

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: P1217353

Luminaire Tested: S124DRP-H1005D940-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217353  
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-H1005D940-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: -

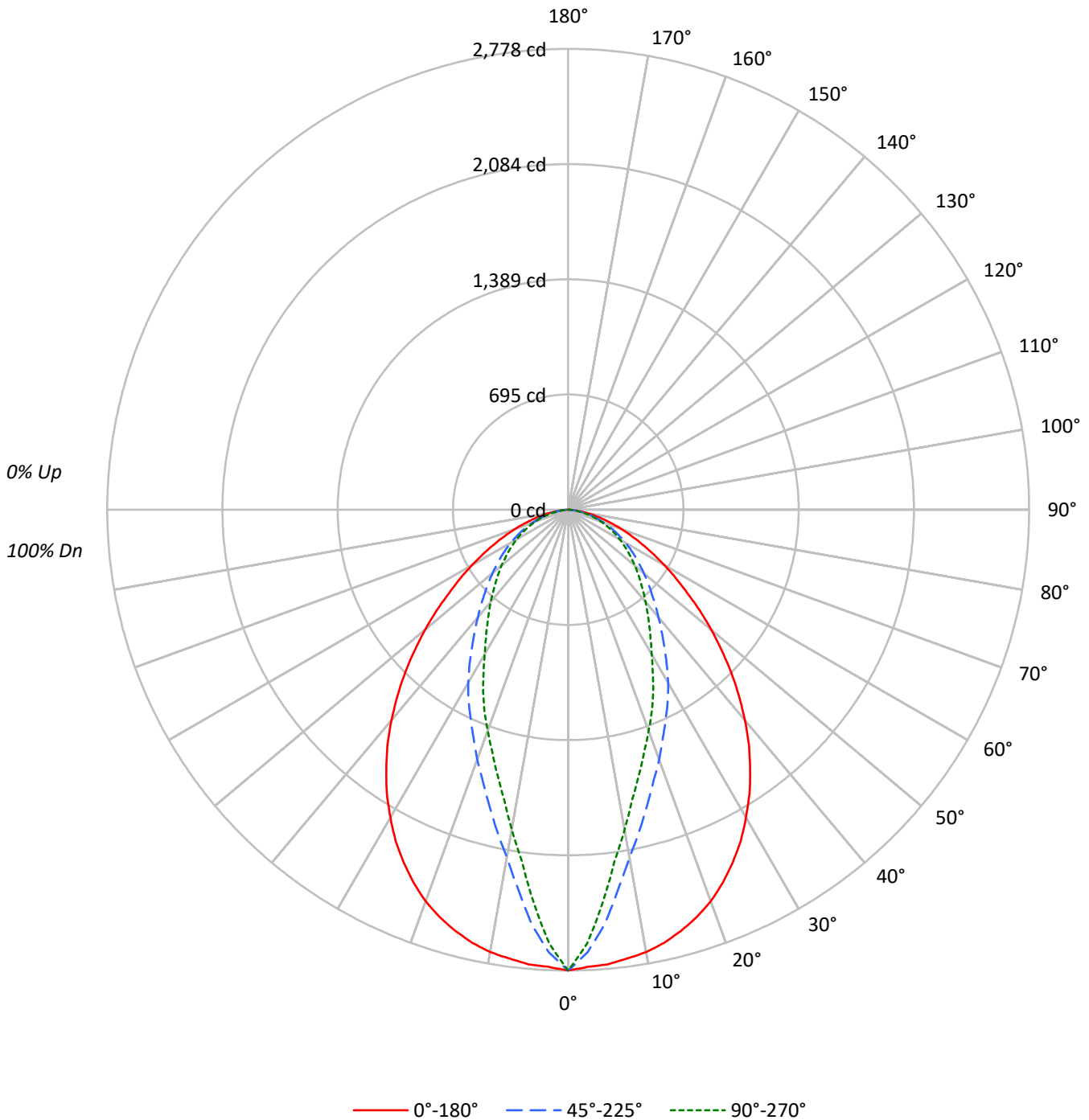
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3895.4 lumens  
Efficiency: N/A  
Efficacy: 106.4 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

TEST NUMBER: P1217353

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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°	24557	24557	24557
5°	24412	22274	21112
10°	24310	19095	17569
15°	24058	16848	15113
20°	23636	15075	13348
25°	22884	13566	11824
30°	21876	12299	10263
35°	20633	10903	9187
40°	19113	9768	8371
45°	17372	8885	7722
50°	15477	8176	7217
55°	13498	7598	6750
60°	11851	7071	6359
65°	10259	6525	5935
70°	8885	5912	5470
75°	7396	5223	4806
80°	5728	4236	3926
85°	3601	2851	2607

