

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: P1217340

Luminaire Tested: S122DRP-S865D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217340
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-S865D850-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

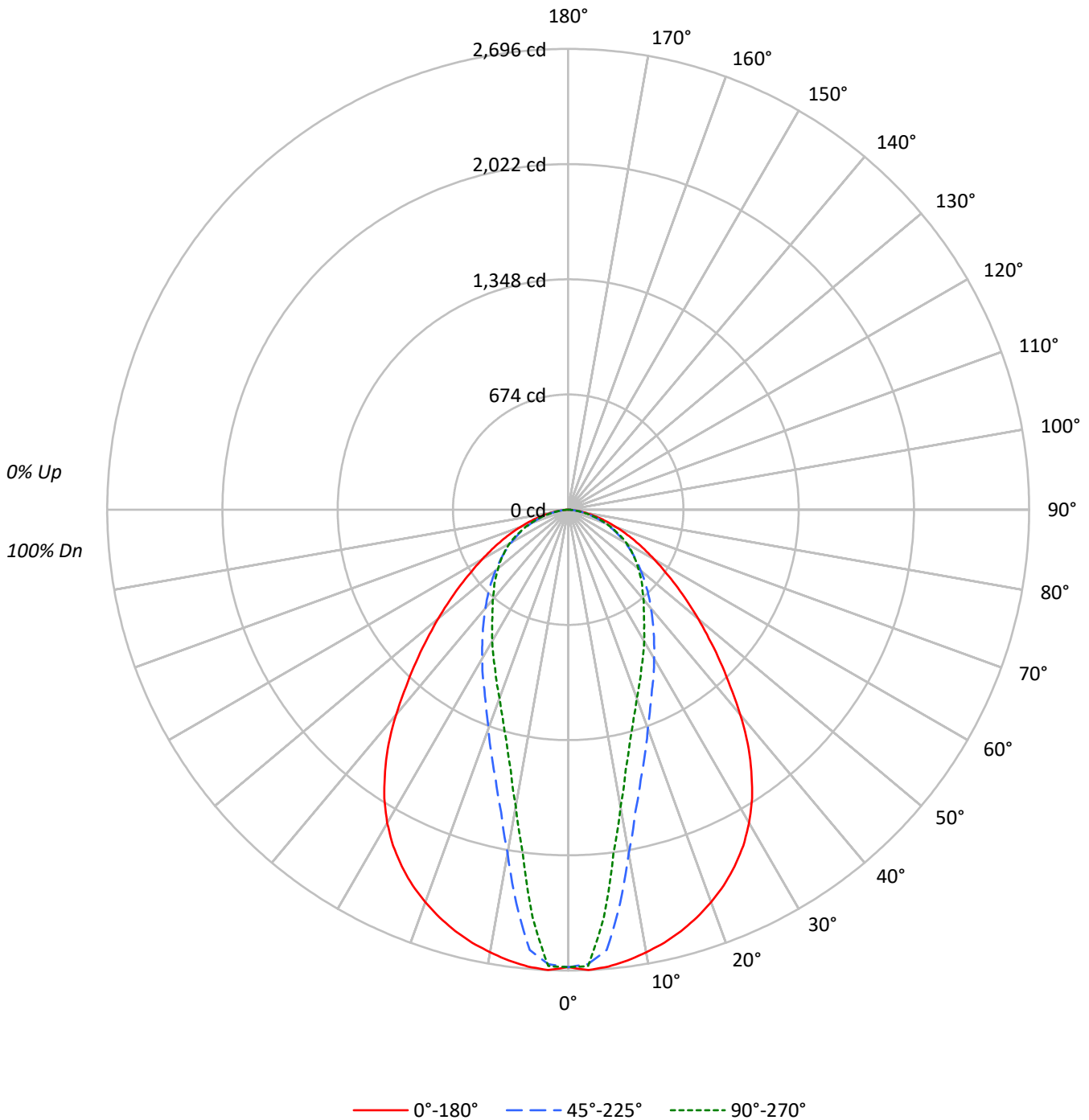
Lumens per Lamp: N/A
Luminaire Lumens: 3596.3 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	50703	50703	50703
5°	51030	49172	45533
10°	50571	39265	33948
15°	50053	32091	27409
20°	49257	27470	23644
25°	48124	24251	21216
30°	46300	21988	19455
35°	43202	20147	17888
40°	38738	18611	16954
45°	33701	17394	16347
50°	29256	16335	15760
55°	25315	15449	15356
60°	21954	14547	14971
65°	19214	13642	14144
70°	16552	12530	12990
75°	13798	11039	11449
80°	10812	8990	8685
85°	6674	5761	5761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 33701 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.4	6.4
10°-20°	508.1	14.1
20°-30°	623.4	17.3
30°-40°	644.2	17.9
40°-50°	581.8	16.2
50°-60°	471.5	13.1
60°-70°	330.5	9.2
70°-80°	170.5	4.7
80°-90°	36.0	1.0
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°	1361.8	37.9
0°-40°	2006.0	55.8
0°-60°	3059.3	85.1
0°-90°	3596.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3596.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2676	2676	2676	2676	2676	
5°	2683	2678	2586	2470	2394	254
15°	2552	2151	1636	1459	1397	719
25°	2302	1529	1160	1050	1015	1058
35°	1868	1129	871	797	773	1161
45°	1258	814	649	613	610	973
55°	766	557	468	462	465	690
65°	429	343	304	311	316	428
75°	188	162	151	155	156	204
85°	31	26	26	26	26	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2676.2	2676.2	2676.2	2676.2	2676.2
2.5°	2695.7	2686.0	2660.8	2684.6	2672.0
5°	2683.2	2677.6	2585.5	2469.6	2394.2
7.5°	2660.8	2641.3	2323.0	2103.8	2029.8
10°	2628.7	2531.0	2041.0	1837.2	1764.6
12.5°	2595.2	2364.9	1813.4	1622.2	1556.6
15°	2551.9	2151.3	1636.1	1458.9	1397.4
17.5°	2501.7	1965.6	1495.1	1324.8	1276.0
20°	2443.1	1805.1	1362.5	1213.2	1172.7
22.5°	2378.8	1669.7	1252.2	1130.8	1093.1
25°	2302.1	1528.7	1160.1	1049.8	1014.9
27.5°	2216.9	1421.2	1083.3	980.0	950.7
