

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: P1357197

Luminaire Tested: 4ASL4-20VHE-3-92765-UNV\_6500K

Issue Date: 2/17/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1357197  
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\_6500K  
Description: 4FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 6500K LEDS 3 ROW  
Light Source: -  
Ballast/Driver: -

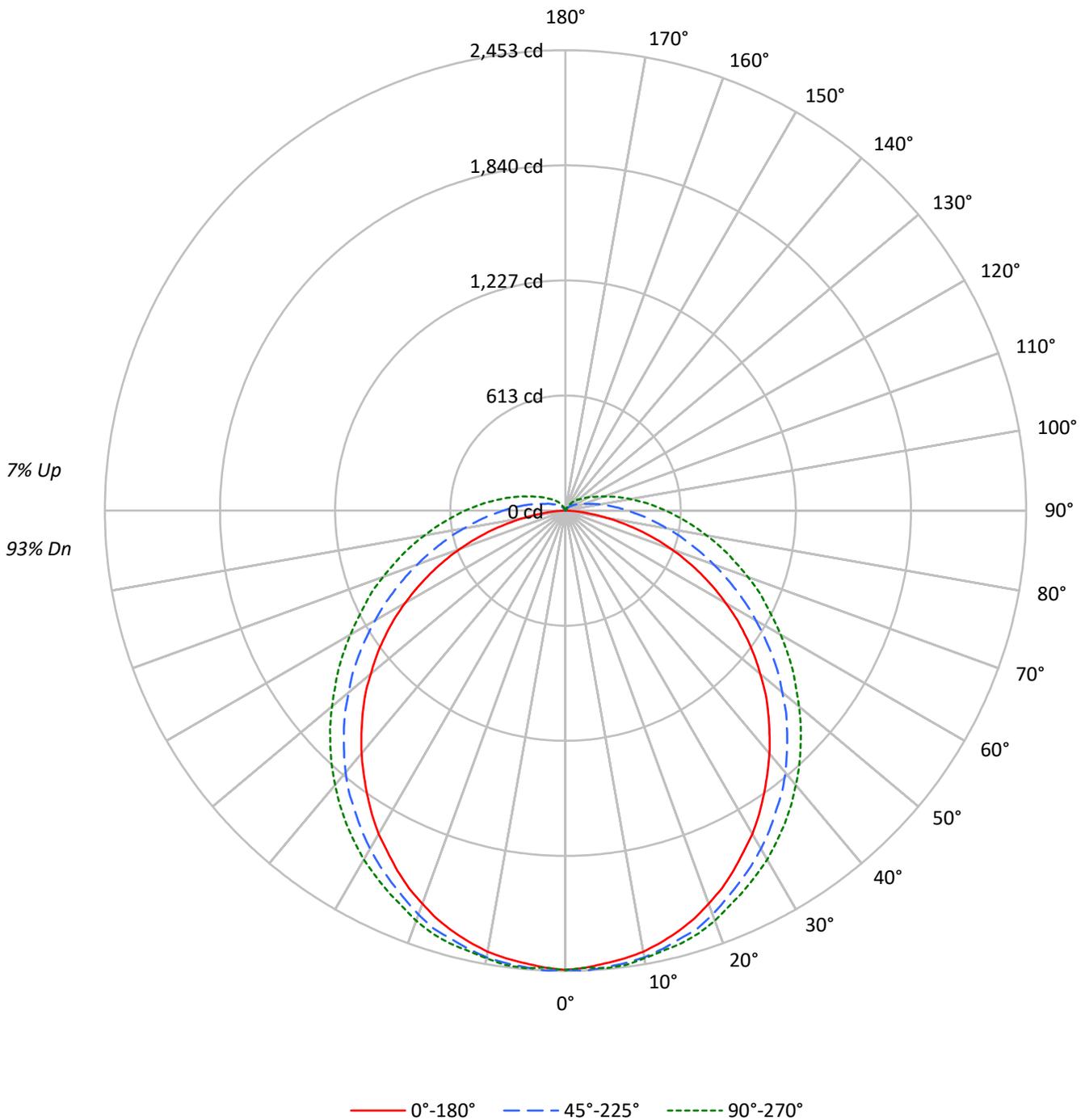
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8322.0 lumens  
Efficiency: N/A  
Efficacy: 113.8 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

