

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: P1055240

Luminaire Tested: S122R3DR-S675D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055240  
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-S675D930-X4F0-XX-UDD-F-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

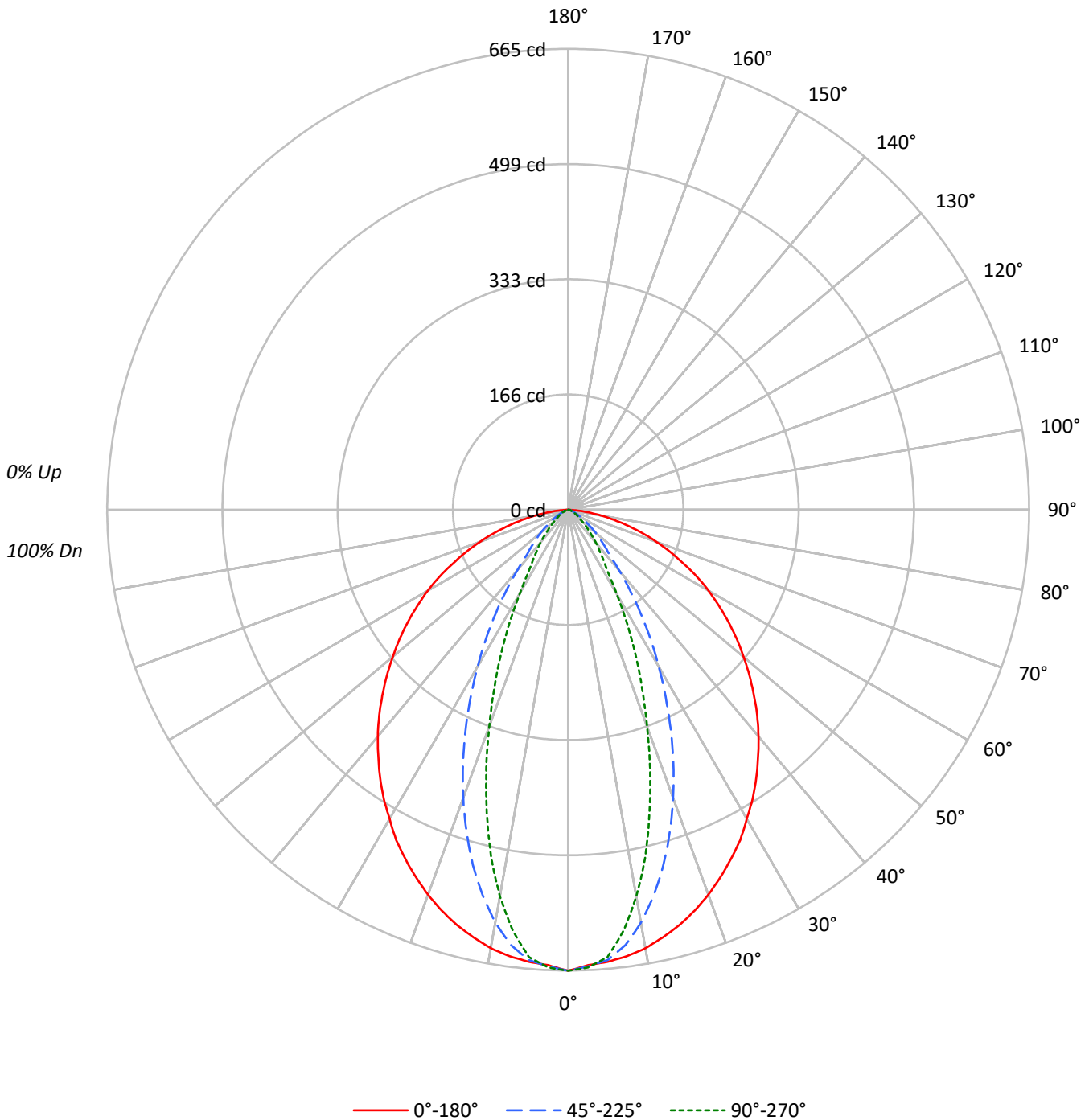
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 762.4 lumens  
Efficiency: N/A  
Efficacy: 28.9 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 (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

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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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

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

	0°	45°	90°
0°	12605	12605	12605
5°	12451	12404	12328
10°	12360	11639	10900
15°	12169	10411	8891
20°	11918	8926	6706
25°	11623	7312	4789
30°	11273	5708	3050
35°	10938	4186	2038
40°	10566	2822	1533
45°	10157	1988	1093
50°	9732	1515	769
55°	9318	1050	565
60°	8867	712	462
65°	8222	511	368
70°	7495	404	316
75°	6508	359	242
80°	5161	262	262
85°	2826	348	174

