

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: P1056592

Luminaire Tested: S125R3DR-H610D935-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056592  
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-H610D935-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

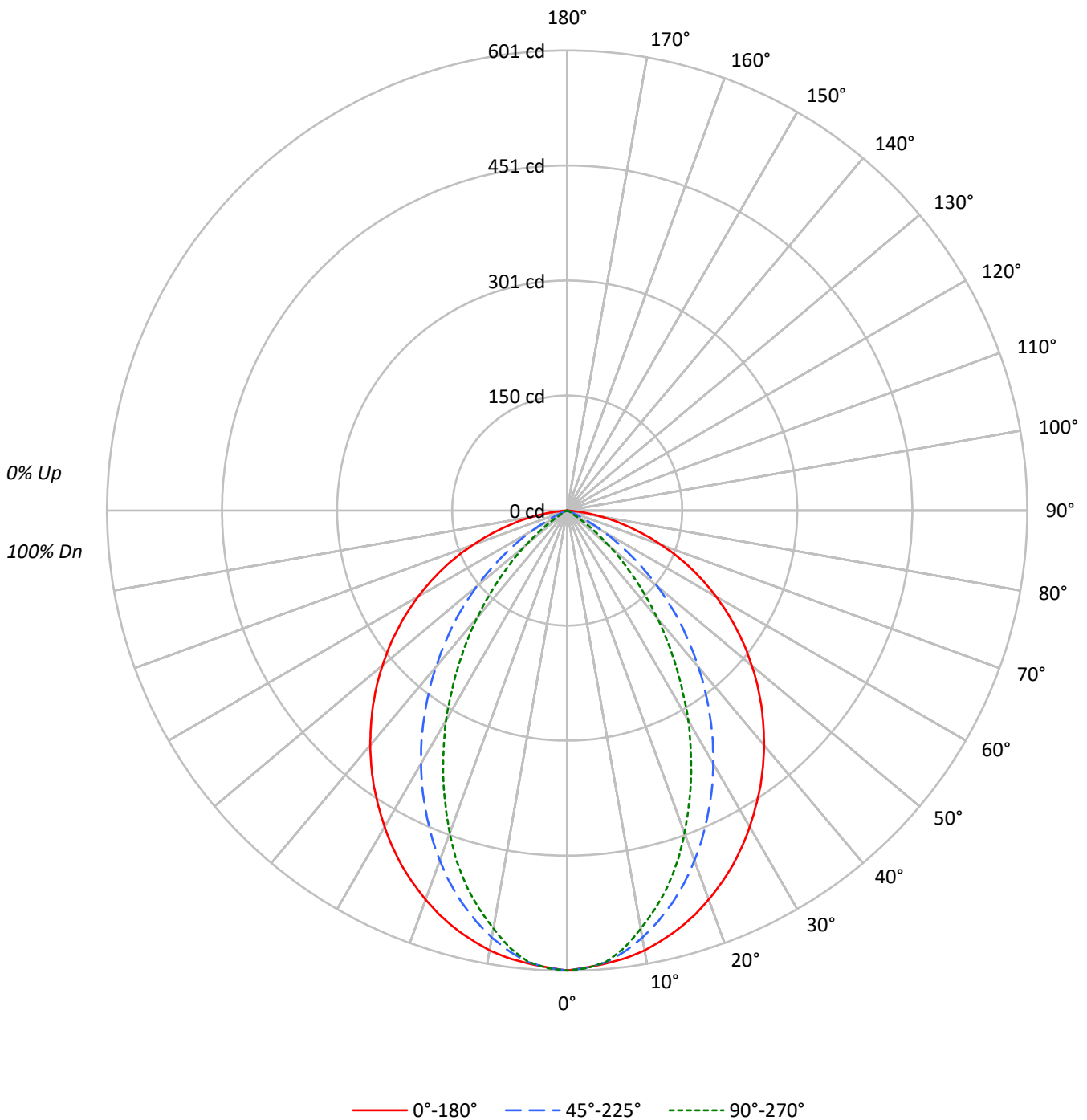
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 973.7 lumens  
Efficiency: N/A  
Efficacy: 56.3 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): 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	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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61					61			
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55					55			
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49					49			
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45					45			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

