

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: P1055236

Luminaire Tested: S122R3DR-S675D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055236  
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-S675D927-X4F0-XX-UDD-F-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

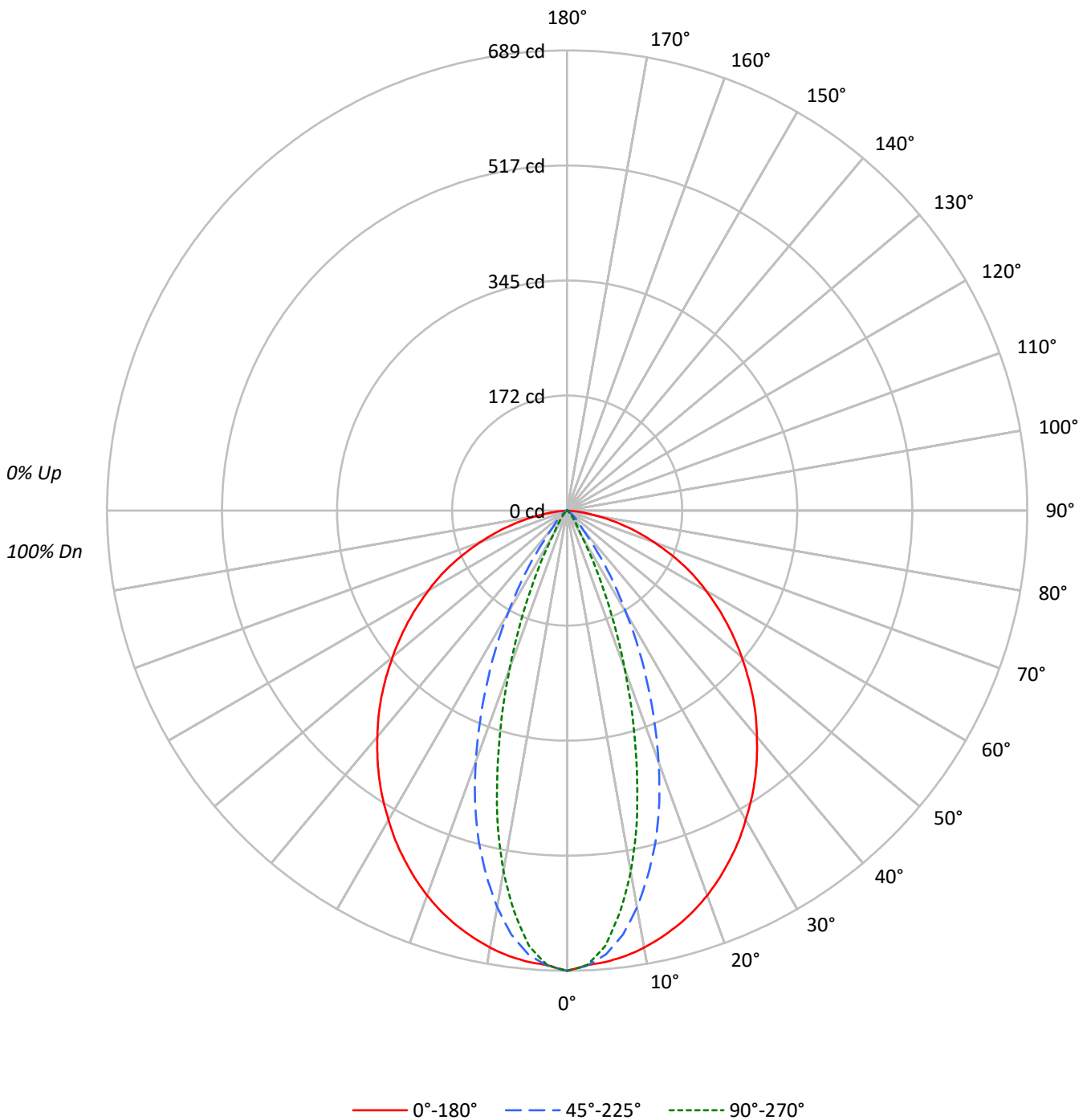
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 627.0 lumens  
Efficiency: N/A  
Efficacy: 23.8 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°	13057	13057	13057
5°	12896	12685	12444
10°	12786	11599	10562
15°	12602	10039	7908
20°	12363	8067	5063
25°	12056	5912	2601
30°	11698	3866	849
35°	11342	2144	495
40°	10932	863	275
45°	10527	573	107
50°	10063	327	47
55°	9602	159	26
60°	9094	61	0
65°	8558	36	0
70°	7678	44	0
75°	6610	59	0
80°	5008	0	0
85°	2065	174	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10527 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.8	9.9
10°-20°	143.6	22.9
20°-30°	145.8	23.2
30°-40°	109.4	17.4
40°-50°	76.6	12.2
50°-60°	46.9	7.5
60°-70°	27.9	4.5
70°-80°	12.9	2.1
80°-90°	2.3	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°	351.1	56.0
0°-40°	460.5	73.4
0°-60°	583.9	93.1
0°-90°	627.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	627.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	689	689	689	689	689	
5°	678	684	667	654	654	64
15°	642	608	512	433	403	181
25°	577	475	283	162	124	265
35°	490	319	93	28	21	306
45°	393	169	21	6	4	303
55°	291	52	5	2	1	260
65°	191	15	1	1	0	188
75°	90	2	1	1	0	96
85°	10	0	1	1	0	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	689.2	689.2	689.2	689.2	689.2
2.5°	681.3	691.6	682.1	680.5	681.3
5°	678.1	684.4	667.0	654.3	654.3
7.5°	672.6	672.6	640.1	613.9	606.0
10°	664.6	655.9	602.9	560.9	549.0
12.5°	654.3	633.7	559.3	499.9	480.9
15°	642.5	607.6	511.8	433.3	403.2
17.5°	629.0	578.3	458.7	361.2	326.4
20°	613.2	546.6	400.1	287.6	251.1
22.5°	595.7	511.8	340.6	221.8	183.0
