

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: P1439700

Luminaire Tested: S122DR-S675D850-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439700
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2602-702-1)
Test Lab: INNOVATION CENTER
Issue Date: 4/2/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-S675D850-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

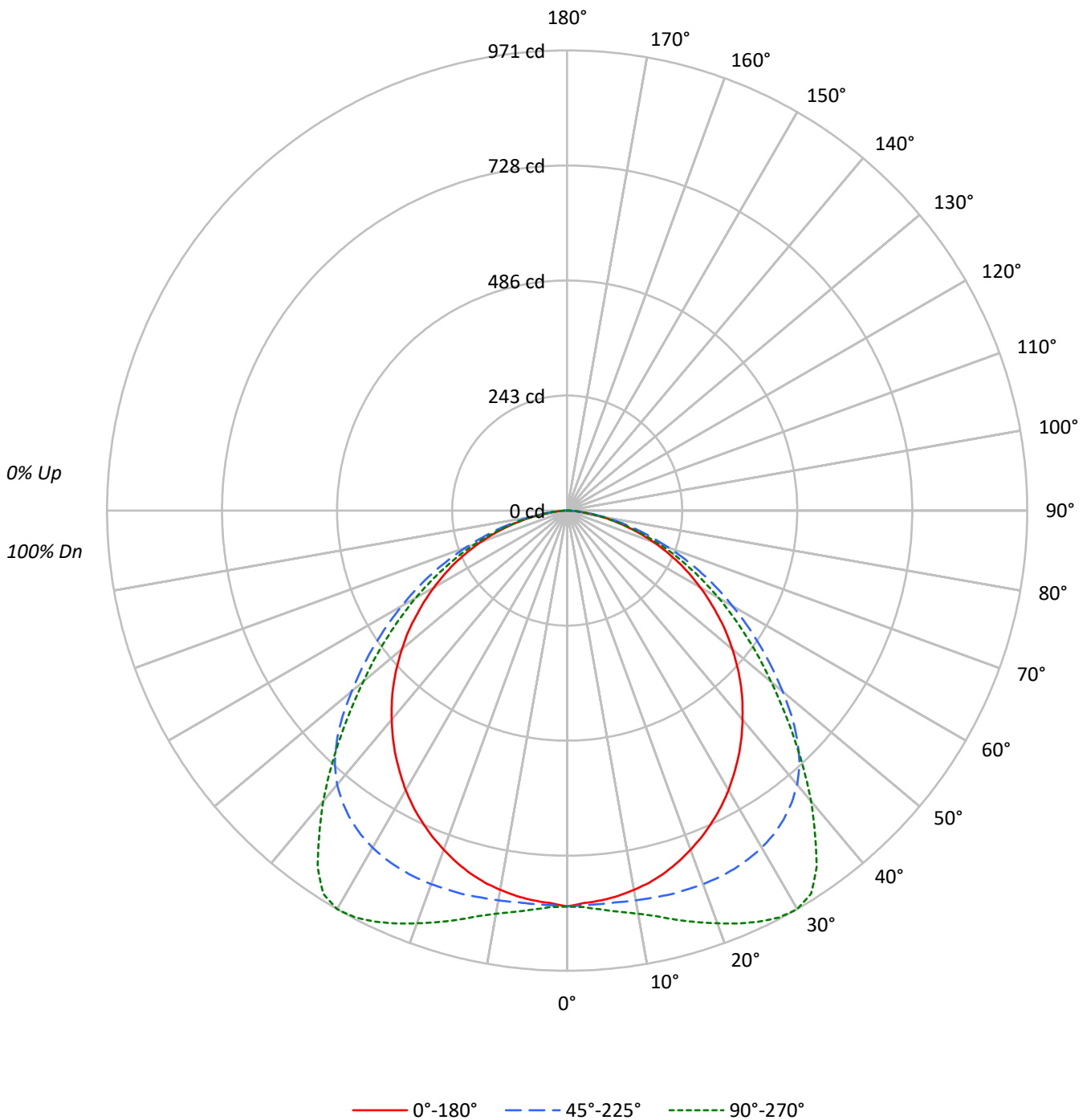
Lumens per Lamp: N/A
Luminaire Lumens: 2569.4 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1439700

CATALOG NUMBER: S122DR-S675D850-X4F0-XX-UDD-FLB-W

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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15827	15827	15827
5°	15701	15846	16074
10°	15633	16072	16614
15°	15534	16450	17537
20°	15353	16910	18684
25°	15147	17441	20008
30°	14900	17967	21247
35°	14599	18417	21232
40°	14241	18673	19800
45°	13884	18426	18134
50°	13417	17481	16553
55°	12882	16400	15214
60°	12307	15270	13997
65°	11638	14077	12759
70°	10713	12574	11433
75°	9465	10892	9860
80°	7823	8652	7823
85°	5195	5674	5434

