

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: P1056442

Luminaire Tested: S125R3DR-S610D835-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056442  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-S610D835-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

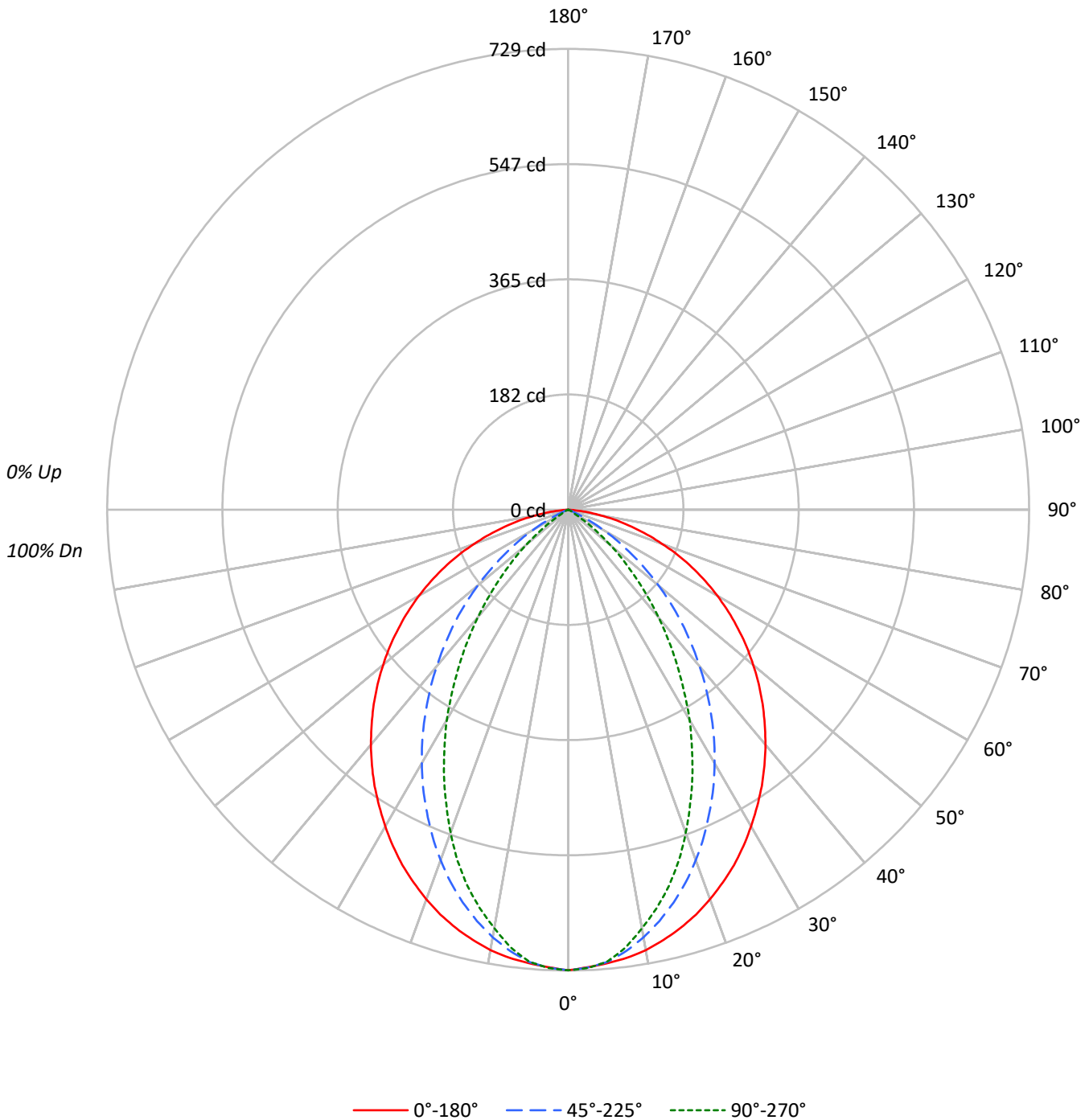
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1181.0 lumens  
Efficiency: N/A  
Efficacy: 61.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

