

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: P1055230

Luminaire Tested: S122R3DR-S675D840-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055230
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-S675D840-X4F0-XX-UDD-F-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

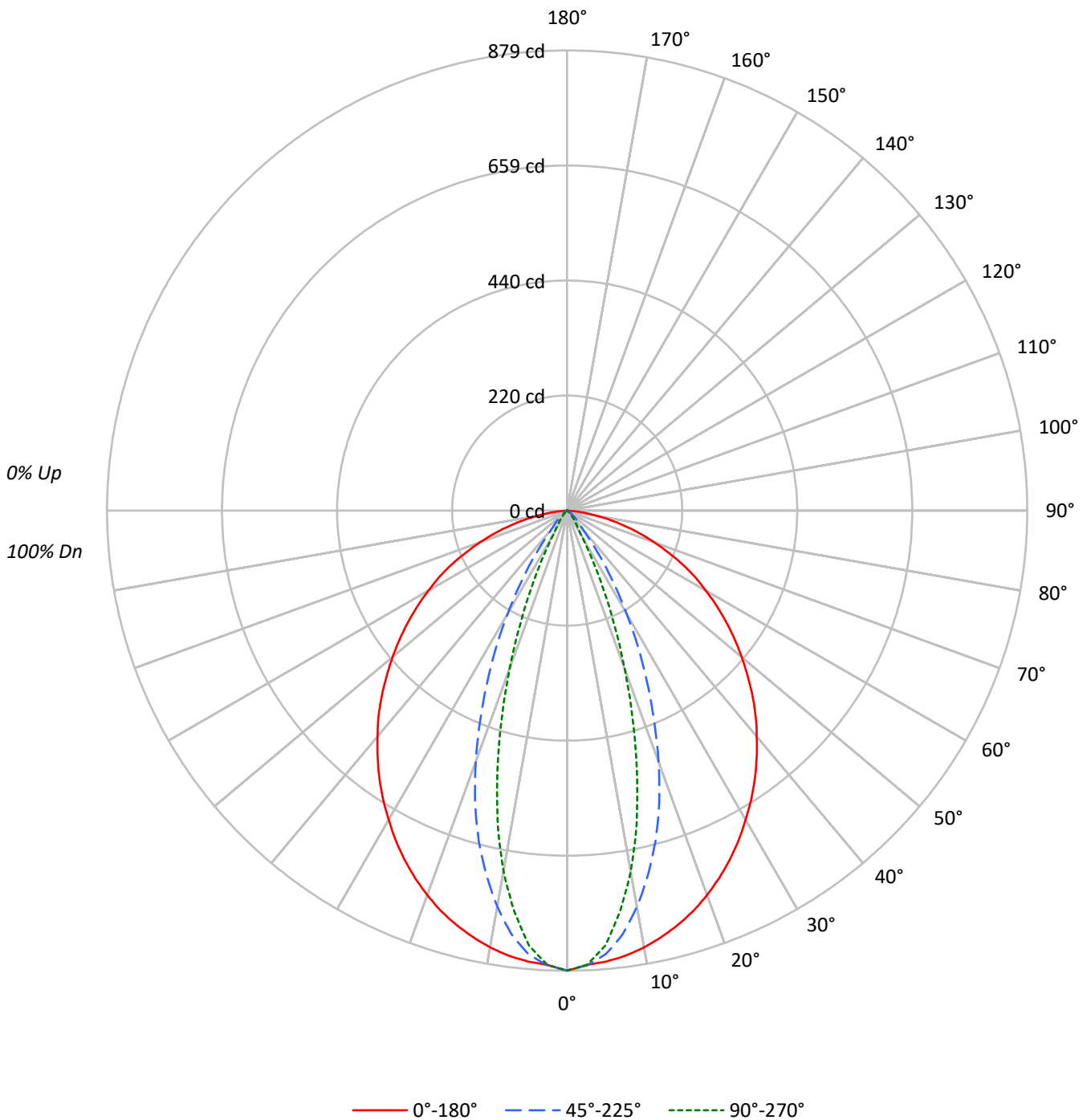
Lumens per Lamp: N/A
Luminaire Lumens: 799.3 lumens
Efficiency: N/A
Efficacy: 30.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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°	16646	16646	16646
5°	16441	16171	15865
10°	16300	14784	13463
15°	16064	12796	10082
20°	15758	10282	6454
25°	15369	7536	3313
30°	14913	4927	1083
35°	14458	2734	631
40°	13937	1098	349
45°	13421	731	134
50°	12830	416	59
55°	12241	201	33
60°	11595	76	0
65°	10912	45	0
70°	9788	55	0
75°	8425	73	0
80°	6394	0	0
85°	2630	217	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13421 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.8	9.9
10°-20°	183.0	22.9
20°-30°	185.8	23.2
30°-40°	139.4	17.4
40°-50°	97.6	12.2
50°-60°	59.8	7.5
60°-70°	35.6	4.5
70°-80°	16.4	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°	447.6	56.0
0°-40°	587.0	73.4
0°-60°	744.4	93.1
0°-90°	799.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	799.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	879	879	879	879	879	
5°	864	872	850	834	834	82
15°	819	775	652	552	514	231
25°	735	606	360	206	158	338
35°	625	407	118	35	27	391
45°	501	215	27	8	5	386
55°	371	66	6	2	1	331
65°	243	19	1	1	0	240
75°	115	2	1	1	0	122
85°	12	0	1	1	0	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	878.6	878.6	878.6	878.6	878.6
2.5°	868.5	881.6	869.5	867.5	868.5
5°	864.5	872.5	850.3	834.2	834.2
7.5°	857.4	857.4	816.0	782.7	772.6
10°	847.3	836.2	768.5	715.0	699.8
12.5°	834.2	807.9	713.0	637.2	613.0
15°	819.0	774.6	652.4	552.4	514.0
17.5°	801.8	737.2	584.7	460.5	416.1
20°	781.6	696.8	510.0	366.6	320.1
22.5°	759.4	652.4	434.2	282.8	233.3