TEST NUMBER: P1357197  
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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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°	19863	19863	19863
5°	19687	19489	19408
10°	19576	19111	18918
15°	19359	18641	18501
20°	19066	18190	18032
25°	18727	17625	17499
30°	18366	17133	17047
35°	17921	16578	16544
40°	17512	16069	16015
45°	17073	15455	15484
50°	16572	14794	14933
55°	16032	14163	14436
60°	15328	13427	13932
65°	14433	12718	13515
70°	13292	12016	13188
75°	11629	11375	12963
80°	9111	10892	12867
85°	5468	10775	13059

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17073 cd/sqm



TEST NUMBER: P1357197  
 CATALOG NUMBER: 4ASL4-20VHE-3-92765-UNV\_6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.1	2.8
10°-20°	666.4	8.0
20°-30°	1007.5	12.1
30°-40°	1220.0	14.7
40°-50°	1281.3	15.4
50°-60°	1195.4	14.4
60°-70°	988.0	11.9
70°-80°	711.4	8.5
80°-90°	442.0	5.3
90°-100°	259.0	3.1
100°-110°	148.2	1.8
110°-120°	83.7	1.0
120°-130°	48.2	0.6
130°-140°	25.9	0.3
140°-150°	10.9	0.1
150°-160°	2.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1906.0	22.9
0°-40°	3126.0	37.6
0°-60°	5602.8	67.3
0°-90°	7744.2	93.1
90°-120°	490.8	5.9
90°-150°	575.8	6.9
90°-180°	578.0	6.9
0°-180°	8322.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2448	2448	2448	2448	2448	
5°	2422	2442	2442	2442	2448	230
15°	2320	2351	2361	2376	2386	654
25°	2117	2152	2188	2219	2239	975
35°	1842	1893	1954	2010	2035	1153
45°	1527	1583	1669	1740	1771	1178
55°	1176	1242	1343	1440	1476	1050
65°	794	870	1002	1130	1176	786
75°	407	509	687	834	896	431
85°	76	229	432	585	641	93
90°	0	137	331	473	534	3
95°	0	86	249	382	438	0
105°	0	30	137	239	280	0
115°	0	15	81	148	173	0
125°	0	10	51	97	112	0
135°	0	0	30	61	76	0
145°	0	0	15	36	41	0
155°	0	0	0	10	15	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P1357197  
 CATALOG NUMBER: 4ASL4-20VHE-3-92765-UNV\_6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2447.6	2447.6	2447.6	2447.6	2447.6
2.5°	2437.4	2452.7	2452.7	2437.4	2437.4
5°	2422.2	2442.5	2442.5	2442.5	2447.6
7.5°	2406.9	2432.3	2432.3	2432.3	2442.5
10°	2386.5	2412.0	2417.1	2417.1	2422.2
12.5°	2356.0	2386.5	2391.6	2396.7	2401.8
15°	2320.4	2350.9	2361.1	2376.4	2386.5
17.5°	2279.7	2315.3	2335.7	2350.9	2361.1
20°	2228.8	2264.4	2289.9	2310.2	2325.5
22.5°	2177.9	2208.4	2239.0	2264.4	2279.7
25°	2116.9	2152.5	2188.1	2218.6	2239.0
27.5°	2050.7	2091.4	2137.2	2172.8	2193.2
30°	1989.6	2030.3	2081.2	2127.0	2147.4
32.5°	1918.4	1964.2	2020.2	2066.0	2091.4
35°	1842.1	1893.0	1954.0	2010.0	2035.4
37.5°	1765.7	1816.6	1893.0	1948.9	1974.4
40°	1689.4	1740.3	1821.7	1882.8	1908.2
42.5°	1608.0	1658.9	1745.4	1811.5	1842.1
45°	1526.6	1582.6	1669.1	1740.3	1770.8
47.5°	1445.2	1501.1	1592.7	1669.1	1699.6
50°	1353.6	1414.6	1506.2	1592.7	1623.3
52.5°	1267.1	1328.1	1429.9	1516.4	1546.9
55°	1175.5	1241.6	1343.4	1440.1	1475.7
57.5°	1083.9	1150.0	1256.9	1358.7	1399.4
60°	987.2	1058.4	1170.4	1277.2	1323.0
62.5°	890.5	966.8	1089.0	1200.9	1246.7
65°	793.8	870.1	1002.5	1129.7	1175.5
67.5°	697.1	778.6	921.0	1053.3	1109.3
70°	600.5	687.0	839.6	977.0	1033.0
72.5°	503.8	595.4	763.3	905.8	961.7
75°	407.1	508.9	687.0	834.5	895.6
77.5°	310.4	427.4	620.8	768.4	829.4
80°	223.9	356.2	549.6	702.2	763.3
82.5°	142.5	285.0	488.5	641.2	702.2
85°	76.3	229.0	432.5	585.2	641.2
87.5°	25.4	178.1	376.6	529.2	585.2
90°	0.0	137.4	330.8	473.2	534.3
92.5°	0.0	106.9	290.0	427.4	483.4
95°	0.0	86.5	249.3	381.6	437.6
97.5°	0.0	71.2	218.8	340.9	391.8
100°	0.0	56.0	188.3	305.3	351.1
102.5°	0.0	45.8	162.8	269.7	315.5
105°	0.0	30.5	137.4	239.2	279.9
107.5°	0.0	25.4	117.0	213.7	249.3
110°	0.0	20.4	106.9	183.2	218.8



