

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P1357196

Luminaire Tested: 4ASL4-20VHE-3-92765-UNV\_5000K

Issue Date: 2/17/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1357196  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/17/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: 4ASL4-20VHE-3-92765-UNV\_5000K  
Description: 4FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 5000K LEDS 3 ROW  
Light Source: -  
Ballast/Driver: -

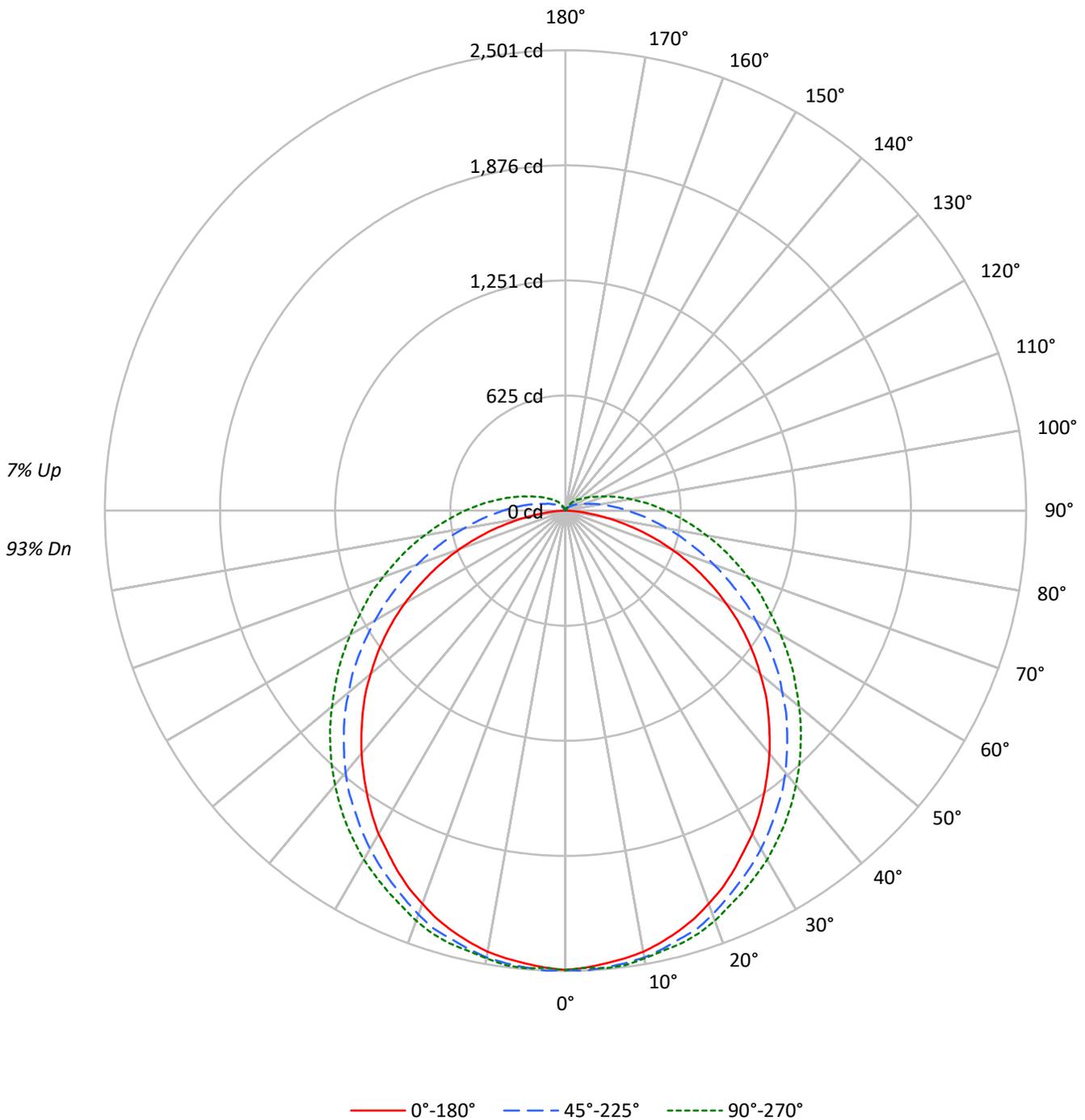
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8486.0 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 3.98' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 73.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	91	102	97	92	88	91	88	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	75	70	66	71	67	63	63	63	63	61
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	32	27	27	27	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	30	25	35	29	24	24	24	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	22	22	22	20

