

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: P1357194

Luminaire Tested: 4ASL4-20VHE-3-92765-UNV_3500K

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357194
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_3500K
Description: 4FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 3500K LEDS 3 ROW
Light Source: -
Ballast/Driver: -

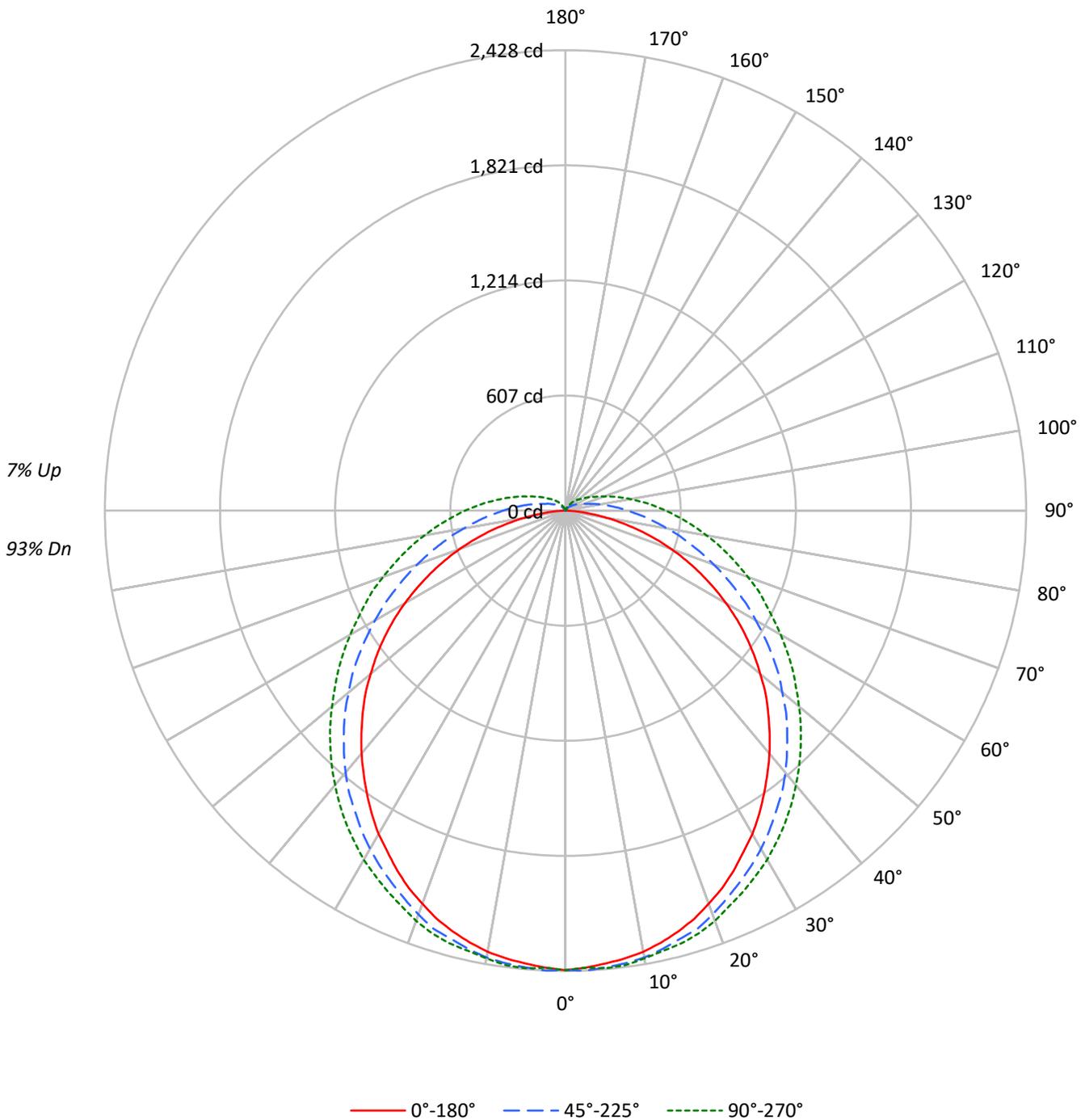
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8239.0 lumens
Efficiency: N/A
Efficacy: 112.7 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_{in}): 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: P1357194
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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°	19665	19665	19665
5°	19490	19295	19215
10°	19380	18920	18729
15°	19166	18455	18317
20°	18877	18008	17852
25°	18539	17449	17323
30°	18184	16963	16877
35°	17742	16413	16379
40°	17338	15909	15856
45°	16903	15300	15330
50°	16407	14646	14784
55°	15871	14022	14292
60°	15174	13293	13793
65°	14289	12592	13379
70°	13160	11895	13056
75°	11511	11260	12834
80°	9022	10783	12739
85°	5418	10668	12928

