

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: P1217376

Luminaire Tested: S124DRP-H675D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217376  
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-H675D850-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: -

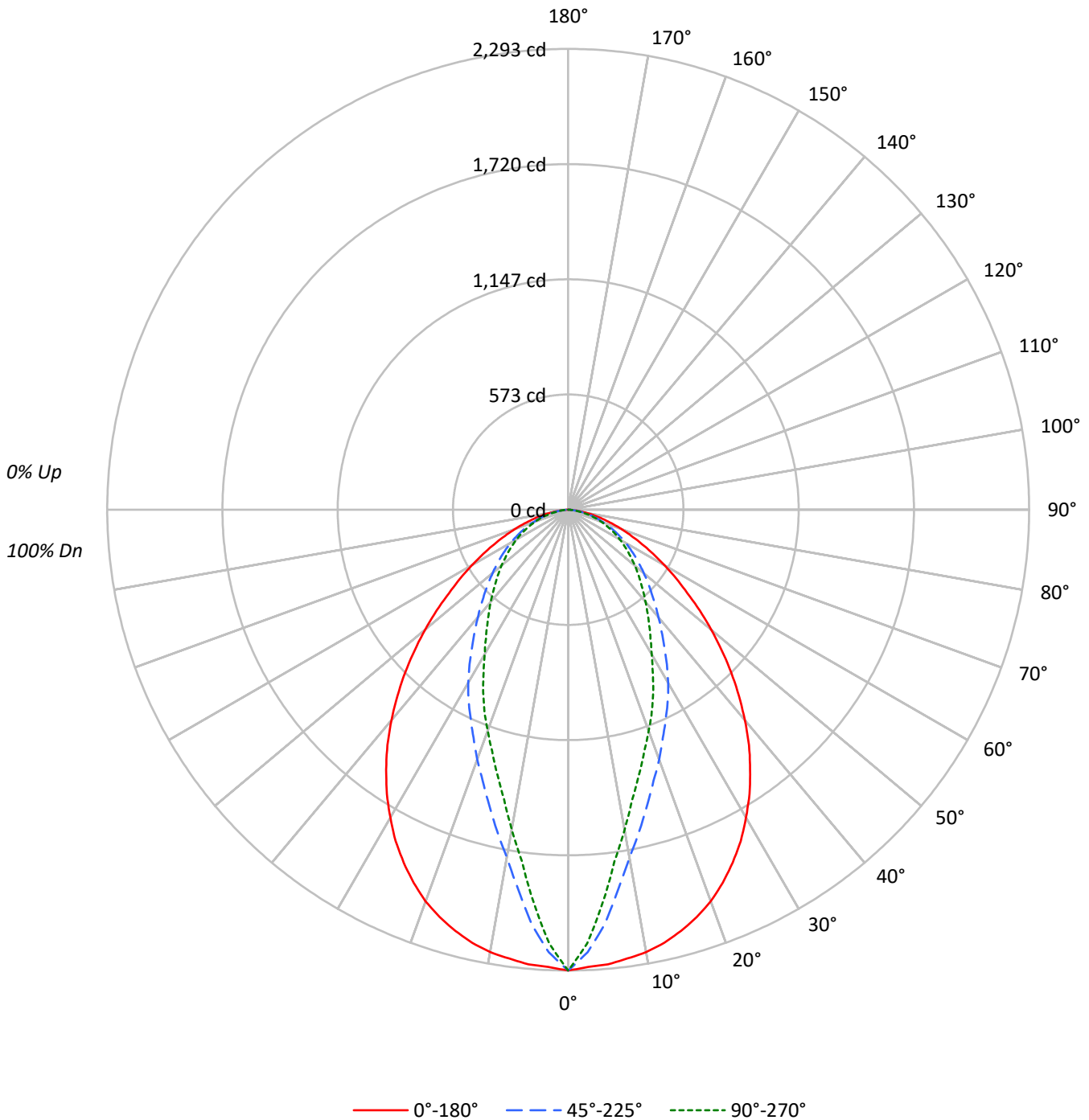
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3215.8 lumens  
Efficiency: N/A  
Efficacy: 135.1 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): 23.8  
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°	20272	20272	20272
5°	20153	18388	17429
10°	20069	15763	14503
15°	19860	13908	12476
20°	19512	12444	11020
25°	18891	11199	9761
30°	18059	10153	8473
35°	17033	9002	7584
40°	15779	8064	6910
45°	14342	7335	6376
50°	12777	6749	5957
55°	11143	6272	5572
60°	9784	5839	5248
65°	8471	5387	4900
70°	7334	4881	4516
75°	6104	4311	3966
80°	4730	3498	3238
85°	2972	2353	2151

