

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: P1439655

Luminaire Tested: S122DR-H675D850-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439655
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-H675D850-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

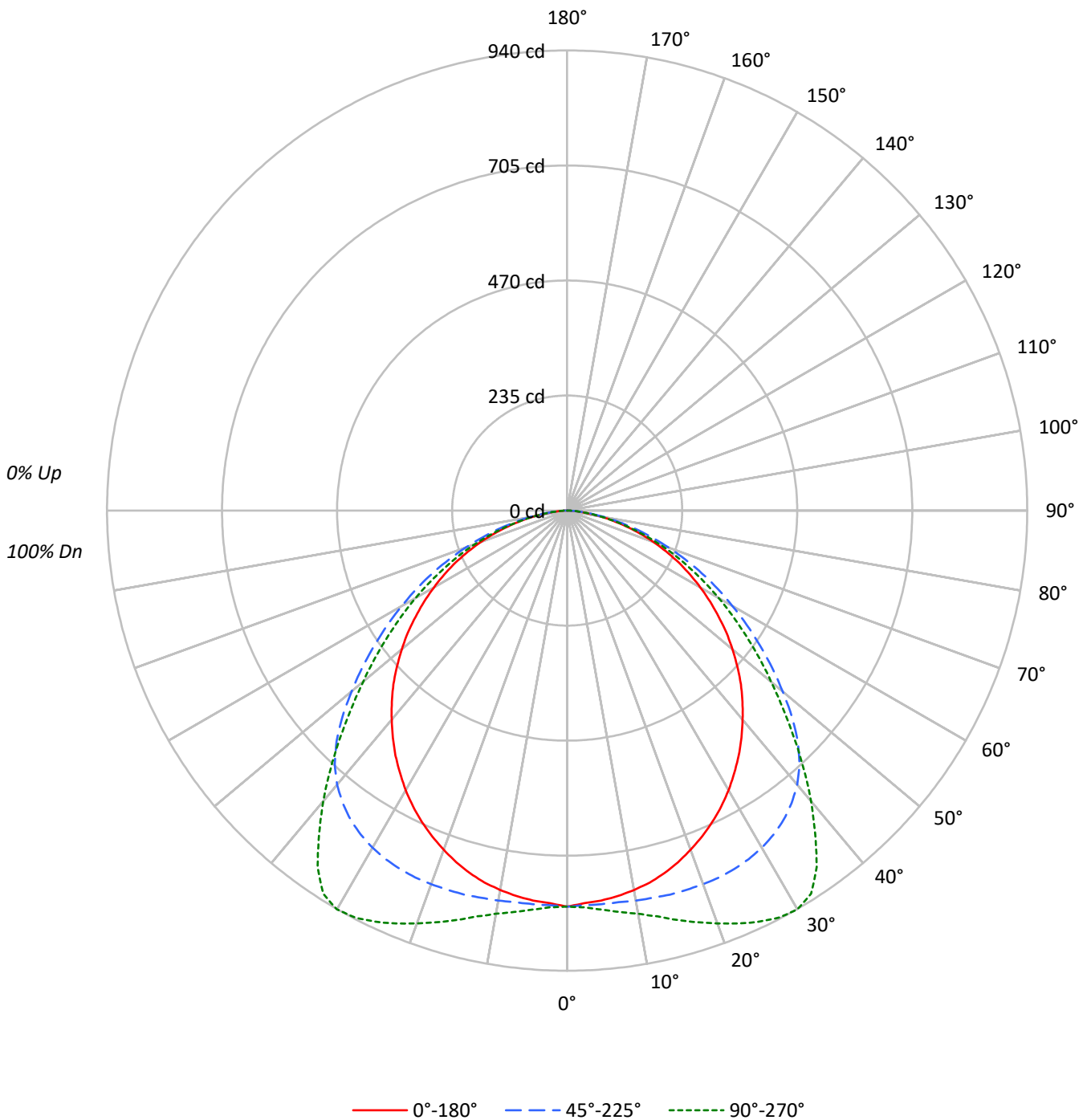
Lumens per Lamp: N/A
Luminaire Lumens: 2488.1 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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

