

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: P1055249

Luminaire Tested: S122R3DR-S675D950-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055249
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S675D950-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

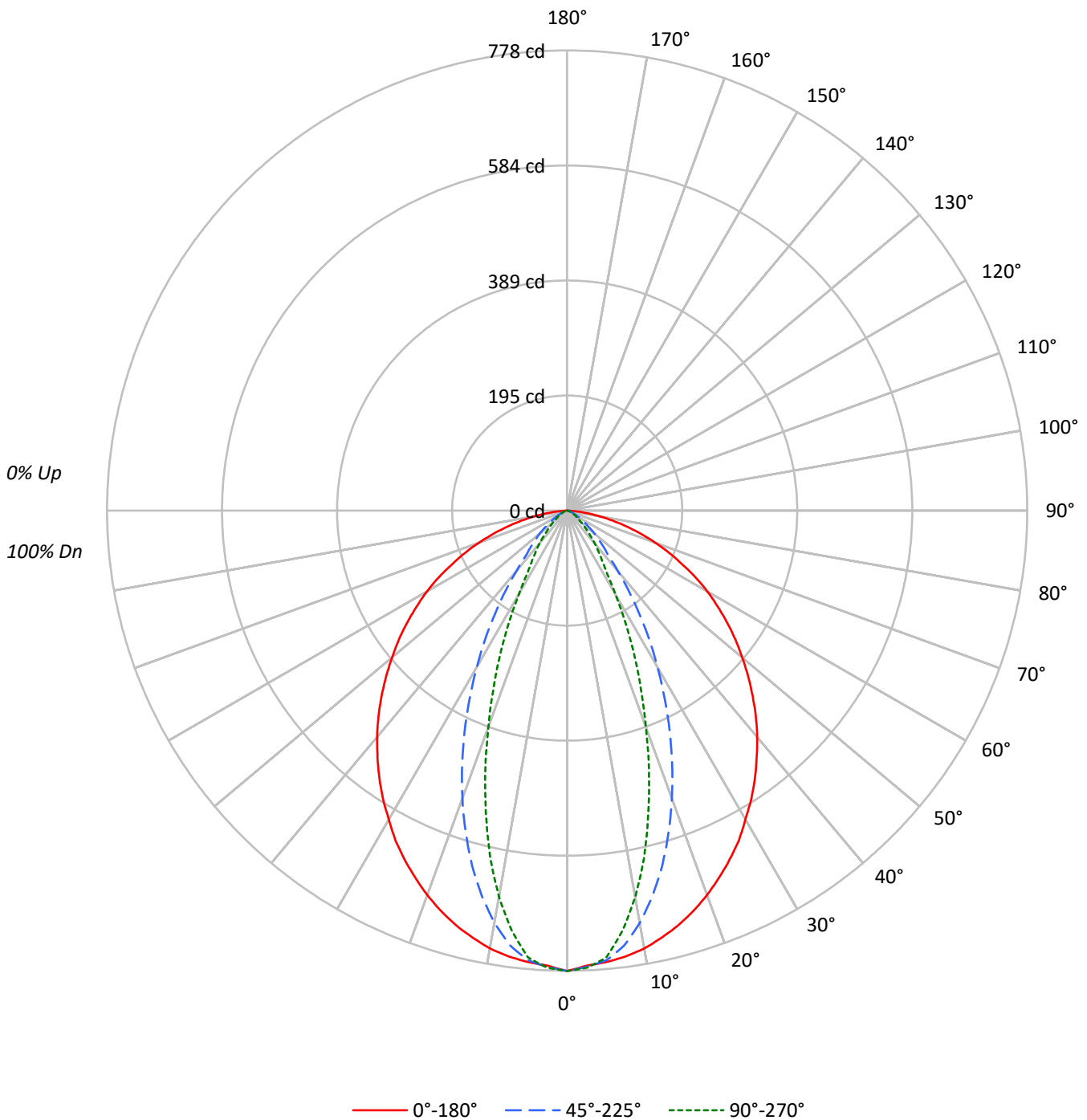
Lumens per Lamp: N/A
Luminaire Lumens: 892.2 lumens
Efficiency: N/A
Efficacy: 33.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14749	14749	14749
5°	14570	14515	14423
10°	14463	13619	12755
15°	14240	12182	10403
20°	13944	10444	7847
25°	13600	8556	5604
30°	13190	6679	3568
35°	12797	4899	2382
40°	12364	3304	1793
45°	11886	2326	1278
50°	11389	1771	899
55°	10904	1229	661
60°	10375	830	542
65°	9620	601	426
70°	8774	476	371
75°	7613	417	278
80°	6033	316	316
85°	3326	413	217