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	20254	20254	20254
5°	20075	19874	19790
10°	19962	19487	19290
15°	19740	19008	18866
20°	19442	18549	18387
25°	19095	17972	17843
30°	18728	17471	17383
35°	18274	16905	16870
40°	17858	16386	16331
45°	17410	15758	15789
50°	16898	15085	15226
55°	16347	14442	14721
60°	15629	13691	14207
65°	14718	12968	13781
70°	13554	12253	13447
75°	11857	11598	13218
80°	9290	11106	13120
85°	5576	10990	13315

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17410 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	236.7	2.8
10°-20°	679.5	8.0
20°-30°	1027.4	12.1
30°-40°	1244.0	14.7
40°-50°	1306.6	15.4
50°-60°	1219.0	14.4
60°-70°	1007.4	11.9
70°-80°	725.4	8.5
80°-90°	450.8	5.3
90°-100°	264.1	3.1
100°-110°	151.1	1.8
110°-120°	85.3	1.0
120°-130°	49.1	0.6
130°-140°	26.4	0.3
140°-150°	11.1	0.1
150°-160°	2.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1943.6	22.9
0°-40°	3187.6	37.6
0°-60°	5713.2	67.3
0°-90°	7896.7	93.1
90°-120°	500.5	5.9
90°-150°	587.2	6.9
90°-180°	589.0	6.9
0°-180°	8486.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2496	2496	2496	2496	2496	
5°	2470	2491	2491	2491	2496	235
15°	2366	2397	2408	2423	2434	667
25°	2159	2195	2231	2262	2283	994
35°	1878	1930	1992	2050	2076	1176
45°	1557	1614	1702	1775	1806	1201
55°	1199	1266	1370	1468	1505	1071
65°	810	887	1022	1152	1199	801
75°	415	519	700	851	913	439
85°	78	234	441	597	654	95
90°	0	140	337	483	545	4
95°	0	88	254	389	446	0
105°	0	31	140	244	285	0
115°	0	16	83	150	176	0
125°	0	10	52	99	114	0
135°	0	0	31	62	78	0
145°	0	0	16	36	42	0
155°	0	0	0	10	16	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2495.8	2495.8	2495.8	2495.8	2495.8
2.5°	2485.5	2501.0	2501.0	2485.5	2485.5
5°	2469.9	2490.7	2490.7	2490.7	2495.8
7.5°	2454.3	2480.3	2480.3	2480.3	2490.7
10°	2433.6	2459.5	2464.7	2464.7	2469.9
12.5°	2402.4	2433.6	2438.8	2444.0	2449.1
15°	2366.1	2397.3	2407.6	2423.2	2433.6
17.5°	2324.6	2360.9	2381.7	2397.3	2407.6
20°	2272.7	2309.0	2335.0	2355.7	2371.3
22.5°	2220.8	2252.0	2283.1	2309.0	2324.6
25°	2158.6	2194.9	2231.2	2262.3	2283.1
27.5°	2091.1	2132.6	2179.3	2215.6	2236.4
30°	2028.8	2070.4	2122.2	2168.9	2189.7
32.5°	1956.2	2002.9	2060.0	2106.7	2132.6
35°	1878.4	1930.3	1992.5	2049.6	2075.5
37.5°	1800.5	1852.4	1930.3	1987.3	2013.3
40°	1722.7	1774.6	1857.6	1919.9	1945.8
42.5°	1639.7	1691.6	1779.8	1847.2	1878.4
45°	1556.7	1613.7	1701.9	1774.6	1805.7
47.5°	1473.6	1530.7	1624.1	1701.9	1733.1
50°	1380.2	1442.5	1535.9	1624.1	1655.2
52.5°	1292.0	1354.3	1458.1	1546.3	1577.4
55°	1198.6	1266.1	1369.9	1468.5	1504.8
57.5°	1105.2	1172.7	1281.7	1385.4	1426.9
60°	1006.6	1079.3	1193.4	1302.4	1349.1