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14342 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.9	6.0
10°-20°	455.9	14.2
20°-30°	582.6	18.1
30°-40°	591.7	18.4
40°-50°	524.6	16.3
50°-60°	412.2	12.8
60°-70°	280.7	8.7
70°-80°	144.1	4.5
80°-90°	31.9	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°	1230.5	38.3
0°-40°	1822.3	56.7
0°-60°	2759.0	85.8
0°-90°	3215.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3215.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2293	2293	2293	2293	2293	
5°	2271	2213	2072	1992	1964	216
15°	2170	1811	1520	1394	1363	611
25°	1936	1420	1148	1038	1001	890
35°	1578	1075	834	728	703	985
45°	1147	774	587	526	510	884
55°	723	516	407	370	362	653
65°	405	313	258	239	234	405
75°	179	147	126	120	116	192
85°	29	27	23	23	21	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2292.9	2292.9	2292.9	2292.9	2292.9
2.5°	2276.8	2279.8	2204.1	2176.8	2160.7
5°	2270.7	2213.2	2071.8	1992.0	1963.8
7.5°	2252.5	2127.3	1904.2	1794.2	1764.9
10°	2235.4	2029.4	1755.8	1646.7	1615.4
12.5°	2207.1	1921.4	1636.6	1511.4	1474.1
15°	2169.7	1811.3	1519.5	1394.3	1363.0
17.5°	2125.3	1706.3	1413.5	1293.4	1259.0
20°	2073.8	1609.4	1322.6	1199.5	1171.2
22.5°	2009.2	1513.5	1229.8	1118.7	1087.4
25°	1936.5	1419.6	1148.0	1037.9	1000.6
27.5°	1858.8	1328.7	1072.3	950.1	910.7
30°	1768.9	1241.9	994.5	866.3	829.9
32.5°	1678.0	1156.1	912.7	791.6	762.3
35°	1578.1	1075.3	834.0	728.0	702.7
37.5°	1477.1	997.5	763.3	670.4	648.2
40°	1367.1	921.8	698.7	616.9	598.7
42.5°	1257.0	846.1	640.1	569.4	552.3
45°	1147.0	774.4	586.6	526.0	509.9
47.5°	1035.9	703.7	537.1	483.6	470.5
50°	928.9	637.1	490.7	444.2	433.1
52.5°	824.9	574.5	446.3	406.9	394.8
55°	722.9	515.9	406.9	370.5	361.5
57.5°	636.1	461.4	367.5	336.2	329.1
60°	553.3	408.9	330.2	303.9	296.8
62.5°	475.5	360.4	292.8	271.6	266.5
65°	404.9	313.0	257.5	239.3	234.2
67.5°	340.3	269.6	221.1	208.0	203.9
70°	283.7	226.2	188.8	177.7	174.7
72.5°	227.2	184.8	156.5	148.4	145.4
75°	178.7	147.4	126.2	120.1	116.1
77.5°	134.3	112.1	96.9	91.9	88.8
80°	92.9	79.8	68.7	66.6	63.6
82.5°	58.6	50.5	44.4	43.4	40.4
85°	29.3	27.3	23.2	23.2	21.2
87.5°	10.1	9.1	9.1	9.1	8.1
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	19.36	20.85	19.72	21.16	21.47	16.68	18.17	17.05	18.48	18.80
	3H	20.95	22.29	21.33	22.61	22.98	18.28	19.62	18.66	19.94	20.31
	4H	21.48	22.73	21.88	23.08	23.46	18.84	20.09	19.24	20.44	20.82
	6H	21.81	22.97	22.23	23.34	23.73	19.20	20.35	19.61	20.72	21.11
	8H	21.89	22.99	22.32	23.38	23.78	19.28	20.38	19.71	20.77	21.17
	12H	21.92	22.97	22.35	23.35	23.78	19.32	20.37	19.75	20.75	21.18
4H	2H	19.59	20.84	19.99	21.19	21.57	17.36	18.61	17.76	18.96	19.34
	3H	21.37	22.41	21.78	22.81	23.21	19.15	20.18	19.56	20.59	20.99
	4H	22.01	22.94	22.45	23.36	23.80	19.81	20.74	20.24	21.16	21.60
	6H	22.46	23.27	22.92	23.71	24.17	20.27	21.08	20.73	21.52	21.98
	8H	22.57	23.33	23.03	23.77	24.24	20.38	21.14	20.85	21.59	22.05
	12H	22.63	23.30	23.11	23.78	24.25	20.44	21.12	20.93	21.60	22.07
8H	4H	22.12	22.87	22.58	23.32	23.78	20.11	20.87	20.58	21.31	21.78
	6H	22.63	23.26	23.13	23.75	24.23	20.66	21.28	21.16	21.78	22.25
	8H	22.79	23.35	23.31	23.86	24.35	20.83	21.39	21.34	21.90	22.39
	12H	22.89	23.38	23.40	23.88	24.44	20.94	21.43	21.45	21.92	22.49
12H	4H	22.11	22.78	22.59	23.26	23.73	20.13	20.81	20.62	21.29	21.76
	6H	22.63	23.19	23.14	23.70	24.19	20.70	21.26	21.21	21.77	22.26
	8H	22.82	23.31	23.33	23.81	24.37	20.91	21.40	21.42	21.90	22.46