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17372 cd/sqm



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CATALOG NUMBER: S124DRP-H1005D940-X4F0-XX-UDD-G-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.5	6.0
10°-20°	552.3	14.2
20°-30°	705.8	18.1
30°-40°	716.8	18.4
40°-50°	635.4	16.3
50°-60°	499.3	12.8
60°-70°	340.0	8.7
70°-80°	174.6	4.5
80°-90°	38.7	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°	1490.6	38.3
0°-40°	2207.4	56.7
0°-60°	3342.1	85.8
0°-90°	3895.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3895.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2778	2778	2778	2778	2778	
5°	2751	2681	2510	2413	2379	261
15°	2628	2194	1841	1689	1651	740
25°	2346	1720	1391	1257	1212	1078
35°	1912	1302	1010	882	851	1193
45°	1389	938	711	637	618	1070
55°	876	625	493	449	438	791
65°	490	379	312	290	284	491
75°	216	179	153	146	141	233
85°	36	33	28	28	26	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2777.5	2777.5	2777.5	2777.5	2777.5
2.5°	2758.0	2761.6	2669.9	2636.9	2617.3
5°	2750.6	2680.9	2509.7	2413.1	2378.8
7.5°	2728.6	2577.0	2306.7	2173.4	2137.9
10°	2707.8	2458.3	2126.9	1994.8	1956.9
12.5°	2673.6	2327.5	1982.6	1830.9	1785.6
15°	2628.3	2194.1	1840.7	1689.0	1651.1
17.5°	2574.5	2066.9	1712.3	1566.7	1525.1
20°	2512.1	1949.5	1602.2	1453.0	1418.7
22.5°	2433.9	1833.3	1489.7	1355.1	1317.2
25°	2345.8	1719.6	1390.6	1257.3	1212.0
27.5°	2251.6	1609.5	1298.9	1150.9	1103.2
30°	2142.8	1504.3	1204.7	1049.4	1005.3
32.5°	2032.7	1400.4	1105.6	958.9	923.4
35°	1911.6	1302.5	1010.2	881.8	851.2
37.5°	1789.3	1208.4	924.6	812.1	785.2
40°	1656.0	1116.6	846.3	747.3	725.3
42.5°	1522.7	1024.9	775.4	689.8	669.0
45°	1389.4	938.1	710.6	637.2	617.6
47.5°	1254.8	852.5	650.7	585.8	569.9
50°	1125.2	771.7	594.4	538.1	524.7
52.5°	999.2	695.9	540.6	492.9	478.2
55°	875.7	625.0	492.9	448.9	437.9
57.5°	770.5	558.9	445.2	407.3	398.7
60°	670.2	495.3	399.9	368.1	359.6
62.5°	576.1	436.6	354.7	329.0	322.9
65°	490.4	379.1	311.9	289.9	283.7
67.5°	412.2	326.6	267.8	251.9	247.1
70°	343.7	274.0	228.7	215.3	211.6
72.5°	275.2	223.8	189.6	179.8	176.1
75°	216.5	178.6	152.9	145.5	140.7
77.5°	162.7	135.8	117.4	111.3	107.6
80°	112.5	96.6	83.2	80.7	77.1
82.5°	70.9	61.2	53.8	52.6	48.9
85°	35.5	33.0	28.1	28.1	25.7
87.5°	12.2	11.0	11.0	11.0	9.8
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	20.03	21.51	20.39	21.83	22.14	17.35	18.84	17.72	19.15	19.47
	3H	21.62	22.95	22.00	23.28	23.64	18.95	20.28	19.33	20.61	20.97
	4H	22.15	23.40	22.55	23.75	24.13	19.51	20.76	19.91	21.11	21.49
	6H	22.48	23.63	22.89	24.00	24.39	19.86	21.02	20.28	21.38	21.78
	8H	22.56	23.66	22.98	24.05	24.45	19.95	21.05	20.38	21.44	21.84
	12H	22.59	23.64	23.02	24.02	24.45	19.99	21.04	20.42	21.42	21.85
4H	2H	20.25	21.50	20.65	21.85	22.23	18.03	19.28	18.43	19.63	20.01
	3H	22.04	23.08	22.45	23.48	23.88	19.81	20.85	20.23	21.25	21.65
	4H	22.68	23.61	23.11	24.03	24.47	20.48	21.41	20.91	21.83	22.27
	6H	23.12	23.93	23.58	24.38	24.84	20.93	21.74	21.39	22.19	22.65
	8H	23.24	23.99	23.70	24.44	24.91	21.05	21.81	21.52	22.25	22.72
	12H	23.29	23.97	23.78	24.45	24.92	21.11	21.79	21.59	22.27	22.74
8H	4H	22.78	23.54	23.25	23.98	24.45	20.78	21.53	21.24	21.98	22.45
	6H	23.30	23.92	23.80	24.42	24.89	21.33	21.95	21.82	22.44	22.92
	8H	23.46	24.01	23.97	24.52	25.01	21.49	22.05	22.01	22.56	23.05
	12H	23.56	24.05	24.07	24.54	25.11	21.60	22.09	22.11	22.59	23.15
12H	4H	22.77	23.45	23.26	23.93	24.40	20.80	21.48	21.28	21.96	22.43
	6H	23.29	23.85	23.81	24.36	24.85	21.36	21.92	21.88	22.43	22.92
	8H	23.49	23.98	24.00	24.47	25.04	21.58	22.07	22.09	22.56	23.13