

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: P1056409

Luminaire Tested: S125R3DR-S1270D950-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056409
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-S1270D950-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

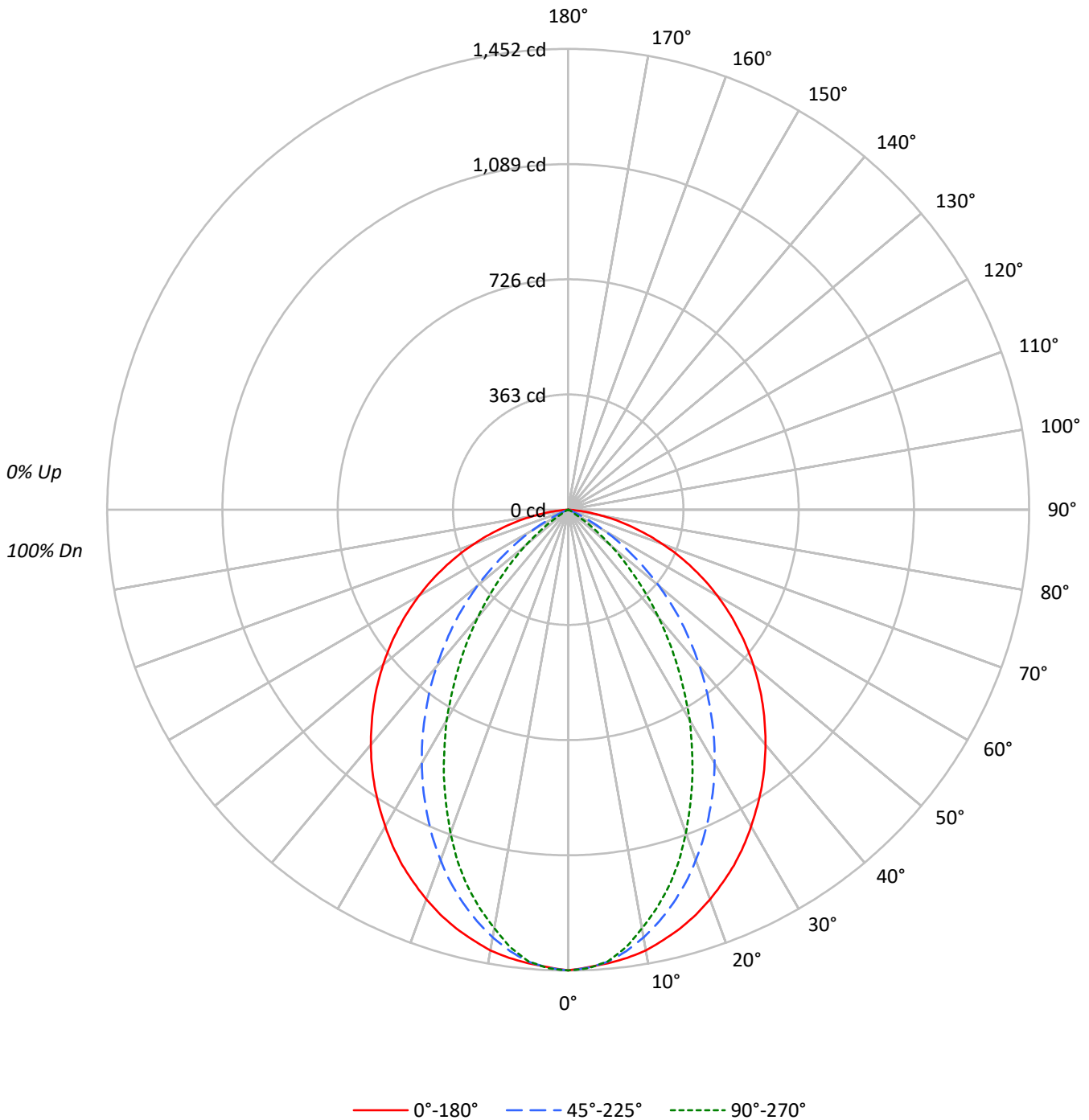
Lumens per Lamp: N/A
Luminaire Lumens: 2353.0 lumens
Efficiency: N/A
Efficacy: 56.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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: P1056409

CATALOG NUMBER: S125R3DR-S1270D950-X4F0-XX-UDD-F-B

Luminous Intensity Polar Plot





TEST NUMBER: P1056409

CATALOG NUMBER: S125R3DR-S1270D950-X4F0-XX-UDD-F-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	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°	10263	10263	10263
5°	10180	10148	10139
10°	10122	9822	9615
15°	9993	9383	8982
20°	9828	8843	8150
25°	9640	8215	7228
30°	9408	7529	6248
35°	9176	6767	5165
40°	8923	5949	4089
45°	8659	5078	2963
50°	8371	4098	1915
55°	8051	2997	852
60°	7669	1851	245
65°	7196	674	144
70°	6513	238	60
75°	5659	79	38
80°	4336	57	0
85°	1987	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8659 cd/sqm