62.5°	908.1	985.9	1110.4	1224.6	1271.3
65°	809.5	887.3	1022.2	1151.9	1198.6
67.5°	710.9	793.9	939.2	1074.1	1131.2
70°	612.3	700.5	856.2	996.3	1053.3
72.5°	513.7	607.1	778.3	923.6	980.7
75°	415.1	518.9	700.5	851.0	913.2
77.5°	316.5	435.9	633.0	783.5	845.8
80°	228.3	363.2	560.4	716.1	778.3
82.5°	145.3	290.6	498.1	653.8	716.1
85°	77.8	233.5	441.1	596.7	653.8
87.5°	25.9	181.6	384.0	539.6	596.7
90°	0.0	140.1	337.3	482.6	544.8
92.5°	0.0	109.0	295.8	435.9	492.9
95°	0.0	88.2	254.3	389.2	446.2
97.5°	0.0	72.6	223.1	347.7	399.5
100°	0.0	57.1	192.0	311.3	358.0
102.5°	0.0	46.7	166.0	275.0	321.7
105°	0.0	31.1	140.1	243.9	285.4
107.5°	0.0	25.9	119.3	217.9	254.3
110°	0.0	20.8	109.0	186.8	223.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	15.6	98.6	166.0	202.4
115°	0.0	15.6	83.0	150.5	176.4
117.5°	0.0	15.6	72.6	134.9	160.9
120°	0.0	10.4	67.5	119.3	145.3
122.5°	0.0	10.4	57.1	109.0	129.7
125°	0.0	10.4	51.9	98.6	114.2
127.5°	0.0	5.2	46.7	88.2	103.8
130°	0.0	5.2	41.5	77.8	93.4
132.5°	0.0	5.2	36.3	72.6	88.2
135°	0.0	0.0	31.1	62.3	77.8
137.5°	0.0	0.0	25.9	57.1	67.5
140°	0.0	0.0	20.8	46.7	62.3
142.5°	0.0	0.0	15.6	41.5	51.9
145°	0.0	0.0	15.6	36.3	41.5
147.5°	0.0	0.0	10.4	25.9	36.3
150°	0.0	0.0	5.2	20.8	25.9
152.5°	0.0	0.0	0.0	15.6	20.8
155°	0.0	0.0	0.0	10.4	15.6
157.5°	0.0	0.0	0.0	0.0	5.2
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	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	19.78	21.32	20.25	21.78	22.26	21.81	23.35	22.28	23.81	24.29
	3H	21.28	22.69	21.76	23.15	23.68	24.27	25.68	24.76	26.14	26.67
	4H	21.76	23.09	22.26	23.58	24.11	25.47	26.80	25.97	27.29	27.82
	6H	22.04	23.28	22.55	23.77	24.33	26.72	27.96	27.24	28.46	29.01
	8H	22.09	23.28	22.62	23.80	24.36	27.37	28.56	27.90	29.08	29.64
	12H	22.10	23.24	22.64	23.76	24.35	28.08	29.22	28.61	29.73	30.32
4H	2H	20.66	21.99	21.16	22.47	23.01	22.25	23.58	22.75	24.06	24.60
	3H	22.40	23.53	22.91	24.06	24.62	24.93	26.07	25.45	26.59	27.15
	4H	23.00	24.04	23.54	24.58	25.17	26.30	27.34	26.84	27.88	28.47
	6H	23.40	24.32	23.95	24.88	25.48	27.75	28.66	28.30	29.23	29.83
	8H	23.49	24.36	24.05	24.92	25.54	28.50	29.36	29.06	29.93	30.54
	12H	23.54	24.32	24.12	24.91	25.54	29.33	30.12	29.92	30.71	31.33
8H	4H	23.68	24.55	24.24	25.11	25.73	26.52	27.38	27.08	27.94	28.56
	6H	24.26	24.99	24.85	25.60	26.22	28.13	28.87	28.73	29.47	30.09
	8H	24.44	25.10	25.05	25.72	26.36	29.03	29.69	29.63	30.30	30.94
	12H	24.56	25.15	25.16	25.75	26.46	30.05	30.64	30.65	31.24	31.94
12H	4H	23.88	24.66	24.46	25.25	25.87	26.53	27.31	27.11	27.90	28.53
	6H	24.55	25.22	25.16	25.83	26.47	28.17	28.83	28.77	29.45	30.08
	8H	24.83	25.42	25.44	26.03	26.73	29.13	29.72	29.74	30.33	31.03