

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: P1357180

Luminaire Tested: 4ASL4-20HE-2-92765-UNV_4000K

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357180
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-7)
Test Lab: INNOVATION CENTER
Issue Date: 2/17/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: 4ASL4-20HE-2-92765-UNV_4000K
Description: 4FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 4000K LEDS 2 ROW
Light Source: -
Ballast/Driver: -

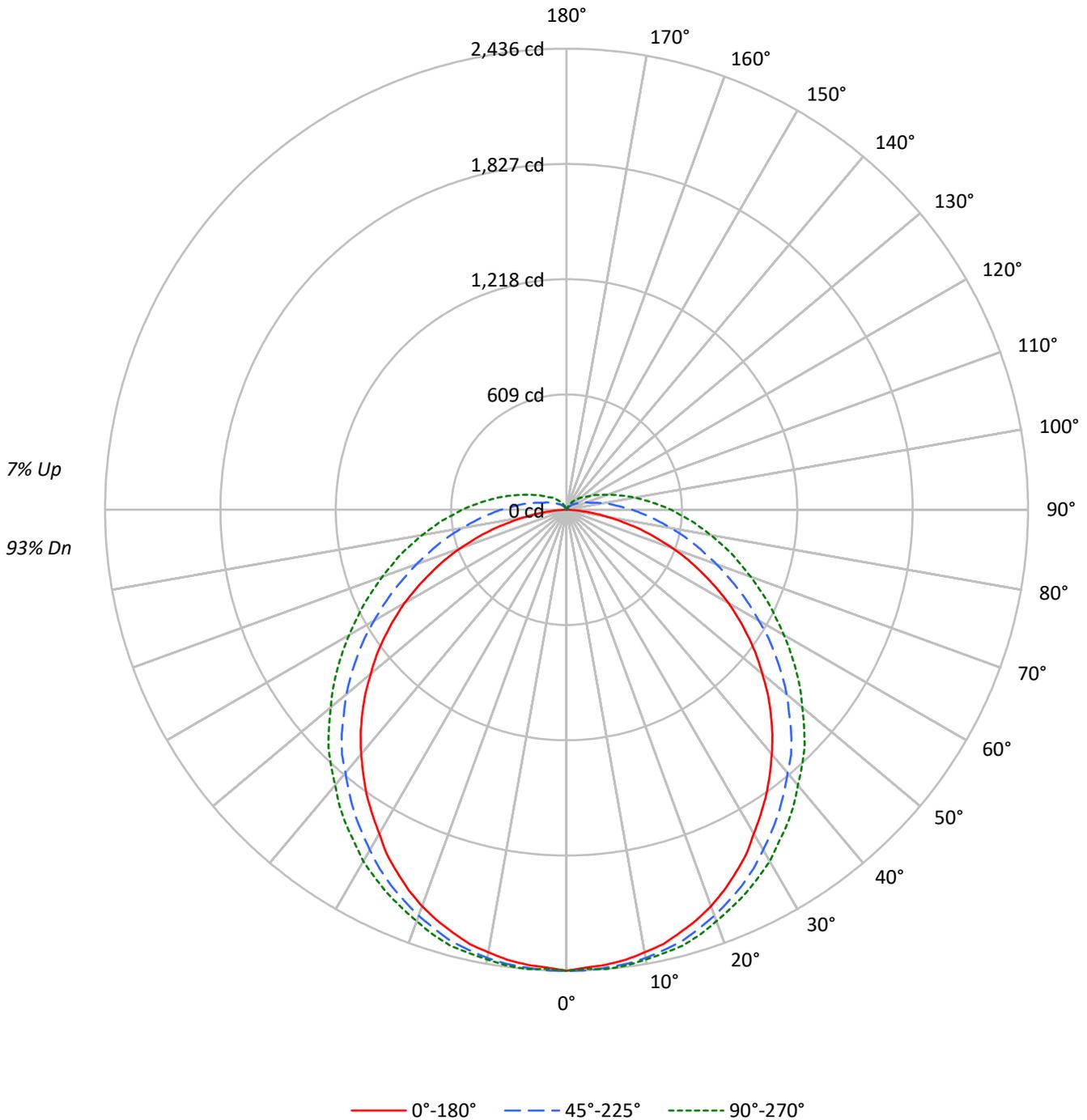
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8363.0 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 3.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 74.9
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

