

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: P1061843

Luminaire Tested: S125RDR-H1090D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061843  
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-H1090D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

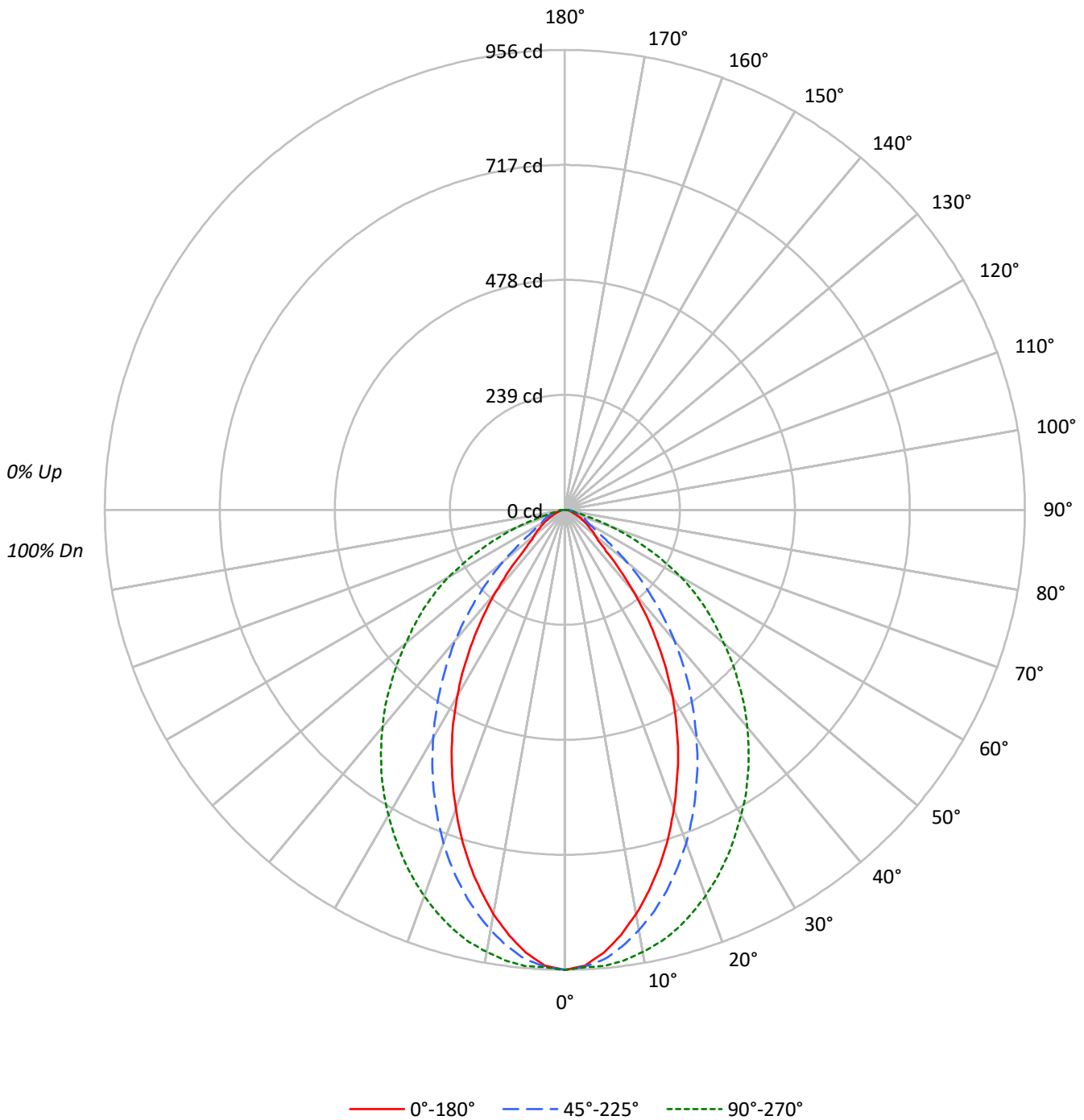
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1380.6 lumens  
Efficiency: N/A  
Efficacy: 44.3 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): 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																		
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	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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89																												
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79																												
3	96	88	81	76	94	87	80	76	84	79	74	81	77	73	79	75	72	70																												
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	63																												
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56																												
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51																												
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																												
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42																												
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	41	39																												
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	47	41	38	36																												

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

	0°	45°	90°
0°	6583	6583	6583
5°	6389	6483	6577
10°	5963	6201	6526
15°	5441	5837	6427
20°	4853	5402	6258
25°	4231	4894	6057
30°	3553	4346	5825
35°	2803	3785	5586
40°	2008	3181	5301
45°	1182	2496	4970
50°	875	1798	4617
55°	735	1089	4289
60°	594	796	3827
65°	463	758	3068
70°	389	709	2078
75°	362	633	904
80°	361	630	583
85°	450	806	624

