

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: P1217430

Luminaire Tested: S124DRP-S865D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217430
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-S865D850-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

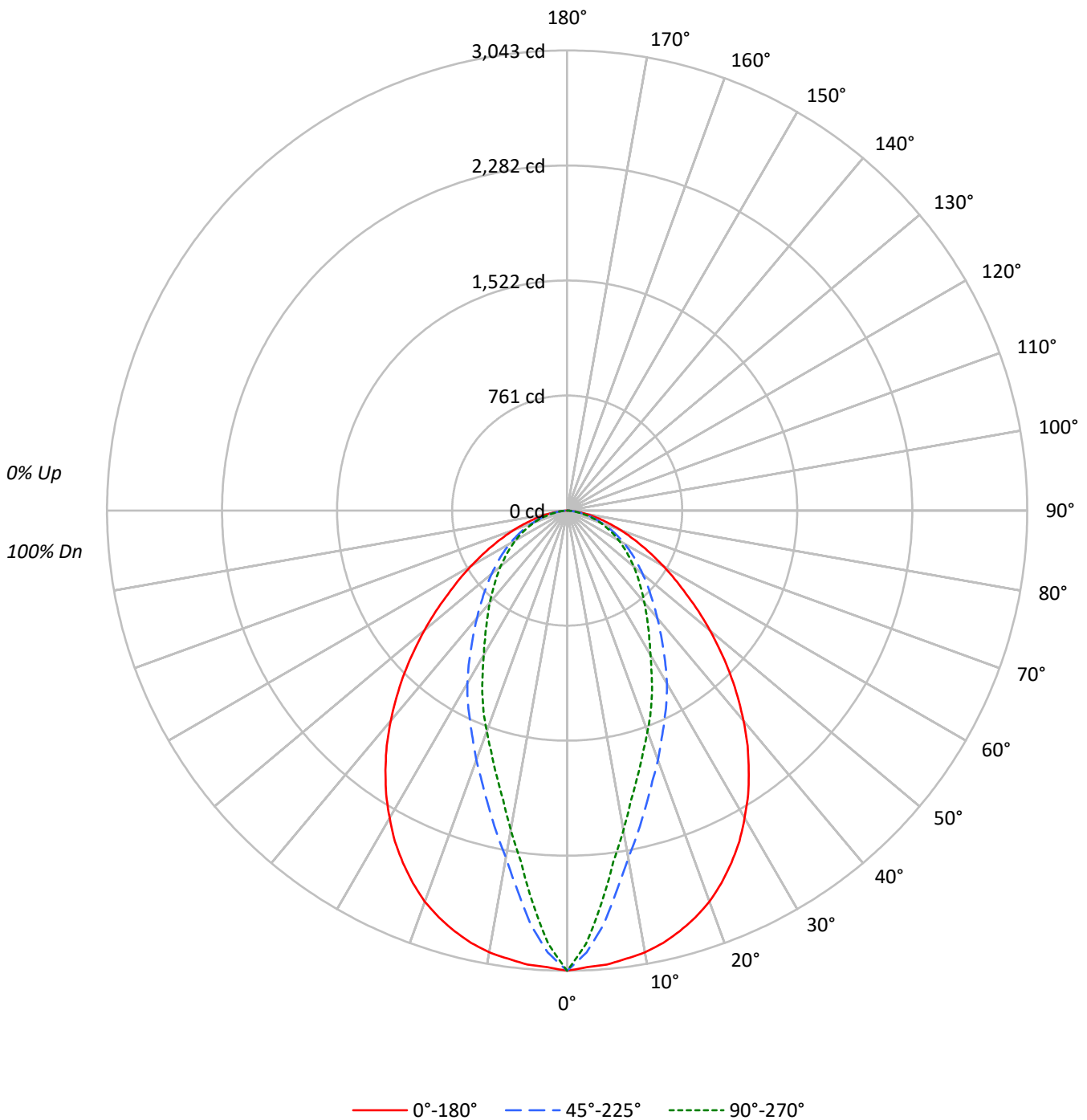
Lumens per Lamp: N/A
Luminaire Lumens: 4267.4 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	94	92	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26903	26903	26903
5°	26743	24401	23129
10°	26632	20918	19247
15°	26355	18458	16556
20°	25893	16514	14623
25°	25069	14861	12953
30°	23965	13473	11244
35°	22603	11945	10065
40°	20939	10701	9170
45°	19032	9734	8460
50°	16955	8957	7906
55°	14787	8324	7394
60°	12983	7747	6965
65°	11241	7149	6502
70°	9733	6478	5992
75°	8103	5722	5264
80°	6278	4638	4297
85°	3946	3124	2851