TEST NUMBER: P1056409

CATALOG NUMBER: S125R3DR-S1270D950-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.8	5.7
10°-20°	362.1	15.4
20°-30°	489.8	20.8
30°-40°	503.2	21.4
40°-50°	416.9	17.7
50°-60°	267.6	11.4
60°-70°	129.3	5.5
70°-80°	43.7	1.9
80°-90°	5.6	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°	986.7	41.9
0°-40°	1489.9	63.3
0°-60°	2174.4	92.4
0°-90°	2353.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2353.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1452	1452	1452	1452	1452	
5°	1434	1446	1430	1422	1429	136
15°	1365	1348	1282	1237	1227	385
25°	1236	1176	1053	958	927	569
35°	1063	961	784	648	598	665
45°	866	724	508	351	296	668
55°	653	479	243	106	69	584
65°	430	237	40	12	9	426
75°	207	45	3	1	1	220
85°	24	0	0	0	0	39
90°	0	0	0	0	0	



TEST NUMBER: P1056409

CATALOG NUMBER: S125R3DR-S1270D950-X4F0-XX-UDD-F-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1451.7	1451.7	1451.7	1451.7	1451.7
2.5°	1443.1	1454.6	1444.5	1443.1	1446.0
5°	1434.5	1446.0	1430.1	1421.5	1428.7
7.5°	1424.4	1430.1	1402.8	1388.4	1391.3
10°	1410.0	1408.6	1368.3	1343.8	1339.5
12.5°	1388.4	1381.2	1328.0	1293.5	1286.3
15°	1365.4	1348.1	1282.0	1237.4	1227.3
17.5°	1338.1	1310.7	1231.6	1174.0	1159.7
20°	1306.4	1269.0	1175.5	1105.0	1083.4
22.5°	1271.9	1224.4	1116.5	1033.0	1004.3
25°	1235.9	1175.5	1053.2	958.2	926.6
27.5°	1195.6	1125.1	989.9	882.0	843.1
30°	1152.5	1071.9	922.3	804.3	765.4
32.5°	1107.9	1018.7	854.6	726.6	679.1
35°	1063.3	961.1	784.1	647.5	598.5
37.5°	1015.8	903.6	715.1	572.6	519.4
40°	966.9	844.6	644.6	494.9	443.1
42.5°	916.5	784.1	574.1	421.6	368.3
45°	866.1	723.7	507.9	351.1	296.4
47.5°	814.4	661.8	438.8	282.0	234.5
50°	761.1	601.4	372.6	220.1	174.1
52.5°	707.9	539.5	305.0	159.7	118.0
55°	653.2	479.1	243.2	106.5	69.1
57.5°	598.5	417.2	185.6	59.0	25.9
60°	542.4	358.3	130.9	20.1	17.3
62.5°	487.7	295.0	82.0	15.8	12.9
65°	430.2	237.4	40.3	11.5	8.6
67.5°	374.1	182.7	17.3	7.2	4.3
70°	315.1	132.4	11.5	4.3	2.9
72.5°	260.4	84.9	7.2	2.9	1.4
75°	207.2	44.6	2.9	1.4	1.4
77.5°	155.4	18.7	1.4	1.4	1.4
80°	106.5	8.6	1.4	1.4	0.0
82.5°	63.3	2.9	1.4	1.4	0.0
85°	24.5	0.0	0.0	0.0	0.0
87.5°	1.4	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1056409

CATALOG NUMBER: S125R3DR-S1270D950-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	19.16	20.54	19.52	20.86	21.17	4.02	5.41	4.39	5.72	6.04
	3H	20.71	21.94	21.09	22.27	22.63	3.95	5.17	4.32	5.50	5.87
	4H	21.23	22.38	21.63	22.73	23.11	3.88	5.02	4.28	5.37	5.76
	6H	21.57	22.62	21.98	22.99	23.38	3.81	4.86	4.22	5.23	5.62
	8H	21.65	22.65	22.08	23.04	23.44	3.77	4.77	4.20	5.16	5.56
	12H	21.67	22.62	22.10	23.00	23.43	3.73	4.68	4.16	5.06	5.49
4H	2H	18.96	20.11	19.36	20.46	20.84	4.89	6.03	5.29	6.38	6.76
	3H	20.58	21.51	20.99	21.91	22.32	4.84	5.77	5.25	6.17	6.58
	4H	21.10	21.93	21.53	22.35	22.79	4.76	5.59	5.19	6.01	6.45
	6H	21.47	22.19	21.93	22.64	23.10	4.69	5.41	5.16	5.86	6.32
	8H	21.57	22.24	22.04	22.69	23.16	4.64	5.31	5.11	5.76	6.23
	12H	21.61	22.20	22.09	22.68	23.16	4.60	5.19	5.09	5.68	6.15
8H	4H	20.97	21.64	21.44	22.09	22.56	5.78	6.45	6.25	6.90	7.37
	6H	21.33	21.87	21.83	22.37	22.85	5.70	6.25	6.20	6.74	7.22
	8H	21.42	21.91	21.94	22.43	22.92	5.64	6.14	6.16	6.65	7.14
	12H	21.46	21.90	21.98	22.39	22.96	5.60	6.04	6.12	6.53	7.10
12H	4H	20.93	21.52	21.41	22.00	22.48	5.86	6.45	6.34	6.93	7.41
	6H	21.27	21.76	21.79	22.27	22.76	5.76	6.25	6.28	6.77	7.26
	8H	21.38	21.81	21.89	22.31	22.88	5.73	6.16	6.24	6.66	7.23