30°	2116.4	1316.5	1005.1	913.0	889.3
32.5°	2001.9	1218.7	935.3	854.4	826.5
35°	1867.9	1129.4	871.1	797.1	773.4
37.5°	1725.5	1041.4	809.7	745.5	725.9
40°	1566.3	964.7	752.5	695.2	685.5
42.5°	1403.0	887.9	700.8	651.9	643.6
45°	1257.8	813.9	649.2	612.9	610.1
47.5°	1116.8	746.9	601.7	573.8	571.0
50°	992.6	677.1	554.2	536.1	534.7
52.5°	873.9	615.6	509.6	499.8	502.6
55°	766.4	557.0	467.7	462.1	464.9
57.5°	667.3	502.6	425.8	427.2	431.4
60°	579.4	446.7	383.9	389.5	395.1
62.5°	502.6	395.1	343.4	351.8	357.4
65°	428.6	343.4	304.3	311.3	315.5
67.5°	363.0	294.6	265.2	273.6	275.0
70°	298.8	249.9	226.2	234.5	234.5
72.5°	242.9	203.8	188.5	192.7	194.0
75°	188.5	161.9	150.8	155.0	156.4
77.5°	142.4	122.9	114.5	118.7	117.3
80°	99.1	86.6	82.4	81.0	79.6
82.5°	61.4	54.4	50.3	51.7	50.3
85°	30.7	26.5	26.5	26.5	26.5
87.5°	9.8	9.8	9.8	9.8	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	22.14	23.64	22.50	23.95	24.27	20.64	22.14	21.00	22.45	22.76
	3H	23.72	25.07	24.10	25.40	25.76	22.35	23.69	22.73	24.02	24.38
	4H	24.25	25.51	24.65	25.86	26.24	22.93	24.19	23.33	24.54	24.92
	6H	24.58	25.74	24.99	26.11	26.50	23.28	24.44	23.69	24.81	25.20
	8H	24.65	25.76	25.08	26.15	26.55	23.35	24.46	23.78	24.85	25.25
	12H	24.68	25.74	25.11	26.12	26.55	23.38	24.45	23.81	24.83	25.26
4H	2H	22.45	23.71	22.85	24.06	24.44	21.20	22.46	21.60	22.81	23.19
	3H	24.23	25.28	24.64	25.68	26.08	23.11	24.16	23.52	24.56	24.96
	4H	24.86	25.80	25.29	26.22	26.66	23.81	24.75	24.24	25.17	25.61
	6H	25.29	26.11	25.75	26.56	27.02	24.26	25.08	24.72	25.52	25.98
	8H	25.40	26.16	25.86	26.61	27.08	24.36	25.13	24.83	25.57	26.04
	12H	25.45	26.13	25.93	26.61	27.08	24.42	25.10	24.90	25.58	26.05
8H	4H	25.01	25.77	25.47	26.22	26.68	24.05	24.81	24.51	25.26	25.73
	6H	25.51	26.15	26.01	26.64	27.11	24.59	25.22	25.08	25.71	26.19
	8H	25.66	26.23	26.18	26.74	27.22	24.74	25.30	25.25	25.81	26.30
	12H	25.75	26.25	26.26	26.74	27.31	24.83	25.33	25.34	25.82	26.39
12H	4H	25.01	25.69	25.49	26.17	26.64	24.06	24.74	24.54	25.22	25.69
	6H	25.52	26.08	26.03	26.59	27.08	24.61	25.17	25.12	25.68	26.17
	8H	25.70	26.20	26.21	26.69	27.26	24.80	25.30	25.31	25.79	26.36