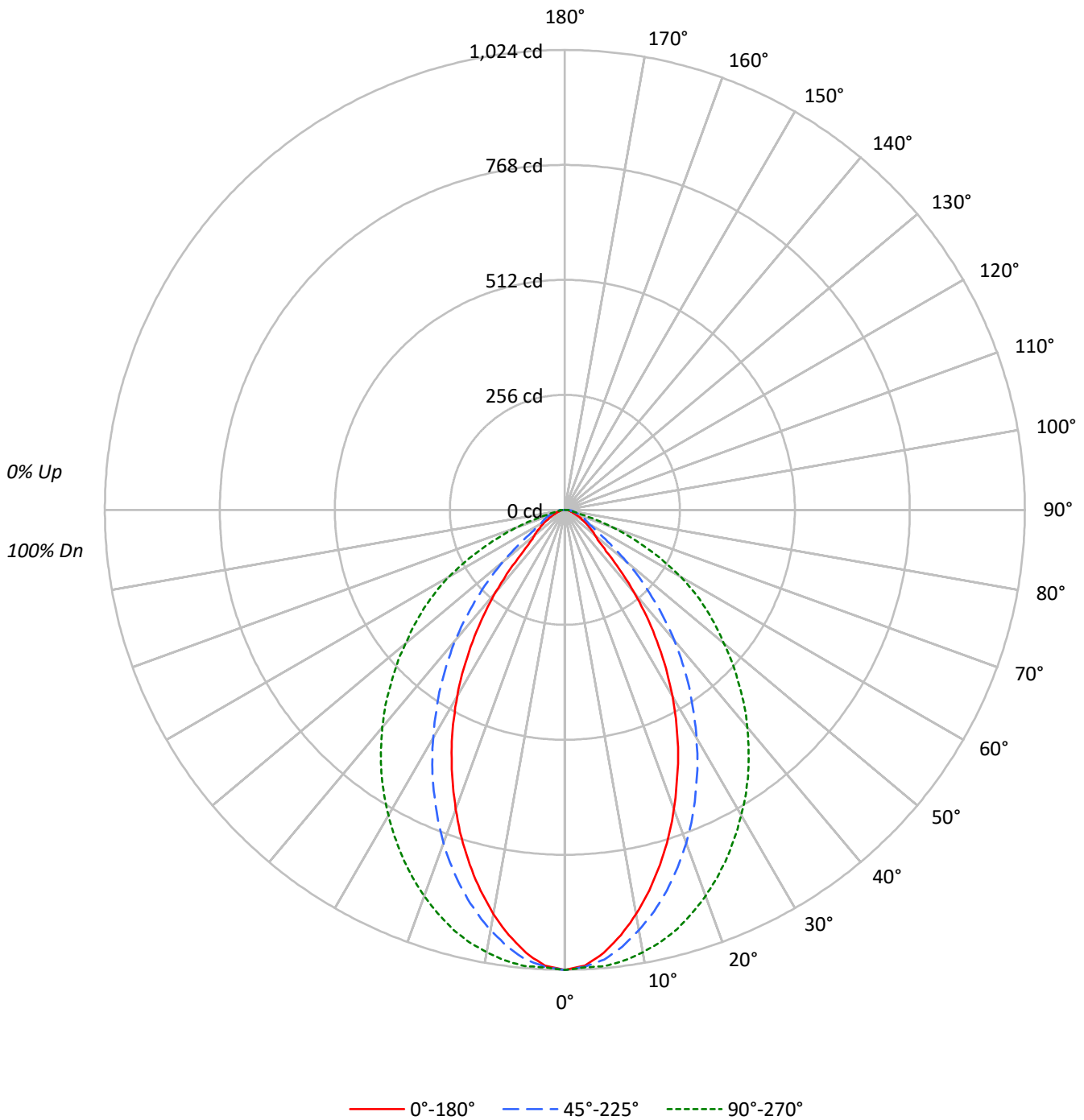
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1479.2 lumens  
Efficiency: N/A  
Efficacy: 47.4 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 (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°	7053	7053	7053
5°	6845	6946	7047
10°	6389	6644	6992
15°	5829	6254	6886
20°	5200	5788	6705
25°	4533	5243	6490
30°	3807	4657	6241
35°	3003	4055	5985
40°	2152	3407	5680
45°	1266	2674	5324
50°	937	1927	4947
55°	787	1167	4595
60°	636	854	4099
65°	495	811	3286
70°	417	759	2226
75°	388	678	971
80°	385	674	626
85°	482	861	671

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5324 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.4	6.4
10°-20°	248.0	16.8
20°-30°	324.1	21.9
30°-40°	315.5	21.3
40°-50°	235.7	15.9
50°-60°	146.2	9.9
60°-70°	76.8	5.2
70°-80°	28.0	1.9
80°-90°	10.6	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°	666.4	45.1
0°-40°	981.9	66.4
0°-60°	1363.8	92.2
0°-90°	1479.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1479.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	990	1004	1005	1011	1020	92
15°	818	842	877	931	966	228
25°	597	627	690	784	854	273
35°	357	396	482	611	712	222
45°	130	170	275	429	547	110
55°	66	69	97	253	383	59
65°	30	33	50	107	202	32
75°	15	17	26	28	36	16
85°	6	11	11	11	8	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1024.4	1024.4	1024.4	1024.4	1024.4
2.5°	1015.9	1024.4	1018.3	1018.3	1019.6
5°	990.4	1003.8	1005.0	1011.1	1019.6
7.5°	955.2	971.0	980.7	998.9	1012.3
10°	913.8	932.1	950.3	980.7	1000.1
12.5°	867.7	889.5	916.3	957.6	985.5
15°	817.8	842.1	877.4	930.9	966.1
17.5°	765.6	791.1	834.9	899.3	941.8
20°	709.7	737.6	789.9	862.8	915.1
22.5°	652.6	684.2	741.3	823.9	885.9
25°	596.7	627.1	690.2	783.8	854.3
27.5°	538.3	569.9	639.2	742.5	820.3
30°	478.8	512.8	585.7	700.0	785.0
32.5°	419.2	454.5	533.5	656.2	749.8
35°	357.3	396.2	482.4	611.3	712.1
