

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: P1055233

Luminaire Tested: S122R3DR-S675D850-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055233
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-S675D850-X4F0-XX-UDD-F-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

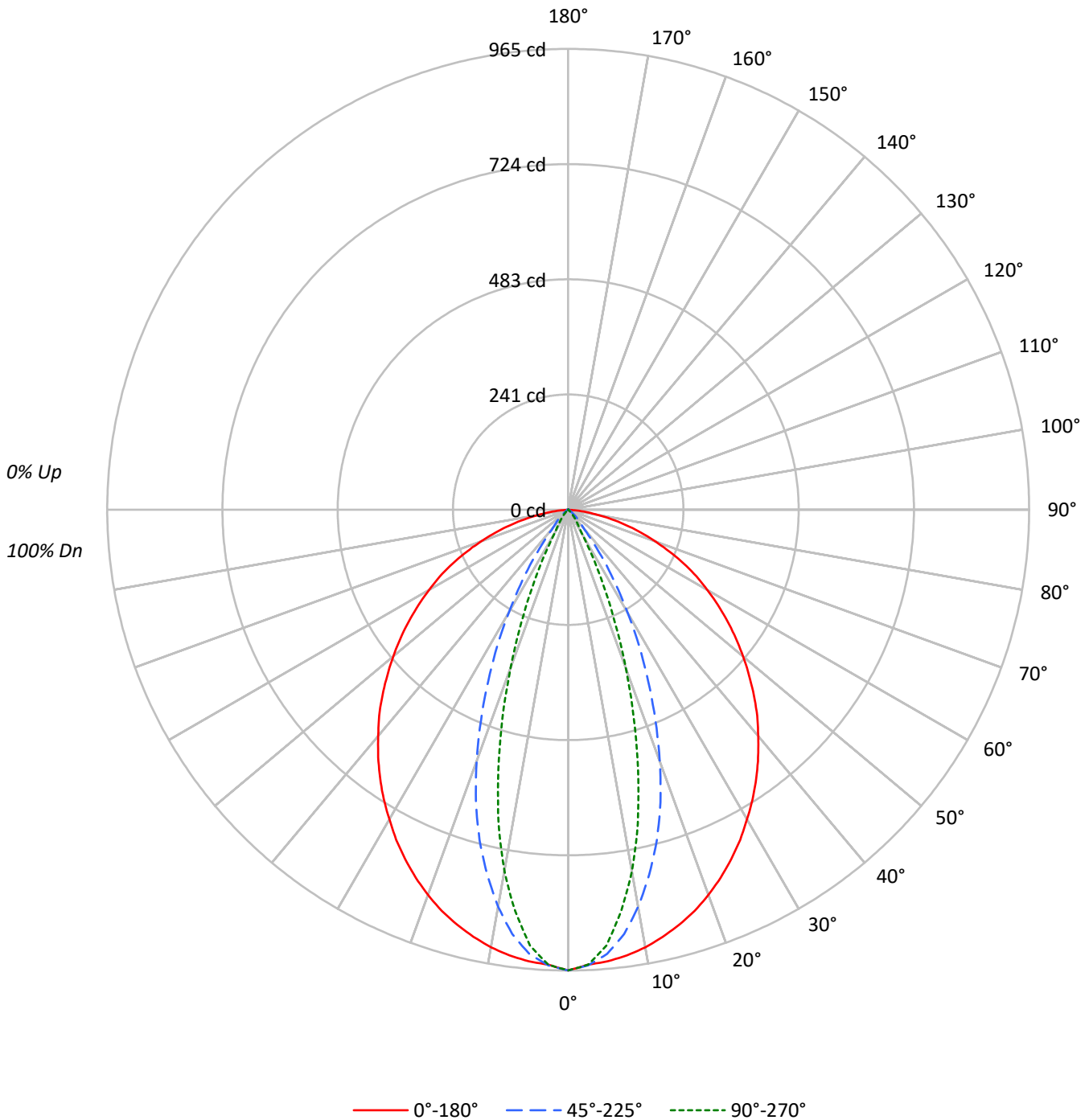
Lumens per Lamp: N/A
Luminaire Lumens: 877.8 lumens
Efficiency: N/A
Efficacy: 33.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1055233

CATALOG NUMBER: S122R3DR-S675D850-X4F0-XX-UDD-F-B

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	48	44	43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18279	18279	18279
5°	18054	17759	17421
10°	17901	16237	14784
15°	17641	14052	11072
20°	17307	11291	7089
25°	16878	8276	3639
30°	16377	5410	1188
35°	15878	3002	692
40°	15304	1207	383
45°	14739	801	147
50°	14089	457	65
55°	13444	221	36
60°	12732	83	0
65°	11983	49	0
70°	10752	61	0
75°	9253	81	0
80°	7015	0	0
85°	2891	239	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14739 cd/sqm