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

	0°	45°	90°
0°	4247	4247	4247
5°	4212	4200	4195
10°	4188	4064	3979
15°	4135	3882	3716
20°	4067	3659	3373
25°	3989	3399	2991
30°	3893	3115	2585
35°	3797	2800	2138
40°	3692	2461	1692
45°	3583	2101	1226
50°	3463	1696	792
55°	3331	1240	352
60°	3173	766	100
65°	2977	279	60
70°	2695	99	25
75°	2341	33	16
80°	1795	24	0
85°	819	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3583 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.8	5.7
10°-20°	149.8	15.4
20°-30°	202.7	20.8
30°-40°	208.2	21.4
40°-50°	172.5	17.7
50°-60°	110.7	11.4
60°-70°	53.5	5.5
70°-80°	18.1	1.9
80°-90°	2.3	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°	408.3	41.9
0°-40°	616.5	63.3
0°-60°	899.7	92.4
0°-90°	973.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	973.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	601	601	601	601	601	
5°	594	598	592	588	591	56
15°	565	558	530	512	508	159
25°	511	486	436	396	383	235
35°	440	398	324	268	248	275
45°	358	300	210	145	123	276
55°	270	198	101	44	29	242
65°	178	98	17	5	4	176
75°	86	18	1	1	1	91
85°	10	0	0	0	0	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	600.7	600.7	600.7	600.7	600.7
2.5°	597.1	601.9	597.7	597.1	598.3
5°	593.6	598.3	591.8	588.2	591.2
7.5°	589.4	591.8	580.5	574.5	575.7
10°	583.4	582.8	566.2	556.0	554.3
12.5°	574.5	571.5	549.5	535.2	532.2
15°	565.0	557.8	530.4	512.0	507.8
17.5°	553.7	542.4	509.6	485.8	479.8
20°	540.6	525.1	486.4	457.2	448.3
22.5°	526.3	506.6	462.0	427.5	415.5
25°	511.4	486.4	435.8	396.5	383.4
27.5°	494.7	465.6	409.6	364.9	348.9
30°	476.9	443.5	381.6	332.8	316.7
32.5°	458.4	421.5	353.6	300.6	281.0
35°	440.0	397.7	324.5	267.9	247.7
37.5°	420.3	373.9	295.9	236.9	214.9
40°	400.1	349.5	266.7	204.8	183.4
42.5°	379.2	324.5	237.5	174.4	152.4
45°	358.4	299.5	210.2	145.3	122.6
47.5°	337.0	273.9	181.6	116.7	97.0
50°	314.9	248.9	154.2	91.1	72.0
52.5°	292.9	223.3	126.2	66.1	48.8
55°	270.3	198.2	100.6	44.1	28.6
57.5°	247.7	172.6	76.8	24.4	10.7
60°	224.4	148.2	54.2	8.3	7.1
62.5°	201.8	122.0	33.9	6.5	5.4
65°	178.0	98.2	16.7	4.8	3.6
67.5°	154.8	75.6	7.1	3.0	1.8
70°	130.4	54.8	4.8	1.8	1.2
72.5°	107.8	35.1	3.0	1.2	0.6
75°	85.7	18.5	1.2	0.6	0.6
77.5°	64.3	7.7	0.6	0.6	0.6
80°	44.1	3.6	0.6	0.6	0.0
82.5°	26.2	1.2	0.6	0.6	0.0
85°	10.1	0.0	0.0	0.0	0.0
87.5°	0.6	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	16.09	17.48	16.46	17.79	18.10	0.95	2.34	1.32	2.65	2.97
	3H	17.64	18.87	18.02	19.20	19.56	0.88	2.10	1.26	2.43	2.80
	4H	18.16	19.31	18.57	19.66	20.04	0.81	1.95	1.21	2.30	2.69
	6H	18.50	19.56	18.92	19.92	20.32	0.74	1.79	1.15	2.16	2.55
	8H	18.59	19.58	19.02	19.97	20.38	0.70	1.70	1.13	2.09	2.49
	12H	18.60	19.56	19.03	19.94	20.37	0.66	1.61	1.09	2.00	2.43
4H	2H	15.89	17.04	16.30	17.39	17.77	1.82	2.97	2.22	3.32	3.70
	3H	17.51	18.44	17.92	18.85	19.25	1.77	2.71	2.18	3.11	3.51
	4H	18.03	18.87	18.47	19.28	19.73	1.69	2.53	2.13	2.95	3.39
	6H	18.41	19.13	18.87	19.57	20.04	1.63	2.35	2.09	2.79	3.26
	8H	18.51	19.18	18.97	19.62	20.09	1.58	2.25	2.05	2.70	3.17
	12H	18.54	19.14	19.03	19.62	20.09	1.54	2.13	2.02	2.61	3.08
8H	4H	17.90	18.58	18.37	19.02	19.49	2.72	3.39	3.18	3.83	4.30
	6H	18.26	18.81	18.76	19.30	19.78	2.63	3.18	3.14	3.68	4.16
	8H	18.36	18.85	18.88	19.36	19.85	2.58	3.07	3.10	3.59	4.08
	12H	18.40	18.83	18.91	19.33	19.90	2.54	2.98	3.05	3.47	4.04
12H	4H	17.86	18.46	18.35	18.94	19.41	2.79	3.39	3.28	3.87	4.34
	6H	18.20	18.69	18.72	19.21	19.70	2.70	3.19	3.22	3.70	4.20
	8H	18.31	18.75	18.83	19.24	19.81	2.66	3.10	3.18	3.59	4.16