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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	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					100			
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85					85			
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34					34			
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30					30			
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27					27			
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15327	15327	15327
5°	15205	15346	15565
10°	15138	15564	16089
15°	15042	15929	16982
20°	14867	16373	18091
25°	14669	16889	19374
30°	14430	17399	20575
35°	14136	17834	20559
40°	13791	18082	19175
45°	13445	17842	17560
50°	12992	16930	16031
55°	12476	15881	14732
60°	11917	14789	13554
65°	11270	13628	12355
70°	10375	12181	11073
75°	9165	10548	9545
80°	7572	8379	7572
85°	5021	5478	5261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 17984 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	3.1
10°-20°	231.1	9.3
20°-30°	374.9	15.1
30°-40°	474.4	19.1
40°-50°	475.1	19.1
50°-60°	398.0	16.0
60°-70°	280.4	11.3
70°-80°	144.7	5.8
80°-90°	32.1	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°	683.4	27.5
0°-40°	1157.8	46.5
0°-60°	2030.9	81.6
0°-90°	2488.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2488.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	809	809	809	809	809	
5°	800	813	807	811	818	76
15°	767	789	812	845	866	216
25°	702	740	808	887	927	323
35°	611	661	771	871	889	382
45°	502	554	666	671	655	386
55°	378	424	481	461	446	338
65°	251	280	304	285	276	248
75°	125	138	144	134	130	133
85°	23	25	25	25	24	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	809.0	809.0	809.0	809.0	809.0
2.5°	802.7	815.3	806.9	807.9	811.1
5°	799.5	813.2	806.9	811.1	818.4
7.5°	794.3	809.0	806.9	815.3	826.9
10°	786.9	803.7	809.0	823.7	836.3
12.5°	778.5	796.4	810.0	833.2	849.0
15°	766.9	789.0	812.1	844.7	865.8
17.5°	753.2	779.5	812.1	857.4	881.6
20°	737.4	768.0	812.1	867.9	897.3
22.5°	720.6	754.3	811.1	877.4	913.1
25°	701.7	739.5	807.9	886.8	926.8
27.5°	681.7	722.7	802.7	894.2	937.3
30°	659.6	703.8	795.3	897.3	940.5
32.5°	635.4	683.8	784.8	891.0	927.9
35°	611.2	660.7	771.1	871.0	888.9
37.5°	584.9	636.5	753.2	832.1	832.1
40°	557.6	610.2	731.1	778.5	775.3
42.5°	530.2	582.8	702.7	725.9	715.4
45°	501.8	554.4	665.9	671.2	655.4
47.5°	471.3	522.8	622.8	615.4	597.5
50°	440.8	491.3	574.4	561.8	543.9
52.5°	410.3	458.7	528.1	510.2	494.4
55°	377.7	424.0	480.8	460.8	446.0
57.5°	346.1	389.2	435.5	413.4	400.8
60°	314.5	353.5	390.3	369.2	357.7
62.5°	283.0	316.6	347.2	326.1	315.6
65°	251.4	279.8	304.0	285.1	275.6
67.5°	218.8	244.1	260.9	244.1	237.7
70°	187.3	207.2	219.9	205.1	199.9
72.5°	155.7	172.5	180.9	169.4	164.1
75°	125.2	137.8	144.1	133.6	130.4
77.5°	95.7	105.2	108.4	101.0	96.8
80°	69.4	74.7	76.8	71.5	69.4
82.5°	43.1	47.3	49.4	45.2	44.2
85°	23.1	25.2	25.2	25.2	24.2
87.5°	8.4	10.5	10.5	10.5	9.5
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	20.97	22.58	21.33	22.89	23.21	21.48	23.09	21.85	23.41	23.72
	3H	22.54	23.99	22.92	24.32	24.68	22.95	24.40	23.33	24.73	25.09
	4H	23.08	24.44	23.47	24.79	25.17	23.44	24.81	23.84	25.16	25.53
	6H	23.42	24.68	23.83	25.05	25.44	23.74	25.01	24.15	25.37	25.76
	8H	23.50	24.71	23.93	25.10	25.50	23.82	25.02	24.24	25.41	25.81
	12H	23.54	24.69	23.97	25.08	25.50	23.85	25.01	24.28	25.39	25.82
4H	2H	21.72	23.09	22.12	23.44	23.81	22.12	23.49	22.52	23.83	24.21
	3H	23.49	24.63	23.90	25.03	25.43	23.79	24.93	24.20	25.32	25.72
	4H	24.14	25.17	24.57	25.58	26.02	24.38	25.41	24.81	25.82	26.26
	6H	24.58	25.48	25.04	25.92	26.38	24.78	25.67	25.23	26.11	26.57
	8H	24.69	25.53	25.15	25.97	26.44	24.88	25.72	25.34	26.16	26.62
	12H	24.75	25.51	25.23	25.98	26.45	24.94	25.69	25.42	26.16	26.63
8H	4H	24.42	25.26	24.88	25.70	26.17	24.64	25.48	25.10	25.92	26.38
	6H	24.96	25.66	25.46	26.15	26.62	25.12	25.82	25.62	26.31	26.78
	8H	25.12	25.74	25.63	26.25	26.74	25.27	25.89	25.78	26.40	26.88
	12H	25.22	25.78	25.73	26.27	26.83	25.37	25.92	25.87	26.41	26.97
12H	4H	24.44	25.19	24.92	25.67	26.14	24.65	25.41	25.13	25.88	26.35
	6H	24.99	25.61	25.50	26.12	26.61	25.15	25.77	25.66	26.28	26.77
	8H	25.20	25.75	25.70	26.24	26.80	25.34	25.89	25.85	26.38	26.94