

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: P1056578

Luminaire Tested: S125R3DR-H610D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056578  
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-H610D835-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: -

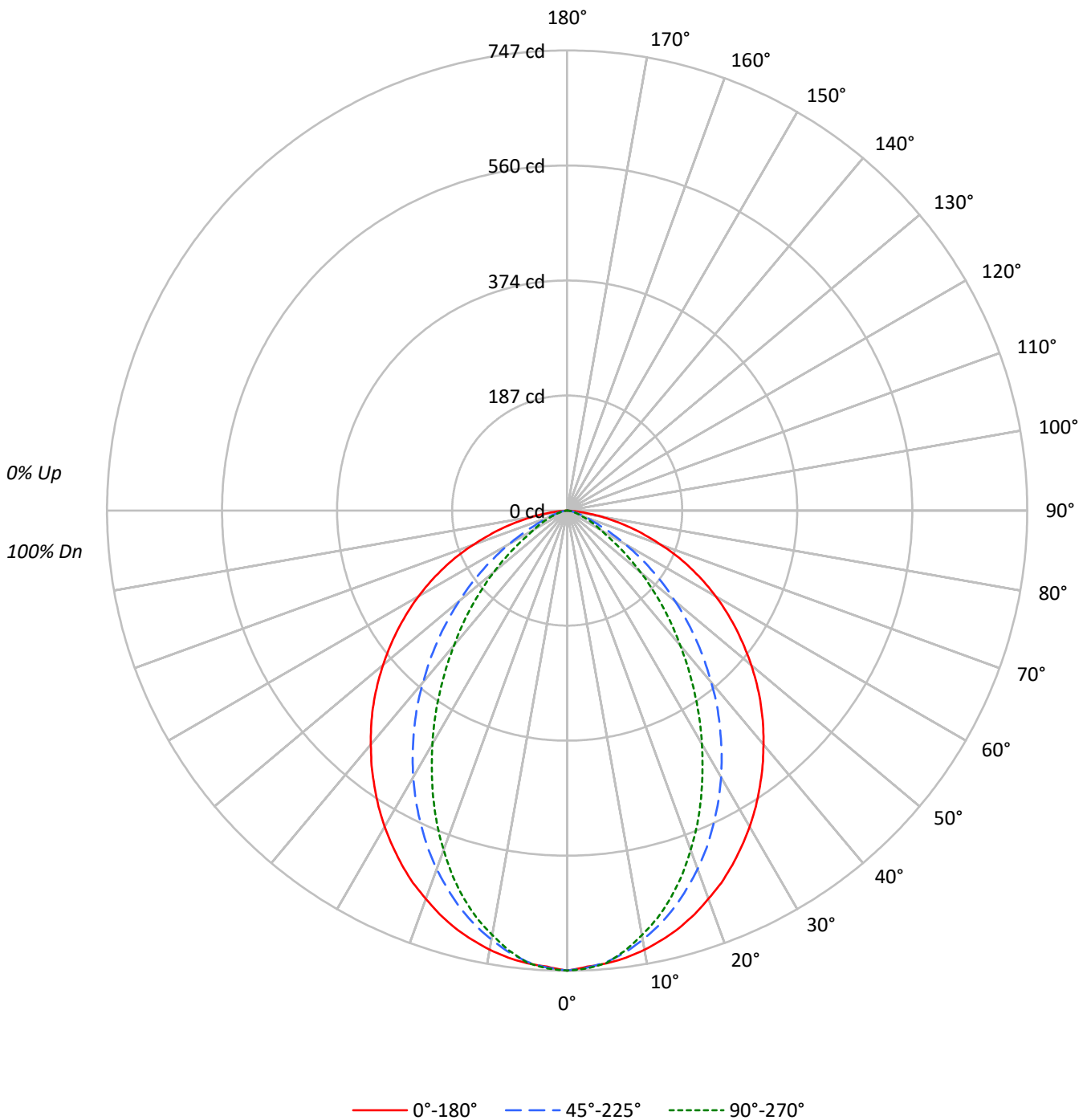
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1349.7 lumens  
Efficiency: N/A  
Efficacy: 78.0 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): 17.3  
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°	5279	5279	5279
5°	5236	5221	5231
10°	5196	5078	5023
15°	5136	4893	4762
20°	5046	4661	4412
25°	4952	4384	4012
30°	4837	4081	3573
35°	4709	3735	3109
40°	4575	3356	2629
45°	4445	2958	2177
50°	4289	2517	1711
55°	4125	2045	1245
60°	3940	1526	889
65°	3702	1007	694
70°	3344	701	486
75°	2909	453	377
80°	2280	338	309
85°	1176	284	227

