

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: P1056463

Luminaire Tested: S125R3DR-S610D950-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056463
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-S610D950-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

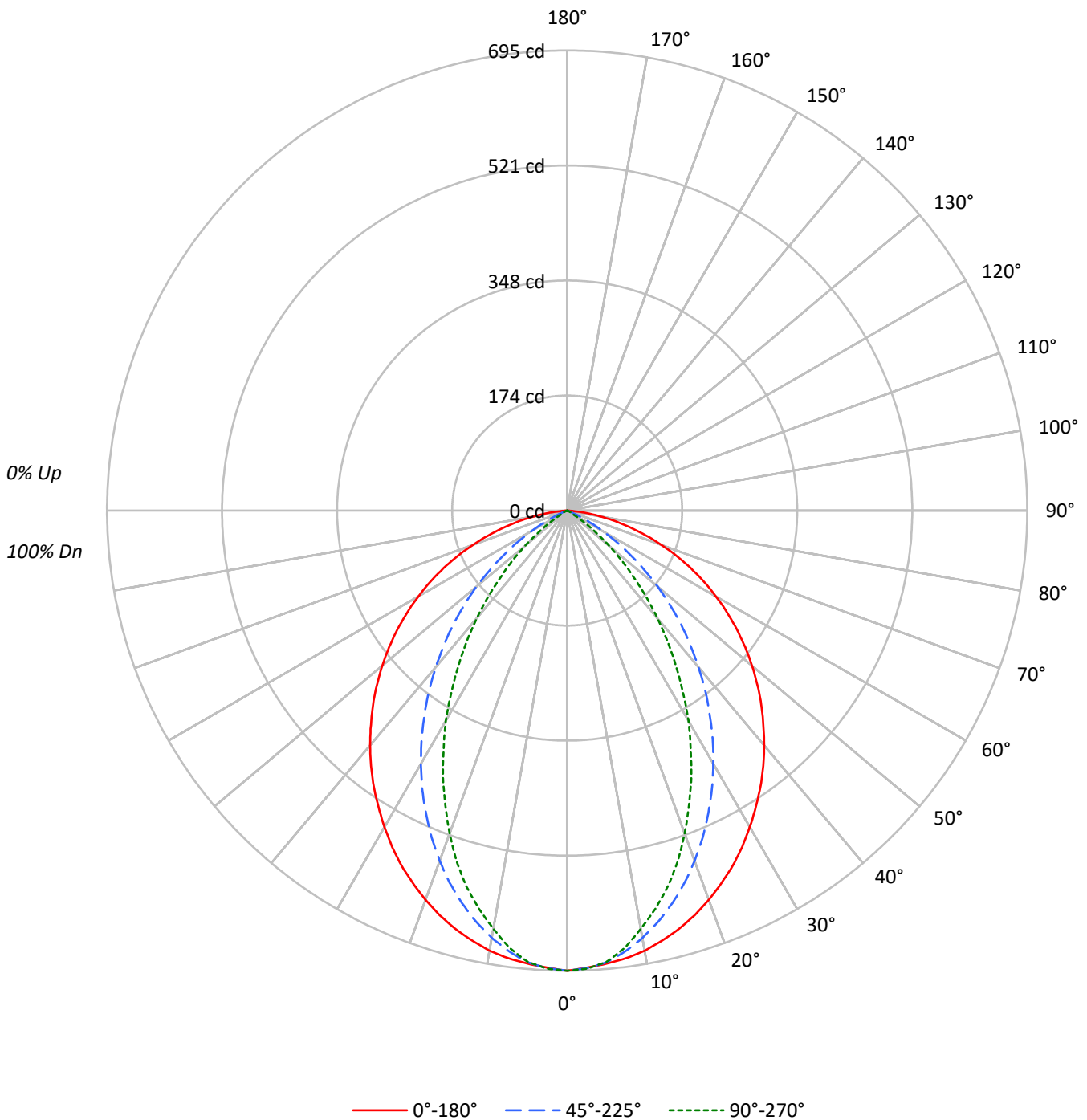
Lumens per Lamp: N/A
Luminaire Lumens: 1126.7 lumens
Efficiency: N/A
Efficacy: 59.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (A_{in}): 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: P1056463

CATALOG NUMBER: S125R3DR-S610D950-X4F0-XX-UDD-F-B

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°	4914	4914	4914
5°	4874	4860	4855
10°	4846	4703	4604
15°	4785	4492	4301
20°	4706	4235	3903
25°	4616	3934	3461
30°	4504	3605	2992
35°	4394	3241	2473
40°	4273	2848	1958
45°	4146	2431	1419
50°	4008	1962	917
55°	3855	1435	408
60°	3672	886	117
65°	3446	323	69
70°	3119	114	29
75°	2710	38	19
80°	2076	28	0
85°	949	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4146 cd/sqm

