

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: P1217349

Luminaire Tested: S124DRP-H1005D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217349
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-H1005D850-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

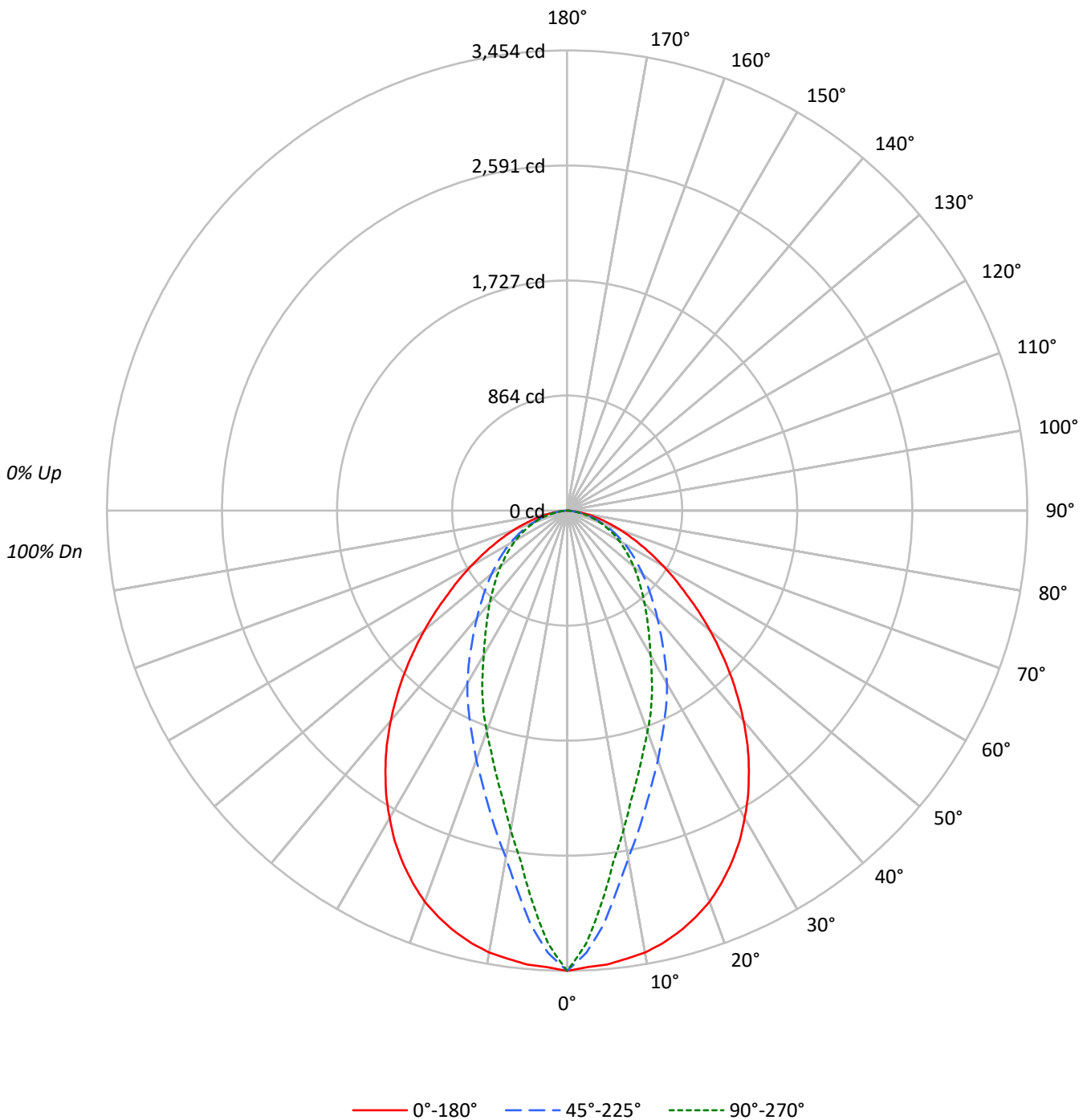
Lumens per Lamp: N/A
Luminaire Lumens: 4844.6 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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	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°	30542	30542	30542
5°	30361	27701	26257
10°	30234	23747	21849
15°	29920	20954	18796
20°	29396	18748	16601
25°	28460	16872	14705
30°	27206	15296	12764
35°	25660	13561	11427
40°	23770	12149	10411
45°	21605	11049	9604
50°	19248	10168	8975
55°	16788	9449	8393
60°	14739	8795	7908
65°	12761	8115	7383
70°	11048	7352	6801
75°	9196	6494	5975
80°	7123	5265	4878
85°	4474	3551	3236

