

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: P1056465

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056465
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-S610D950-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

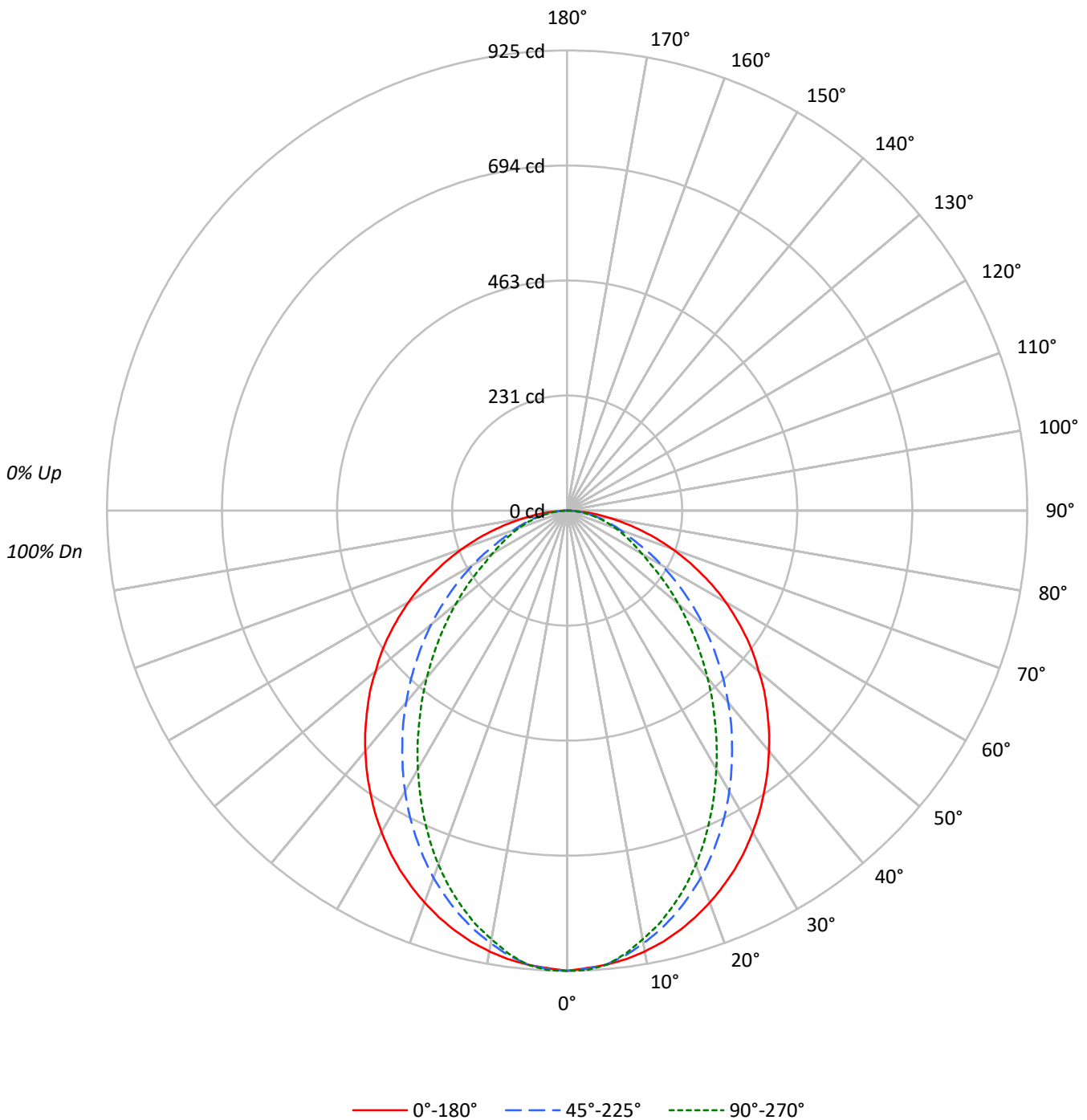
Lumens per Lamp: N/A
Luminaire Lumens: 1961.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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: P1056465

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

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°	6541	6541	6541
5°	6502	6497	6502
10°	6458	6340	6280
15°	6394	6146	6020
20°	6307	5909	5696
25°	6212	5626	5310
30°	6090	5320	4899
35°	5957	4988	4471
40°	5824	4647	4049
45°	5683	4291	3630
50°	5531	3925	3212
55°	5392	3524	2794
60°	5202	3098	2454
65°	4943	2628	2282
70°	4642	2350	2135
75°	4195	2163	2013
80°	3648	1962	1881
85°	2847	1736	1736

