

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: P1217347

Luminaire Tested: S124DRP-H1005D835-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217347
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-H1005D835-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

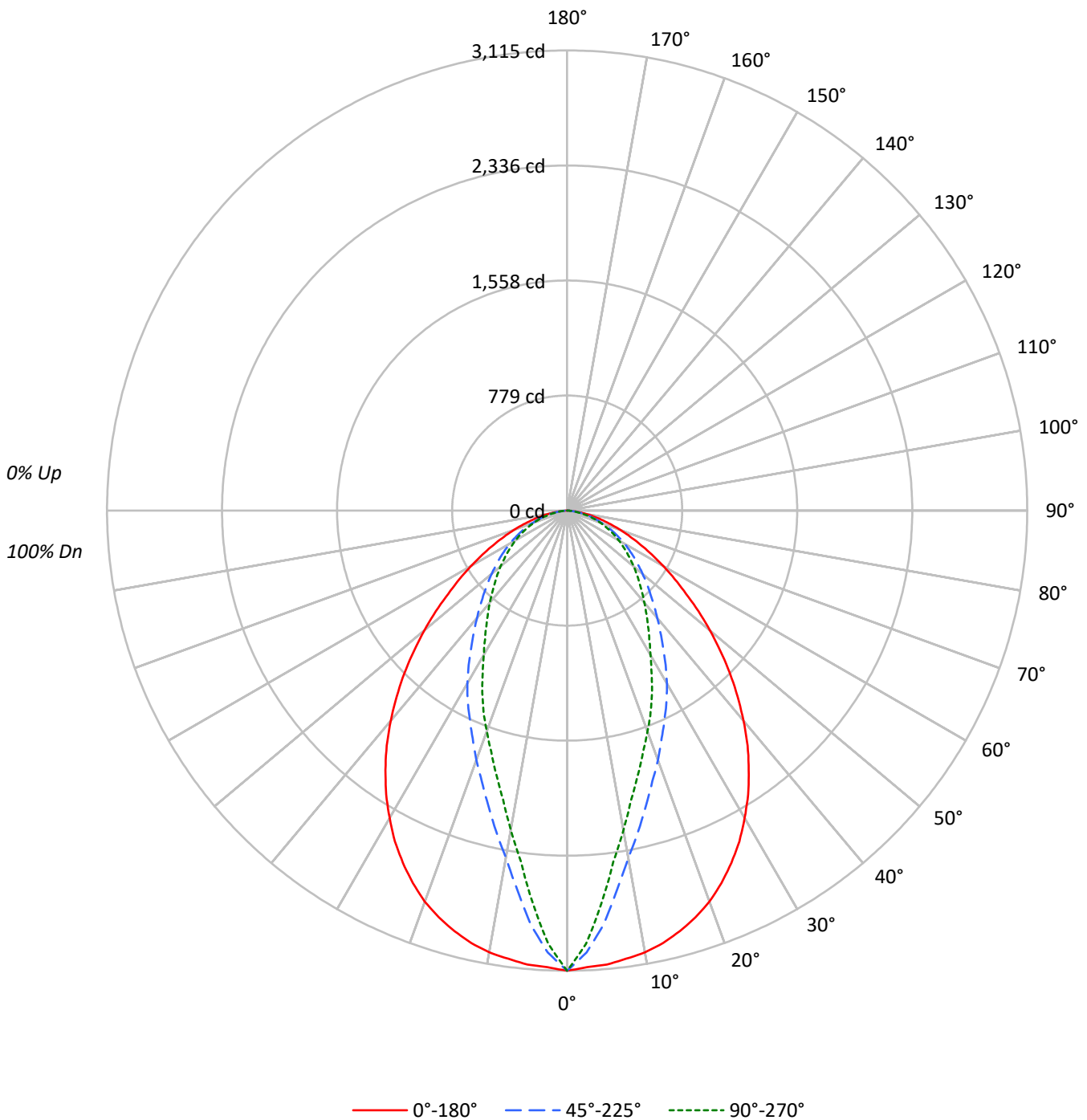
Lumens per Lamp: N/A
Luminaire Lumens: 4368.5 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				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°	27539	27539	27539
5°	27377	24979	23676
10°	27263	21414	19702
15°	26979	18894	16948
20°	26506	16906	14969
25°	25663	15214	13260
30°	24533	13793	11510
35°	23139	12228	10303
40°	21434	10954	9387
45°	19482	9964	8660
50°	17356	9169	8093
55°	15137	8520	7569
60°	13290	7931	7130
65°	11506	7318	6657
70°	9963	6631	6134
75°	8294	5855	5387
80°	6426	4750	4399
85°	4037	3195	2922

