

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: P1056482

Luminaire Tested: S125R3DR-S850D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056482  
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-S850D930-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

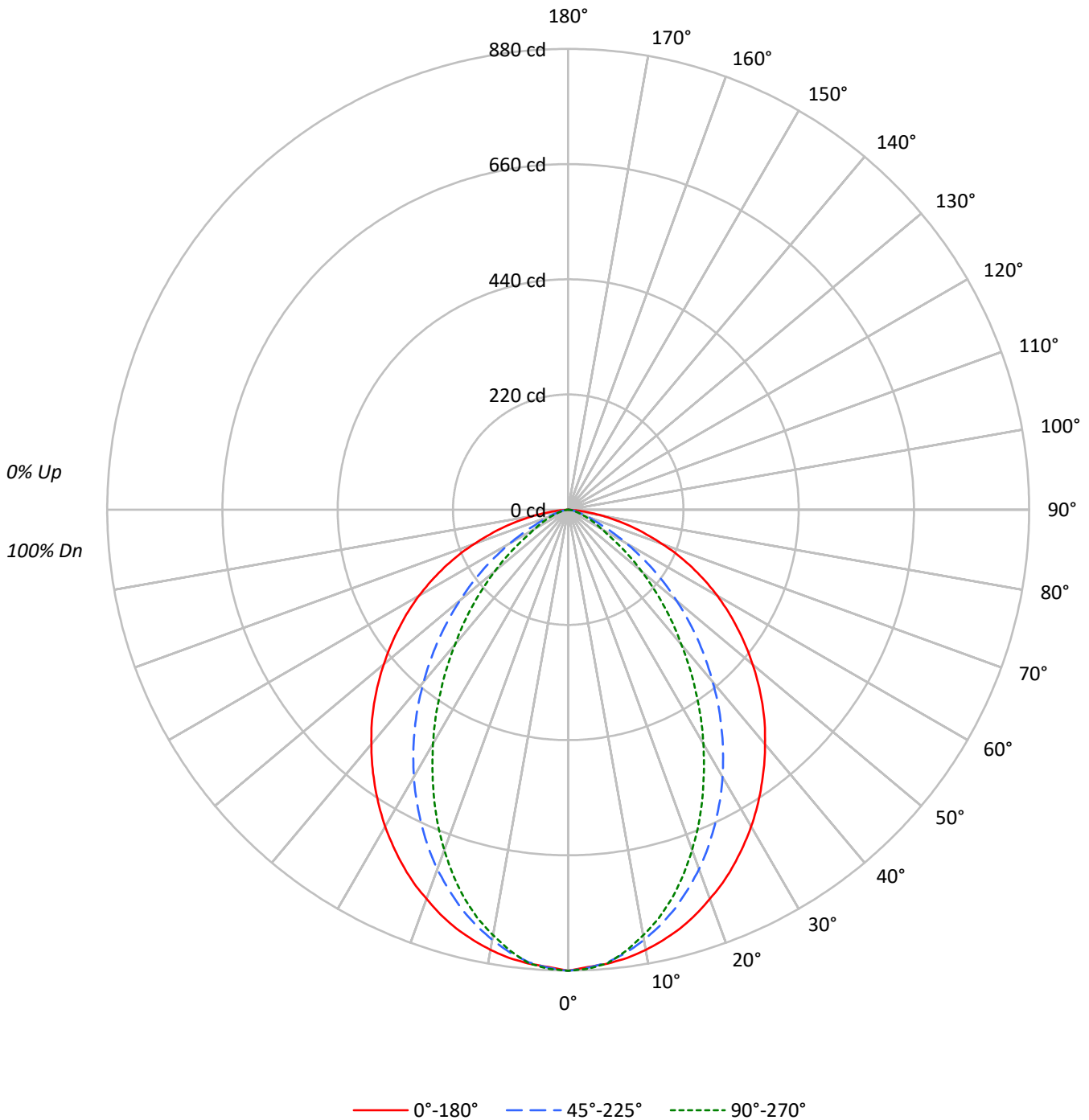
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1591.5 lumens  
Efficiency: N/A  
Efficacy: 60.3 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 (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°	6225	6225	6225
5°	6173	6156	6167
10°	6127	5987	5923
15°	6056	5770	5615
20°	5949	5496	5201
25°	5838	5170	4732
30°	5703	4812	4213
35°	5552	4405	3666
40°	5395	3957	3100
45°	5241	3488	2567
50°	5057	2968	2017
55°	4863	2412	1467
60°	4646	1798	1049
65°	4364	1186	818
70°	3944	825	573
75°	3431	535	445
80°	2687	399	366
85°	1387	333	268