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4445 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.6	5.2
10°-20°	189.1	14.0
20°-30°	261.5	19.4
30°-40°	277.0	20.5
40°-50°	241.8	17.9
50°-60°	172.0	12.7
60°-70°	95.6	7.1
70°-80°	36.8	2.7
80°-90°	6.4	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°	520.1	38.5
0°-40°	797.2	59.1
0°-60°	1211.0	89.7
0°-90°	1349.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1349.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	747	747	747	747	747	
5°	738	743	736	734	737	70
15°	702	696	669	654	651	198
25°	635	613	562	528	514	292
35°	546	508	433	380	360	341
45°	445	391	296	236	218	343
55°	335	268	166	115	101	299
65°	221	145	60	44	42	219
75°	106	42	17	14	14	113
85°	14	4	4	3	3	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	746.8	746.8	746.8	746.8	746.8
2.5°	741.2	748.8	742.6	743.3	744.0
5°	737.8	743.3	735.7	733.6	737.1
7.5°	732.2	736.4	723.3	718.4	720.5
10°	723.9	725.3	707.4	700.4	699.7
12.5°	713.6	711.5	689.4	678.3	677.6
15°	701.8	695.6	668.6	654.1	650.7
17.5°	687.3	677.6	644.4	625.8	620.2
20°	670.7	657.6	619.5	595.3	586.4
22.5°	654.1	636.1	591.9	561.5	551.8
25°	634.8	613.3	562.1	527.6	514.4
27.5°	614.0	588.4	531.7	491.6	475.7
30°	592.6	562.8	499.9	455.0	437.7
32.5°	569.8	535.9	466.7	417.6	399.7
35°	545.6	508.2	432.8	380.3	360.2
37.5°	521.4	479.9	399.7	343.7	322.9
40°	495.8	450.8	363.7	306.3	284.9
42.5°	470.9	421.1	329.8	271.0	251.7
45°	444.6	391.4	295.9	236.5	217.8
47.5°	417.6	360.2	262.1	204.0	185.3
50°	390.0	329.8	228.9	172.2	155.6
52.5°	362.3	299.4	197.8	141.7	127.2
55°	334.7	268.3	165.9	114.8	101.0
57.5°	307.0	237.9	136.2	89.9	77.4
60°	278.7	206.7	107.9	66.4	62.9
62.5°	250.3	176.3	83.7	54.6	51.9
65°	221.3	145.2	60.2	44.3	41.5
67.5°	192.2	116.9	43.6	33.9	31.8
70°	161.8	89.2	33.9	25.6	23.5
72.5°	132.8	64.3	24.2	18.7	18.0
75°	106.5	41.5	16.6	13.8	13.8
77.5°	80.2	24.9	11.8	10.4	10.4
80°	56.0	14.5	8.3	7.6	7.6
82.5°	33.9	7.6	5.5	4.8	4.8
85°	14.5	4.1	3.5	2.8	2.8
87.5°	2.8	1.4	1.4	1.4	1.4
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	16.94	18.39	17.31	18.70	19.02	9.58	11.02	9.94	11.34	11.65
	3H	18.50	19.79	18.88	20.12	20.48	10.14	11.43	10.52	11.76	12.12
	4H	19.02	20.23	19.42	20.58	20.96	10.27	11.47	10.67	11.82	12.20
	6H	19.36	20.47	19.77	20.84	21.23	10.33	11.44	10.75	11.81	12.20
	8H	19.44	20.49	19.87	20.88	21.29	10.34	11.39	10.77	11.78	12.18
	12H	19.47	20.47	19.90	20.85	21.28	10.33	11.33	10.76	11.72	12.15
4H	2H	16.84	18.04	17.24	18.39	18.77	10.15	11.35	10.55	11.70	12.08
	3H	18.51	19.49	18.92	19.89	20.30	10.82	11.81	11.23	12.21	12.61
	4H	19.05	19.94	19.49	20.36	20.80	10.98	11.86	11.41	12.28	12.72
	6H	19.45	20.21	19.91	20.66	21.12	11.09	11.85	11.55	12.30	12.76
	8H	19.55	20.27	20.02	20.71	21.18	11.10	11.81	11.56	12.26	12.73
	12H	19.60	20.23	20.08	20.71	21.19	11.10	11.73	11.58	12.21	12.69
8H	4H	18.96	19.67	19.42	20.12	20.59	11.25	11.96	11.71	12.40	12.87
	6H	19.34	19.93	19.84	20.42	20.90	11.38	11.96	11.88	12.46	12.94
	8H	19.45	19.98	19.97	20.49	20.98	11.41	11.93	11.92	12.44	12.93
	12H	19.52	19.98	20.03	20.47	21.04	11.43	11.89	11.94	12.39	12.95
12H	4H	18.92	19.56	19.41	20.04	20.51	11.26	11.89	11.74	12.37	12.85
	6H	19.29	19.82	19.81	20.33	20.82	11.39	11.92	11.91	12.43	12.92
	8H	19.42	19.88	19.93	20.38	20.95	11.45	11.91	11.96	12.41	12.97