

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: P1056605

Luminaire Tested: S125R3DR-H850D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056605  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-H850D835-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

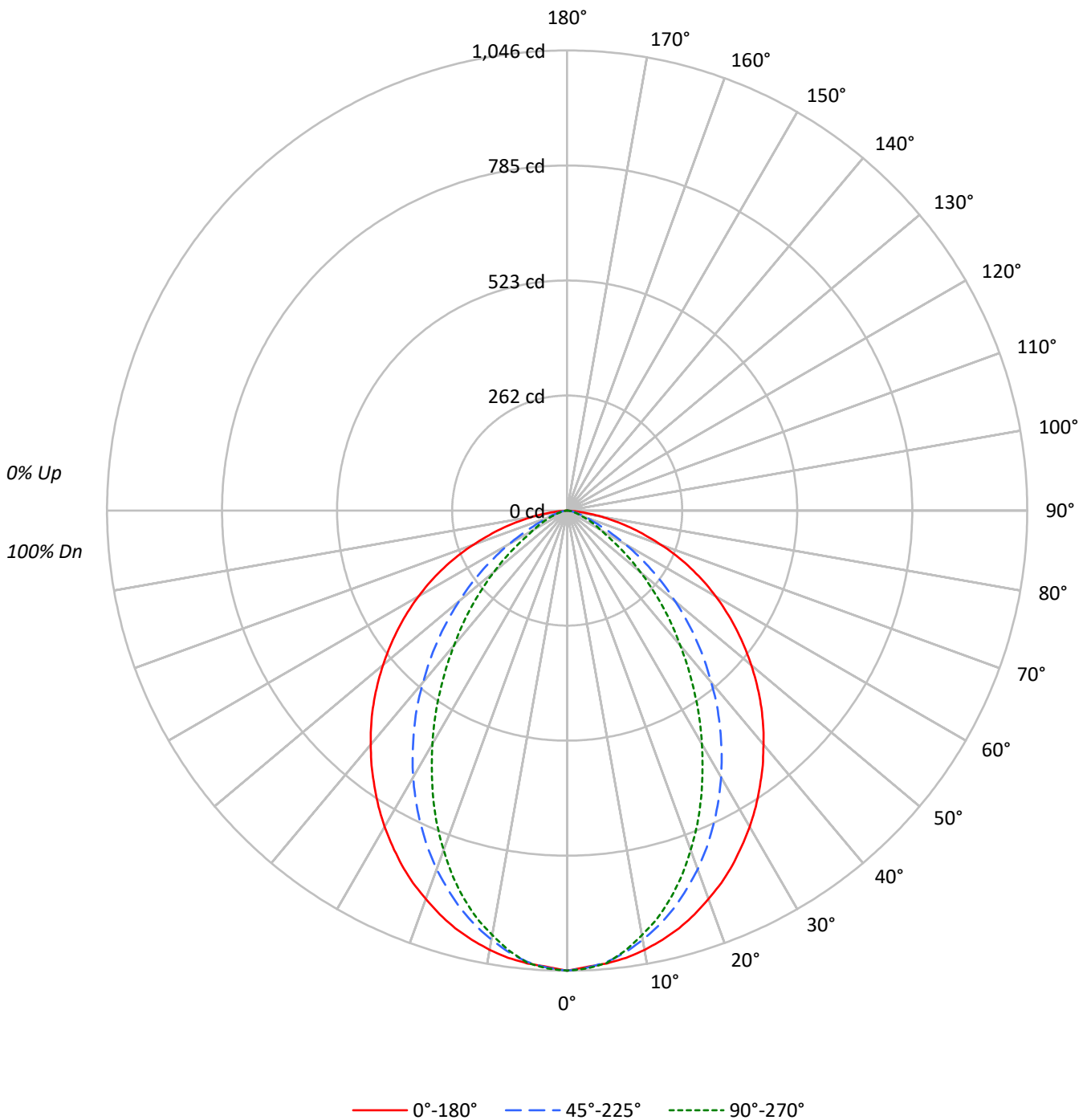
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1890.3 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.8  
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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	7393	7393	7393
5°	7333	7311	7326
10°	7278	7111	7035
15°	7194	6853	6669
20°	7066	6528	6178
25°	6934	6141	5620
30°	6774	5715	5004
35°	6593	5232	4354
40°	6407	4701	3682
45°	6225	4144	3049
50°	6007	3525	2396
55°	5777	2864	1743
60°	5518	2136	1246
65°	5184	1408	972
70°	4684	982	680
75°	4072	634	530
80°	3192	472	436
85°	1647	389	316

