

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: P1056611

Luminaire Tested: S125R3DR-H850D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056611  
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-H850D850-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

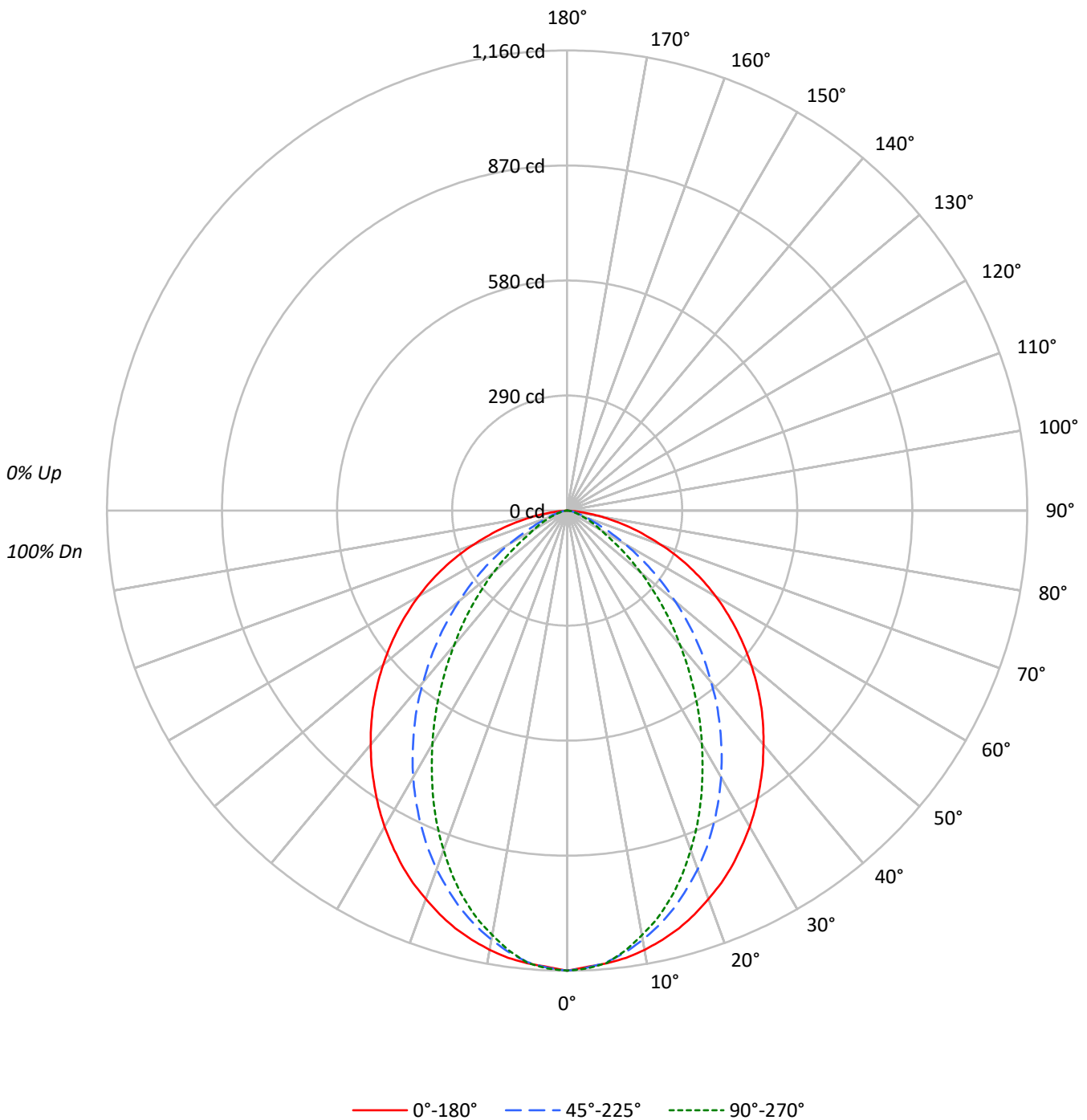
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2096.3 lumens  
Efficiency: N/A  
Efficacy: 88.1 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°	8199	8199	8199
5°	8132	8109	8124
10°	8071	7886	7801
15°	7977	7600	7396
20°	7837	7239	6851
25°	7690	6810	6232
30°	7513	6338	5549
35°	7312	5802	4829
40°	7106	5213	4084
45°	6903	4595	3382
50°	6661	3910	2657
55°	6407	3176	1933
60°	6119	2368	1381
65°	5749	1562	1077
70°	5194	1087	754
75°	4518	705	587
80°	3542	525	480
85°	1833	438	349