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16903 cd/sqm



TEST NUMBER: P1357194
 CATALOG NUMBER: 4ASL4-20VHE-3-92765-UNV_3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.8	2.8
10°-20°	659.8	8.0
20°-30°	997.5	12.1
30°-40°	1207.8	14.7
40°-50°	1268.6	15.4
50°-60°	1183.5	14.4
60°-70°	978.1	11.9
70°-80°	704.2	8.5
80°-90°	437.6	5.3
90°-100°	256.4	3.1
100°-110°	146.7	1.8
110°-120°	82.8	1.0
120°-130°	47.7	0.6
130°-140°	25.7	0.3
140°-150°	10.8	0.1
150°-160°	2.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1887.0	22.9
0°-40°	3094.8	37.6
0°-60°	5546.9	67.3
0°-90°	7666.9	93.1
90°-120°	486.0	5.9
90°-150°	570.1	6.9
90°-180°	572.0	6.9
0°-180°	8239.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2423	2423	2423	2423	2423	
5°	2398	2418	2418	2418	2423	228
15°	2297	2328	2338	2353	2363	648
25°	2096	2131	2166	2196	2217	965
35°	1824	1874	1934	1990	2015	1142
45°	1511	1567	1652	1723	1753	1166
55°	1164	1229	1330	1426	1461	1040
65°	786	862	992	1118	1164	778
75°	403	504	680	826	887	426
85°	76	227	428	579	635	92
90°	0	136	328	468	529	3
95°	0	86	247	378	433	0
105°	0	30	136	237	277	0
115°	0	15	81	146	171	0
125°	0	10	50	96	111	0
135°	0	0	30	60	76	0
145°	0	0	15	35	40	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: P1357194
 CATALOG NUMBER: 4ASL4-20VHE-3-92765-UNV_3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2423.2	2423.2	2423.2	2423.2	2423.2
2.5°	2413.1	2428.2	2428.2	2413.1	2413.1
5°	2398.0	2418.2	2418.2	2418.2	2423.2
7.5°	2382.9	2408.1	2408.1	2408.1	2418.2
10°	2362.7	2387.9	2393.0	2393.0	2398.0
12.5°	2332.5	2362.7	2367.8	2372.8	2377.9
15°	2297.3	2327.5	2337.6	2352.7	2362.7
17.5°	2257.0	2292.2	2312.4	2327.5	2337.6
20°	2206.6	2241.8	2267.0	2287.2	2302.3
22.5°	2156.2	2186.4	2216.6	2241.8	2257.0
25°	2095.7	2131.0	2166.3	2196.5	2216.6
27.5°	2030.2	2070.6	2115.9	2151.2	2171.3
30°	1969.8	2010.1	2060.5	2105.8	2126.0
32.5°	1899.3	1944.6	2000.0	2045.4	2070.6
35°	1823.7	1874.1	1934.5	1989.9	2015.1
37.5°	1748.1	1798.5	1874.1	1929.5	1954.7
40°	1672.6	1722.9	1803.5	1864.0	1889.2
42.5°	1592.0	1642.3	1728.0	1793.5	1823.7
45°	1511.4	1566.8	1652.4	1722.9	1753.2
47.5°	1430.7	1486.2	1576.8	1652.4	1682.6
50°	1340.1	1400.5	1491.2	1576.8	1607.1
52.5°	1254.4	1314.9	1415.6	1501.3	1531.5
55°	1163.7	1229.2	1330.0	1425.7	1461.0
57.5°	1073.1	1138.6	1244.3	1345.1	1385.4
60°	977.3	1047.9	1158.7	1264.5	1309.8
62.5°	881.6	957.2	1078.1	1188.9	1234.3
65°	785.9	861.5	992.5	1118.4	1163.7
67.5°	690.2	770.8	911.8	1042.8	1098.2
70°	594.5	680.1	831.2	967.3	1022.7
72.5°	498.7	589.4	755.7	896.7	952.2
75°	403.0	503.8	680.1	826.2	886.7
77.5°	307.3	423.2	614.6	760.7	821.2
80°	221.7	352.6	544.1	695.2	755.7
82.5°	141.1	282.1	483.6	634.8	695.2
85°	75.6	226.7	428.2	579.4	634.8
87.5°	25.2	176.3	372.8	523.9	579.4
90°	0.0	136.0	327.5	468.5	529.0
92.5°	0.0	105.8	287.2	423.2	478.6
95°	0.0	85.6	246.9	377.8	433.3
97.5°	0.0	70.5	216.6	337.5	387.9
100°	0.0	55.4	186.4	302.3	347.6
102.5°	0.0	45.3	161.2	267.0	312.3
105°	0.0	30.2	136.0	236.8	277.1
107.5°	0.0	25.2	115.9	211.6	246.9
110°	0.0	20.2	105.8	181.4	216.6



