

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: P1055241

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055241  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
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-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

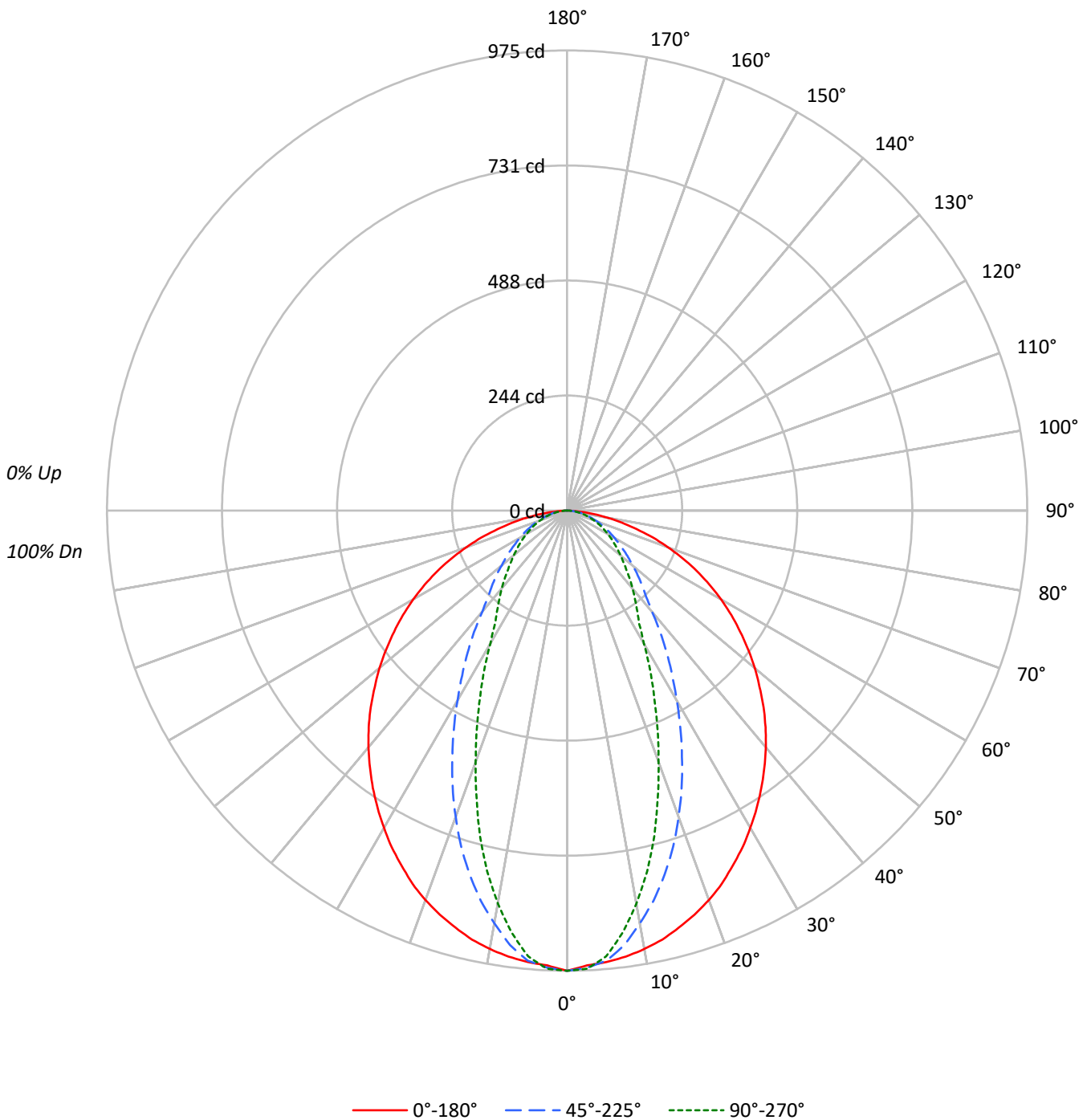
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1474.9 lumens  
Efficiency: N/A  
Efficacy: 55.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	18474	18474	18474
5°	18265	18204	18033
10°	18147	17082	16266
15°	17943	15656	13993
20°	17704	13924	11424
25°	17351	12033	9119
30°	16981	10166	7117
35°	16595	8504	5976
40°	16192	6895	5322
45°	15771	6029	4761
50°	15306	5335	4350
55°	14785	4819	4040
60°	14274	4388	3770
65°	13597	4021	3546
70°	12602	3750	3340
75°	11163	3404	3162
80°	9514	3208	2935
85°	6565	2826	2652