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 19032 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.7	6.0
10°-20°	605.1	14.2
20°-30°	773.2	18.1
30°-40°	785.3	18.4
40°-50°	696.1	16.3
50°-60°	547.0	12.8
60°-70°	372.5	8.7
70°-80°	191.2	4.5
80°-90°	42.4	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°	1632.9	38.3
0°-40°	2418.2	56.7
0°-60°	3661.3	85.8
0°-90°	4267.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4267.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3043	3043	3043	3043	3043	
5°	3013	2937	2749	2644	2606	286
15°	2879	2404	2016	1850	1809	811
25°	2570	1884	1523	1377	1328	1181
35°	2094	1427	1107	966	932	1307
45°	1522	1028	778	698	677	1173
55°	959	685	540	492	480	866
65°	537	415	342	318	311	538
75°	237	196	168	159	154	255
85°	39	36	31	31	28	52
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3042.8	3042.8	3042.8	3042.8	3042.8
2.5°	3021.4	3025.4	2924.9	2888.7	2867.3
5°	3013.3	2936.9	2749.4	2643.5	2606.0
7.5°	2989.2	2823.1	2527.0	2380.9	2342.1
10°	2966.4	2693.1	2330.0	2185.3	2143.8
12.5°	2928.9	2549.7	2171.9	2005.8	1956.2
15°	2879.3	2403.7	2016.5	1850.3	1808.8
17.5°	2820.4	2264.3	1875.8	1716.3	1670.8
20°	2752.0	2135.7	1755.2	1591.7	1554.2
22.5°	2666.3	2008.4	1631.9	1484.6	1443.0
25°	2569.8	1883.8	1523.4	1377.4	1327.8
27.5°	2466.7	1763.2	1422.9	1260.8	1208.5
30°	2347.4	1648.0	1319.7	1149.6	1101.4
32.5°	2226.8	1534.1	1211.2	1050.4	1011.6
35°	2094.2	1426.9	1106.7	966.0	932.5
37.5°	1960.2	1323.8	1012.9	889.7	860.2
40°	1814.2	1223.3	927.2	818.6	794.5
42.5°	1668.1	1122.8	849.5	755.7	732.9
45°	1522.1	1027.7	778.5	698.1	676.6
47.5°	1374.7	933.9	712.8	641.8	624.4
50°	1232.7	845.4	651.2	589.5	574.8
52.5°	1094.7	762.4	592.2	540.0	523.9
55°	959.3	684.7	540.0	491.7	479.7
57.5°	844.1	612.3	487.7	446.2	436.8
60°	734.2	542.6	438.1	403.3	393.9
62.5°	631.1	478.3	388.6	360.4	353.7
65°	537.3	415.4	341.7	317.5	310.8
67.5°	451.5	357.7	293.4	276.0	270.6
70°	376.5	300.1	250.6	235.8	231.8
72.5°	301.5	245.2	207.7	197.0	192.9
75°	237.2	195.6	167.5	159.4	154.1
77.5°	178.2	148.7	128.6	121.9	117.9
80°	123.3	105.8	91.1	88.4	84.4
82.5°	77.7	67.0	59.0	57.6	53.6
85°	38.9	36.2	30.8	30.8	28.1
87.5°	13.4	12.1	12.1	12.1	10.7
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	20.34	21.83	20.71	22.14	22.46	17.67	19.16	18.03	19.47	19.78
	3H	21.94	23.27	22.31	23.60	23.96	19.27	20.60	19.64	20.93	21.29
	4H	22.46	23.71	22.87	24.06	24.44	19.82	21.07	20.22	21.42	21.80
	6H	22.80	23.95	23.21	24.32	24.71	20.18	21.33	20.59	21.70	22.09
	8H	22.87	23.97	23.30	24.36	24.76	20.27	21.36	20.69	21.75	22.16
	12H	22.90	23.95	23.33	24.34	24.77	20.30	21.35	20.73	21.74	22.17
4H	2H	20.57	21.82	20.97	22.17	22.55	18.34	19.59	18.74	19.94	20.32
	3H	22.35	23.39	22.77	23.79	24.19	20.13	21.17	20.54	21.57	21.97
	4H	23.00	23.93	23.43	24.34	24.78	20.79	21.73	21.23	22.14	22.58
	6H	23.44	24.25	23.90	24.69	25.16	21.25	22.06	21.71	22.50	22.97
	8H	23.55	24.31	24.02	24.75	25.22	21.37	22.12	21.83	22.57	23.04
	12H	23.61	24.29	24.09	24.76	25.24	21.43	22.10	21.91	22.58	23.05
8H	4H	23.10	23.86	23.56	24.30	24.77	21.09	21.85	21.56	22.30	22.76
	6H	23.62	24.24	24.11	24.73	25.21	21.64	22.27	22.14	22.76	23.24
	8H	23.77	24.33	24.29	24.84	25.33	21.81	22.37	22.33	22.88	23.37
	12H	23.87	24.37	24.38	24.86	25.42	21.92	22.41	22.43	22.90	23.47
12H	4H	23.09	23.76	23.57	24.24	24.72	21.12	21.79	21.60	22.27	22.74
	6H	23.61	24.17	24.13	24.68	25.17	21.68	22.24	22.20	22.75	23.24
	8H	23.80	24.30	24.31	24.79	25.35	21.89	22.39	22.40	22.88	23.45