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6903 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.0	5.2
10°-20°	293.7	14.0
20°-30°	406.1	19.4
30°-40°	430.3	20.5
40°-50°	375.5	17.9
50°-60°	267.1	12.7
60°-70°	148.5	7.1
70°-80°	57.1	2.7
80°-90°	9.9	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°	807.8	38.5
0°-40°	1238.1	59.1
0°-60°	1880.8	89.7
0°-90°	2096.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2096.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1160	1160	1160	1160	1160	
5°	1146	1154	1143	1139	1145	109
15°	1090	1080	1038	1016	1011	307
25°	986	953	873	819	799	454
35°	847	789	672	591	560	530
45°	690	608	460	367	338	532
55°	520	417	258	178	157	465
65°	344	226	93	69	64	340
75°	165	64	26	22	22	175
85°	23	6	5	4	4	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1159.8	1159.8	1159.8	1159.8	1159.8
2.5°	1151.2	1163.1	1153.4	1154.5	1155.5
5°	1145.9	1154.5	1142.7	1139.4	1144.8
7.5°	1137.3	1143.7	1123.3	1115.8	1119.0
10°	1124.4	1126.5	1098.6	1087.9	1086.8
12.5°	1108.3	1105.1	1070.7	1053.5	1052.4
15°	1090.0	1080.4	1038.5	1015.9	1010.6
17.5°	1067.5	1052.4	1000.9	971.9	963.3
20°	1041.7	1021.3	962.2	924.6	910.7
22.5°	1015.9	988.0	919.3	872.0	857.0
25°	985.9	952.6	873.1	819.4	799.0
27.5°	953.6	913.9	825.8	763.6	738.9
30°	920.4	874.2	776.4	706.6	679.8
32.5°	884.9	832.3	724.9	648.6	620.7
35°	847.3	789.3	672.3	590.7	559.5
37.5°	809.7	745.3	620.7	533.7	501.5
40°	770.0	700.2	564.9	475.7	442.5
42.5°	731.3	654.0	512.3	421.0	390.9
45°	690.5	607.8	459.6	367.3	338.3
47.5°	648.6	559.5	407.0	316.8	287.8
50°	605.7	512.3	355.5	267.4	241.6
52.5°	562.7	465.0	307.1	220.2	197.6
55°	519.8	416.7	257.7	178.3	156.8
57.5°	476.8	369.4	211.6	139.6	120.3
60°	432.8	321.1	167.5	103.1	97.7
62.5°	388.8	273.9	129.9	84.8	80.5
65°	343.7	225.5	93.4	68.7	64.4
67.5°	298.6	181.5	67.7	52.6	49.4
70°	251.3	138.5	52.6	39.7	36.5
72.5°	206.2	99.9	37.6	29.0	27.9
75°	165.4	64.4	25.8	21.5	21.5
77.5°	124.6	38.7	18.3	16.1	16.1
80°	87.0	22.6	12.9	11.8	11.8
82.5°	52.6	11.8	8.6	7.5	7.5
85°	22.6	6.4	5.4	4.3	4.3
87.5°	4.3	2.1	2.1	2.1	2.1
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	18.47	19.92	18.84	20.23	20.54	11.11	12.55	11.47	12.87	13.18
	3H	20.03	21.32	20.41	21.65	22.01	11.67	12.96	12.05	13.29	13.65
	4H	20.55	21.75	20.95	22.10	22.48	11.80	13.00	12.20	13.35	13.73
	6H	20.89	22.00	21.30	22.36	22.76	11.86	12.97	12.28	13.34	13.73
	8H	20.97	22.02	21.40	22.41	22.82	11.87	12.92	12.29	13.31	13.71
	12H	21.00	22.00	21.43	22.38	22.81	11.86	12.86	12.29	13.24	13.67
4H	2H	18.37	19.57	18.77	19.92	20.30	11.67	12.88	12.07	13.23	13.61
	3H	20.03	21.02	20.45	21.42	21.83	12.35	13.33	12.76	13.74	14.14
	4H	20.58	21.47	21.02	21.88	22.32	12.50	13.39	12.94	13.80	14.25
	6H	20.98	21.74	21.44	22.19	22.65	12.62	13.38	13.07	13.82	14.29
	8H	21.08	21.79	21.55	22.24	22.71	12.63	13.34	13.09	13.79	14.25
	12H	21.13	21.76	21.61	22.24	22.72	12.63	13.26	13.11	13.74	14.21
8H	4H	20.49	21.20	20.95	21.65	22.11	12.77	13.49	13.24	13.93	14.40
	6H	20.87	21.46	21.37	21.95	22.43	12.91	13.49	13.41	13.99	14.46
	8H	20.98	21.51	21.50	22.02	22.51	12.93	13.46	13.45	13.97	14.46
	12H	21.05	21.51	21.56	22.00	22.57	12.96	13.42	13.47	13.91	14.48
12H	4H	20.45	21.08	20.93	21.56	22.04	12.79	13.42	13.27	13.90	14.38
	6H	20.82	21.35	21.34	21.86	22.35	12.92	13.44	13.44	13.96	14.45
	8H	20.95	21.41	21.46	21.91	22.47	12.98	13.44	13.49	13.93	14.50