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10157 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.8	8.0
10°-20°	149.3	19.6
20°-30°	170.5	22.4
30°-40°	144.6	19.0
40°-50°	107.9	14.2
50°-60°	69.8	9.1
60°-70°	38.9	5.1
70°-80°	17.1	2.2
80°-90°	3.5	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°	380.7	49.9
0°-40°	525.3	68.9
0°-60°	703.0	92.2
0°-90°	762.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	762.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	665	665	665	665	665	
5°	655	663	652	646	648	62
15°	620	605	531	474	453	175
25°	556	491	350	256	229	256
35°	473	356	181	99	88	296
45°	379	225	74	48	41	293
55°	282	107	32	20	17	252
65°	183	39	11	9	8	182
75°	89	8	5	4	3	95
85°	13	1	2	1	1	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	665.3	665.3	665.3	665.3	665.3
2.5°	657.9	667.7	659.6	659.6	661.2
5°	654.7	662.8	652.2	645.7	648.2
7.5°	649.8	655.5	633.5	613.9	612.3
10°	642.5	644.9	605.0	574.8	566.6
12.5°	631.9	626.1	569.9	527.5	513.6
15°	620.4	605.0	530.8	474.5	453.3
17.5°	606.6	578.9	487.5	419.1	393.0
20°	591.1	552.0	442.7	361.2	332.6
22.5°	574.0	521.8	396.2	306.6	278.0
25°	556.0	490.8	349.8	256.0	229.1
27.5°	537.3	458.2	304.1	210.3	181.0
30°	515.3	424.8	260.9	166.3	139.4
32.5°	494.9	389.7	220.9	128.8	106.0
35°	472.9	356.3	181.0	98.7	88.1
37.5°	450.0	322.9	145.9	83.2	74.2
40°	427.2	289.4	114.1	70.1	62.0
42.5°	403.6	256.8	88.1	58.7	50.5
45°	379.1	225.0	74.2	48.1	40.8
47.5°	354.7	193.2	62.0	38.3	32.6
50°	330.2	163.1	51.4	30.2	26.1
52.5°	306.6	134.5	40.8	24.5	21.2
55°	282.1	106.8	31.8	19.6	17.1
57.5°	257.6	83.2	24.5	16.3	14.7
60°	234.0	62.8	18.8	13.0	12.2
62.5°	209.5	50.5	14.7	10.6	9.8
65°	183.4	39.1	11.4	9.0	8.2
67.5°	159.8	28.5	9.0	7.3	6.5
70°	135.3	19.6	7.3	6.5	5.7
72.5°	111.7	12.2	5.7	4.9	4.9
75°	88.9	8.2	4.9	4.1	3.3
77.5°	67.7	4.9	3.3	3.3	2.4
80°	47.3	3.3	2.4	2.4	2.4
82.5°	29.4	2.4	1.6	1.6	1.6
85°	13.0	0.8	1.6	0.8	0.8
87.5°	2.4	0.8	0.8	0.8	0.8
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	17.06	18.38	17.42	18.69	19.00	3.36	4.68	3.73	5.00	5.31
	3H	19.53	20.70	19.90	21.03	21.39	4.21	5.38	4.59	5.71	6.07
	4H	20.48	21.57	20.88	21.92	22.31	4.49	5.58	4.89	5.93	6.31
	6H	21.17	22.17	21.59	22.54	22.94	4.67	5.68	5.09	6.05	6.44
	8H	21.37	22.32	21.80	22.71	23.11	4.74	5.69	5.17	6.09	6.49
	12H	21.45	22.36	21.88	22.74	23.17	4.77	5.67	5.20	6.06	6.49
4H	2H	16.84	17.93	17.24	18.28	18.67	3.94	5.03	4.34	5.38	5.76
	3H	19.32	20.22	19.74	20.62	21.03	4.96	5.86	5.37	6.26	6.66
	4H	20.27	21.07	20.70	21.49	21.93	5.34	6.14	5.77	6.55	7.00
	6H	21.02	21.72	21.49	22.16	22.63	5.62	6.31	6.08	6.76	7.22
	8H	21.27	21.91	21.74	22.36	22.83	5.72	6.36	6.18	6.81	7.28
	12H	21.40	21.97	21.88	22.45	22.92	5.76	6.33	6.24	6.81	7.28
8H	4H	20.14	20.78	20.61	21.23	21.70	5.71	6.35	6.18	6.80	7.27
	6H	20.88	21.40	21.38	21.90	22.38	6.06	6.59	6.56	7.08	7.56
	8H	21.12	21.59	21.64	22.11	22.60	6.19	6.66	6.72	7.18	7.67
	12H	21.27	21.68	21.79	22.18	22.75	6.27	6.69	6.79	7.18	7.75
12H	4H	20.09	20.66	20.58	21.14	21.62	5.83	6.40	6.32	6.88	7.36
	6H	20.82	21.29	21.34	21.80	22.29	6.18	6.65	6.70	7.17	7.66
	8H	21.08	21.49	21.59	21.99	22.56	6.35	6.77	6.87	7.26	7.83