TEST NUMBER: P1357197

CATALOG NUMBER: 4ASL4-20VHE-3-92765-UNV\_6500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	15.3	96.7	162.8	198.5
115°	0.0	15.3	81.4	147.6	173.0
117.5°	0.0	15.3	71.2	132.3	157.7
120°	0.0	10.2	66.2	117.0	142.5
122.5°	0.0	10.2	56.0	106.9	127.2
125°	0.0	10.2	50.9	96.7	111.9
127.5°	0.0	5.1	45.8	86.5	101.8
130°	0.0	5.1	40.7	76.3	91.6
132.5°	0.0	5.1	35.6	71.2	86.5
135°	0.0	0.0	30.5	61.1	76.3
137.5°	0.0	0.0	25.4	56.0	66.2
140°	0.0	0.0	20.4	45.8	61.1
142.5°	0.0	0.0	15.3	40.7	50.9
145°	0.0	0.0	15.3	35.6	40.7
147.5°	0.0	0.0	10.2	25.4	35.6
150°	0.0	0.0	5.1	20.4	25.4
152.5°	0.0	0.0	0.0	15.3	20.4
155°	0.0	0.0	0.0	10.2	15.3
157.5°	0.0	0.0	0.0	0.0	5.1
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	19.72	21.26	20.19	21.71	22.20	21.74	23.28	22.21	23.74	24.22
	3H	21.21	22.62	21.70	23.08	23.61	24.21	25.61	24.69	26.08	26.60
	4H	21.70	23.03	22.20	23.51	24.05	25.40	26.74	25.91	27.22	27.76
	6H	21.97	23.21	22.49	23.71	24.26	26.66	27.90	27.17	28.39	28.95
	8H	22.02	23.21	22.55	23.73	24.29	27.30	28.49	27.83	29.01	29.57
	12H	22.04	23.18	22.57	23.69	24.28	28.01	29.15	28.55	29.67	30.26
4H	2H	20.59	21.92	21.10	22.41	22.94	22.18	23.51	22.68	23.99	24.53
	3H	22.33	23.46	22.84	23.99	24.55	24.87	26.00	25.38	26.53	27.09
	4H	22.93	23.97	23.47	24.51	25.10	26.23	27.27	26.77	27.81	28.40
	6H	23.33	24.25	23.89	24.81	25.42	27.68	28.60	28.23	29.16	29.77
	8H	23.43	24.29	23.99	24.85	25.47	28.43	29.30	28.99	29.86	30.48
	12H	23.47	24.25	24.05	24.84	25.47	29.27	30.05	29.85	30.64	31.27
8H	4H	23.61	24.48	24.17	25.04	25.66	26.45	27.31	27.01	27.88	28.50
	6H	24.19	24.93	24.79	25.53	26.15	28.07	28.80	28.66	29.40	30.03
	8H	24.37	25.04	24.98	25.65	26.29	28.96	29.62	29.56	30.23	30.87
	12H	24.49	25.08	25.10	25.68	26.39	29.98	30.57	30.59	31.17	31.88
12H	4H	23.81	24.59	24.39	25.18	25.81	26.46	27.24	27.04	27.83	28.46
	6H	24.49	25.15	25.09	25.76	26.40	28.10	28.76	28.71	29.38	30.02
	8H	24.77	25.36	25.37	25.96	26.66	29.07	29.66	29.67	30.26	30.96