

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: P1056579

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056579  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)  
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-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

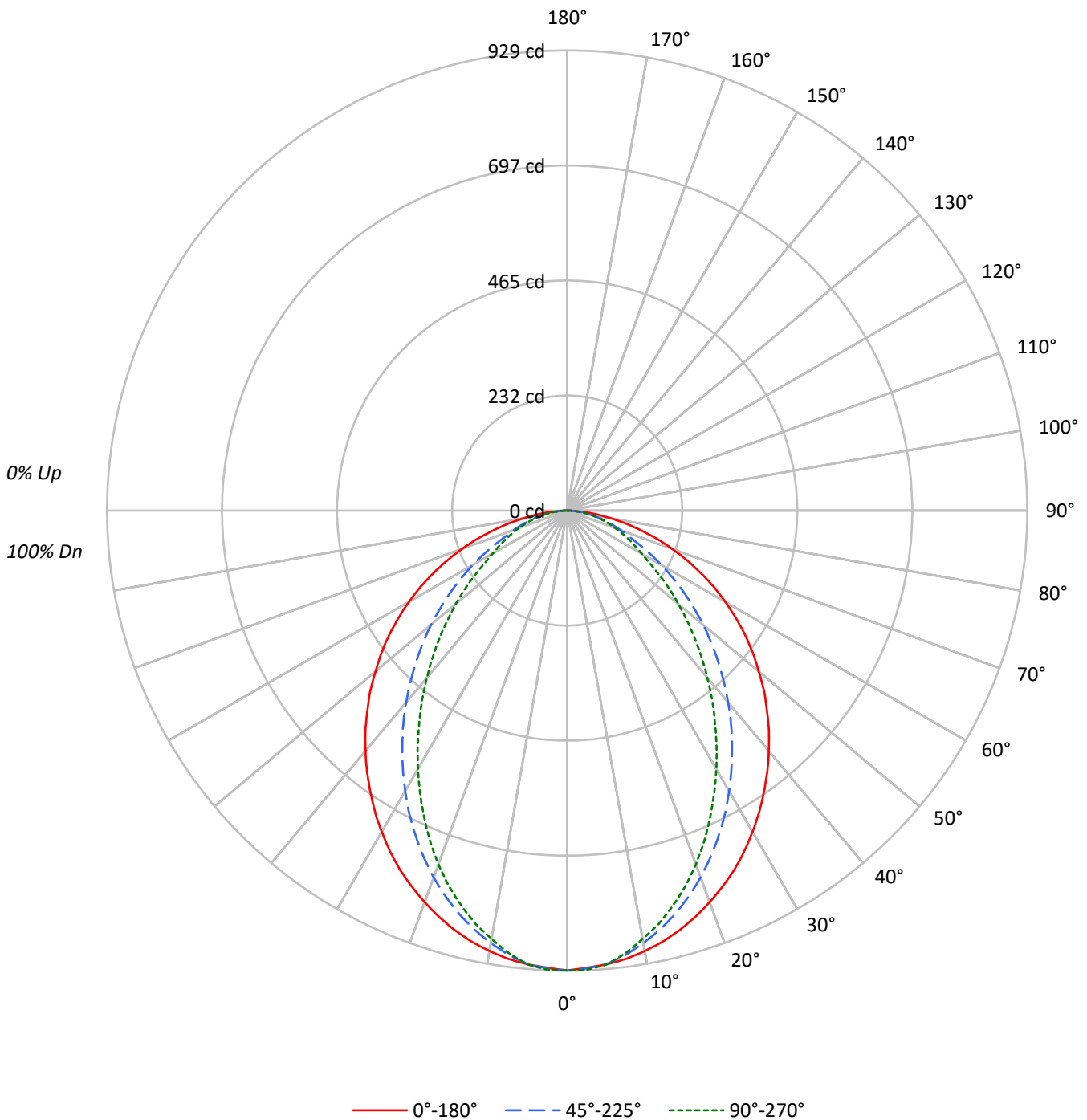
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1968.2 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

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

	0°	45°	90°
0°	6565	6565	6565
5°	6526	6521	6526
10°	6482	6363	6303
15°	6417	6169	6042
20°	6331	5930	5717
25°	6235	5647	5329
30°	6112	5339	4917
35°	5979	5006	4488
40°	5845	4665	4065
45°	5703	4307	3643
50°	5552	3939	3225
55°	5412	3537	2804
60°	5220	3109	2463
65°	4961	2638	2290
70°	4659	2358	2143
75°	4212	2171	2021
80°	3660	1970	1885
85°	2863	1736	1736

