

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: P1055227

Luminaire Tested: S122R3DR-S675D835-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055227
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-S675D835-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, 80 CRI LEDS
Ballast/Driver: -

Summary

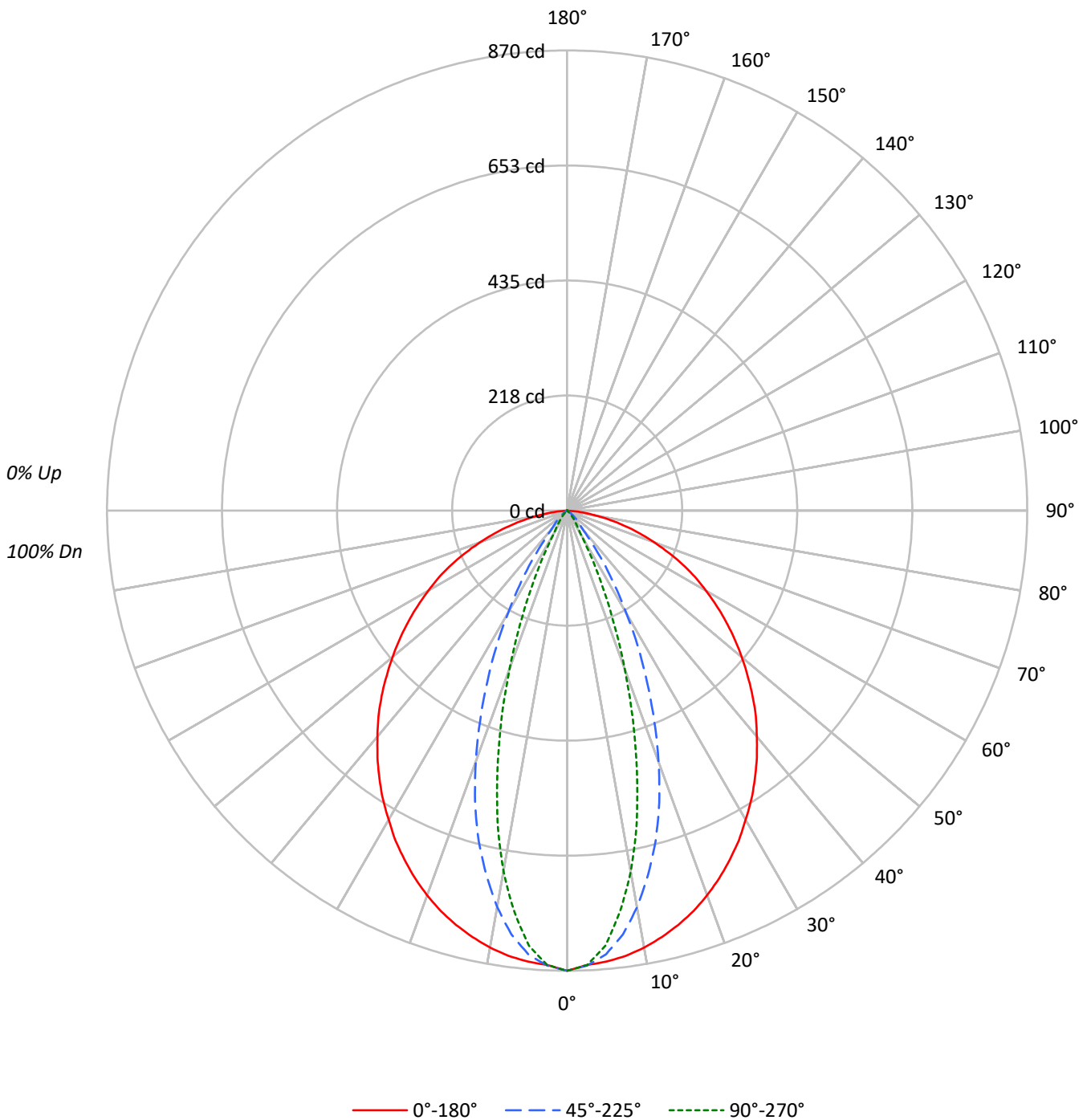
Lumens per Lamp: N/A
Luminaire Lumens: 791.5 lumens
Efficiency: N/A
Efficacy: 30.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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	62	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	47	44	43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16483	16483	16483
5°	16280	16013	15709
10°	16141	14640	13332
15°	15907	12671	9984
20°	15605	10182	6391
25°	15218	7463	3282
30°	14767	4879	1072
35°	14317	2706	624
40°	13800	1088	346
45°	13290	723	134
50°	12704	413	59
55°	12122	198	33
60°	11481	76	0
65°	10804	45	0
70°	9694	55	0
75°	8345	73	0
80°	6328	0	0
85°	2609	217	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13290 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.0	9.9
10°-20°	181.2	22.9
20°-30°	184.0	23.2
30°-40°	138.1	17.4
40°-50°	96.7	12.2
50°-60°	59.2	7.5
60°-70°	35.2	4.5
70°-80°	16.3	2.1
80°-90°	2.9	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°	443.2	56.0
0°-40°	581.3	73.4
0°-60°	737.1	93.1
0°-90°	791.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	791.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	856	864	842	826	826	81
15°	811	767	646	547	509	228
25°	728	600	357	204	157	335
35°	619	403	117	35	27	387
45°	496	213	27	8	5	382
55°	367	65	6	2	1	328
65°	241	19	1	1	0	237
75°	114	2	1	1	0	121
85°	12	0	1	1	0	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	870	870	870	870	870
2.5°	860	873	861	859	860
5°	856	864	842	826	826
7.5°	849	849	808	775	765
