

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: P1055242

Luminaire Tested: S122R3DR-S675D935-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055242
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-S675D935-X4F0-XX-UDD-F-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

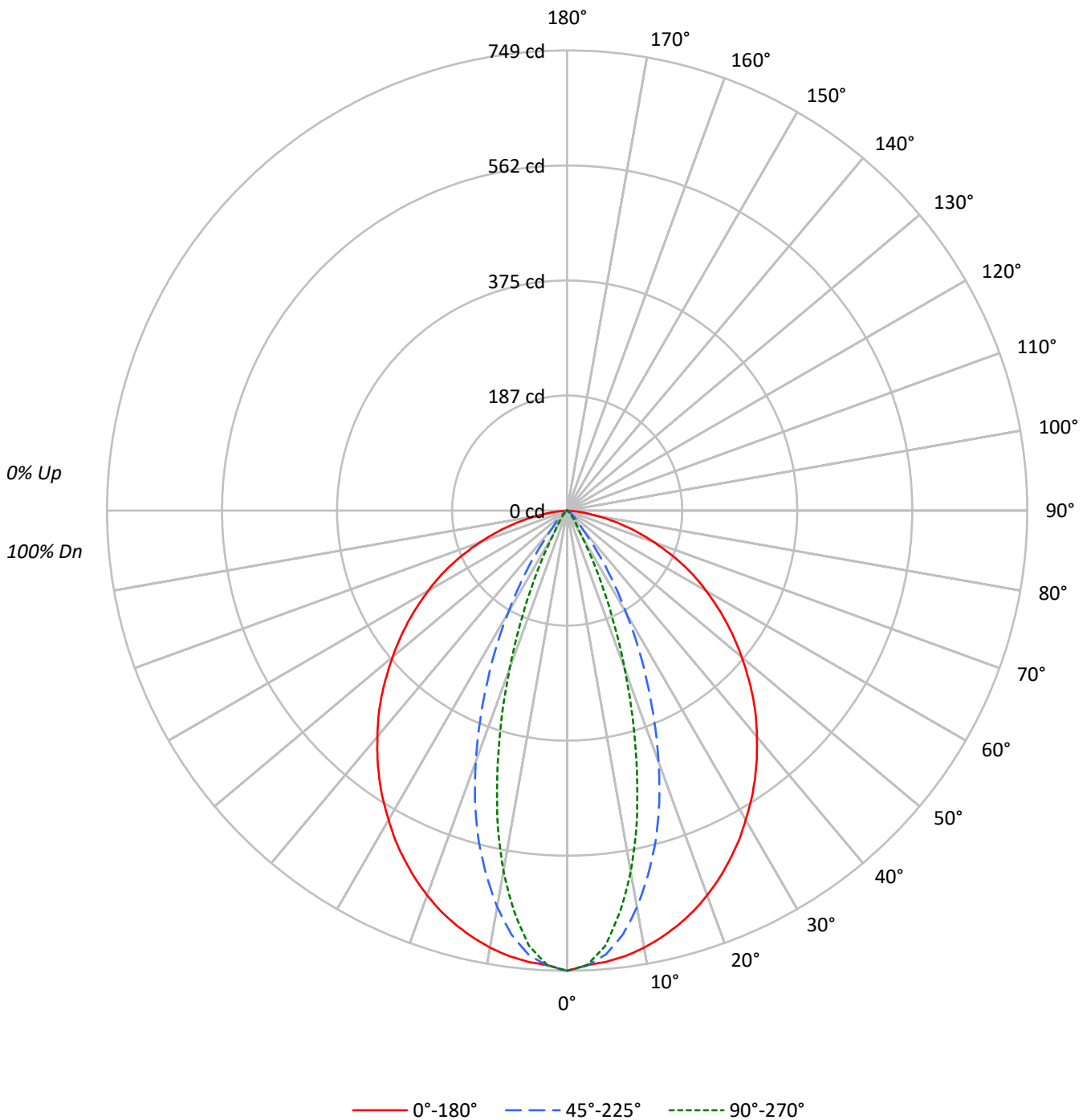
Lumens per Lamp: N/A
Luminaire Lumens: 681.5 lumens
Efficiency: N/A
Efficacy: 25.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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

TEST NUMBER: P105242

CATALOG NUMBER: S122R3DR-S675D935-X4F0-XX-UDD-F-B

Luminous Intensity Polar Plot





TEST NUMBER: P1055242

CATALOG NUMBER: S122R3DR-S675D935-X4F0-XX-UDD-F-B

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14192	14192	14192
5°	14016	13788	13526
10°	13898	12605	11479
15°	13697	10909	8597
20°	13436	8766	5502
25°	13103	6426	2826
30°	12715	4200	923
35°	12328	2329	537
40°	11881	937	299
45°	11443	622	115
50°	10938	357	50
55°	10438	172	30
60°	9886	64	0
65°	9302	40	0
70°	8348	50	0
75°	7188	66	0
80°	5444	0	0
85°	2239	196	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11443 cd/sqm