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4970 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.1	6.4
10°-20°	231.4	16.8
20°-30°	302.5	21.9
30°-40°	294.4	21.3
40°-50°	220.0	15.9
50°-60°	136.5	9.9
60°-70°	71.7	5.2
70°-80°	26.1	1.9
80°-90°	9.9	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°	622.0	45.1
0°-40°	916.4	66.4
0°-60°	1272.9	92.2
0°-90°	1380.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1380.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	956	956	956	956	956	
5°	924	937	938	944	952	86
15°	763	786	819	869	902	213
25°	557	585	644	732	797	254
35°	334	370	450	570	665	208
45°	121	159	256	400	510	102
55°	61	65	91	236	357	55
65°	28	31	46	100	188	30
75°	14	16	24	26	34	15
85°	6	10	10	10	8	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	956.1	956.1	956.1	956.1	956.1
2.5°	948.2	956.1	950.5	950.5	951.6
5°	924.4	936.8	938.0	943.7	951.6
7.5°	891.5	906.2	915.3	932.3	944.8
10°	852.9	869.9	886.9	915.3	933.4
12.5°	809.8	830.2	855.2	893.7	919.8
15°	763.3	786.0	818.9	868.8	901.7
17.5°	714.5	738.4	779.2	839.3	879.0
20°	662.4	688.5	737.2	805.3	854.1
22.5°	609.1	638.6	691.9	769.0	826.8
25°	556.9	585.2	644.2	731.6	797.3
27.5°	502.5	531.9	596.6	693.0	765.6
30°	446.9	478.6	546.7	653.3	732.7
32.5°	391.3	424.2	497.9	612.5	699.8
35°	333.5	369.7	450.3	570.5	664.6
37.5°	279.0	317.6	401.5	527.4	627.2
40°	223.4	263.1	353.9	485.4	589.8
42.5°	169.0	209.8	305.1	442.3	552.4
45°	121.4	158.8	256.3	400.4	510.4
47.5°	93.0	114.6	211.0	357.3	473.0
50°	81.7	88.5	167.9	315.3	431.0
52.5°	71.5	76.0	124.8	274.5	394.7
55°	61.2	64.6	90.7	235.9	357.3
57.5°	52.2	55.6	69.2	200.8	318.7
60°	43.1	46.5	57.8	165.6	277.9
62.5°	36.3	37.4	52.2	132.7	232.5
65°	28.4	30.6	46.5	99.8	188.3
67.5°	23.8	25.0	40.8	71.5	145.2
70°	19.3	20.4	35.2	49.9	103.2
72.5°	17.0	17.0	29.5	36.3	65.8
75°	13.6	15.9	23.8	26.1	34.0
77.5°	11.3	15.9	20.4	19.3	18.1
80°	9.1	14.7	15.9	15.9	14.7
82.5°	7.9	12.5	13.6	12.5	11.3
85°	5.7	10.2	10.2	10.2	7.9
87.5°	4.5	9.1	7.9	7.9	5.7
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	6.34	7.69	6.70	8.00	8.31	16.04	17.39	16.40	17.70	18.02
	3H	7.18	8.37	7.56	8.70	9.07	16.95	18.15	17.33	18.48	18.84
	4H	7.53	8.65	7.94	9.00	9.38	17.05	18.17	17.45	18.52	18.90
	6H	7.91	8.93	8.32	9.30	9.70	17.04	18.06	17.45	18.43	18.83
	8H	8.09	9.06	8.52	9.45	9.86	17.02	18.00	17.45	18.39	18.79
	12H	8.25	9.18	8.68	9.56	9.99	17.01	17.94	17.44	18.32	18.75
4H	2H	7.17	8.28	7.57	8.63	9.02	15.89	17.01	16.29	17.36	17.74
	3H	8.22	9.14	8.64	9.54	9.94	16.88	17.79	17.29	18.20	18.60
	4H	8.68	9.50	9.11	9.92	10.36	17.01	17.83	17.44	18.24	18.69
	6H	9.23	9.94	9.70	10.39	10.85	17.04	17.75	17.50	18.19	18.66
	8H	9.49	10.15	9.96	10.60	11.07	17.04	17.70	17.51	18.15	18.62
	12H	9.74	10.32	10.22	10.80	11.28	17.05	17.63	17.53	18.11	18.59
8H	4H	9.23	9.89	9.70	10.34	10.81	16.93	17.59	17.40	18.04	18.51
	6H	10.01	10.55	10.51	11.04	11.53	16.99	17.53	17.49	18.03	18.51
	8H	10.43	10.91	10.95	11.43	11.92	17.02	17.51	17.54	18.02	18.51
	12H	10.84	11.27	11.36	11.77	12.34	17.07	17.50	17.59	18.00	18.57
12H	4H	9.29	9.88	9.78	10.36	10.83	16.90	17.48	17.38	17.96	18.44
	6H	10.15	10.64	10.67	11.15	11.64	16.96	17.44	17.48	17.96	18.45
	8H	10.68	11.11	11.20	11.60	12.17	17.02	17.45	17.54	17.95	18.52