37.5°	298.9	340.3	430.2	565.1	672.0
40°	239.4	281.9	379.1	520.1	631.9
42.5°	181.1	224.8	326.9	473.9	591.8
45°	130.0	170.1	274.6	429.0	546.8
47.5°	99.6	122.7	226.0	382.8	506.7
50°	87.5	94.8	179.9	337.8	461.8
52.5°	76.6	81.4	133.7	294.1	422.9
55°	65.6	69.3	97.2	252.8	382.8
57.5°	55.9	59.5	74.1	215.1	341.5
60°	46.2	49.8	62.0	177.4	297.7
62.5°	38.9	40.1	55.9	142.2	249.1
65°	30.4	32.8	49.8	106.9	201.7
67.5°	25.5	26.7	43.7	76.6	155.5
70°	20.7	21.9	37.7	53.5	110.6
72.5°	18.2	18.2	31.6	38.9	70.5
75°	14.6	17.0	25.5	27.9	36.5
77.5°	12.2	17.0	21.9	20.7	19.4
80°	9.7	15.8	17.0	17.0	15.8
82.5°	8.5	13.4	14.6	13.4	12.2
85°	6.1	10.9	10.9	10.9	8.5
87.5°	4.9	9.7	8.5	8.5	6.1
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	6.57	7.92	6.93	8.23	8.55	16.28	17.63	16.64	17.94	18.26
	3H	7.41	8.61	7.79	8.94	9.30	17.19	18.39	17.57	18.72	19.08
	4H	7.77	8.89	8.17	9.24	9.62	17.29	18.41	17.69	18.76	19.14
	6H	8.14	9.17	8.56	9.54	9.93	17.27	18.30	17.69	18.67	19.06
	8H	8.32	9.30	8.75	9.69	10.09	17.26	18.24	17.69	18.63	19.03
	12H	8.49	9.42	8.92	9.80	10.23	17.25	18.18	17.68	18.56	18.99
4H	2H	7.40	8.52	7.80	8.87	9.25	16.13	17.25	16.53	17.60	17.98
	3H	8.46	9.37	8.87	9.78	10.18	17.12	18.03	17.53	18.44	18.84
	4H	8.91	9.73	9.35	10.15	10.59	17.25	18.06	17.68	18.48	18.93
	6H	9.47	10.18	9.93	10.62	11.09	17.28	17.99	17.74	18.43	18.90
	8H	9.73	10.39	10.20	10.84	11.31	17.28	17.94	17.75	18.39	18.86
	12H	9.97	10.56	10.46	11.04	11.51	17.29	17.87	17.77	18.35	18.83
8H	4H	9.47	10.13	9.94	10.58	11.05	17.17	17.83	17.64	18.28	18.75
	6H	10.25	10.79	10.75	11.28	11.76	17.23	17.77	17.73	18.27	18.75
	8H	10.67	11.15	11.19	11.66	12.16	17.26	17.75	17.78	18.26	18.75
	12H	11.08	11.51	11.60	12.00	12.58	17.31	17.74	17.83	18.24	18.81
12H	4H	9.53	10.11	10.02	10.60	11.07	17.14	17.72	17.62	18.20	18.68
	6H	10.39	10.88	10.91	11.39	11.88	17.20	17.68	17.72	18.20	18.69
	8H	10.92	11.35	11.43	11.84	12.41	17.26	17.69	17.78	18.19	18.76