

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: P1217389

Luminaire Tested: S124DRP-H865D940-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217389
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-H865D940-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

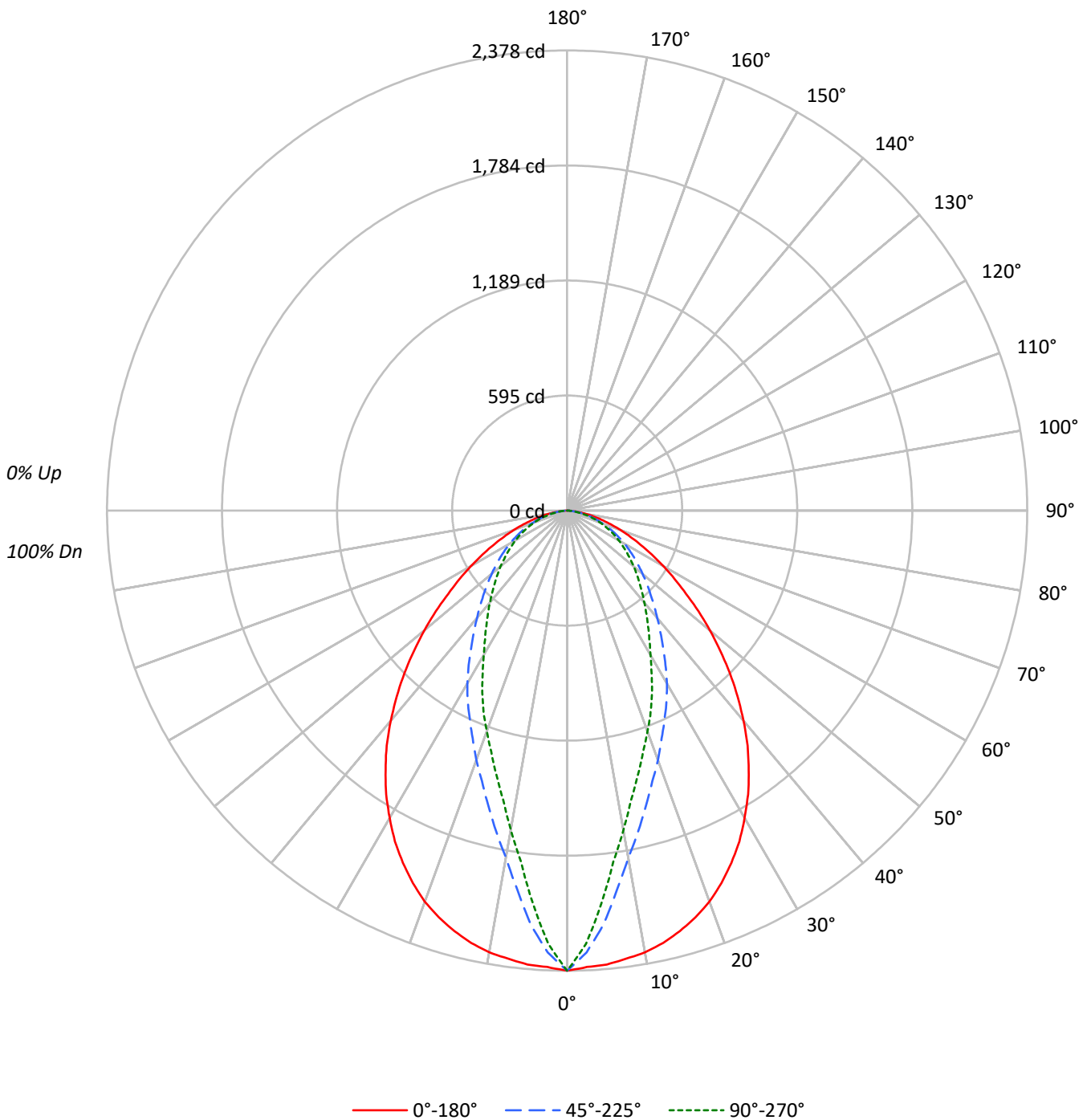
Lumens per Lamp: N/A
Luminaire Lumens: 3334.6 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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

TEST NUMBER: P1217389

CATALOG NUMBER: S124DRP-H865D940-X4F0-XX-UDD-G-W

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°	21022	21022	21022
5°	20897	19067	18072
10°	20810	16346	15039
15°	20594	14423	12937
20°	20234	12904	11427
25°	19590	11613	10121
30°	18727	10529	8786
35°	17662	9334	7865
40°	16361	8362	7165
45°	14871	7606	6611
50°	13249	6998	6177
55°	11555	6503	5777
60°	10145	6055	5443
65°	8782	5586	5082
70°	7605	5062	4682
75°	6330	4472	4113
80°	4903	3625	3360
85°	3084	2445	2232