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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	95	95	95	95	95	95	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	65	70	66	63	63	63	63	60
3	86	75	66	59	83	73	65	58	69	62	56	65	59	55	62	57	53	53	53	53	50
4	79	66	57	50	76	64	56	49	61	54	48	58	51	46	55	49	45	45	45	45	42
5	72	59	50	43	70	57	49	42	54	47	41	52	45	40	49	43	39	39	39	39	36
6	67	53	44	37	64	52	43	37	49	41	36	47	40	35	44	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	34	29	41	33	28	39	32	28	37	31	27	27	27	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	29	24	24	24	24	22
10	50	37	29	24	49	36	28	23	35	28	23	33	27	22	32	26	22	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19770	19770	19770
5°	19613	19376	19317
10°	19480	19019	18847
15°	19302	18627	18469
20°	19070	18134	17939
25°	18704	17647	17482
30°	18245	17091	17028
35°	17886	16573	16500
40°	17470	16016	15945
45°	17049	15534	15540
50°	16507	14898	14939
55°	15986	14215	14464
60°	15343	13446	13956
65°	14345	12731	13563
70°	13226	12060	13203
75°	11597	11542	13083
80°	9042	11082	13043
85°	5490	11069	13417

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17049 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.0	2.8
10°-20°	664.1	7.9
20°-30°	1006.2	12.0
30°-40°	1217.0	14.6
40°-50°	1283.0	15.3
50°-60°	1197.5	14.3
60°-70°	988.7	11.8
70°-80°	717.2	8.6
80°-90°	453.1	5.4
90°-100°	270.5	3.2
100°-110°	155.1	1.9
110°-120°	88.1	1.1
120°-130°	50.2	0.6
130°-140°	27.2	0.3
140°-150°	11.9	0.1
150°-160°	2.2	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1901.3	22.7
0°-40°	3118.4	37.3
0°-60°	5598.9	66.9
0°-90°	7757.9	92.8
90°-120°	513.6	6.1
90°-150°	602.9	7.2
90°-180°	605.0	7.2
0°-180°	8363.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2436	2436	2436	2436	2436	
5°	2413	2436	2428	2428	2436	229
15°	2314	2344	2359	2367	2382	653
25°	2114	2145	2191	2222	2237	974
35°	1838	1884	1953	2007	2030	1149
45°	1524	1586	1678	1747	1777	1176
55°	1172	1241	1348	1440	1478	1048
65°	789	873	1004	1126	1180	784
75°	406	513	697	843	904	427
85°	77	238	444	598	659	94
90°	0	146	345	490	552	3
95°	0	92	260	398	452	0
105°	0	31	146	253	291	0
115°	0	15	84	153	184	0
125°	0	8	54	100	115	0
135°	0	0	31	61	77	0
145°	0	0	15	38	46	0
155°	0	0	0	8	15	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°	2436.1	2436.1	2436.1	2436.1	2436.1
2.5°	2420.7	2443.7	2436.1	2428.4	2428.4
5°	2413.1	2436.1	2428.4	2428.4	2436.1
7.5°	2397.8	2420.7	2420.7	2420.7	2428.4
10°	2374.8	2405.4	2405.4	2405.4	2413.1
12.5°	2351.8	2374.8	2382.4	2390.1	2397.8
15°	2313.5	2344.1	2359.4	2367.1	2382.4
17.5°	2275.2	2298.2	2321.1	2344.1	2351.8
20°	2229.2	2259.9	2282.8	2305.8	2313.5
22.5°	2175.6	2206.2	2236.9	2259.9	2275.2
25°	2114.3	2145.0	2190.9	2221.6	2236.9
27.5°	2053.0	2083.7	2137.3	2175.6	2190.9
30°	1976.4	2022.4	2076.0	2122.0	2145.0
32.5°	1907.5	1953.4	2014.7	2068.3	2083.7
35°	1838.5	1884.5	1953.4	2007.1	2030.0
37.5°	1761.9	1815.6	1884.5	1945.8	1968.8
