

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: P1056584

Luminaire Tested: S125R3DR-H610D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056584  
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-H610D850-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: -

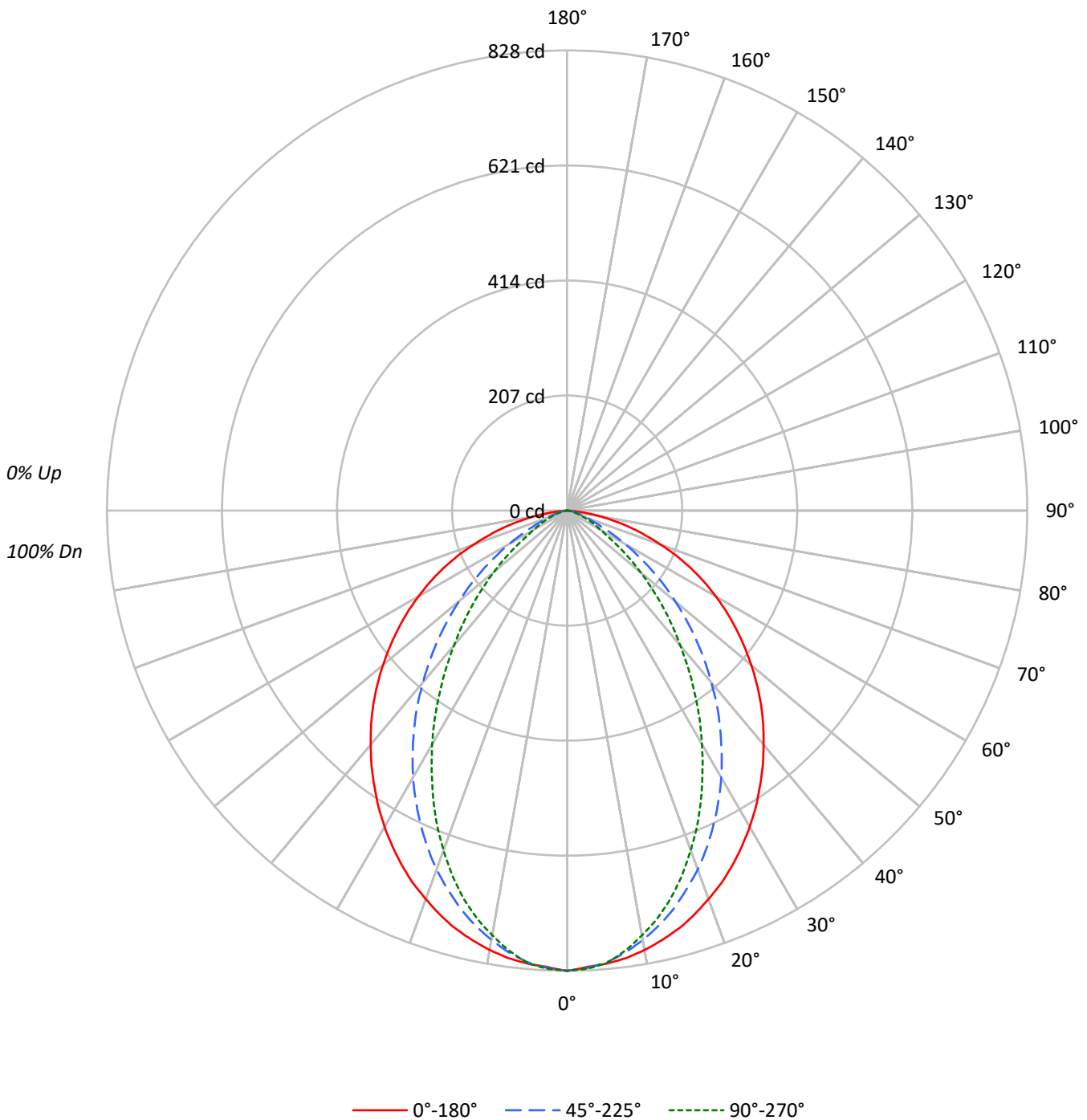
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1496.8 lumens  
Efficiency: N/A  
Efficacy: 86.5 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 (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	0
RW	70	50	30	10	70	50	30	10	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				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°	5855	5855	5855
5°	5806	5790	5801
10°	5764	5631	5570
15°	5696	5427	5281
20°	5596	5169	4892
25°	5491	4863	4450
30°	5365	4526	3962
35°	5221	4142	3448
40°	5074	3722	2915
45°	4930	3281	2414
50°	4757	2791	1897
55°	4574	2268	1380
60°	4369	1691	987
65°	4105	1116	769
70°	3708	777	539
75°	3226	503	418
80°	2528	375	342
85°	1306	308	251

