

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056595

Luminaire Tested: S125R3DR-H610D940-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056595  
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-H610D940-X4F0-XX-UDD-FLL-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

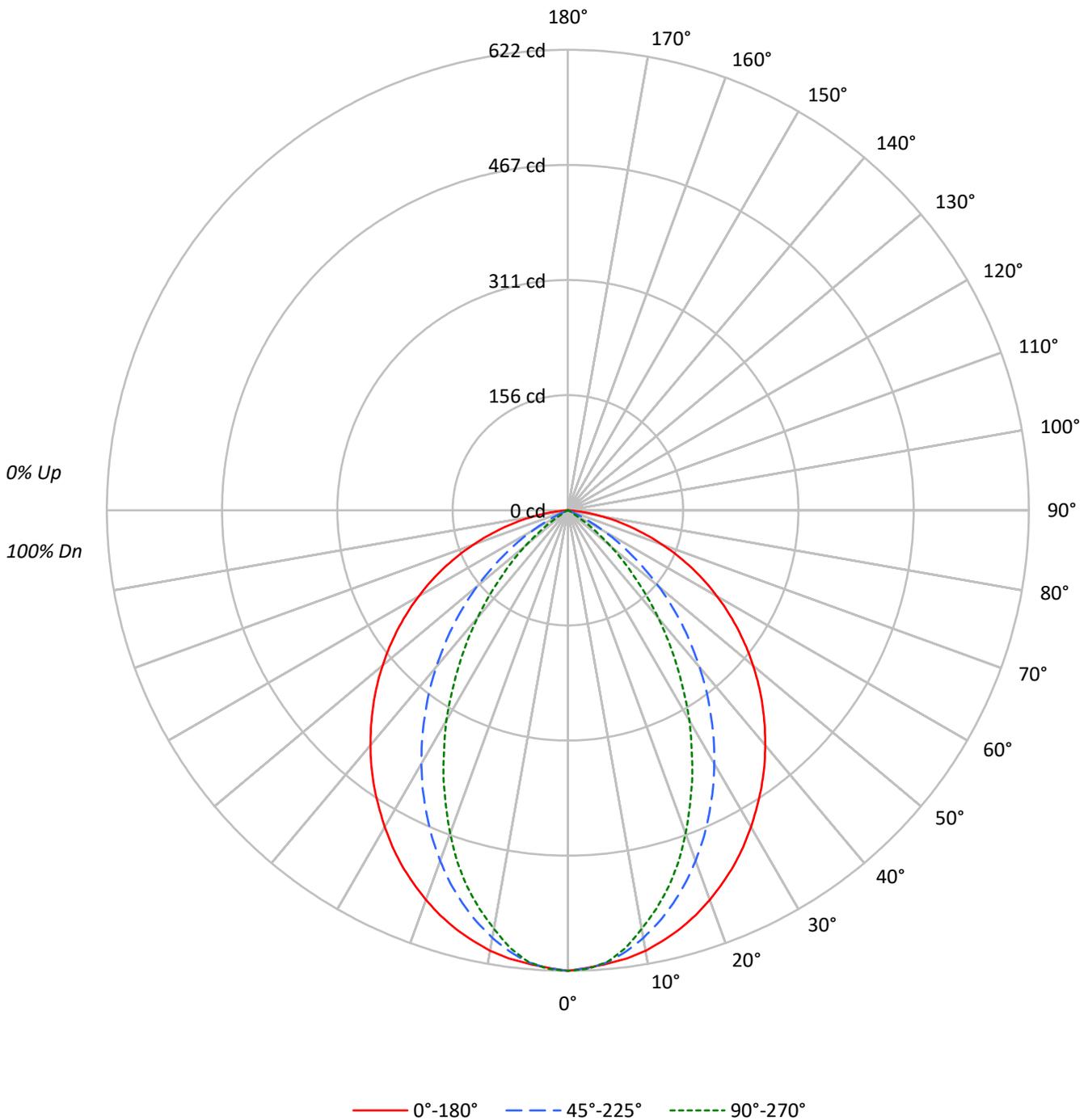
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1008.3 lumens  
Efficiency: N/A  
Efficacy: 58.3 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 (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

TEST NUMBER: P1056595

CATALOG NUMBER: S125R3DR-H610D940-X4F0-XX-UDD-FLL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1056595

CATALOG NUMBER: S125R3DR-H610D940-X4F0-XX-UDD-FLL-B

**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°	4398	4398	4398
5°	4362	4349	4345
10°	4337	4209	4120
15°	4282	4021	3849
20°	4212	3789	3493
25°	4131	3520	3097
30°	4032	3226	2677
35°	3932	2900	2214
40°	3823	2549	1752
45°	3711	2176	1270
50°	3588	1756	820
55°	3450	1284	365
60°	3286	793	105
65°	3085	289	62
70°	2790	101	25
75°	2425	33	16
80°	1856	24	0
85°	852	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3711 cd/sqm