40°	1685.3	1738.9	1815.6	1884.5	1899.8
42.5°	1608.7	1662.3	1754.3	1815.6	1838.5
45°	1524.4	1585.7	1677.7	1746.6	1777.2
47.5°	1440.2	1501.5	1593.4	1670.0	1700.6
50°	1348.3	1417.2	1516.8	1593.4	1624.0
52.5°	1264.0	1332.9	1432.5	1516.8	1555.1
55°	1172.1	1241.0	1348.3	1440.2	1478.5
57.5°	1080.1	1149.1	1264.0	1363.6	1401.9
60°	988.2	1057.2	1172.1	1287.0	1325.3
62.5°	888.6	965.2	1087.8	1202.7	1248.7
65°	789.0	873.3	1003.5	1126.1	1179.7
67.5°	697.1	781.4	919.3	1057.2	1103.1
70°	597.5	689.4	842.7	980.6	1034.2
72.5°	497.9	597.5	766.1	911.6	965.2
75°	406.0	513.3	697.1	842.7	903.9
77.5°	306.4	436.7	628.2	781.4	835.0
80°	222.2	360.0	559.2	720.1	773.7
82.5°	145.6	291.1	497.9	658.8	712.4
85°	76.6	237.5	444.3	597.5	658.8
87.5°	23.0	183.9	390.7	543.9	597.5
90°	0.0	145.6	344.7	490.3	551.6
92.5°	0.0	114.9	298.8	444.3	497.9
95°	0.0	91.9	260.5	398.3	452.0
97.5°	0.0	76.6	229.8	360.0	406.0
100°	0.0	61.3	199.2	321.7	367.7
102.5°	0.0	46.0	168.5	283.4	329.4
105°	0.0	30.6	145.6	252.8	291.1
107.5°	0.0	23.0	122.6	222.2	260.5
110°	0.0	23.0	114.9	191.5	229.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	15.3	99.6	176.2	206.8
115°	0.0	15.3	84.3	153.2	183.9
117.5°	0.0	15.3	76.6	137.9	168.5
120°	0.0	15.3	68.9	122.6	145.6
122.5°	0.0	7.7	61.3	107.2	130.2
125°	0.0	7.7	53.6	99.6	114.9
127.5°	0.0	7.7	46.0	91.9	107.2
130°	0.0	7.7	46.0	84.3	99.6
132.5°	0.0	0.0	38.3	76.6	91.9
135°	0.0	0.0	30.6	61.3	76.6
137.5°	0.0	0.0	30.6	53.6	68.9
140°	0.0	0.0	23.0	53.6	61.3
142.5°	0.0	0.0	15.3	46.0	53.6
145°	0.0	0.0	15.3	38.3	46.0
147.5°	0.0	0.0	7.7	30.6	38.3
150°	0.0	0.0	7.7	23.0	30.6
152.5°	0.0	0.0	0.0	15.3	23.0
155°	0.0	0.0	0.0	7.7	15.3
157.5°	0.0	0.0	0.0	0.0	7.7
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	22.17	21.74	23.27	22.21	23.74	24.23
	3H	21.18	22.58	21.67	23.05	23.58	24.19	25.59	24.68	26.06	26.59
	4H	21.66	22.99	22.17	23.48	24.02	25.40	26.73	25.91	27.22	27.76
	6H	21.94	23.17	22.46	23.67	24.24	26.67	27.91	27.19	28.41	28.97
	8H	21.99	23.18	22.52	23.70	24.27	27.33	28.52	27.86	29.04	29.61
	12H	22.01	23.14	22.54	23.66	24.26	28.06	29.20	28.60	29.71	30.31
4H	2H	20.56	21.89	21.07	22.37	22.92	22.17	23.50	22.68	23.99	24.53
	3H	22.30	23.43	22.82	23.96	24.53	24.85	25.98	25.37	26.51	27.08
	4H	22.91	23.95	23.45	24.49	25.09	26.24	27.27	26.77	27.81	28.41
	6H	23.31	24.23	23.87	24.79	25.41	27.70	28.62	28.26	29.19	29.80
	8H	23.41	24.27	23.97	24.84	25.46	28.47	29.33	29.04	29.90	30.53
	12H	23.46	24.24	24.04	24.83	25.47	29.33	30.11	29.91	30.70	31.33
8H	4H	23.61	24.47	24.17	25.03	25.66	26.46	27.32	27.02	27.88	28.51
	6H	24.19	24.92	24.79	25.53	26.16	28.10	28.83	28.70	29.44	30.07
	8H	24.38	25.04	24.99	25.66	26.30	29.01	29.67	29.62	30.29	30.93
	12H	24.50	25.09	25.11	25.70	26.41	30.05	30.64	30.66	31.25	31.96
12H	4H	23.81	24.59	24.39	25.18	25.81	26.46	27.25	27.05	27.84	28.47
	6H	24.50	25.16	25.10	25.78	26.42	28.14	28.80	28.75	29.42	30.06
	8H	24.78	25.37	25.39	25.98	26.69	29.12	29.71	29.73	30.32	31.03