

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: P1055238

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055238
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-S675D927-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

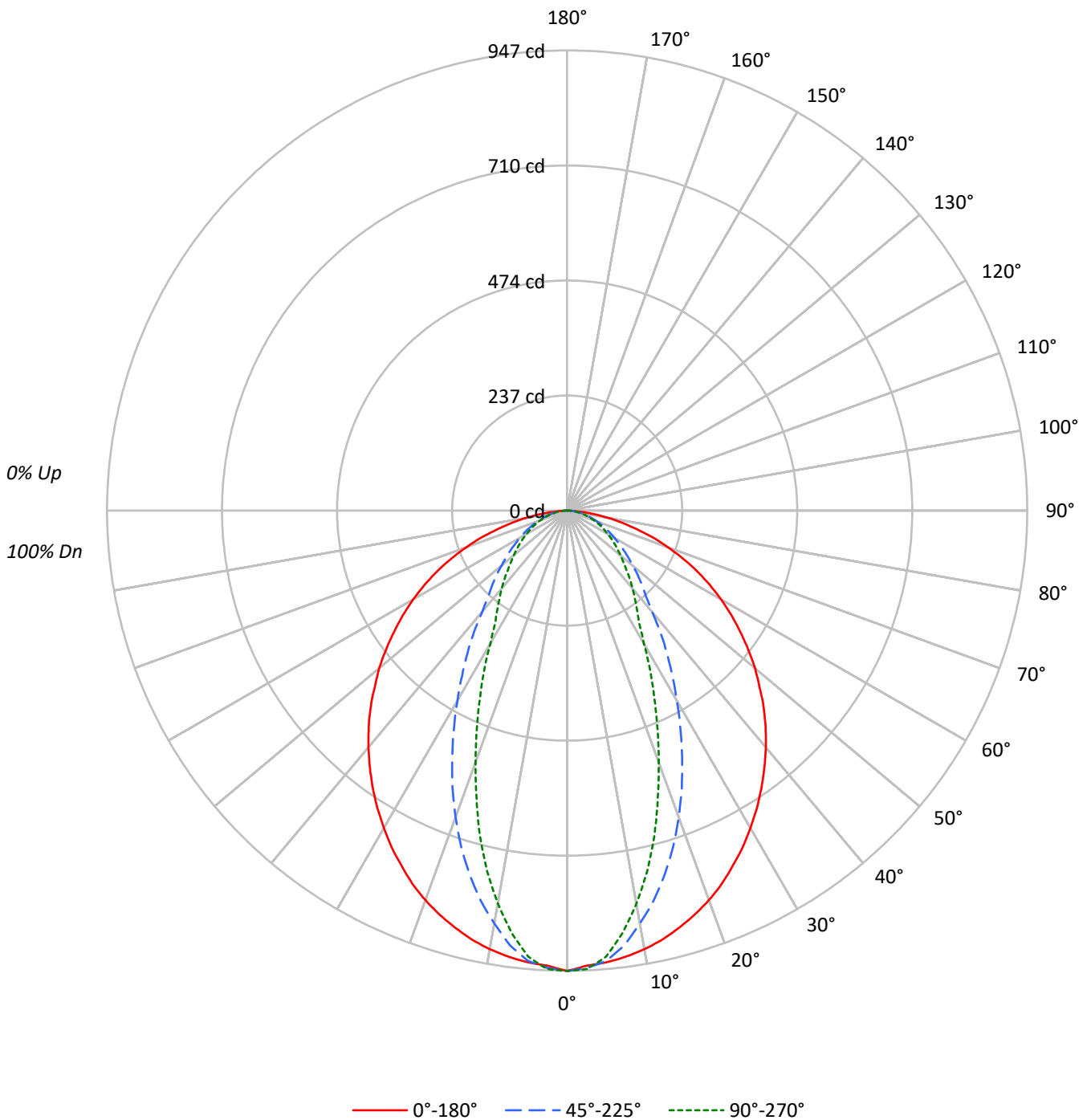
Lumens per Lamp: N/A
Luminaire Lumens: 1433.1 lumens
Efficiency: N/A
Efficacy: 54.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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	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°	17949	17949	17949
5°	17748	17687	17521
10°	17634	16597	15804
15°	17433	15211	13597
20°	17202	13529	11101
25°	16857	11692	8859
30°	16499	9877	6915
35°	16123	8264	5808
40°	15732	6700	5171
45°	15326	5857	4627
50°	14873	5185	4227
55°	14365	4684	3924
60°	13868	4263	3660
65°	13211	3905	3443
70°	12242	3645	3246
75°	10841	3309	3074
80°	9252	3109	2848
85°	6369	2761	2587

