

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: P1055248

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055248  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)  
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-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

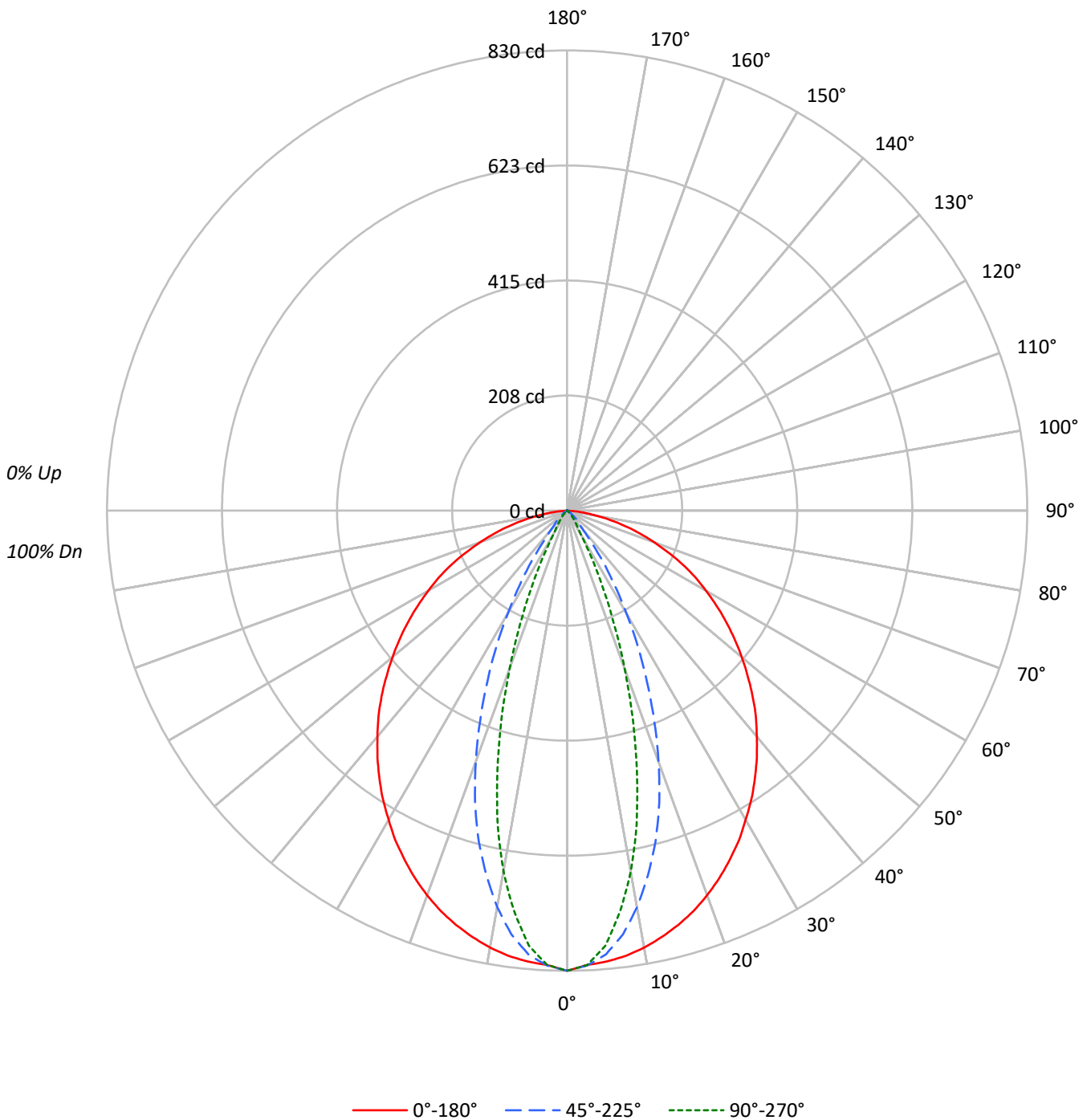
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 755.2 lumens  
Efficiency: N/A  
Efficacy: 28.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7  
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<sub>in</sub>): 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	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	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44	43