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4930 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.1	5.2
10°-20°	209.7	14.0
20°-30°	290.0	19.4
30°-40°	307.2	20.5
40°-50°	268.2	17.9
50°-60°	190.7	12.7
60°-70°	106.1	7.1
70°-80°	40.8	2.7
80°-90°	7.1	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°	576.8	38.5
0°-40°	884.1	59.1
0°-60°	1342.9	89.7
0°-90°	1496.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1496.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	818	824	816	814	817	78
15°	778	771	742	725	722	219
25°	704	680	623	585	570	324
35°	605	564	480	422	400	379
45°	493	434	328	262	242	380
55°	371	298	184	127	112	332
65°	245	161	67	49	46	242
75°	118	46	18	15	15	125
85°	16	5	4	3	3	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	828.2	828.2	828.2	828.2	828.2
2.5°	822.0	830.5	823.6	824.3	825.1
5°	818.2	824.3	815.9	813.6	817.4
7.5°	812.1	816.7	802.1	796.7	799.0
10°	802.9	804.4	784.5	776.8	776.0
12.5°	791.4	789.1	764.5	752.2	751.5
15°	778.3	771.4	741.5	725.4	721.6
17.5°	762.2	751.5	714.7	694.0	687.8
20°	743.8	729.2	687.1	660.2	650.3
22.5°	725.4	705.5	656.4	622.7	611.9
25°	703.9	680.2	623.4	585.1	570.5
27.5°	680.9	652.6	589.7	545.2	527.6
30°	657.2	624.2	554.4	504.6	485.4
32.5°	631.9	594.3	517.6	463.2	443.2
35°	605.0	563.6	480.0	421.8	399.5
37.5°	578.2	532.2	443.2	381.1	358.1
40°	549.8	500.0	403.3	339.7	315.9
42.5°	522.2	467.0	365.8	300.6	279.1
45°	493.1	434.0	328.2	262.3	241.5
47.5°	463.2	399.5	290.6	226.2	205.5
50°	432.5	365.8	253.8	190.9	172.5
52.5°	401.8	332.0	219.3	157.2	141.1
55°	371.1	297.5	184.0	127.3	112.0
57.5°	340.5	263.8	151.1	99.7	85.9
60°	309.0	229.3	119.6	73.6	69.8
62.5°	277.6	195.5	92.8	60.6	57.5
65°	245.4	161.0	66.7	49.1	46.0
67.5°	213.2	129.6	48.3	37.6	35.3
70°	179.4	98.9	37.6	28.4	26.1
72.5°	147.2	71.3	26.8	20.7	19.9
75°	118.1	46.0	18.4	15.3	15.3
77.5°	89.0	27.6	13.0	11.5	11.5
80°	62.1	16.1	9.2	8.4	8.4
82.5°	37.6	8.4	6.1	5.4	5.4
85°	16.1	4.6	3.8	3.1	3.1
87.5°	3.1	1.5	1.5	1.5	1.5
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	17.30	18.75	17.67	19.06	19.37	9.94	11.39	10.30	11.70	12.01
	3H	18.86	20.15	19.24	20.48	20.84	10.50	11.79	10.88	12.12	12.48
	4H	19.38	20.58	19.78	20.93	21.31	10.63	11.83	11.03	12.18	12.56
	6H	19.72	20.83	20.13	21.19	21.59	10.69	11.80	11.11	12.17	12.56
	8H	19.80	20.85	20.23	21.24	21.65	10.70	11.75	11.13	12.14	12.54
	12H	19.83	20.83	20.26	21.21	21.64	10.69	11.69	11.12	12.08	12.51
4H	2H	17.20	18.40	17.60	18.75	19.13	10.50	11.71	10.91	12.06	12.44
	3H	18.86	19.85	19.28	20.25	20.66	11.18	12.17	11.59	12.57	12.97
	4H	19.41	20.30	19.85	20.71	21.15	11.33	12.22	11.77	12.64	13.08
	6H	19.81	20.57	20.27	21.02	21.48	11.45	12.21	11.91	12.65	13.12
	8H	19.91	20.62	20.38	21.07	21.54	11.46	12.17	11.92	12.62	13.09
	12H	19.96	20.59	20.44	21.07	21.55	11.46	12.09	11.94	12.57	13.05
8H	4H	19.32	20.03	19.78	20.48	20.94	11.60	12.32	12.07	12.76	13.23
	6H	19.70	20.29	20.20	20.78	21.26	11.74	12.32	12.24	12.82	13.29
	8H	19.81	20.34	20.33	20.85	21.34	11.77	12.29	12.28	12.80	13.29
	12H	19.87	20.34	20.39	20.83	21.40	11.79	12.25	12.30	12.75	13.31
12H	4H	19.28	19.91	19.76	20.39	20.87	11.62	12.25	12.10	12.73	13.21
	6H	19.65	20.18	20.17	20.69	21.18	11.75	12.27	12.27	12.79	13.28
	8H	19.78	20.24	20.29	20.74	21.30	11.81	12.27	12.32	12.76	13.33