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5241 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.0	5.2
10°-20°	223.0	14.0
20°-30°	308.3	19.4
30°-40°	326.7	20.5
40°-50°	285.1	17.9
50°-60°	202.8	12.7
60°-70°	112.8	7.1
70°-80°	43.4	2.7
80°-90°	7.5	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°	613.3	38.5
0°-40°	940.0	59.1
0°-60°	1427.8	89.7
0°-90°	1591.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1591.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	880	880	880	880	880	
5°	870	876	868	865	869	83
15°	828	820	788	771	767	233
25°	748	723	663	622	607	345
35°	643	599	510	448	425	402
45°	524	462	349	279	257	404
55°	395	316	196	135	119	353
65°	261	171	71	52	49	258
75°	126	49	20	16	16	133
85°	17	5	4	3	3	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	880.5	880.5	880.5	880.5	880.5
2.5°	874.0	883.0	875.6	876.4	877.3
5°	869.9	876.4	867.5	865.0	869.1
7.5°	863.4	868.3	852.8	847.1	849.5
10°	853.6	855.2	834.1	825.9	825.1
12.5°	841.4	838.9	812.9	799.8	799.0
15°	827.5	820.2	788.4	771.3	767.2
17.5°	810.4	799.0	759.9	737.8	731.3
20°	790.8	775.3	730.5	702.0	691.4
22.5°	771.3	750.1	697.9	662.0	650.6
25°	748.4	723.2	662.8	622.1	606.6
27.5°	724.0	693.8	627.0	579.7	560.9
30°	698.7	663.7	589.5	536.5	516.1
32.5°	671.8	631.9	550.3	492.4	471.2
35°	643.3	599.2	510.4	448.4	424.8
37.5°	614.7	565.8	471.2	405.2	380.7
40°	584.6	531.6	428.8	361.2	335.9
42.5°	555.2	496.5	388.9	319.6	296.8
45°	524.2	461.5	348.9	278.8	256.8
47.5°	492.4	424.8	309.0	240.5	218.5
50°	459.8	388.9	269.9	203.0	183.4
52.5°	427.2	353.0	233.2	167.1	150.0
55°	394.6	316.3	195.7	135.3	119.0
57.5°	362.0	280.5	160.6	106.0	91.3
60°	328.6	243.8	127.2	78.3	74.2
62.5°	295.1	207.9	98.7	64.4	61.1
65°	260.9	171.2	70.9	52.2	48.9
67.5°	226.7	137.8	51.4	39.9	37.5
70°	190.8	105.2	39.9	30.2	27.7
72.5°	156.5	75.8	28.5	22.0	21.2
75°	125.6	48.9	19.6	16.3	16.3
77.5°	94.6	29.4	13.9	12.2	12.2
80°	66.0	17.1	9.8	9.0	9.0
82.5°	39.9	9.0	6.5	5.7	5.7
85°	17.1	4.9	4.1	3.3	3.3
87.5°	3.3	1.6	1.6	1.6	1.6
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	17.52	18.96	17.88	19.27	19.59	10.15	11.60	10.52	11.91	12.23
	3H	19.07	20.36	19.45	20.69	21.05	10.72	12.00	11.09	12.33	12.69
	4H	19.60	20.80	20.00	21.15	21.53	10.84	12.04	11.24	12.39	12.77
	6H	19.93	21.04	20.35	21.41	21.80	10.91	12.01	11.32	12.38	12.77
	8H	20.02	21.07	20.44	21.46	21.86	10.91	11.96	11.34	12.35	12.75
	12H	20.04	21.04	20.47	21.43	21.86	10.90	11.91	11.33	12.29	12.72
4H	2H	17.41	18.61	17.81	18.96	19.34	10.72	11.92	11.12	12.27	12.65
	3H	19.08	20.07	19.49	20.47	20.87	11.39	12.38	11.80	12.78	13.18
	4H	19.63	20.51	20.06	20.93	21.37	11.55	12.43	11.98	12.85	13.29
	6H	20.02	20.78	20.48	21.23	21.69	11.66	12.42	12.12	12.87	13.33
	8H	20.12	20.84	20.59	21.28	21.75	11.67	12.38	12.14	12.83	13.30
	12H	20.17	20.80	20.66	21.29	21.76	11.67	12.31	12.16	12.79	13.26
8H	4H	19.53	20.24	20.00	20.69	21.16	11.82	12.53	12.28	12.97	13.44
	6H	19.92	20.50	20.42	21.00	21.48	11.95	12.54	12.45	13.03	13.51
	8H	20.02	20.55	20.54	21.06	21.55	11.98	12.50	12.50	13.02	13.51
	12H	20.09	20.55	20.60	21.05	21.61	12.00	12.46	12.51	12.96	13.53
12H	4H	19.49	20.13	19.98	20.61	21.08	11.83	12.46	12.32	12.95	13.42
	6H	19.86	20.39	20.38	20.90	21.39	11.96	12.49	12.48	13.00	13.49
	8H	19.99	20.46	20.50	20.95	21.52	12.02	12.48	12.53	12.98	13.55