TEST NUMBER: P1056463

CATALOG NUMBER: S125R3DR-S610D950-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	5.7
10°-20°	173.4	15.4
20°-30°	234.5	20.8
30°-40°	240.9	21.4
40°-50°	199.6	17.7
50°-60°	128.2	11.4
60°-70°	61.9	5.5
70°-80°	20.9	1.9
80°-90°	2.7	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°	472.5	41.9
0°-40°	713.4	63.3
0°-60°	1041.2	92.4
0°-90°	1126.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1126.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	687	692	685	681	684	65
15°	654	646	614	592	588	184
25°	592	563	504	459	444	272
35°	509	460	376	310	287	318
45°	415	346	243	168	142	320
55°	313	229	116	51	33	280
65°	206	114	19	6	4	204
75°	99	21	1	1	1	105
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°	695.1	695.1	695.1	695.1	695.1
2.5°	691.0	696.5	691.7	691.0	692.4
5°	686.9	692.4	684.8	680.7	684.1
7.5°	682.0	684.8	671.7	664.8	666.2
10°	675.1	674.5	655.2	643.5	641.4
12.5°	664.8	661.4	635.9	619.3	615.9
15°	653.8	645.5	613.8	592.5	587.7
17.5°	640.7	627.6	589.7	562.2	555.3
20°	625.5	607.6	562.9	529.1	518.8
22.5°	609.0	586.3	534.6	494.6	480.9
25°	591.8	562.9	504.3	458.8	443.7
27.5°	572.5	538.7	474.0	422.3	403.7
30°	551.8	513.2	441.6	385.1	366.5
32.5°	530.5	487.8	409.2	347.9	325.2
35°	509.1	460.2	375.5	310.0	286.6
37.5°	486.4	432.6	342.4	274.2	248.7
40°	463.0	404.4	308.6	237.0	212.2
42.5°	438.8	375.5	274.9	201.9	176.4
45°	414.7	346.5	243.2	168.1	141.9
47.5°	389.9	316.9	210.1	135.0	112.3
50°	364.4	288.0	178.4	105.4	83.4
52.5°	339.0	258.3	146.1	76.5	56.5
55°	312.8	229.4	116.4	51.0	33.1
57.5°	286.6	199.8	88.9	28.2	12.4
60°	259.7	171.5	62.7	9.6	8.3
62.5°	233.5	141.2	39.3	7.6	6.2
65°	206.0	113.7	19.3	5.5	4.1
67.5°	179.1	87.5	8.3	3.4	2.1
70°	150.9	63.4	5.5	2.1	1.4
72.5°	124.7	40.6	3.4	1.4	0.7
75°	99.2	21.4	1.4	0.7	0.7
77.5°	74.4	9.0	0.7	0.7	0.7
80°	51.0	4.1	0.7	0.7	0.0
82.5°	30.3	1.4	0.7	0.7	0.0
85°	11.7	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

TEST NUMBER: P1056463

CATALOG NUMBER: S125R3DR-S610D950-X4F0-XX-UDD-F-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	16.60	17.98	16.96	18.30	18.61	1.45	2.84	1.82	3.15	3.47
	3H	18.15	19.38	18.53	19.71	20.07	1.38	2.60	1.76	2.93	3.30
	4H	18.67	19.82	19.07	20.17	20.55	1.31	2.46	1.71	2.81	3.19
	6H	19.01	20.06	19.43	20.43	20.83	1.24	2.29	1.66	2.66	3.06
	8H	19.09	20.09	19.52	20.48	20.88	1.20	2.20	1.63	2.59	2.99
	12H	19.11	20.06	19.54	20.45	20.88	1.16	2.11	1.59	2.50	2.93
4H	2H	16.40	17.55	16.81	17.90	18.28	2.32	3.47	2.72	3.82	4.20
	3H	18.02	18.95	18.43	19.35	19.76	2.27	3.21	2.68	3.61	4.01
	4H	18.54	19.37	18.97	19.79	20.23	2.19	3.03	2.63	3.45	3.89
	6H	18.91	19.63	19.38	20.08	20.54	2.13	2.85	2.59	3.29	3.76
	8H	19.01	19.68	19.48	20.13	20.60	2.08	2.75	2.55	3.20	3.67
	12H	19.05	19.64	19.53	20.12	20.60	2.04	2.63	2.52	3.11	3.59
8H	4H	18.41	19.08	18.88	19.53	20.00	3.22	3.89	3.69	4.34	4.81
	6H	18.77	19.32	19.27	19.81	20.29	3.14	3.68	3.64	4.18	4.66
	8H	18.86	19.35	19.38	19.87	20.36	3.08	3.58	3.60	4.09	4.58
	12H	18.91	19.34	19.42	19.83	20.40	3.04	3.48	3.56	3.97	4.54
12H	4H	18.37	18.96	18.85	19.45	19.92	3.30	3.89	3.78	4.37	4.85
	6H	18.71	19.20	19.23	19.71	20.21	3.20	3.69	3.72	4.21	4.70
	8H	18.82	19.26	19.33	19.75	20.32	3.17	3.60	3.68	4.10	4.67