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15771 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.4	6.1
10°-20°	225.6	15.3
20°-30°	278.0	18.8
30°-40°	266.7	18.1
40°-50°	230.0	15.6
50°-60°	178.5	12.1
60°-70°	122.2	8.3
70°-80°	66.4	4.5
80°-90°	18.2	1.2
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°	592.9	40.2
0°-40°	859.6	58.3
0°-60°	1268.2	86.0
0°-90°	1474.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1474.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	975	975	975	975	975	
5°	960	974	957	945	948	91
15°	915	887	798	733	713	258
25°	830	741	576	470	436	383
35°	718	569	368	274	258	449
45°	589	396	225	186	178	454
55°	448	238	146	126	122	401
65°	303	130	90	82	79	299
75°	152	60	46	44	43	163
85°	30	15	13	13	12	38
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	975.1	975.1	975.1	975.1	975.1
2.5°	964.5	980.8	969.4	969.4	971.8
5°	960.4	974.3	957.2	944.9	948.2
7.5°	953.1	962.9	928.6	902.5	901.7
10°	943.3	944.1	887.9	853.6	845.5
12.5°	931.1	918.0	846.3	794.9	782.7
15°	914.8	887.0	798.2	733.0	713.4
17.5°	897.6	855.2	746.8	665.3	638.4
20°	878.1	816.9	690.6	597.6	566.6
22.5°	856.1	780.2	634.3	532.4	499.8
25°	830.0	741.1	575.6	469.6	436.2
27.5°	804.7	701.2	519.3	414.2	379.9
30°	776.2	657.9	464.7	361.2	325.3
32.5°	747.6	613.9	414.2	310.6	283.7
35°	717.5	569.1	367.7	273.9	258.4
37.5°	686.5	525.1	323.7	249.5	235.6
40°	654.7	481.0	278.8	225.8	215.2
42.5°	622.1	437.8	247.9	206.3	196.5
45°	588.6	396.2	225.0	185.9	177.7
47.5°	552.8	354.7	203.0	168.8	161.4
50°	519.3	314.7	181.0	153.3	147.6
52.5°	483.5	275.6	163.1	139.4	134.5
55°	447.6	238.1	145.9	126.4	122.3
57.5°	412.5	202.2	129.6	114.1	110.9
60°	376.7	173.7	115.8	102.7	99.5
62.5°	340.0	150.8	102.7	92.1	88.9
65°	303.3	129.6	89.7	81.5	79.1
67.5°	265.0	109.2	78.3	71.7	70.1
70°	227.5	91.3	67.7	62.0	60.3
72.5°	190.8	74.2	57.1	53.0	51.4
75°	152.5	59.5	46.5	44.0	43.2
77.5°	119.0	46.5	37.5	35.9	35.1
80°	87.2	34.2	29.4	27.7	26.9
82.5°	57.9	23.6	21.2	20.4	19.6
85°	30.2	14.7	13.0	13.0	12.2
87.5°	9.8	6.5	6.5	6.5	5.7
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	19.74	21.21	20.11	21.52	21.84	14.55	16.01	14.91	16.33	16.64
	3H	22.07	23.39	22.45	23.72	24.08	16.19	17.51	16.57	17.84	18.20
	4H	22.97	24.20	23.37	24.55	24.93	16.83	18.06	17.23	18.41	18.79
	6H	23.63	24.77	24.04	25.14	25.53	17.32	18.46	17.74	18.83	19.22
	8H	23.84	24.92	24.26	25.31	25.71	17.49	18.58	17.92	18.97	19.37
	12H	23.95	24.99	24.38	25.37	25.80	17.61	18.65	18.04	19.03	19.46
4H	2H	19.76	20.99	20.16	21.34	21.72	15.26	16.50	15.66	16.84	17.22
	3H	22.17	23.19	22.58	23.60	24.00	17.11	18.13	17.52	18.54	18.94
	4H	23.10	24.02	23.53	24.44	24.88	17.86	18.78	18.29	19.20	19.64
	6H	23.88	24.68	24.34	25.12	25.58	18.47	19.27	18.93	19.72	20.18
	8H	24.15	24.90	24.61	25.34	25.81	18.69	19.44	19.15	19.88	20.35
	12H	24.32	24.99	24.81	25.47	25.94	18.85	19.52	19.33	20.00	20.47
8H	4H	23.09	23.84	23.56	24.29	24.75	18.24	18.98	18.70	19.43	19.90
	6H	23.90	24.52	24.40	25.01	25.49	18.97	19.59	19.47	20.08	20.56
	8H	24.20	24.76	24.72	25.27	25.76	19.27	19.82	19.79	20.33	20.82
	12H	24.43	24.92	24.94	25.41	25.98	19.51	20.00	20.02	20.50	21.06
12H	4H	23.07	23.74	23.56	24.22	24.69	18.29	18.96	18.78	19.44	19.91
	6H	23.88	24.43	24.39	24.94	25.43	19.06	19.61	19.58	20.13	20.61
	8H	24.21	24.70	24.72	25.19	25.76	19.42	19.91	19.93	20.40	20.96