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 18571 cd/sqm

TEST NUMBER: P1439700

CATALOG NUMBER: S122DR-S675D850-X4F0-XX-UDD-FLB-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.9	3.1
10°-20°	238.6	9.3
20°-30°	387.2	15.1
30°-40°	489.9	19.1
40°-50°	490.6	19.1
50°-60°	410.9	16.0
60°-70°	289.6	11.3
70°-80°	149.4	5.8
80°-90°	33.1	1.3
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°	705.7	27.5
0°-40°	1195.6	46.5
0°-60°	2097.2	81.6
0°-90°	2569.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2569.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	835	835	835	835	835	
5°	826	840	833	838	845	78
15°	792	815	839	872	894	223
25°	725	764	834	916	957	334
35°	631	682	796	900	918	394
45°	518	572	688	693	677	399
55°	390	438	496	476	461	349
65°	260	289	314	294	285	256
75°	129	142	149	138	135	137
85°	24	26	26	26	25	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	835.4	835.4	835.4	835.4	835.4
2.5°	828.9	841.9	833.2	834.3	837.6
5°	825.6	839.7	833.2	837.6	845.2
7.5°	820.2	835.4	833.2	841.9	853.9
10°	812.6	830.0	835.4	850.6	863.6
12.5°	803.9	822.4	836.5	860.4	876.7
15°	792.0	814.8	838.7	872.3	894.1
17.5°	777.8	805.0	838.7	885.4	910.4
20°	761.5	793.0	838.7	896.2	926.7
22.5°	744.2	778.9	837.6	906.0	943.0
25°	724.6	763.7	834.3	915.8	957.1
27.5°	704.0	746.3	828.9	923.4	967.9
30°	681.1	726.8	821.3	926.7	971.2
32.5°	656.2	706.1	810.4	920.1	958.2
35°	631.2	682.2	796.3	899.5	918.0
37.5°	604.0	657.2	777.8	859.3	859.3
40°	575.8	630.1	755.0	803.9	800.6
42.5°	547.5	601.8	725.7	749.6	738.7
45°	518.2	572.5	687.7	693.1	676.8
47.5°	486.7	539.9	643.1	635.5	617.0
50°	455.2	507.3	593.1	580.1	561.6
52.5°	423.7	473.6	545.3	526.9	510.6
55°	390.0	437.8	496.5	475.8	460.6
57.5°	357.4	402.0	449.7	426.9	413.9
60°	324.8	365.0	403.0	381.3	369.4
62.5°	292.2	327.0	358.5	336.8	325.9
65°	259.6	289.0	314.0	294.4	284.6
67.5°	226.0	252.0	269.4	252.0	245.5
70°	193.4	214.0	227.0	211.8	206.4
72.5°	160.8	178.2	186.9	174.9	169.5
75°	129.3	142.3	148.8	138.0	134.7
77.5°	98.9	108.6	111.9	104.3	99.9
80°	71.7	77.1	79.3	73.9	71.7
82.5°	44.5	48.9	51.1	46.7	45.6
85°	23.9	26.1	26.1	26.1	25.0
87.5°	8.7	10.9	10.9	10.9	9.8
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	21.08	22.69	21.45	23.01	23.32	21.59	23.21	21.96	23.52	23.83
	3H	22.65	24.10	23.03	24.43	24.79	23.06	24.51	23.44	24.84	25.20
	4H	23.19	24.55	23.59	24.90	25.28	23.55	24.92	23.95	25.27	25.64
	6H	23.53	24.80	23.94	25.16	25.55	23.85	25.12	24.27	25.48	25.87
	8H	23.61	24.82	24.04	25.21	25.61	23.93	25.13	24.35	25.52	25.92
	12H	23.65	24.81	24.08	25.19	25.62	23.96	25.12	24.39	25.50	25.93
4H	2H	21.84	23.20	22.23	23.55	23.93	22.23	23.60	22.63	23.95	24.32
	3H	23.61	24.75	24.02	25.14	25.54	23.90	25.04	24.31	25.44	25.84
	4H	24.25	25.28	24.69	25.70	26.13	24.49	25.52	24.92	25.93	26.37
	6H	24.70	25.59	25.15	26.03	26.49	24.89	25.79	25.34	26.23	26.68
	8H	24.81	25.64	25.27	26.09	26.55	24.99	25.83	25.45	26.27	26.74
	12H	24.87	25.62	25.35	26.09	26.56	25.05	25.80	25.53	26.28	26.75
8H	4H	24.54	25.37	25.00	25.82	26.28	24.75	25.59	25.21	26.03	26.50
	6H	25.07	25.77	25.57	26.26	26.73	25.23	25.93	25.73	26.42	26.89
	8H	25.23	25.86	25.74	26.36	26.85	25.38	26.00	25.89	26.51	26.99
	12H	25.34	25.89	25.84	26.38	26.94	25.48	26.03	25.99	26.52	27.08
12H	4H	24.55	25.30	25.03	25.78	26.25	24.77	25.52	25.25	25.99	26.46
	6H	25.10	25.73	25.61	26.23	26.72	25.26	25.89	25.77	26.39	26.88
	8H	25.31	25.86	25.82	26.35	26.91	25.45	26.00	25.96	26.49	27.05