TEST NUMBER: P1055233

CATALOG NUMBER: S122R3DR-S675D850-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.5	9.9
10°-20°	201.0	22.9
20°-30°	204.0	23.2
30°-40°	153.1	17.4
40°-50°	107.2	12.2
50°-60°	65.6	7.5
60°-70°	39.1	4.5
70°-80°	18.0	2.1
80°-90°	3.2	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°	491.5	56.0
0°-40°	644.6	73.4
0°-60°	817.4	93.1
0°-90°	877.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	877.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	949	958	934	916	916	90
15°	899	851	716	607	564	253
25°	807	665	396	226	174	372
35°	686	447	130	39	30	429
45°	550	236	30	9	6	424
55°	407	72	7	2	1	364
65°	267	21	1	1	0	263
75°	126	2	1	1	0	134
85°	13	0	1	1	0	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	964.8	964.8	964.8	964.8	964.8
2.5°	953.7	968.2	954.9	952.6	953.7
5°	949.3	958.2	933.8	916.0	916.0
7.5°	941.5	941.5	896.1	859.5	848.4
10°	930.5	918.3	844.0	785.2	768.5
12.5°	916.0	887.2	783.0	699.8	673.2
15°	899.4	850.6	716.4	606.6	564.5
17.5°	880.6	809.6	642.1	505.7	456.9
20°	858.4	765.2	560.0	402.6	351.6
22.5°	834.0	716.4	476.9	310.5	256.2
25°	807.4	665.4	395.9	226.2	174.1
27.5°	779.6	612.2	321.6	155.3	106.5
30°	748.6	556.7	247.3	92.0	54.3
32.5°	718.6	503.5	185.2	49.9	39.9
35°	686.5	446.9	129.8	38.8	29.9
37.5°	653.2	393.7	79.8	28.8	22.2
40°	618.8	339.4	48.8	21.1	15.5
42.5°	585.6	288.3	38.8	14.4	10.0
45°	550.1	236.2	29.9	8.9	5.5
47.5°	513.5	188.5	22.2	5.5	3.3
50°	478.0	146.4	15.5	3.3	2.2
52.5°	442.5	107.6	10.0	2.2	1.1
55°	407.0	72.1	6.7	2.2	1.1
57.5°	371.5	51.0	4.4	1.1	1.1
60°	336.0	39.9	2.2	1.1	0.0
62.5°	302.8	31.1	2.2	1.1	1.1
65°	267.3	21.1	1.1	1.1	0.0
67.5°	229.6	13.3	1.1	1.1	0.0
70°	194.1	7.8	1.1	1.1	0.0
72.5°	159.7	4.4	1.1	1.1	0.0
75°	126.4	2.2	1.1	1.1	0.0
77.5°	94.3	1.1	0.0	1.1	0.0
80°	64.3	0.0	0.0	1.1	0.0
82.5°	37.7	0.0	0.0	1.1	0.0
85°	13.3	0.0	1.1	1.1	0.0
87.5°	0.0	0.0	1.1	1.1	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	16.31	17.57	16.67	17.88	18.19	0.00	0.00	0.00	0.00	0.00
	3H	20.05	21.17	20.43	21.50	21.86	0.00	0.00	0.00	0.00	0.00
	4H	21.36	22.40	21.76	22.75	23.14	0.00	0.00	0.00	0.00	0.00
	6H	22.21	23.17	22.63	23.54	23.94	0.00	0.00	0.00	0.00	0.00
	8H	22.43	23.33	22.86	23.72	24.13	0.00	0.00	0.00	0.00	0.00
	12H	22.49	23.36	22.92	23.74	24.17	0.00	0.00	0.00	0.00	0.00
4H	2H	16.06	17.10	16.46	17.45	17.84	0.00	0.00	0.00	0.00	0.00
	3H	19.80	20.66	20.22	21.06	21.46	0.00	0.00	0.00	0.00	0.00
	4H	21.10	21.86	21.53	22.28	22.72	0.00	0.00	0.00	0.00	0.00
	6H	22.02	22.67	22.48	23.12	23.59	0.00	0.00	0.00	0.00	0.00
	8H	22.28	22.89	22.75	23.34	23.81	0.00	0.00	0.00	0.00	0.00
	12H	22.38	22.92	22.86	23.40	23.87	0.00	0.00	0.00	0.00	0.00
8H	4H	20.95	21.57	21.42	22.01	22.48	0.00	0.00	0.00	0.00	0.00
	6H	21.85	22.35	22.36	22.85	23.33	0.00	0.00	0.00	0.00	0.00
	8H	22.11	22.56	22.64	23.07	23.57	0.00	0.00	0.00	0.00	0.00
	12H	22.23	22.62	22.75	23.11	23.69	0.00	0.00	0.00	0.00	0.00
12H	4H	20.90	21.44	21.39	21.93	22.40	0.00	0.00	0.00	0.00	0.00
	6H	21.79	22.24	22.32	22.75	23.25	0.00	0.00	0.00	0.00	0.00
	8H	22.07	22.46	22.58	22.95	23.53	0.00	0.00	0.00	0.00	0.00