10°	839	828	761	708	693
12.5°	826	800	706	631	607
15°	811	767	646	547	509
17.5°	794	730	579	456	412
20°	774	690	505	363	317
22.5°	752	646	430	280	231
25°	728	600	357	204	157
27.5°	703	552	290	140	96
30°	675	502	223	83	49
32.5°	648	454	167	45	36
35°	619	403	117	35	27
37.5°	589	355	72	26	20
40°	558	306	44	19	14
42.5°	528	260	35	13	9
45°	496	213	27	8	5
47.5°	463	170	20	5	3
50°	431	132	14	3	2
52.5°	399	97	9	2	1
55°	367	65	6	2	1
57.5°	335	46	4	1	1
60°	303	36	2	1	0
62.5°	273	28	2	1	1
65°	241	19	1	1	0
67.5°	207	12	1	1	0
70°	175	7	1	1	0
72.5°	144	4	1	1	0
75°	114	2	1	1	0
77.5°	85	1	0	1	0
80°	58	0	0	1	0
82.5°	34	0	0	1	0
85°	12	0	1	1	0
87.5°	0	0	1	1	0
90°	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	15.95	17.21	16.31	17.52	17.84	0.00	0.00	0.00	0.00	0.00
	3H	19.69	20.81	20.07	21.14	21.50	0.00	0.00	0.00	0.00	0.00
	4H	21.00	22.04	21.40	22.39	22.78	0.00	0.00	0.00	0.00	0.00
	6H	21.85	22.81	22.27	23.18	23.58	0.00	0.00	0.00	0.00	0.00
	8H	22.07	22.97	22.50	23.36	23.77	0.00	0.00	0.00	0.00	0.00
	12H	22.13	23.00	22.57	23.38	23.81	0.00	0.00	0.00	0.00	0.00
4H	2H	15.70	16.74	16.11	17.09	17.48	0.00	0.00	0.00	0.00	0.00
	3H	19.44	20.30	19.86	20.70	21.10	0.00	0.00	0.00	0.00	0.00
	4H	20.74	21.50	21.17	21.92	22.36	0.00	0.00	0.00	0.00	0.00
	6H	21.66	22.31	22.12	22.76	23.23	0.00	0.00	0.00	0.00	0.00
	8H	21.92	22.53	22.39	22.98	23.45	0.00	0.00	0.00	0.00	0.00
	12H	22.02	22.56	22.50	23.04	23.51	0.00	0.00	0.00	0.00	0.00
8H	4H	20.59	21.21	21.06	21.65	22.13	0.00	0.00	0.00	0.00	0.00
	6H	21.49	21.99	22.00	22.49	22.97	0.00	0.00	0.00	0.00	0.00
	8H	21.75	22.20	22.28	22.71	23.21	0.00	0.00	0.00	0.00	0.00
	12H	21.87	22.26	22.39	22.75	23.33	0.00	0.00	0.00	0.00	0.00
12H	4H	20.54	21.08	21.03	21.57	22.04	0.00	0.00	0.00	0.00	0.00
	6H	21.43	21.88	21.96	22.39	22.89	0.00	0.00	0.00	0.00	0.00
	8H	21.71	22.10	22.22	22.59	23.17	0.00	0.00	0.00	0.00	0.00