

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: P1357177

Luminaire Tested: 4ASL4-20HE-2-92765-UNV_2700K

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357177
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_2700K
Description: 4FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 2700K LEDS 2 ROW
Light Source: -
Ballast/Driver: -

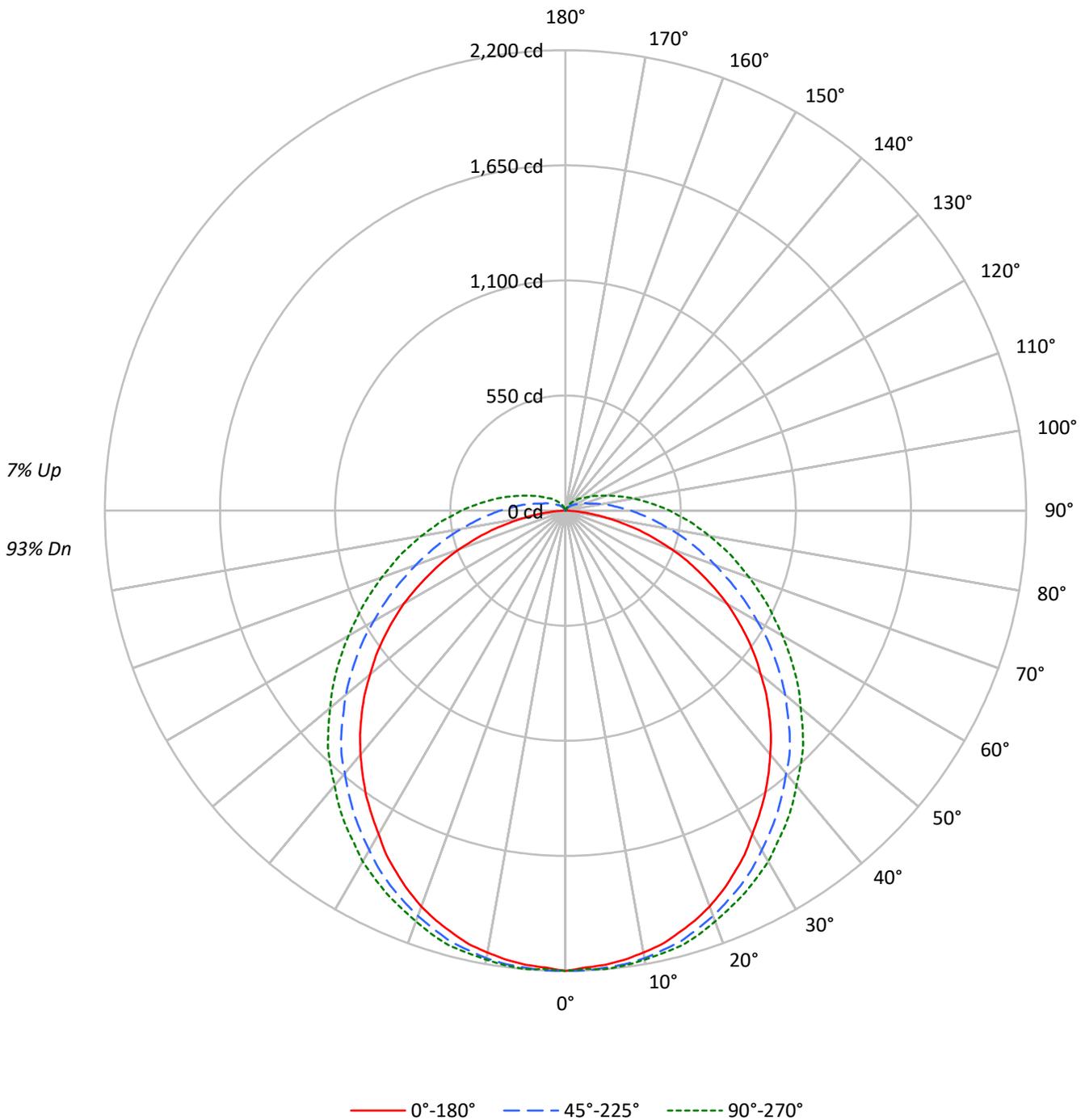
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7551.0 lumens
Efficiency: N/A
Efficacy: 100.8 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				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°	17850	17850	17850
5°	17709	17495	17441
10°	17588	17172	17017
15°	17428	16819	16676
20°	17219	16374	16198
25°	16887	15934	15785
30°	16473	15431	15374
35°	16149	14964	14898
40°	15774	14460	14397
45°	15394	14026	14032
50°	14904	13451	13490
55°	14434	12834	13059
60°	13854	12141	12601
65°	12953	11495	12247
70°	11942	10888	11921
75°	10472	10421	11814
80°	8163	10006	11777
85°	4959	9996	12114