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	15725	15725	15725
5°	15530	15277	14986
10°	15398	13967	12718
15°	15175	12088	9525
20°	14887	9714	6097
25°	14518	7120	3131
30°	14089	4653	1022
35°	13657	2581	597
40°	13165	1039	331
45°	12679	691	129
50°	12120	395	56
55°	11564	188	33
60°	10954	72	0
65°	10306	45	0
70°	9251	55	0
75°	7964	73	0
80°	6033	0	0
85°	2478	217	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12679 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.4	9.9
10°-20°	172.9	22.9
20°-30°	175.5	23.2
30°-40°	131.7	17.4
40°-50°	92.2	12.2
50°-60°	56.5	7.5
60°-70°	33.6	4.5
70°-80°	15.5	2.1
80°-90°	2.8	0.4
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°	422.8	56.0
0°-40°	554.5	73.4
0°-60°	703.2	93.1
0°-90°	755.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	755.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	817	824	803	788	788	77
15°	774	732	616	522	486	218
25°	694	572	341	195	150	320
35°	590	384	112	33	26	369
45°	473	203	26	8	5	365
55°	350	62	6	2	1	313
65°	230	18	1	1	0	226
75°	109	2	1	1	0	116
85°	11	0	1	1	0	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	830.0	830.0	830.0	830.0	830.0
2.5°	820.4	832.8	821.4	819.5	820.4
5°	816.6	824.3	803.3	788.0	788.0
7.5°	810.0	810.0	770.8	739.4	729.8
10°	800.4	789.9	726.0	675.4	661.1
12.5°	788.0	763.2	673.5	602.0	579.1
15°	773.7	731.7	616.3	521.8	485.6
17.5°	757.5	696.4	552.4	435.0	393.1
20°	738.4	658.3	481.8	346.3	302.4
22.5°	717.4	616.3	410.2	267.1	220.4
25°	694.5	572.4	340.6	194.6	149.8
27.5°	670.7	526.6	276.7	133.6	91.6
30°	644.0	478.9	212.7	79.2	46.7
32.5°	618.2	433.1	159.3	42.9	34.3
35°	590.5	384.5	111.6	33.4	25.8
37.5°	561.9	338.7	68.7	24.8	19.1
40°	532.3	291.9	42.0	18.1	13.4
42.5°	503.7	248.0	33.4	12.4	8.6
45°	473.2	203.2	25.8	7.6	4.8
47.5°	441.7	162.2	19.1	4.8	2.9
50°	411.2	125.9	13.4	2.9	1.9
52.5°	380.6	92.5	8.6	1.9	1.0
55°	350.1	62.0	5.7	1.9	1.0
57.5°	319.6	43.9	3.8	1.0	1.0
60°	289.1	34.3	1.9	1.0	0.0
62.5°	260.4	26.7	1.9	1.0	1.0
65°	229.9	18.1	1.0	1.0	0.0
67.5°	197.5	11.4	1.0	1.0	0.0
70°	167.0	6.7	1.0	1.0	0.0
72.5°	137.4	3.8	1.0	1.0	0.0
75°	108.8	1.9	1.0	1.0	0.0
77.5°	81.1	1.0	0.0	1.0	0.0
80°	55.3	0.0	0.0	1.0	0.0
82.5°	32.4	0.0	0.0	1.0	0.0
85°	11.4	0.0	1.0	1.0	0.0
87.5°	0.0	0.0	1.0	1.0	0.0
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	15.78	17.04	16.15	17.36	17.67	0.00	0.00	0.00	0.00	0.00
	3H	19.53	20.64	19.91	20.97	21.34	0.00	0.00	0.00	0.00	0.00
	4H	20.84	21.88	21.24	22.23	22.61	0.00	0.00	0.00	0.00	0.00
	6H	21.69	22.65	22.11	23.02	23.41	0.00	0.00	0.00	0.00	0.00
	8H	21.90	22.81	22.34	23.20	23.61	0.00	0.00	0.00	0.00	0.00
	12H	21.97	22.83	22.40	23.21	23.65	0.00	0.00	0.00	0.00	0.00
4H	2H	15.54	16.58	15.94	16.93	17.31	0.00	0.00	0.00	0.00	0.00
	3H	19.28	20.13	19.69	20.54	20.94	0.00	0.00	0.00	0.00	0.00
	4H	20.58	21.34	21.01	21.76	22.20	0.00	0.00	0.00	0.00	0.00
	6H	21.49	22.15	21.96	22.60	23.07	0.00	0.00	0.00	0.00	0.00
	8H	21.75	22.36	22.22	22.81	23.28	0.00	0.00	0.00	0.00	0.00
	12H	21.85	22.39	22.34	22.88	23.35	0.00	0.00	0.00	0.00	0.00
8H	4H	20.43	21.04	20.90	21.49	21.96	0.00	0.00	0.00	0.00	0.00
	6H	21.33	21.83	21.84	22.33	22.81	0.00	0.00	0.00	0.00	0.00
	8H	21.59	22.03	22.11	22.55	23.04	0.00	0.00	0.00	0.00	0.00
	12H	21.71	22.09	22.22	22.59	23.16	0.00	0.00	0.00	0.00	0.00
12H	4H	20.38	20.92	20.87	21.40	21.88	0.00	0.00	0.00	0.00	0.00
	6H	21.27	21.71	21.79	22.23	22.72	0.00	0.00	0.00	0.00	0.00
	8H	21.54	21.93	22.06	22.43	23.00	0.00	0.00	0.00	0.00	0.00