

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: P1217394

Luminaire Tested: S124DRP-S1005D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217394
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-S1005D850-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

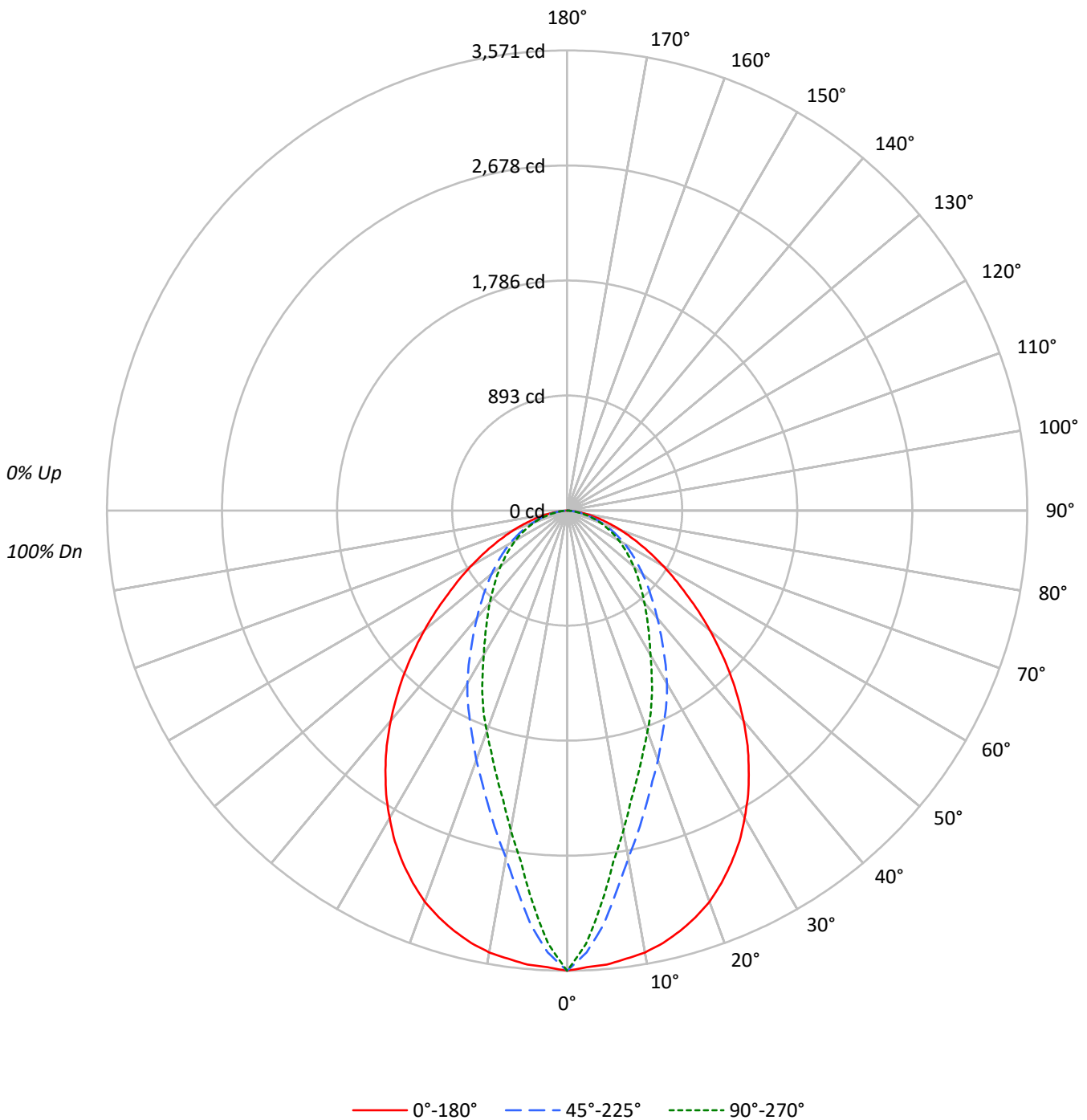
Lumens per Lamp: N/A
Luminaire Lumens: 5008.3 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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°	31573	31573	31573
5°	31386	28637	27144
10°	31255	24550	22587
15°	30931	21661	19431
20°	30389	19381	17162
25°	29422	17442	15202
30°	28125	15813	13196
35°	26527	14018	11812
40°	24573	12558	10763
45°	22335	11423	9929
50°	19899	10511	9279
55°	17355	9768	8677
60°	15237	9092	8175
65°	13192	8389	7632
70°	11423	7600	7031
75°	9507	6716	6176
80°	7367	5443	5046
85°	4626	3672	3348