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5683 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.6	4.4
10°-20°	237.7	12.1
20°-30°	335.8	17.1
30°-40°	369.6	18.8
40°-50°	344.8	17.6
50°-60°	275.2	14.0
60°-70°	185.2	9.4
70°-80°	98.7	5.0
80°-90°	27.4	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°	660.0	33.7
0°-40°	1029.7	52.5
0°-60°	1649.7	84.1
0°-90°	1961.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1961.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	925	925	925	925	925	
5°	916	924	916	913	916	87
15°	874	869	840	825	823	246
25°	796	772	721	690	681	367
35°	690	650	578	532	518	432
45°	568	515	429	377	363	439
55°	438	371	286	240	227	391
65°	296	231	157	139	136	293
75°	154	102	79	74	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°	925.2	925.2	925.2	925.2	925.2
2.5°	920.4	928.0	921.8	923.2	924.5
5°	916.3	923.8	915.6	912.8	916.3
7.5°	909.4	915.6	901.8	895.6	898.4
10°	899.7	903.9	883.2	874.9	874.9
12.5°	888.0	888.0	863.2	851.5	851.5
15°	873.6	868.7	839.8	825.3	822.6
17.5°	857.0	848.1	813.6	795.0	791.6
20°	838.4	824.0	785.4	761.3	757.1
22.5°	817.8	799.2	754.4	724.7	719.9
25°	796.4	772.3	721.3	689.6	680.7
27.5°	772.3	743.3	687.5	651.7	640.7
30°	746.1	713.0	651.7	611.8	600.1
32.5°	719.2	682.0	615.2	572.5	559.4
35°	690.3	649.7	578.0	532.5	518.1
37.5°	661.4	617.3	541.5	494.0	478.8
40°	631.1	582.8	503.6	454.7	438.8
42.5°	600.7	549.1	466.4	416.8	400.3
45°	568.4	514.6	429.2	376.8	363.1
47.5°	537.4	479.5	392.7	341.7	326.6
50°	502.9	443.0	356.9	305.9	292.1
52.5°	471.2	407.2	321.0	273.5	259.0
55°	437.5	371.3	285.9	240.4	226.7
57.5°	402.3	335.5	252.1	209.4	196.3
60°	367.9	299.7	219.1	179.8	173.6
62.5°	332.8	265.9	188.1	157.8	153.6
65°	295.5	230.8	157.1	139.2	136.4
67.5°	260.4	197.0	132.3	121.9	119.2
70°	224.6	163.3	113.7	104.7	103.3
72.5°	189.5	130.9	95.8	89.6	88.2
75°	153.6	102.0	79.2	74.4	73.7
77.5°	120.6	76.5	62.7	60.6	59.2
80°	89.6	57.2	48.2	46.8	46.2
82.5°	61.3	39.3	34.4	34.4	33.1
85°	35.1	24.1	21.4	22.0	21.4
87.5°	13.1	10.3	9.6	10.3	10.3
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	17.81	19.35	18.18	19.67	19.98	14.19	15.73	14.56	16.05	16.36
	3H	19.60	20.98	19.98	21.31	21.67	15.67	17.05	16.05	17.38	17.74
	4H	20.25	21.55	20.65	21.90	22.28	16.26	17.56	16.66	17.91	18.29
	6H	20.73	21.93	21.14	22.30	22.69	16.72	17.92	17.14	18.29	18.68
	8H	20.88	22.03	21.31	22.42	22.82	16.88	18.03	17.31	18.42	18.82
	12H	20.98	22.07	21.41	22.46	22.88	17.00	18.09	17.43	18.48	18.91
4H	2H	17.95	19.25	18.35	19.60	19.97	14.87	16.17	15.27	16.52	16.90
	3H	19.92	21.00	20.33	21.40	21.80	16.55	17.63	16.96	18.03	18.43
	4H	20.66	21.64	21.10	22.05	22.49	17.25	18.23	17.68	18.64	19.08
	6H	21.26	22.11	21.72	22.55	23.01	17.84	18.69	18.29	19.13	19.59
	8H	21.46	22.26	21.93	22.70	23.17	18.05	18.84	18.51	19.28	19.75
	12H	21.61	22.32	22.09	22.80	23.27	18.21	18.92	18.69	19.39	19.86
8H	4H	20.73	21.52	21.19	21.96	22.43	17.62	18.41	18.08	18.85	19.32
	6H	21.39	22.04	21.88	22.53	23.01	18.32	18.97	18.81	19.46	19.94
	8H	21.64	22.23	22.15	22.74	23.23	18.60	19.19	19.11	19.70	20.19
	12H	21.85	22.37	22.36	22.86	23.43	18.84	19.36	19.35	19.86	20.42
12H	4H	20.72	21.43	21.20	21.91	22.38	17.66	18.37	18.15	18.85	19.32
	6H	21.38	21.97	21.89	22.48	22.97	18.39	18.98	18.90	19.49	19.98
	8H	21.68	22.20	22.18	22.69	23.25	18.73	19.25	19.24	19.75	20.31