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6225 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.4	5.2
10°-20°	264.8	14.0
20°-30°	366.2	19.4
30°-40°	388.0	20.5
40°-50°	338.6	17.9
50°-60°	240.9	12.7
60°-70°	133.9	7.1
70°-80°	51.5	2.7
80°-90°	8.9	0.5
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°	728.4	38.5
0°-40°	1116.4	59.1
0°-60°	1695.9	89.7
0°-90°	1890.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1890.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1046	1046	1046	1046	1046	
5°	1033	1041	1030	1027	1032	98
15°	983	974	936	916	911	277
25°	889	859	787	739	720	409
35°	764	712	606	533	504	478
45°	623	548	414	331	305	480
55°	469	376	232	161	141	419
65°	310	203	84	62	58	306
75°	149	58	23	19	19	158
85°	20	6	5	4	4	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1045.8	1045.8	1045.8	1045.8	1045.8
2.5°	1038.1	1048.7	1040.0	1041.0	1042.0
5°	1033.3	1041.0	1030.3	1027.4	1032.3
7.5°	1025.5	1031.3	1012.9	1006.1	1009.0
10°	1013.9	1015.8	990.6	981.0	980.0
12.5°	999.4	996.5	965.5	950.0	949.0
15°	982.9	974.2	936.4	916.1	911.2
17.5°	962.6	949.0	902.5	876.4	868.6
20°	939.3	920.9	867.7	833.8	821.2
22.5°	916.1	890.9	828.9	786.3	772.8
25°	889.0	858.9	787.3	738.9	720.5
27.5°	859.9	824.1	744.7	688.5	666.2
30°	829.9	788.3	700.1	637.2	613.0
32.5°	797.9	750.5	653.6	584.9	559.7
35°	764.0	711.8	606.2	532.6	504.5
37.5°	730.2	672.0	559.7	481.3	452.2
40°	694.3	631.4	509.4	429.0	399.0
42.5°	659.5	589.7	461.9	379.6	352.5
45°	622.7	548.1	414.5	331.2	305.0
47.5°	584.9	504.5	367.0	285.7	259.5
50°	546.2	461.9	320.5	241.1	217.9
52.5°	507.4	419.3	277.0	198.5	178.2
55°	468.7	375.7	232.4	160.7	141.4
57.5°	430.0	333.1	190.8	125.9	108.5
60°	390.3	289.5	151.1	93.0	88.1
62.5°	350.6	246.9	117.2	76.5	72.6
65°	309.9	203.4	84.2	62.0	58.1
67.5°	269.2	163.7	61.0	47.5	44.5
70°	226.6	124.9	47.5	35.8	32.9
72.5°	185.9	90.1	33.9	26.1	25.2
75°	149.1	58.1	23.2	19.4	19.4
77.5°	112.3	34.9	16.5	14.5	14.5
80°	78.4	20.3	11.6	10.7	10.7
82.5°	47.5	10.7	7.7	6.8	6.8
85°	20.3	5.8	4.8	3.9	3.9
87.5°	3.9	1.9	1.9	1.9	1.9
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	18.11	19.56	18.48	19.87	20.19	10.75	12.20	11.12	12.51	12.82
	3H	19.67	20.96	20.05	21.29	21.65	11.31	12.60	11.69	12.93	13.29
	4H	20.19	21.39	20.59	21.74	22.12	11.44	12.64	11.84	12.99	13.37
	6H	20.53	21.64	20.94	22.00	22.40	11.50	12.61	11.92	12.98	13.37
	8H	20.61	21.66	21.04	22.05	22.46	11.51	12.56	11.94	12.95	13.35
	12H	20.64	21.64	21.07	22.02	22.45	11.50	12.51	11.93	12.89	13.32
4H	2H	18.01	19.21	18.41	19.56	19.94	11.32	12.52	11.72	12.87	13.25
	3H	19.68	20.66	20.09	21.06	21.47	11.99	12.97	12.40	13.38	13.78
	4H	20.22	21.11	20.66	21.52	21.97	12.15	13.03	12.58	13.45	13.89
	6H	20.62	21.38	21.08	21.83	22.29	12.26	13.02	12.72	13.47	13.93
	8H	20.72	21.43	21.19	21.88	22.35	12.27	12.98	12.74	13.43	13.90
	12H	20.77	21.40	21.25	21.88	22.36	12.27	12.90	12.76	13.39	13.86
8H	4H	20.13	20.84	20.59	21.29	21.76	12.41	13.13	12.88	13.57	14.04
	6H	20.51	21.10	21.01	21.59	22.07	12.55	13.13	13.05	13.63	14.11
	8H	20.62	21.15	21.14	21.66	22.15	12.58	13.10	13.10	13.61	14.10
	12H	20.69	21.15	21.20	21.64	22.21	12.60	13.06	13.11	13.56	14.12
12H	4H	20.09	20.72	20.58	21.21	21.68	12.43	13.06	12.91	13.54	14.02
	6H	20.46	20.99	20.98	21.50	21.99	12.56	13.09	13.08	13.60	14.09
	8H	20.59	21.05	21.10	21.55	22.11	12.62	13.08	13.13	13.58	14.14