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22335 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.9	6.0
10°-20°	710.1	14.2
20°-30°	907.4	18.1
30°-40°	921.6	18.4
40°-50°	817.0	16.3
50°-60°	642.0	12.8
60°-70°	437.2	8.7
70°-80°	224.4	4.5
80°-90°	49.7	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°	1916.4	38.3
0°-40°	2838.0	56.7
0°-60°	4296.9	85.8
0°-90°	5008.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5008.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3571	3571	3571	3571	3571	
5°	3536	3447	3227	3102	3058	336
15°	3379	2821	2366	2172	2123	952
25°	3016	2211	1788	1616	1558	1386
35°	2458	1675	1299	1134	1094	1534
45°	1786	1206	914	819	794	1376
55°	1126	804	634	577	563	1017
65°	631	488	401	373	365	631
75°	278	230	197	187	181	299
85°	46	42	36	36	33	61
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3571.0	3571.0	3571.0	3571.0	3571.0
2.5°	3545.9	3550.6	3432.7	3390.2	3365.0
5°	3536.4	3446.8	3226.7	3102.4	3058.4
7.5°	3508.1	3313.1	2965.6	2794.2	2748.6
10°	3481.4	3160.6	2734.5	2564.7	2515.9
12.5°	3437.4	2992.4	2548.9	2354.0	2295.8
15°	3379.2	2821.0	2366.5	2171.5	2122.8
17.5°	3310.0	2657.4	2201.4	2014.3	1960.8
20°	3229.8	2506.5	2059.9	1868.1	1824.0
22.5°	3129.2	2357.1	1915.2	1742.3	1693.5
25°	3016.0	2210.9	1787.9	1616.5	1558.3
27.5°	2894.9	2069.3	1669.9	1479.7	1418.3
30°	2754.9	1934.1	1548.9	1349.2	1292.6
32.5°	2613.4	1800.5	1421.5	1232.8	1187.2
35°	2457.7	1674.7	1298.8	1133.7	1094.4
37.5°	2300.5	1553.6	1188.8	1044.1	1009.5
40°	2129.1	1435.6	1088.1	960.8	932.5
42.5°	1957.7	1317.7	996.9	886.9	860.1
45°	1786.3	1206.1	913.6	819.2	794.1
47.5°	1613.3	1096.0	836.5	753.2	732.8
50°	1446.7	992.2	764.2	691.9	674.6
52.5°	1284.7	894.7	695.0	633.7	614.8
55°	1125.9	803.5	633.7	577.1	562.9
57.5°	990.6	718.6	572.4	523.6	512.6
60°	861.7	636.8	514.2	473.3	462.3
62.5°	740.6	561.4	456.0	423.0	415.1
65°	630.6	487.5	401.0	372.7	364.8
67.5°	529.9	419.8	344.4	323.9	317.6
70°	441.9	352.2	294.0	276.8	272.0
72.5°	353.8	287.8	243.7	231.1	226.4
75°	278.3	229.6	196.6	187.1	180.8
77.5°	209.1	174.5	151.0	143.1	138.4
80°	144.7	124.2	106.9	103.8	99.1
82.5°	91.2	78.6	69.2	67.6	62.9
85°	45.6	42.5	36.2	36.2	33.0
87.5°	15.7	14.2	14.2	14.2	12.6
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	20.90	22.39	21.26	22.70	23.01	18.22	19.71	18.59	20.02	20.34
	3H	22.49	23.82	22.87	24.15	24.51	19.82	21.16	20.20	21.48	21.85
	4H	23.02	24.27	23.42	24.62	25.00	20.38	21.63	20.78	21.98	22.36
	6H	23.35	24.51	23.77	24.87	25.27	20.74	21.89	21.15	22.26	22.65
	8H	23.43	24.53	23.86	24.92	25.32	20.82	21.92	21.25	22.31	22.71
	12H	23.46	24.51	23.89	24.89	25.32	20.86	21.91	21.29	22.29	22.72
4H	2H	21.13	22.38	21.53	22.73	23.11	18.90	20.15	19.30	20.50	20.88
	3H	22.91	23.95	23.32	24.35	24.75	20.69	21.72	21.10	22.12	22.53
	4H	23.55	24.48	23.98	24.90	25.34	21.35	22.28	21.78	22.70	23.14
	6H	24.00	24.81	24.46	25.25	25.71	21.81	22.62	22.27	23.06	23.52
	8H	24.11	24.87	24.57	25.31	25.78	21.92	22.68	22.39	23.12	23.59
	12H	24.17	24.84	24.65	25.32	25.79	21.98	22.66	22.47	23.14	23.61
8H	4H	23.66	24.41	24.12	24.86	25.32	21.65	22.41	22.11	22.85	23.32
	6H	24.17	24.80	24.67	25.29	25.77	22.20	22.82	22.70	23.32	23.79
	8H	24.33	24.89	24.84	25.40	25.89	22.37	22.93	22.88	23.44	23.93
	12H	24.43	24.92	24.94	25.41	25.98	22.47	22.97	22.99	23.46	24.03
12H	4H	23.65	24.32	24.13	24.80	25.27	21.67	22.35	22.16	22.83	23.30
	6H	24.17	24.73	24.68	25.24	25.73	22.24	22.80	22.75	23.31	23.80
	8H	24.36	24.85	24.87	25.34	25.91	22.45	22.94	22.96	23.44	24.00