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15394 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.6	2.8
10°-20°	599.6	7.9
20°-30°	908.5	12.0
30°-40°	1098.9	14.6
40°-50°	1158.5	15.3
50°-60°	1081.2	14.3
60°-70°	892.7	11.8
70°-80°	647.6	8.6
80°-90°	409.1	5.4
90°-100°	244.2	3.2
100°-110°	140.0	1.9
110°-120°	79.5	1.1
120°-130°	45.3	0.6
130°-140°	24.6	0.3
140°-150°	10.8	0.1
150°-160°	1.9	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1716.7	22.7
0°-40°	2815.6	37.3
0°-60°	5055.3	66.9
0°-90°	7004.7	92.8
90°-120°	463.8	6.1
90°-150°	544.4	7.2
90°-180°	546.0	7.2
0°-180°	7551.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2200	2200	2200	2200	2200	
5°	2179	2200	2193	2193	2200	207
15°	2089	2116	2130	2137	2151	589
25°	1909	1937	1978	2006	2020	879
35°	1660	1702	1764	1812	1833	1037
45°	1376	1432	1515	1577	1605	1061
55°	1058	1120	1217	1300	1335	946
65°	712	788	906	1017	1065	708
75°	367	463	629	761	816	386
85°	69	214	401	540	595	85
90°	0	131	311	443	498	3
95°	0	83	235	360	408	0
105°	0	28	131	228	263	0
115°	0	14	76	138	166	0
125°	0	7	48	90	104	0
135°	0	0	28	55	69	0
145°	0	0	14	35	42	0
155°	0	0	0	7	14	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°	2199.5	2199.5	2199.5	2199.5	2199.5
2.5°	2185.7	2206.4	2199.5	2192.6	2192.6
5°	2178.8	2199.5	2192.6	2192.6	2199.5
7.5°	2164.9	2185.7	2185.7	2185.7	2192.6
10°	2144.2	2171.9	2171.9	2171.9	2178.8
12.5°	2123.4	2144.2	2151.1	2158.0	2164.9
15°	2088.9	2116.5	2130.4	2137.3	2151.1
17.5°	2054.3	2075.0	2095.8	2116.5	2123.4
20°	2012.8	2040.4	2061.2	2081.9	2088.9
22.5°	1964.4	1992.0	2019.7	2040.4	2054.3
25°	1909.0	1936.7	1978.2	2005.9	2019.7
27.5°	1853.7	1881.4	1929.8	1964.4	1978.2
30°	1784.5	1826.0	1874.4	1915.9	1936.7
32.5°	1722.3	1763.8	1819.1	1867.5	1881.4
35°	1660.0	1701.5	1763.8	1812.2	1832.9
37.5°	1590.9	1639.3	1701.5	1756.9	1777.6
40°	1521.7	1570.1	1639.3	1701.5	1715.4
42.5°	1452.5	1500.9	1583.9	1639.3	1660.0
45°	1376.4	1431.8	1514.8	1577.0	1604.7
47.5°	1300.3	1355.7	1438.7	1507.9	1535.5
50°	1217.3	1279.6	1369.5	1438.7	1466.4
52.5°	1141.3	1203.5	1293.4	1369.5	1404.1
55°	1058.3	1120.5	1217.3	1300.3	1334.9
57.5°	975.3	1037.5	1141.3	1231.2	1265.8
60°	892.3	954.5	1058.3	1162.0	1196.6
