

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: P1055239

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055239
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-S675D930-X4F0-XX-UDD-F-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

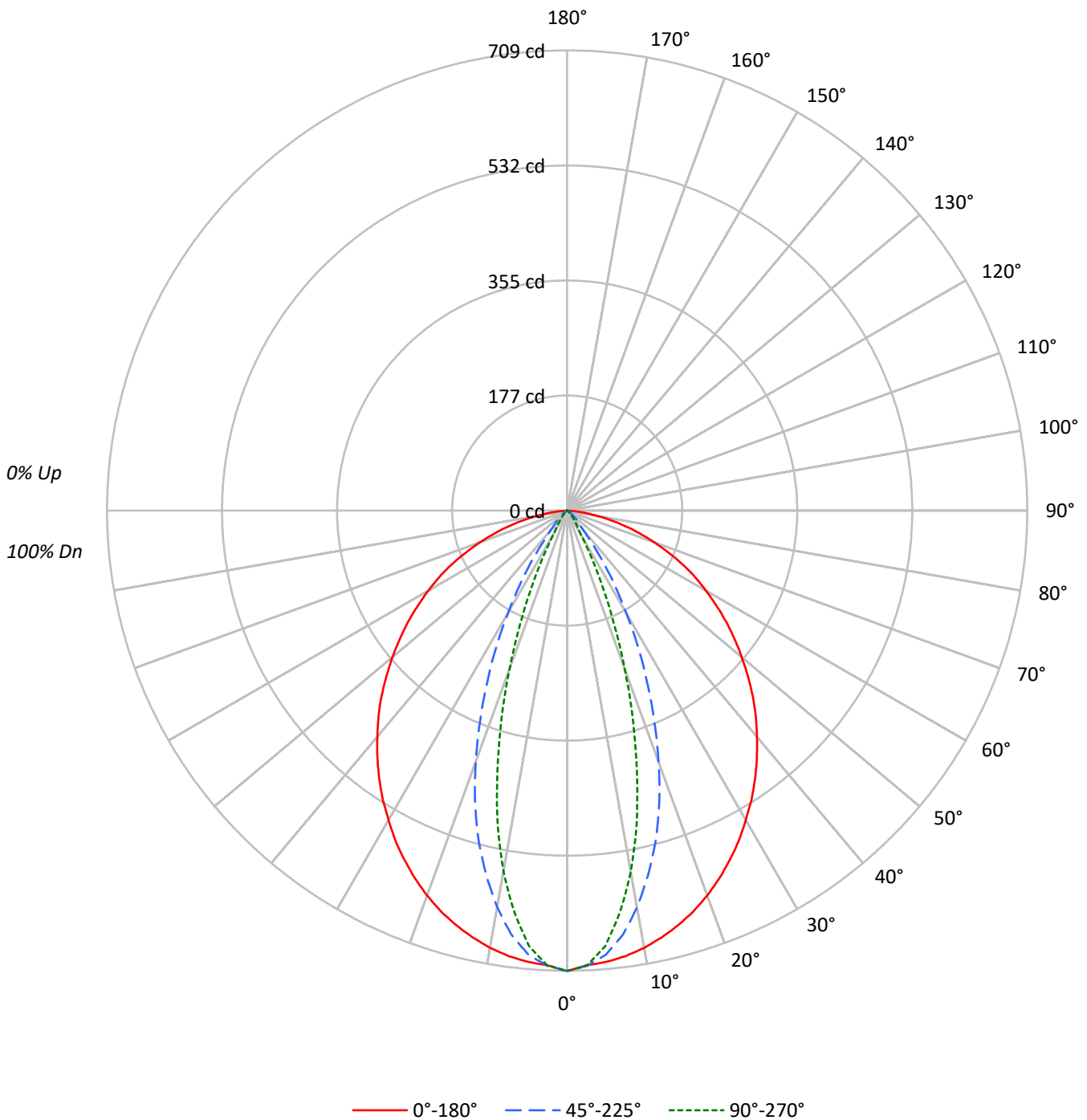
Lumens per Lamp: N/A
Luminaire Lumens: 645.3 lumens
Efficiency: N/A
Efficacy: 24.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): 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	63	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	48	44	43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13438	13438	13438
5°	13273	13056	12807
10°	13159	11935	10870
15°	12969	10331	8140
20°	12722	8301	5212
25°	12407	6085	2676
30°	12039	3977	873
35°	11673	2206	509
40°	11251	888	282
45°	10835	589	110
50°	10357	336	47
55°	9883	162	26
60°	9359	61	0
65°	8809	36	0
70°	7905	44	0
75°	6800	59	0
80°	5161	0	0
85°	2130	174	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10835 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	9.9
10°-20°	147.7	22.9
20°-30°	150.0	23.2
30°-40°	112.6	17.4
40°-50°	78.8	12.2
50°-60°	48.2	7.5
60°-70°	28.7	4.5
70°-80°	13.2	2.1
80°-90°	2.4	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°	361.3	56.0
0°-40°	473.9	73.4
0°-60°	601.0	93.1
0°-90°	645.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	645.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	698	704	686	673	673	66
15°	661	625	527	446	415	186
25°	594	489	291	166	128	273
35°	505	329	95	28	22	315
45°	404	174	22	6	4	312
55°	299	53	5	2	1	268
65°	196	16	1	1	0	194
75°	93	2	1	1	0	99
85°	10	0	1	1	0	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	709.3	709.3	709.3	709.3	709.3
2.5°	701.2	711.8	702.0	700.3	701.2
5°	697.9	704.4	686.5	673.4	673.4
7.5°	692.2	692.2	658.8	631.9	623.7
10°	684.0	675.1	620.4	577.2	565.0
12.5°	673.4	652.2	575.6	514.5	494.9
15°	661.2	625.3	526.7	446.0	415.0
17.5°	647.4	595.2	472.1	371.8	335.9