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21605 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.2	6.0
10°-20°	686.9	14.2
20°-30°	877.8	18.1
30°-40°	891.5	18.4
40°-50°	790.3	16.3
50°-60°	621.0	12.8
60°-70°	422.9	8.7
70°-80°	217.1	4.5
80°-90°	48.1	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°	1853.8	38.3
0°-40°	2745.3	56.7
0°-60°	4156.6	85.8
0°-90°	4844.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4844.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3454	3454	3454	3454	3454	
5°	3421	3334	3121	3001	2958	325
15°	3269	2729	2289	2101	2054	921
25°	2917	2139	1730	1564	1507	1341
35°	2377	1620	1256	1097	1059	1483
45°	1728	1167	884	792	768	1331
55°	1089	777	613	558	544	983
65°	610	472	388	360	353	610
75°	269	222	190	181	175	289
85°	44	41	35	35	32	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3454.4	3454.4	3454.4	3454.4	3454.4
2.5°	3430.0	3434.6	3320.5	3279.4	3255.1
5°	3420.9	3334.2	3121.2	3001.1	2958.5
7.5°	3393.5	3204.9	2868.7	2703.0	2658.8
10°	3367.7	3057.4	2645.1	2480.9	2433.7
12.5°	3325.1	2894.6	2465.7	2277.0	2220.8
15°	3268.8	2728.8	2289.2	2100.6	2053.5
17.5°	3201.9	2570.6	2129.5	1948.5	1896.8
20°	3124.3	2424.6	1992.6	1807.0	1764.4
22.5°	3026.9	2280.1	1852.7	1685.4	1638.2
25°	2917.4	2138.6	1729.5	1563.7	1507.4
27.5°	2800.3	2001.7	1615.4	1431.3	1372.0
30°	2664.9	1870.9	1498.3	1305.1	1250.3
32.5°	2528.0	1741.6	1375.1	1192.5	1148.4
35°	2377.4	1619.9	1256.4	1096.7	1058.7
37.5°	2225.3	1502.8	1149.9	1010.0	976.5
40°	2059.5	1388.7	1052.6	929.4	902.0
42.5°	1893.7	1274.7	964.4	857.9	832.0
45°	1727.9	1166.7	883.7	792.5	768.1
47.5°	1560.6	1060.2	809.2	728.6	708.8
50°	1399.4	959.8	739.2	669.3	652.5
52.5°	1242.7	865.5	672.3	613.0	594.7
55°	1089.1	777.3	613.0	558.2	544.5
57.5°	958.3	695.1	553.7	506.5	495.9
60°	833.5	616.0	497.4	457.8	447.2
62.5°	716.4	543.0	441.1	409.2	401.6
65°	610.0	471.5	387.9	360.5	352.9
67.5°	512.6	406.1	333.1	313.3	307.3
70°	427.4	340.7	284.4	267.7	263.1
72.5°	342.2	278.4	235.8	223.6	219.0
75°	269.2	222.1	190.1	181.0	174.9
77.5°	202.3	168.8	146.0	138.4	133.9
80°	139.9	120.2	103.4	100.4	95.8
82.5°	88.2	76.1	66.9	65.4	60.8
85°	44.1	41.1	35.0	35.0	31.9
87.5°	15.2	13.7	13.7	13.7	12.2
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	20.78	22.27	21.15	22.58	22.90	18.11	19.60	18.47	19.91	20.22
	3H	22.38	23.71	22.75	24.04	24.40	19.71	21.04	20.09	21.37	21.73
	4H	22.91	24.16	23.31	24.50	24.88	20.26	21.51	20.67	21.86	22.24
	6H	23.24	24.39	23.65	24.76	25.15	20.62	21.77	21.03	22.14	22.53
	8H	23.31	24.41	23.74	24.80	25.20	20.71	21.81	21.13	22.20	22.60
	12H	23.34	24.39	23.77	24.78	25.21	20.74	21.79	21.17	22.18	22.61
4H	2H	21.01	22.26	21.41	22.61	22.99	18.78	20.03	19.18	20.38	20.76
	3H	22.80	23.83	23.21	24.23	24.63	20.57	21.61	20.98	22.01	22.41
	4H	23.44	24.37	23.87	24.78	25.22	21.24	22.17	21.67	22.58	23.02
	6H	23.88	24.69	24.34	25.14	25.60	21.69	22.50	22.15	22.95	23.41
	8H	23.99	24.75	24.46	25.19	25.66	21.81	22.56	22.27	23.01	23.48
	12H	24.05	24.73	24.53	25.20	25.68	21.87	22.54	22.35	23.02	23.49
8H	4H	23.54	24.30	24.00	24.74	25.21	21.53	22.29	22.00	22.74	23.20
	6H	24.06	24.68	24.56	25.17	25.65	22.08	22.71	22.58	23.20	23.68
	8H	24.21	24.77	24.73	25.28	25.77	22.25	22.81	22.77	23.32	23.81
	12H	24.31	24.81	24.82	25.30	25.86	22.36	22.85	22.87	23.34	23.91
12H	4H	23.53	24.21	24.01	24.68	25.16	21.56	22.23	22.04	22.71	23.18
	6H	24.05	24.61	24.57	25.12	25.61	22.12	22.68	22.64	23.19	23.68
	8H	24.24	24.74	24.75	25.23	25.80	22.34	22.83	22.85	23.32	23.89