TEST NUMBER: P1056595

CATALOG NUMBER: S125R3DR-H610D940-X4F0-XX-UDD-FLL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.8	5.7
10°-20°	155.2	15.4
20°-30°	209.9	20.8
30°-40°	215.6	21.4
40°-50°	178.6	17.7
50°-60°	114.7	11.4
60°-70°	55.4	5.5
70°-80°	18.7	1.9
80°-90°	2.4	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°	422.8	41.9
0°-40°	638.5	63.3
0°-60°	931.8	92.4
0°-90°	1008.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1008.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	622	622	622	622	622	
5°	615	620	613	609	612	58
15°	585	578	549	530	526	165
25°	530	504	451	411	397	244
35°	456	412	336	278	256	285
45°	371	310	218	150	127	286
55°	280	205	104	46	30	250
65°	184	102	17	5	4	182
75°	89	19	1	1	1	94
85°	10	0	0	0	0	17
90°	0	0	0	0	0	



TEST NUMBER: P1056595

CATALOG NUMBER: S125R3DR-H610D940-X4F0-XX-UDD-FLL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	622.1	622.1	622.1	622.1	622.1
2.5°	618.4	623.4	619.0	618.4	619.7
5°	614.7	619.7	612.9	609.2	612.3
7.5°	610.4	612.9	601.2	595.0	596.2
10°	604.2	603.6	586.4	575.9	574.0
12.5°	595.0	591.9	569.1	554.3	551.2
15°	585.1	577.7	549.4	530.3	525.9
17.5°	573.4	561.7	527.8	503.1	497.0
20°	559.9	543.8	503.7	473.5	464.3
22.5°	545.1	524.7	478.5	442.7	430.4
25°	529.6	503.7	451.3	410.6	397.1
27.5°	512.4	482.2	424.2	378.0	361.3
30°	493.9	459.3	395.2	344.7	328.0
32.5°	474.8	436.5	366.2	311.4	291.0
35°	455.6	411.9	336.0	277.5	256.5
37.5°	435.3	387.2	306.4	245.4	222.6
40°	414.3	361.9	276.2	212.1	189.9
42.5°	392.8	336.0	246.0	180.7	157.8
45°	371.2	310.1	217.7	150.4	127.0
47.5°	349.0	283.6	188.1	120.8	100.5
50°	326.2	257.7	159.7	94.3	74.6
52.5°	303.4	231.2	130.7	68.4	50.6
55°	279.9	205.3	104.2	45.6	29.6
57.5°	256.5	178.8	79.5	25.3	11.1
60°	232.4	153.5	56.1	8.6	7.4
62.5°	209.0	126.4	35.1	6.8	5.5
65°	184.4	101.7	17.3	4.9	3.7
67.5°	160.3	78.3	7.4	3.1	1.8
70°	135.0	56.7	4.9	1.8	1.2
72.5°	111.6	36.4	3.1	1.2	0.6
75°	88.8	19.1	1.2	0.6	0.6
77.5°	66.6	8.0	0.6	0.6	0.6
80°	45.6	3.7	0.6	0.6	0.0
82.5°	27.1	1.2	0.6	0.6	0.0
85°	10.5	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

TEST NUMBER: P1056595

CATALOG NUMBER: S125R3DR-H610D940-X4F0-XX-UDD-FLL-B

**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	16.21	17.60	16.58	17.91	18.23	1.08	2.47	1.45	2.78	3.10
	3H	17.76	18.99	18.14	19.32	19.69	1.00	2.23	1.38	2.56	2.93
	4H	18.29	19.43	18.69	19.78	20.16	0.94	2.08	1.34	2.43	2.81
	6H	18.63	19.68	19.04	20.05	20.44	0.87	1.92	1.28	2.29	2.68
	8H	18.71	19.70	19.14	20.09	20.50	0.83	1.82	1.26	2.21	2.62
	12H	18.72	19.68	19.16	20.06	20.49	0.79	1.74	1.22	2.12	2.55
4H	2H	16.02	17.16	16.42	17.51	17.89	1.95	3.09	2.35	3.44	3.83
	3H	17.63	18.57	18.04	18.97	19.37	1.90	2.83	2.31	3.23	3.64
	4H	18.15	18.99	18.59	19.41	19.85	1.82	2.65	2.25	3.07	3.51
	6H	18.53	19.25	18.99	19.69	20.16	1.75	2.47	2.21	2.92	3.38
	8H	18.63	19.30	19.10	19.74	20.21	1.70	2.37	2.17	2.82	3.29
	12H	18.66	19.26	19.15	19.74	20.21	1.66	2.25	2.14	2.73	3.21
8H	4H	18.03	18.70	18.49	19.14	19.61	2.84	3.51	3.31	3.96	4.43
	6H	18.38	18.93	18.88	19.43	19.91	2.75	3.30	3.26	3.80	4.28
	8H	18.48	18.97	19.00	19.48	19.97	2.70	3.19	3.22	3.71	4.20
	12H	18.52	18.95	19.03	19.45	20.02	2.66	3.10	3.17	3.59	4.16
12H	4H	17.98	18.58	18.47	19.06	19.53	2.92	3.51	3.40	3.99	4.46
	6H	18.32	18.81	18.84	19.33	19.82	2.82	3.31	3.34	3.82	4.32
	8H	18.43	18.87	18.95	19.36	19.93	2.78	3.22	3.30	3.71	4.28