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15326 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.8	6.1
10°-20°	219.2	15.3
20°-30°	270.1	18.8
30°-40°	259.1	18.1
40°-50°	223.5	15.6
50°-60°	173.4	12.1
60°-70°	118.7	8.3
70°-80°	64.5	4.5
80°-90°	17.7	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°	576.1	40.2
0°-40°	835.3	58.3
0°-60°	1232.2	86.0
0°-90°	1433.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1433.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	947	947	947	947	947	
5°	933	947	930	918	921	89
15°	889	862	776	712	693	251
25°	806	720	559	456	424	372
35°	697	553	357	266	251	436
45°	572	385	219	181	173	441
55°	435	231	142	123	119	389
65°	295	126	87	79	77	291
75°	148	58	45	43	42	159
85°	29	14	13	13	12	37
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	947.4	947.4	947.4	947.4	947.4
2.5°	937.2	953.0	941.9	941.9	944.3
5°	933.2	946.7	930.0	918.1	921.3
7.5°	926.1	935.6	902.3	876.9	876.2
10°	916.6	917.3	862.7	829.4	821.5
12.5°	904.7	892.0	822.3	772.4	760.5
15°	888.8	861.9	775.5	712.2	693.2
17.5°	872.2	831.0	725.6	646.4	620.3
20°	853.2	793.8	671.0	580.7	550.6
22.5°	831.8	758.1	616.3	517.3	485.6
25°	806.4	720.1	559.3	456.3	423.8
27.5°	781.9	681.3	504.6	402.4	369.2
30°	754.2	639.3	451.5	350.9	316.1
32.5°	726.4	596.5	402.4	301.8	275.7
35°	697.1	552.9	357.3	266.2	251.1
37.5°	667.0	510.2	314.5	242.4	228.9
40°	636.1	467.4	270.9	219.4	209.1
42.5°	604.4	425.4	240.8	200.4	190.9
45°	572.0	385.0	218.6	180.6	172.7
47.5°	537.1	344.6	197.3	164.0	156.9
50°	504.6	305.8	175.9	148.9	143.4
52.5°	469.8	267.8	158.4	135.5	130.7
55°	434.9	231.3	141.8	122.8	118.8
57.5°	400.8	196.5	126.0	110.9	107.7
60°	366.0	168.7	112.5	99.8	96.6
62.5°	330.3	146.6	99.8	89.5	86.3
65°	294.7	126.0	87.1	79.2	76.8
67.5°	257.5	106.2	76.0	69.7	68.1
70°	221.0	88.7	65.8	60.2	58.6
72.5°	185.4	72.1	55.5	51.5	49.9
75°	148.1	57.8	45.2	42.8	42.0
77.5°	115.7	45.2	36.4	34.9	34.1
80°	84.8	33.3	28.5	26.9	26.1
82.5°	56.2	23.0	20.6	19.8	19.0
85°	29.3	14.3	12.7	12.7	11.9
87.5°	9.5	6.3	6.3	6.3	5.5
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	19.64	21.11	20.01	21.42	21.74	14.45	15.91	14.81	16.23	16.54
	3H	21.97	23.29	22.35	23.62	23.98	16.09	17.41	16.47	17.74	18.10
	4H	22.87	24.10	23.27	24.45	24.83	16.73	17.96	17.13	18.31	18.69
	6H	23.53	24.67	23.94	25.04	25.43	17.22	18.36	17.64	18.73	19.12
	8H	23.74	24.82	24.16	25.21	25.61	17.39	18.48	17.82	18.87	19.27
	12H	23.85	24.89	24.28	25.27	25.70	17.51	18.55	17.94	18.93	19.36
4H	2H	19.66	20.89	20.06	21.24	21.62	15.16	16.40	15.56	16.74	17.12
	3H	22.07	23.10	22.48	23.50	23.90	17.01	18.03	17.42	18.44	18.84
	4H	23.00	23.92	23.43	24.34	24.78	17.76	18.68	18.19	19.10	19.54
	6H	23.78	24.58	24.24	25.02	25.48	18.37	19.17	18.83	19.62	20.08
	8H	24.05	24.80	24.51	25.24	25.71	18.59	19.34	19.05	19.78	20.25
	12H	24.23	24.89	24.71	25.37	25.84	18.75	19.42	19.23	19.90	20.37
8H	4H	22.99	23.74	23.46	24.19	24.65	18.14	18.89	18.60	19.33	19.80
	6H	23.80	24.42	24.30	24.91	25.39	18.87	19.49	19.37	19.98	20.46
	8H	24.10	24.66	24.62	25.17	25.66	19.17	19.72	19.68	20.23	20.72
	12H	24.33	24.82	24.84	25.31	25.88	19.41	19.90	19.92	20.40	20.96
12H	4H	22.97	23.64	23.46	24.12	24.59	18.19	18.86	18.68	19.34	19.81
	6H	23.78	24.33	24.29	24.84	25.33	18.96	19.51	19.48	20.03	20.51
	8H	24.11	24.60	24.62	25.09	25.66	19.32	19.80	19.83	20.30	20.86