TEST NUMBER: P1357194
 CATALOG NUMBER: 4ASL4-20VHE-3-92765-UNV_3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	15.1	95.7	161.2	196.5
115°	0.0	15.1	80.6	146.1	171.3
117.5°	0.0	15.1	70.5	131.0	156.2
120°	0.0	10.1	65.5	115.9	141.1
122.5°	0.0	10.1	55.4	105.8	125.9
125°	0.0	10.1	50.4	95.7	110.8
127.5°	0.0	5.0	45.3	85.6	100.8
130°	0.0	5.0	40.3	75.6	90.7
132.5°	0.0	5.0	35.3	70.5	85.6
135°	0.0	0.0	30.2	60.5	75.6
137.5°	0.0	0.0	25.2	55.4	65.5
140°	0.0	0.0	20.2	45.3	60.5
142.5°	0.0	0.0	15.1	40.3	50.4
145°	0.0	0.0	15.1	35.3	40.3
147.5°	0.0	0.0	10.1	25.2	35.3
150°	0.0	0.0	5.0	20.2	25.2
152.5°	0.0	0.0	0.0	15.1	20.2
155°	0.0	0.0	0.0	10.1	15.1
157.5°	0.0	0.0	0.0	0.0	5.0
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	19.68	21.22	20.15	21.68	22.16	21.71	23.25	22.18	23.70	24.19
	3H	21.18	22.58	21.66	23.05	23.57	24.17	25.58	24.65	26.04	26.57
	4H	21.66	22.99	22.16	23.47	24.01	25.37	26.70	25.87	27.18	27.72
	6H	21.94	23.18	22.45	23.67	24.23	26.62	27.86	27.14	28.36	28.91
	8H	21.99	23.18	22.52	23.70	24.25	27.27	28.46	27.80	28.98	29.54
	12H	22.00	23.14	22.54	23.65	24.24	27.98	29.12	28.51	29.63	30.22
4H	2H	20.56	21.89	21.06	22.37	22.91	22.14	23.47	22.65	23.96	24.49
	3H	22.29	23.43	22.81	23.95	24.52	24.83	25.97	25.35	26.49	27.05
	4H	22.90	23.94	23.43	24.47	25.07	26.20	27.24	26.74	27.77	28.37
	6H	23.30	24.21	23.85	24.78	25.38	27.64	28.56	28.20	29.12	29.73
	8H	23.39	24.25	23.95	24.82	25.43	28.40	29.26	28.96	29.82	30.44
	12H	23.44	24.22	24.02	24.81	25.43	29.23	30.02	29.81	30.61	31.23
8H	4H	23.58	24.44	24.14	25.00	25.62	26.42	27.28	26.98	27.84	28.46
	6H	24.16	24.89	24.75	25.49	26.12	28.03	28.76	28.62	29.37	29.99
	8H	24.34	25.00	24.94	25.62	26.25	28.92	29.58	29.53	30.20	30.84
	12H	24.46	25.05	25.06	25.65	26.35	29.95	30.54	30.55	31.14	31.84
12H	4H	23.77	24.56	24.36	25.15	25.77	26.42	27.21	27.01	27.80	28.42
	6H	24.45	25.11	25.06	25.73	26.37	28.07	28.73	28.67	29.34	29.98
	8H	24.73	25.32	25.34	25.92	26.63	29.03	29.62	29.64	30.22	30.93