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

	0°	45°	90°
0°	5151	5151	5151
5°	5109	5094	5089
10°	5080	4930	4826
15°	5016	4709	4508
20°	4933	4439	4091
25°	4838	4123	3628
30°	4721	3779	3136
35°	4606	3397	2592
40°	4479	2985	2052
45°	4346	2548	1488
50°	4201	2057	961
55°	4041	1504	428
60°	3849	929	123
65°	3611	338	72
70°	3268	120	29
75°	2841	38	19
80°	2174	28	0
85°	998	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4346 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.7	5.7
10°-20°	181.7	15.4
20°-30°	245.8	20.8
30°-40°	252.6	21.4
40°-50°	209.2	17.7
50°-60°	134.3	11.4
60°-70°	64.9	5.5
70°-80°	21.9	1.9
80°-90°	2.8	0.2
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°	495.2	41.9
0°-40°	747.8	63.3
0°-60°	1091.4	92.4
0°-90°	1181.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1181.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	729	729	729	729	729	
5°	720	726	718	714	717	68
15°	685	677	643	621	616	193
25°	620	590	529	481	465	285
35°	534	482	394	325	300	334
45°	435	363	255	176	149	335
55°	328	240	122	53	35	293
65°	216	119	20	6	4	214
75°	104	22	1	1	1	110
85°	12	0	0	0	0	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	728.6	728.6	728.6	728.6	728.6
2.5°	724.3	730.1	725.0	724.3	725.8
5°	720.0	725.8	717.8	713.5	717.1
7.5°	714.9	717.8	704.1	696.9	698.3
10°	707.7	707.0	686.8	674.5	672.3
12.5°	696.9	693.3	666.5	649.2	645.6
15°	685.3	676.6	643.4	621.0	616.0
17.5°	671.6	657.9	618.2	589.3	582.0
20°	655.7	636.9	590.0	554.6	543.8
22.5°	638.4	614.5	560.4	518.5	504.1
25°	620.3	590.0	528.6	480.9	465.1
27.5°	600.1	564.7	496.8	442.7	423.2
30°	578.4	538.0	462.9	403.7	384.2
32.5°	556.1	511.3	429.0	364.7	340.9
35°	533.7	482.4	393.6	325.0	300.4
37.5°	509.8	453.5	358.9	287.4	260.7
40°	485.3	423.9	323.5	248.4	222.4
42.5°	460.0	393.6	288.1	211.6	184.9
45°	434.7	363.2	254.9	176.2	148.8
47.5°	408.7	332.2	220.3	141.5	117.7
50°	382.0	301.9	187.0	110.5	87.4
52.5°	355.3	270.8	153.1	80.2	59.2
55°	327.9	240.5	122.0	53.4	34.7
57.5°	300.4	209.4	93.2	29.6	13.0
60°	272.2	179.8	65.7	10.1	8.7
62.5°	244.8	148.0	41.2	7.9	6.5
65°	215.9	119.2	20.2	5.8	4.3
67.5°	187.8	91.7	8.7	3.6	2.2
70°	158.1	66.4	5.8	2.2	1.4
72.5°	130.7	42.6	3.6	1.4	0.7
75°	104.0	22.4	1.4	0.7	0.7
77.5°	78.0	9.4	0.7	0.7	0.7
80°	53.4	4.3	0.7	0.7	0.0
82.5°	31.8	1.4	0.7	0.7	0.0
85°	12.3	0.0	0.0	0.0	0.0
87.5°	0.7	0.0	0.0	0.0	0.0
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	16.76	18.15	17.13	18.46	18.78	1.63	3.01	1.99	3.32	3.64
	3H	18.31	19.54	18.69	19.87	20.23	1.55	2.78	1.93	3.11	3.47
	4H	18.84	19.98	19.24	20.33	20.71	1.48	2.63	1.88	2.98	3.36
	6H	19.17	20.23	19.59	20.60	20.99	1.41	2.46	1.83	2.83	3.23
	8H	19.26	20.25	19.69	20.64	21.05	1.37	2.37	1.80	2.76	3.16
	12H	19.27	20.23	19.71	20.61	21.04	1.33	2.28	1.76	2.67	3.10
4H	2H	16.57	17.71	16.97	18.06	18.44	2.49	3.63	2.89	3.98	4.37
	3H	18.18	19.11	18.59	19.52	19.92	2.44	3.37	2.85	3.78	4.18
	4H	18.70	19.54	19.14	19.95	20.40	2.36	3.19	2.80	3.61	4.06
	6H	19.08	19.80	19.54	20.24	20.71	2.30	3.01	2.76	3.46	3.92
	8H	19.18	19.85	19.64	20.29	20.76	2.24	2.92	2.71	3.36	3.83
	12H	19.21	19.81	19.70	20.29	20.76	2.20	2.80	2.69	3.28	3.75
8H	4H	18.58	19.25	19.04	19.69	20.16	3.38	4.05	3.85	4.50	4.97
	6H	18.93	19.48	19.43	19.97	20.45	3.30	3.85	3.80	4.34	4.82
	8H	19.03	19.52	19.55	20.03	20.52	3.25	3.74	3.77	4.25	4.74
	12H	19.07	19.50	19.58	20.00	20.57	3.21	3.64	3.72	4.13	4.70
12H	4H	18.53	19.13	19.02	19.61	20.08	3.46	4.05	3.95	4.54	5.01
	6H	18.87	19.36	19.39	19.88	20.37	3.36	3.85	3.88	4.37	4.86
	8H	18.98	19.42	19.50	19.91	20.48	3.33	3.76	3.84	4.26	4.83