TEST NUMBER: P1055242

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.2	9.9
10°-20°	156.0	22.9
20°-30°	158.4	23.2
30°-40°	118.9	17.4
40°-50°	83.2	12.2
50°-60°	50.9	7.5
60°-70°	30.4	4.5
70°-80°	14.0	2.1
80°-90°	2.5	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°	381.6	56.0
0°-40°	500.5	73.4
0°-60°	634.7	93.1
0°-90°	681.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	681.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	737	744	725	711	711	70
15°	698	660	556	471	438	197
25°	627	517	307	176	135	289
35°	533	347	101	30	23	333
45°	427	183	23	7	4	329
55°	316	56	5	2	1	283
65°	208	16	1	1	0	204
75°	98	2	1	1	0	104
85°	10	0	1	1	0	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	749.1	749.1	749.1	749.1	749.1
2.5°	740.5	751.7	741.3	739.6	740.5
5°	737.0	743.9	725.0	711.2	711.2
7.5°	731.0	731.0	695.7	667.3	658.7
10°	722.4	712.9	655.2	609.6	596.7
12.5°	711.2	688.8	607.9	543.3	522.6
15°	698.3	660.4	556.2	471.0	438.3
17.5°	683.6	628.5	498.5	392.6	354.7
20°	666.4	594.1	434.8	312.5	272.9
22.5°	647.5	556.2	370.2	241.1	198.9
25°	626.8	516.6	307.4	175.6	135.2
27.5°	605.3	475.3	249.7	120.5	82.7
30°	581.2	432.2	192.0	71.5	42.2
32.5°	557.9	390.9	143.8	38.7	31.0
35°	533.0	347.0	100.7	30.1	23.2
37.5°	507.1	305.7	62.0	22.4	17.2
40°	480.4	263.5	37.9	16.4	12.1
42.5°	454.6	223.9	30.1	11.2	7.7
45°	427.1	183.4	23.2	6.9	4.3
47.5°	398.6	146.4	17.2	4.3	2.6
50°	371.1	113.7	12.1	2.6	1.7
52.5°	343.5	83.5	7.7	1.7	0.9
55°	316.0	56.0	5.2	1.7	0.9
57.5°	288.4	39.6	3.4	0.9	0.9
60°	260.9	31.0	1.7	0.9	0.0
62.5°	235.1	24.1	1.7	0.9	0.9
65°	207.5	16.4	0.9	0.9	0.0
67.5°	178.2	10.3	0.9	0.9	0.0
70°	150.7	6.0	0.9	0.9	0.0
72.5°	124.0	3.4	0.9	0.9	0.0
75°	98.2	1.7	0.9	0.9	0.0
77.5°	73.2	0.9	0.0	0.9	0.0
80°	49.9	0.0	0.0	0.9	0.0
82.5°	29.3	0.0	0.0	0.9	0.0
85°	10.3	0.0	0.9	0.9	0.0
87.5°	0.0	0.0	0.9	0.9	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	15.43	16.69	15.79	17.00	17.31	0.00	0.00	0.00	0.00	0.00
	3H	19.17	20.29	19.55	20.62	20.98	0.00	0.00	0.00	0.00	0.00
	4H	20.48	21.52	20.88	21.87	22.26	0.00	0.00	0.00	0.00	0.00
	6H	21.33	22.29	21.75	22.66	23.06	0.00	0.00	0.00	0.00	0.00
	8H	21.55	22.45	21.98	22.84	23.25	0.00	0.00	0.00	0.00	0.00
	12H	21.61	22.48	22.04	22.86	23.29	0.00	0.00	0.00	0.00	0.00
4H	2H	15.18	16.22	15.58	16.57	16.96	0.00	0.00	0.00	0.00	0.00
	3H	18.92	19.77	19.33	20.18	20.58	0.00	0.00	0.00	0.00	0.00
	4H	20.22	20.98	20.65	21.40	21.84	0.00	0.00	0.00	0.00	0.00
	6H	21.14	21.79	21.60	22.24	22.71	0.00	0.00	0.00	0.00	0.00
	8H	21.40	22.01	21.87	22.46	22.93	0.00	0.00	0.00	0.00	0.00
	12H	21.50	22.04	21.98	22.52	22.99	0.00	0.00	0.00	0.00	0.00
8H	4H	20.07	20.69	20.54	21.13	21.60	0.00	0.00	0.00	0.00	0.00
	6H	20.97	21.47	21.48	21.97	22.45	0.00	0.00	0.00	0.00	0.00
	8H	21.23	21.68	21.76	22.19	22.69	0.00	0.00	0.00	0.00	0.00
	12H	21.35	21.74	21.87	22.23	22.81	0.00	0.00	0.00	0.00	0.00
12H	4H	20.02	20.56	20.51	21.05	21.52	0.00	0.00	0.00	0.00	0.00
	6H	20.91	21.36	21.44	21.87	22.37	0.00	0.00	0.00	0.00	0.00
	8H	21.19	21.58	21.70	22.07	22.65	0.00	0.00	0.00	0.00	0.00