25°	576.7	475.3	282.8	161.6	124.4
27.5°	556.9	437.3	229.7	110.9	76.0
30°	534.7	397.7	176.7	65.8	38.8
32.5°	513.3	359.7	132.3	35.6	28.5
35°	490.4	319.3	92.7	27.7	21.4
37.5°	466.6	281.2	57.0	20.6	15.8
40°	442.0	242.4	34.9	15.1	11.1
42.5°	418.3	206.0	27.7	10.3	7.1
45°	392.9	168.7	21.4	6.3	4.0
47.5°	366.8	134.7	15.8	4.0	2.4
50°	341.4	104.6	11.1	2.4	1.6
52.5°	316.1	76.8	7.1	1.6	0.8
55°	290.7	51.5	4.8	1.6	0.8
57.5°	265.4	36.4	3.2	0.8	0.8
60°	240.0	28.5	1.6	0.8	0.0
62.5°	216.3	22.2	1.6	0.8	0.8
65°	190.9	15.1	0.8	0.8	0.0
67.5°	164.0	9.5	0.8	0.8	0.0
70°	138.6	5.5	0.8	0.8	0.0
72.5°	114.1	3.2	0.8	0.8	0.0
75°	90.3	1.6	0.8	0.8	0.0
77.5°	67.3	0.8	0.0	0.8	0.0
80°	45.9	0.0	0.0	0.8	0.0
82.5°	26.9	0.0	0.0	0.8	0.0
85°	9.5	0.0	0.8	0.8	0.0
87.5°	0.0	0.0	0.8	0.8	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	15.14	16.40	15.50	16.71	17.02	0.00	0.00	0.00	0.00	0.00
	3H	18.88	20.00	19.26	20.33	20.69	0.00	0.00	0.00	0.00	0.00
	4H	20.19	21.23	20.59	21.58	21.97	0.00	0.00	0.00	0.00	0.00
	6H	21.04	22.00	21.46	22.37	22.76	0.00	0.00	0.00	0.00	0.00
	8H	21.26	22.16	21.69	22.55	22.96	0.00	0.00	0.00	0.00	0.00
	12H	21.32	22.18	21.75	22.57	23.00	0.00	0.00	0.00	0.00	0.00
4H	2H	14.89	15.93	15.29	16.28	16.67	0.00	0.00	0.00	0.00	0.00
	3H	18.63	19.48	19.05	19.89	20.29	0.00	0.00	0.00	0.00	0.00
	4H	19.93	20.69	20.36	21.11	21.55	0.00	0.00	0.00	0.00	0.00
	6H	20.85	21.50	21.31	21.95	22.42	0.00	0.00	0.00	0.00	0.00
	8H	21.10	21.72	21.57	22.16	22.64	0.00	0.00	0.00	0.00	0.00
	12H	21.21	21.74	21.69	22.23	22.70	0.00	0.00	0.00	0.00	0.00
8H	4H	19.78	20.40	20.25	20.84	21.31	0.00	0.00	0.00	0.00	0.00
	6H	20.68	21.18	21.19	21.68	22.16	0.00	0.00	0.00	0.00	0.00
	8H	20.94	21.38	21.46	21.90	22.39	0.00	0.00	0.00	0.00	0.00
	12H	21.06	21.45	21.57	21.94	22.52	0.00	0.00	0.00	0.00	0.00
12H	4H	19.73	20.27	20.22	20.76	21.23	0.00	0.00	0.00	0.00	0.00
	6H	20.62	21.06	21.14	21.58	22.07	0.00	0.00	0.00	0.00	0.00
	8H	20.90	21.29	21.41	21.78	22.35	0.00	0.00	0.00	0.00	0.00