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 19482 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.7	6.0
10°-20°	619.4	14.2
20°-30°	791.5	18.1
30°-40°	803.8	18.4
40°-50°	712.6	16.3
50°-60°	560.0	12.8
60°-70°	381.3	8.7
70°-80°	195.7	4.5
80°-90°	43.4	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°	1671.6	38.3
0°-40°	2475.5	56.7
0°-60°	3748.0	85.8
0°-90°	4368.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4368.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3115	3115	3115	3115	3115	
5°	3085	3006	2814	2706	2668	293
15°	2948	2461	2064	1894	1852	830
25°	2631	1928	1560	1410	1359	1209
35°	2144	1461	1133	989	955	1338
45°	1558	1052	797	715	693	1200
55°	982	701	553	503	491	887
65°	550	425	350	325	318	550
75°	243	200	171	163	158	261
85°	40	37	32	32	29	53
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3114.8	3114.8	3114.8	3114.8	3114.8
2.5°	3092.9	3097.0	2994.1	2957.1	2935.2
5°	3084.7	3006.5	2814.5	2706.1	2667.7
7.5°	3060.0	2889.9	2586.8	2437.3	2397.5
10°	3036.7	2756.9	2385.2	2237.0	2194.5
12.5°	2998.3	2610.1	2223.3	2053.2	2002.5
15°	2947.5	2460.6	2064.2	1894.1	1851.6
17.5°	2887.2	2318.0	1920.2	1757.0	1710.4
20°	2817.2	2186.3	1796.8	1629.4	1591.0
22.5°	2729.4	2056.0	1670.6	1519.7	1477.2
25°	2630.7	1928.4	1559.5	1410.0	1359.2
27.5°	2525.1	1805.0	1456.6	1290.7	1237.2
30°	2403.0	1687.0	1351.0	1176.8	1127.4
32.5°	2279.6	1570.5	1239.9	1075.3	1035.5
35°	2143.8	1460.7	1132.9	988.9	954.6
37.5°	2006.6	1355.1	1036.9	910.7	880.6
40°	1857.1	1252.2	949.1	838.0	813.3
42.5°	1707.6	1149.4	869.6	773.6	750.3
45°	1558.1	1052.0	796.9	714.6	692.6
47.5°	1407.2	956.0	729.7	657.0	639.2
50°	1261.8	865.5	666.6	603.5	588.4
52.5°	1120.6	780.4	606.2	552.7	536.3
55°	982.0	700.9	552.7	503.4	491.0
57.5°	864.1	626.8	499.3	456.7	447.1
60°	751.6	555.5	448.5	412.8	403.2
62.5°	646.0	489.7	397.8	369.0	362.1
65°	550.0	425.2	349.8	325.1	318.2
67.5°	462.2	366.2	300.4	282.5	277.1
70°	385.4	307.2	256.5	241.4	237.3
72.5°	308.6	251.0	212.6	201.6	197.5
75°	242.8	200.2	171.4	163.2	157.7
77.5°	182.4	152.2	131.7	124.8	120.7
80°	126.2	108.4	93.3	90.5	86.4
82.5°	79.6	68.6	60.3	59.0	54.9
85°	39.8	37.0	31.5	31.5	28.8
87.5°	13.7	12.3	12.3	12.3	11.0
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	20.42	21.91	20.79	22.22	22.54	17.75	19.24	18.11	19.55	19.86
	3H	22.02	23.35	22.39	23.68	24.04	19.35	20.68	19.73	21.01	21.37
	4H	22.55	23.80	22.95	24.15	24.52	19.91	21.16	20.31	21.50	21.88
	6H	22.88	24.03	23.29	24.40	24.79	20.26	21.41	20.67	21.78	22.17
	8H	22.96	24.05	23.38	24.44	24.85	20.35	21.45	20.77	21.84	22.24
	12H	22.98	24.04	23.42	24.42	24.85	20.38	21.43	20.81	21.82	22.25
4H	2H	20.65	21.90	21.05	22.25	22.63	18.42	19.67	18.83	20.02	20.40
	3H	22.44	23.47	22.85	23.87	24.27	20.21	21.25	20.62	21.65	22.05
	4H	23.08	24.01	23.51	24.43	24.86	20.88	21.81	21.31	22.22	22.66
	6H	23.52	24.33	23.98	24.78	25.24	21.33	22.14	21.79	22.59	23.05
	8H	23.63	24.39	24.10	24.84	25.30	21.45	22.21	21.91	22.65	23.12
	12H	23.69	24.37	24.18	24.85	25.32	21.51	22.18	21.99	22.66	23.13
8H	4H	23.18	23.94	23.64	24.38	24.85	21.18	21.93	21.64	22.38	22.84
	6H	23.70	24.32	24.20	24.81	25.29	21.73	22.35	22.22	22.84	23.32
	8H	23.85	24.41	24.37	24.92	25.41	21.89	22.45	22.41	22.96	23.45
	12H	23.95	24.45	24.47	24.94	25.51	22.00	22.49	22.51	22.98	23.55
12H	4H	23.17	23.85	23.65	24.32	24.80	21.20	21.87	21.68	22.35	22.82
	6H	23.69	24.25	24.21	24.76	25.25	21.76	22.32	22.28	22.83	23.32
	8H	23.89	24.38	24.40	24.87	25.44	21.98	22.47	22.49	22.96	23.53