20°	631.0	562.6	411.7	296.0	258.5
22.5°	613.1	526.7	350.6	228.3	188.3
25°	593.5	489.2	291.1	166.3	128.0
27.5°	573.2	450.0	236.4	114.1	78.3
30°	550.3	409.3	181.8	67.7	39.9
32.5°	528.3	370.1	136.2	36.7	29.4
35°	504.7	328.6	95.4	28.5	22.0
37.5°	480.2	289.4	58.7	21.2	16.3
40°	454.9	249.5	35.9	15.5	11.4
42.5°	430.5	212.0	28.5	10.6	7.3
45°	404.4	173.7	22.0	6.5	4.1
47.5°	377.5	138.6	16.3	4.1	2.4
50°	351.4	107.6	11.4	2.4	1.6
52.5°	325.3	79.1	7.3	1.6	0.8
55°	299.2	53.0	4.9	1.6	0.8
57.5°	273.1	37.5	3.3	0.8	0.8
60°	247.0	29.4	1.6	0.8	0.0
62.5°	222.6	22.8	1.6	0.8	0.8
65°	196.5	15.5	0.8	0.8	0.0
67.5°	168.8	9.8	0.8	0.8	0.0
70°	142.7	5.7	0.8	0.8	0.0
72.5°	117.4	3.3	0.8	0.8	0.0
75°	92.9	1.6	0.8	0.8	0.0
77.5°	69.3	0.8	0.0	0.8	0.0
80°	47.3	0.0	0.0	0.8	0.0
82.5°	27.7	0.0	0.0	0.8	0.0
85°	9.8	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	15.24	16.50	15.60	16.81	17.13	0.00	0.00	0.00	0.00	0.00
	3H	18.98	20.10	19.36	20.43	20.79	0.00	0.00	0.00	0.00	0.00
	4H	20.29	21.33	20.69	21.68	22.07	0.00	0.00	0.00	0.00	0.00
	6H	21.15	22.10	21.56	22.47	22.87	0.00	0.00	0.00	0.00	0.00
	8H	21.36	22.26	21.79	22.65	23.06	0.00	0.00	0.00	0.00	0.00
	12H	21.42	22.29	21.86	22.67	23.10	0.00	0.00	0.00	0.00	0.00
4H	2H	14.99	16.03	15.40	16.38	16.77	0.00	0.00	0.00	0.00	0.00
	3H	18.73	19.59	19.15	19.99	20.40	0.00	0.00	0.00	0.00	0.00
	4H	20.03	20.79	20.46	21.21	21.66	0.00	0.00	0.00	0.00	0.00
	6H	20.95	21.60	21.41	22.05	22.52	0.00	0.00	0.00	0.00	0.00
	8H	21.21	21.82	21.68	22.27	22.74	0.00	0.00	0.00	0.00	0.00
	12H	21.31	21.85	21.80	22.33	22.81	0.00	0.00	0.00	0.00	0.00
8H	4H	19.88	20.50	20.35	20.94	21.42	0.00	0.00	0.00	0.00	0.00
	6H	20.79	21.28	21.29	21.78	22.26	0.00	0.00	0.00	0.00	0.00
	8H	21.04	21.49	21.57	22.00	22.50	0.00	0.00	0.00	0.00	0.00
	12H	21.16	21.55	21.68	22.05	22.62	0.00	0.00	0.00	0.00	0.00
12H	4H	19.84	20.37	20.32	20.86	21.33	0.00	0.00	0.00	0.00	0.00
	6H	20.72	21.17	21.25	21.68	22.18	0.00	0.00	0.00	0.00	0.00
	8H	21.00	21.39	21.51	21.88	22.46	0.00	0.00	0.00	0.00	0.00