

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: P1056485

Luminaire Tested: S125R3DR-S850D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056485  
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-S850D935-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

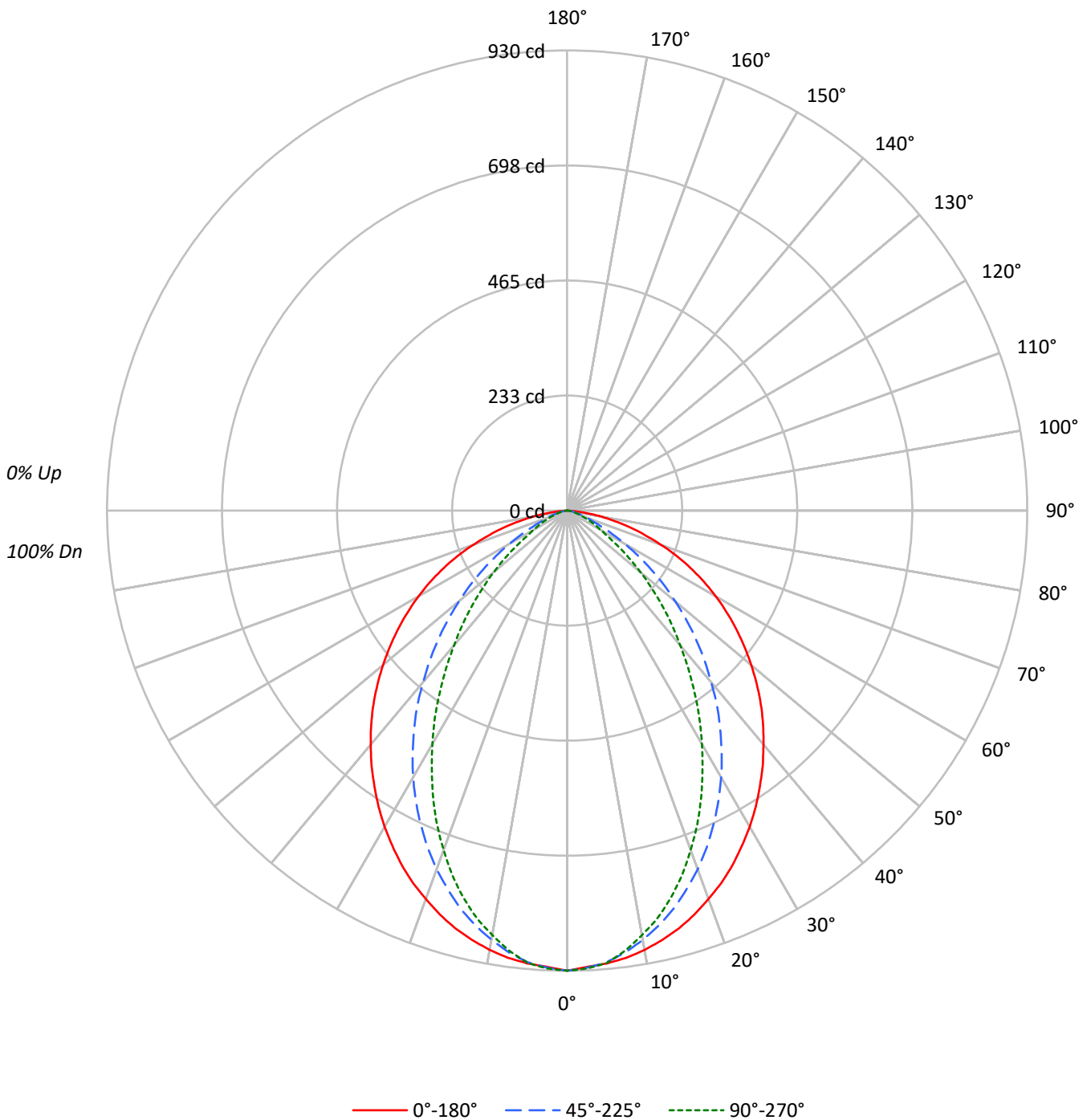
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1680.7 lumens  
Efficiency: N/A  
Efficacy: 63.7 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): 26.4  
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
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	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34

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

	0°	45°	90°
0°	6574	6574	6574
5°	6519	6501	6513
10°	6471	6323	6255
15°	6396	6094	5930
20°	6283	5804	5493
25°	6165	5460	4997
30°	6023	5081	4449
35°	5862	4652	3871
40°	5697	4180	3273
45°	5535	3684	2711
50°	5341	3134	2130
55°	5136	2546	1549
60°	4906	1899	1108
65°	4608	1253	865
70°	4165	872	606
75°	3622	565	470
80°	2838	419	387
85°	1468	349	276