25°	735.2	605.9	360.5	206.0	158.5
27.5°	709.9	557.4	292.9	141.4	96.9
30°	681.7	507.0	225.2	83.8	49.5
32.5°	654.4	458.5	168.6	45.4	36.4
35°	625.1	407.0	118.2	35.3	27.3
37.5°	594.8	358.5	72.7	26.3	20.2
40°	563.5	309.0	44.4	19.2	14.1
42.5°	533.2	262.6	35.3	13.1	9.1
45°	500.9	215.1	27.3	8.1	5.0
47.5°	467.6	171.7	20.2	5.0	3.0
50°	435.3	133.3	14.1	3.0	2.0
52.5°	402.9	98.0	9.1	2.0	1.0
55°	370.6	65.6	6.1	2.0	1.0
57.5°	338.3	46.5	4.0	1.0	1.0
60°	306.0	36.4	2.0	1.0	0.0
62.5°	275.7	28.3	2.0	1.0	1.0
65°	243.4	19.2	1.0	1.0	0.0
67.5°	209.0	12.1	1.0	1.0	0.0
70°	176.7	7.1	1.0	1.0	0.0
72.5°	145.4	4.0	1.0	1.0	0.0
75°	115.1	2.0	1.0	1.0	0.0
77.5°	85.8	1.0	0.0	1.0	0.0
80°	58.6	0.0	0.0	1.0	0.0
82.5°	34.3	0.0	0.0	1.0	0.0
85°	12.1	0.0	1.0	1.0	0.0
87.5°	0.0	0.0	1.0	1.0	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	15.98	17.24	16.35	17.56	17.87	0.00	0.00	0.00	0.00	0.00
	3H	19.72	20.84	20.10	21.17	21.54	0.00	0.00	0.00	0.00	0.00
	4H	21.03	22.07	21.44	22.43	22.81	0.00	0.00	0.00	0.00	0.00
	6H	21.89	22.84	22.30	23.21	23.61	0.00	0.00	0.00	0.00	0.00
	8H	22.10	23.01	22.53	23.40	23.80	0.00	0.00	0.00	0.00	0.00
	12H	22.17	23.03	22.60	23.41	23.84	0.00	0.00	0.00	0.00	0.00
4H	2H	15.74	16.78	16.14	17.13	17.51	0.00	0.00	0.00	0.00	0.00
	3H	19.48	20.33	19.89	20.73	21.14	0.00	0.00	0.00	0.00	0.00
	4H	20.77	21.53	21.21	21.95	22.40	0.00	0.00	0.00	0.00	0.00
	6H	21.69	22.35	22.16	22.79	23.26	0.00	0.00	0.00	0.00	0.00
	8H	21.95	22.56	22.42	23.01	23.48	0.00	0.00	0.00	0.00	0.00
	12H	22.05	22.59	22.54	23.07	23.55	0.00	0.00	0.00	0.00	0.00
8H	4H	20.63	21.24	21.10	21.69	22.16	0.00	0.00	0.00	0.00	0.00
	6H	21.53	22.02	22.03	22.52	23.00	0.00	0.00	0.00	0.00	0.00
	8H	21.79	22.23	22.31	22.75	23.24	0.00	0.00	0.00	0.00	0.00
	12H	21.90	22.29	22.42	22.79	23.36	0.00	0.00	0.00	0.00	0.00
12H	4H	20.58	21.12	21.07	21.60	22.08	0.00	0.00	0.00	0.00	0.00
	6H	21.47	21.91	21.99	22.43	22.92	0.00	0.00	0.00	0.00	0.00
	8H	21.74	22.13	22.26	22.63	23.20	0.00	0.00	0.00	0.00	0.00