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14871 cd/sqm



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CATALOG NUMBER: S124DRP-H865D940-X4F0-XX-UDD-G-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.0	6.0
10°-20°	472.8	14.2
20°-30°	604.2	18.1
30°-40°	613.6	18.4
40°-50°	543.9	16.3
50°-60°	427.4	12.8
60°-70°	291.1	8.7
70°-80°	149.4	4.5
80°-90°	33.1	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°	1276.0	38.3
0°-40°	1889.6	56.7
0°-60°	2861.0	85.8
0°-90°	3334.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3334.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2378	2378	2378	2378	2378	
5°	2355	2295	2148	2066	2036	223
15°	2250	1878	1576	1446	1413	634
25°	2008	1472	1190	1076	1038	923
35°	1636	1115	865	755	729	1021
45°	1189	803	608	546	529	916
55°	750	535	422	384	375	677
65°	420	325	267	248	243	420
75°	185	153	131	125	120	199
85°	30	28	24	24	22	41
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2377.7	2377.7	2377.7	2377.7	2377.7
2.5°	2360.9	2364.0	2285.5	2257.3	2240.5
5°	2354.6	2294.9	2148.4	2065.7	2036.3
7.5°	2335.8	2206.0	1974.6	1860.5	1830.1
10°	2318.0	2104.4	1820.7	1707.6	1675.1
12.5°	2288.7	1992.4	1697.1	1567.3	1528.6
15°	2249.9	1878.3	1575.7	1445.9	1413.4
17.5°	2203.9	1769.4	1465.7	1341.2	1305.6
20°	2150.5	1668.9	1371.5	1243.8	1214.5
22.5°	2083.5	1569.4	1275.2	1160.0	1127.6
25°	2008.1	1472.0	1190.4	1076.3	1037.5
27.5°	1927.5	1377.8	1111.9	985.2	944.4
30°	1834.3	1287.8	1031.3	898.3	860.6
32.5°	1740.1	1198.8	946.5	820.8	790.5
35°	1636.4	1115.0	864.8	754.9	728.7
37.5°	1531.7	1034.4	791.5	695.2	672.2
40°	1417.6	955.9	724.5	639.7	620.8
42.5°	1303.5	877.4	663.8	590.5	572.7
45°	1189.3	803.0	608.3	545.5	528.7
47.5°	1074.2	729.7	557.0	501.5	487.9
50°	963.2	660.6	508.8	460.7	449.1
52.5°	855.4	595.7	462.8	421.9	409.4
55°	749.6	535.0	421.9	384.2	374.8
57.5°	659.6	478.5	381.1	348.6	341.3
60°	573.7	424.0	342.4	315.1	307.8
62.5°	493.1	373.8	303.6	281.6	276.4
65°	419.8	324.6	267.0	248.1	242.9
67.5°	352.8	279.5	229.3	215.7	211.5
70°	294.2	234.5	195.8	184.3	181.1
72.5°	235.6	191.6	162.3	153.9	150.8
75°	185.3	152.9	130.9	124.6	120.4
77.5°	139.2	116.2	100.5	95.3	92.1
80°	96.3	82.7	71.2	69.1	66.0
82.5°	60.7	52.3	46.1	45.0	41.9
85°	30.4	28.3	24.1	24.1	22.0
87.5°	10.5	9.4	9.4	9.4	8.4
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	19.49	20.97	19.85	21.29	21.60	16.81	18.30	17.18	18.61	18.93
	3H	21.08	22.41	21.46	22.74	23.10	18.41	19.74	18.79	20.07	20.43
	4H	21.61	22.86	22.01	23.21	23.59	18.97	20.22	19.37	20.57	20.95
	6H	21.94	23.09	22.35	23.46	23.85	19.32	20.48	19.74	20.84	21.24
	8H	22.02	23.12	22.44	23.50	23.91	19.41	20.51	19.84	20.90	21.30
	12H	22.05	23.10	22.48	23.48	23.91	19.45	20.50	19.88	20.88	21.31
4H	2H	19.71	20.96	20.12	21.31	21.69	17.49	18.74	17.89	19.09	19.46
	3H	21.50	22.53	21.91	22.94	23.34	19.27	20.31	19.69	20.71	21.11
	4H	22.14	23.07	22.57	23.49	23.93	19.94	20.87	20.37	21.29	21.73
	6H	22.58	23.39	23.04	23.84	24.30	20.39	21.20	20.85	21.65	22.11
	8H	22.70	23.45	23.16	23.90	24.36	20.51	21.27	20.98	21.71	22.18
	12H	22.75	23.43	23.24	23.91	24.38	20.57	21.25	21.05	21.73	22.20
8H	4H	22.24	23.00	22.71	23.44	23.91	20.24	20.99	20.70	21.44	21.91
	6H	22.76	23.38	23.26	23.88	24.35	20.79	21.41	21.28	21.90	22.38
	8H	22.92	23.47	23.43	23.98	24.47	20.95	21.51	21.47	22.02	22.51
	12H	23.02	23.51	23.53	24.00	24.57	21.06	21.55	21.57	22.05	22.61
12H	4H	22.23	22.91	22.72	23.39	23.86	20.26	20.94	20.74	21.41	21.89
	6H	22.75	23.31	23.27	23.82	24.31	20.82	21.38	21.34	21.89	22.38
	8H	22.95	23.44	23.46	23.93	24.50	21.04	21.53	21.55	22.02	22.59