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5535 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.6	5.2
10°-20°	235.5	14.0
20°-30°	325.6	19.4
30°-40°	345.0	20.5
40°-50°	301.1	17.9
50°-60°	214.1	12.7
60°-70°	119.1	7.1
70°-80°	45.8	2.7
80°-90°	7.9	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°	647.7	38.5
0°-40°	992.6	59.1
0°-60°	1507.9	89.7
0°-90°	1680.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1680.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	930	930	930	930	930	
5°	919	926	916	914	918	87
15°	874	866	833	814	810	246
25°	790	764	700	657	641	364
35°	679	633	539	474	449	425
45°	554	487	368	294	271	427
55°	417	334	207	143	126	373
65°	276	181	75	55	52	272
75°	133	52	21	17	17	141
85°	18	5	4	3	3	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	929.9	929.9	929.9	929.9	929.9
2.5°	923.0	932.5	924.7	925.6	926.4
5°	918.7	925.6	916.1	913.5	917.8
7.5°	911.8	917.0	900.6	894.6	897.2
10°	901.5	903.2	880.8	872.2	871.3
12.5°	888.5	886.0	858.4	844.6	843.8
15°	873.9	866.2	832.6	814.5	810.2
17.5°	855.8	843.8	802.4	779.2	772.3
20°	835.2	818.8	771.5	741.3	730.1
22.5°	814.5	792.1	737.0	699.1	687.1
25°	790.4	763.7	700.0	656.9	640.6
27.5°	764.6	732.7	662.1	612.2	592.4
30°	737.9	700.9	622.5	566.5	545.0
32.5°	709.5	667.3	581.2	520.0	497.7
35°	679.3	632.8	539.0	473.5	448.6
37.5°	649.2	597.5	497.7	427.9	402.1
40°	617.3	561.4	452.9	381.4	354.7
42.5°	586.3	524.3	410.7	337.5	313.4
45°	553.6	487.3	368.5	294.5	271.2
47.5°	520.0	448.6	326.3	254.0	230.7
50°	485.6	410.7	285.0	214.4	193.7
52.5°	451.2	372.8	246.2	176.5	158.4
55°	416.7	334.1	206.6	142.9	125.7
57.5°	382.3	296.2	169.6	111.9	96.4
60°	347.0	257.4	134.3	82.7	78.4
62.5°	311.7	219.6	104.2	68.0	64.6
65°	275.5	180.8	74.9	55.1	51.7
67.5°	239.4	145.5	54.2	42.2	39.6
70°	201.5	111.1	42.2	31.9	29.3
72.5°	165.3	80.1	30.1	23.2	22.4
75°	132.6	51.7	20.7	17.2	17.2
77.5°	99.9	31.0	14.6	12.9	12.9
80°	69.7	18.1	10.3	9.5	9.5
82.5°	42.2	9.5	6.9	6.0	6.0
85°	18.1	5.2	4.3	3.4	3.4
87.5°	3.4	1.7	1.7	1.7	1.7
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	17.70	19.15	18.07	19.46	19.78	10.34	11.79	10.70	12.10	12.41
	3H	19.26	20.55	19.64	20.88	21.24	10.90	12.19	11.28	12.52	12.88
	4H	19.78	20.99	20.19	21.34	21.72	11.03	12.23	11.43	12.58	12.96
	6H	20.12	21.23	20.54	21.60	21.99	11.09	12.20	11.51	12.57	12.96
	8H	20.20	21.26	20.63	21.65	22.05	11.10	12.15	11.53	12.54	12.94
	12H	20.23	21.23	20.66	21.62	22.05	11.09	12.09	11.52	12.48	12.91
4H	2H	17.60	18.80	18.00	19.15	19.53	10.91	12.11	11.31	12.46	12.84
	3H	19.27	20.25	19.68	20.66	21.06	11.58	12.57	11.99	12.97	13.37
	4H	19.82	20.70	20.25	21.12	21.56	11.74	12.62	12.17	13.04	13.48
	6H	20.21	20.97	20.67	21.42	21.88	11.85	12.61	12.31	13.06	13.52
	8H	20.31	21.03	20.78	21.47	21.94	11.86	12.57	12.33	13.02	13.49
	12H	20.36	20.99	20.85	21.48	21.95	11.86	12.49	12.34	12.97	13.45
8H	4H	19.72	20.43	20.19	20.88	21.35	12.01	12.72	12.47	13.16	13.63
	6H	20.11	20.69	20.61	21.19	21.66	12.14	12.72	12.64	13.22	13.70
	8H	20.21	20.74	20.73	21.25	21.74	12.17	12.69	12.68	13.20	13.69
	12H	20.28	20.74	20.79	21.24	21.80	12.19	12.65	12.70	13.14	13.71
12H	4H	19.68	20.32	20.17	20.80	21.27	12.02	12.65	12.50	13.13	13.61
	6H	20.05	20.58	20.57	21.09	21.58	12.15	12.68	12.67	13.19	13.68
	8H	20.18	20.65	20.69	21.14	21.71	12.21	12.67	12.72	13.17	13.73