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11886 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	8.0
10°-20°	174.7	19.6
20°-30°	199.6	22.4
30°-40°	169.2	19.0
40°-50°	126.3	14.2
50°-60°	81.6	9.1
60°-70°	45.5	5.1
70°-80°	20.0	2.2
80°-90°	4.2	0.5
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°	445.4	49.9
0°-40°	614.6	68.9
0°-60°	822.5	92.2
0°-90°	892.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	892.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	766	776	763	756	758	73
15°	726	708	621	555	530	204
25°	651	574	409	300	268	299
35°	553	417	212	115	103	346
45°	444	263	87	56	48	342
55°	330	125	37	23	20	295
65°	215	46	13	10	10	213
75°	104	10	6	5	4	111
85°	15	1	2	1	1	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	778.5	778.5	778.5	778.5	778.5
2.5°	769.9	781.3	771.8	771.8	773.7
5°	766.1	775.6	763.2	755.6	758.4
7.5°	760.3	767.0	741.3	718.4	716.5
10°	751.8	754.6	707.9	672.6	663.0
12.5°	739.3	732.7	666.8	617.2	601.0
15°	726.0	707.9	621.1	555.2	530.4
17.5°	709.8	677.3	570.5	490.4	459.8
20°	691.6	645.9	518.0	422.6	389.2
22.5°	671.6	610.6	463.6	358.7	325.3
25°	650.6	574.3	409.3	299.6	268.1
27.5°	628.7	536.1	355.8	246.1	211.8
30°	602.9	497.0	305.3	194.6	163.1
32.5°	579.1	456.0	258.5	150.7	124.0
35°	553.3	416.9	211.8	115.4	103.0
37.5°	526.6	377.8	170.8	97.3	86.8
40°	499.9	338.7	133.6	82.0	72.5
42.5°	472.2	300.5	103.0	68.7	59.1
45°	443.6	263.3	86.8	56.3	47.7
47.5°	415.0	226.1	72.5	44.8	38.2
50°	386.4	190.8	60.1	35.3	30.5
52.5°	358.7	157.4	47.7	28.6	24.8
55°	330.1	125.0	37.2	22.9	20.0
57.5°	301.5	97.3	28.6	19.1	17.2
60°	273.8	73.5	21.9	15.3	14.3
62.5°	245.2	59.1	17.2	12.4	11.4
65°	214.6	45.8	13.4	10.5	9.5
67.5°	187.0	33.4	10.5	8.6	7.6
70°	158.4	22.9	8.6	7.6	6.7
72.5°	130.7	14.3	6.7	5.7	5.7
75°	104.0	9.5	5.7	4.8	3.8
77.5°	79.2	5.7	3.8	3.8	2.9
80°	55.3	3.8	2.9	2.9	2.9
82.5°	34.3	2.9	1.9	1.9	1.9
85°	15.3	1.0	1.9	1.0	1.0
87.5°	2.9	1.0	1.0	1.0	1.0
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	17.60	18.92	17.97	19.23	19.55	3.92	5.24	4.29	5.55	5.87
	3H	20.07	21.24	20.45	21.57	21.94	4.77	5.94	5.15	6.27	6.63
	4H	21.03	22.12	21.43	22.47	22.85	5.04	6.13	5.44	6.48	6.87
	6H	21.71	22.72	22.13	23.09	23.48	5.24	6.24	5.65	6.61	7.00
	8H	21.91	22.86	22.34	23.25	23.66	5.31	6.26	5.74	6.65	7.06
	12H	21.99	22.90	22.42	23.28	23.71	5.34	6.25	5.77	6.63	7.06
4H	2H	17.39	18.48	17.79	18.83	19.21	4.49	5.59	4.90	5.94	6.32
	3H	19.87	20.77	20.28	21.17	21.57	5.52	6.42	5.93	6.82	7.22
	4H	20.81	21.61	21.25	22.03	22.48	5.89	6.69	6.32	7.11	7.55
	6H	21.57	22.26	22.03	22.71	23.17	6.19	6.88	6.65	7.32	7.79
	8H	21.81	22.46	22.28	22.90	23.37	6.29	6.93	6.75	7.38	7.85
	12H	21.94	22.51	22.43	22.99	23.47	6.33	6.90	6.82	7.39	7.86
8H	4H	20.68	21.33	21.15	21.77	22.24	6.26	6.90	6.73	7.35	7.82
	6H	21.42	21.94	21.92	22.44	22.92	6.63	7.15	7.13	7.65	8.13
	8H	21.66	22.13	22.19	22.65	23.14	6.76	7.24	7.29	7.75	8.24
	12H	21.82	22.23	22.33	22.72	23.30	6.85	7.27	7.37	7.76	8.33
12H	4H	20.64	21.21	21.12	21.69	22.16	6.38	6.95	6.87	7.43	7.91
	6H	21.36	21.83	21.88	22.35	22.84	6.74	7.22	7.27	7.73	8.22
	8H	21.62	22.04	22.14	22.53	23.10	6.92	7.34	7.44	7.83	8.40