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5703 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.9	4.4
10°-20°	238.6	12.1
20°-30°	337.0	17.1
30°-40°	371.0	18.8
40°-50°	346.1	17.6
50°-60°	276.3	14.0
60°-70°	185.9	9.4
70°-80°	99.0	5.0
80°-90°	27.5	1.4
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°	662.4	33.7
0°-40°	1033.4	52.5
0°-60°	1655.8	84.1
0°-90°	1968.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1968.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	920	927	919	916	920	87
15°	877	872	843	828	826	247
25°	799	775	724	692	683	368
35°	693	652	580	534	520	434
45°	570	516	431	378	364	440
55°	439	373	287	241	228	392
65°	297	232	158	140	137	294
75°	154	102	80	75	74	164
85°	35	24	21	22	21	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	928.6	928.6	928.6	928.6	928.6
2.5°	923.8	931.4	925.2	926.5	927.9
5°	919.6	927.2	918.9	916.2	919.6
7.5°	912.7	918.9	905.1	898.9	901.7
10°	903.0	907.2	886.4	878.1	878.1
12.5°	891.3	891.3	866.4	854.6	854.6
15°	876.8	871.9	842.9	828.4	825.6
17.5°	860.2	851.2	816.6	797.9	794.5
20°	841.5	827.0	788.3	764.1	759.9
22.5°	820.8	802.1	757.1	727.4	722.6
25°	799.3	775.1	723.9	692.1	683.2
27.5°	775.1	746.1	690.1	654.1	643.0
30°	748.8	715.7	654.1	614.0	602.3
32.5°	721.9	684.5	617.5	574.6	561.5
35°	692.8	652.0	580.1	534.5	520.0
37.5°	663.8	619.5	543.5	495.8	480.6
40°	633.4	585.0	505.5	456.4	440.5
42.5°	602.9	551.1	468.1	418.3	401.7
45°	570.4	516.5	430.8	378.2	364.4
47.5°	539.3	481.2	394.1	343.0	327.7
50°	504.8	444.6	358.2	307.0	293.2
52.5°	473.0	408.6	322.2	274.5	260.0
55°	439.1	372.7	287.0	241.3	227.5
57.5°	403.8	336.7	253.1	210.2	197.1
60°	369.2	300.8	219.9	180.5	174.2
62.5°	334.0	266.9	188.8	158.3	154.2
65°	296.6	231.6	157.7	139.7	136.9
67.5°	261.4	197.8	132.8	122.4	119.6
70°	225.4	163.9	114.1	105.1	103.7
72.5°	190.1	131.4	96.1	89.9	88.5
75°	154.2	102.3	79.5	74.7	74.0
77.5°	121.0	76.8	62.9	60.8	59.5
80°	89.9	57.4	48.4	47.0	46.3
82.5°	61.5	39.4	34.6	34.6	33.2
85°	35.3	24.2	21.4	22.1	21.4
87.5°	13.1	10.4	9.7	10.4	10.4
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	17.83	19.37	18.19	19.68	19.99	14.21	15.75	14.57	16.06	16.38
	3H	19.61	20.99	19.99	21.32	21.68	15.68	17.07	16.06	17.40	17.76
	4H	20.26	21.56	20.66	21.91	22.29	16.27	17.57	16.67	17.92	18.30
	6H	20.74	21.94	21.15	22.31	22.70	16.74	17.94	17.15	18.30	18.70
	8H	20.89	22.04	21.32	22.43	22.83	16.90	18.04	17.32	18.43	18.83
	12H	20.99	22.09	21.42	22.47	22.90	17.01	18.11	17.44	18.49	18.92
4H	2H	17.96	19.26	18.36	19.61	19.99	14.89	16.18	15.29	16.53	16.91
	3H	19.93	21.01	20.34	21.41	21.81	16.56	17.64	16.97	18.04	18.44
	4H	20.68	21.65	21.11	22.06	22.50	17.27	18.24	17.70	18.65	19.09
	6H	21.27	22.12	21.73	22.56	23.02	17.85	18.70	18.31	19.14	19.60
	8H	21.48	22.27	21.94	22.71	23.18	18.06	18.85	18.52	19.30	19.76
	12H	21.62	22.33	22.11	22.81	23.28	18.22	18.93	18.70	19.41	19.88
8H	4H	20.74	21.53	21.20	21.98	22.44	17.63	18.42	18.09	18.87	19.33
	6H	21.40	22.06	21.89	22.55	23.02	18.33	18.99	18.83	19.48	19.95
	8H	21.65	22.24	22.17	22.75	23.24	18.62	19.20	19.13	19.71	20.20
	12H	21.86	22.38	22.37	22.87	23.44	18.86	19.38	19.37	19.87	20.43
12H	4H	20.73	21.44	21.21	21.92	22.39	17.68	18.39	18.16	18.86	19.34
	6H	21.39	21.98	21.91	22.49	22.98	18.40	18.99	18.92	19.50	19.99
	8H	21.69	22.21	22.20	22.70	23.26	18.75	19.27	19.26	19.76	20.32