62.5°	802.3	871.5	982.2	1085.9	1127.4
65°	712.4	788.5	906.1	1016.8	1065.2
67.5°	629.4	705.5	830.0	954.5	996.0
70°	539.5	622.5	760.8	885.3	933.8
72.5°	449.6	539.5	691.7	823.1	871.5
75°	366.6	463.4	629.4	760.8	816.2
77.5°	276.7	394.3	567.2	705.5	753.9
80°	200.6	325.1	504.9	650.2	698.6
82.5°	131.4	262.8	449.6	594.8	643.3
85°	69.2	214.4	401.2	539.5	594.8
87.5°	20.8	166.0	352.8	491.1	539.5
90°	0.0	131.4	311.3	442.7	498.0
92.5°	0.0	103.8	269.8	401.2	449.6
95°	0.0	83.0	235.2	359.7	408.1
97.5°	0.0	69.2	207.5	325.1	366.6
100°	0.0	55.3	179.8	290.5	332.0
102.5°	0.0	41.5	152.2	255.9	297.4
105°	0.0	27.7	131.4	228.3	262.8
107.5°	0.0	20.8	110.7	200.6	235.2
110°	0.0	20.8	103.8	172.9	207.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	13.8	89.9	159.1	186.8
115°	0.0	13.8	76.1	138.3	166.0
117.5°	0.0	13.8	69.2	124.5	152.2
120°	0.0	13.8	62.3	110.7	131.4
122.5°	0.0	6.9	55.3	96.8	117.6
125°	0.0	6.9	48.4	89.9	103.8
127.5°	0.0	6.9	41.5	83.0	96.8
130°	0.0	6.9	41.5	76.1	89.9
132.5°	0.0	0.0	34.6	69.2	83.0
135°	0.0	0.0	27.7	55.3	69.2
137.5°	0.0	0.0	27.7	48.4	62.3
140°	0.0	0.0	20.8	48.4	55.3
142.5°	0.0	0.0	13.8	41.5	48.4
145°	0.0	0.0	13.8	34.6	41.5
147.5°	0.0	0.0	6.9	27.7	34.6
150°	0.0	0.0	6.9	20.8	27.7
152.5°	0.0	0.0	0.0	13.8	20.8
155°	0.0	0.0	0.0	6.9	13.8
157.5°	0.0	0.0	0.0	0.0	6.9
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	19.32	20.86	19.80	21.32	21.81	21.38	22.92	21.86	23.38	23.87
	3H	20.83	22.23	21.31	22.70	23.23	23.84	25.24	24.32	25.71	26.24
	4H	21.31	22.64	21.81	23.12	23.67	25.05	26.37	25.55	26.86	27.40
	6H	21.58	22.82	22.10	23.32	23.88	26.32	27.55	26.84	28.05	28.61
	8H	21.64	22.82	22.17	23.35	23.91	26.98	28.16	27.51	28.69	29.25
	12H	21.65	22.79	22.19	23.31	23.90	27.70	28.84	28.24	29.36	29.96
4H	2H	20.20	21.53	20.71	22.02	22.56	21.82	23.14	22.32	23.63	24.17
	3H	21.95	23.08	22.47	23.61	24.18	24.50	25.63	25.02	26.16	26.73
	4H	22.56	23.59	23.09	24.13	24.73	25.88	26.92	26.42	27.46	28.06
	6H	22.96	23.87	23.52	24.44	25.05	27.35	28.27	27.91	28.83	29.44
	8H	23.05	23.92	23.62	24.48	25.11	28.12	28.98	28.68	29.54	30.17
	12H	23.10	23.89	23.69	24.48	25.11	28.97	29.75	29.56	30.35	30.98
8H	4H	23.25	24.11	23.82	24.68	25.30	26.10	26.96	26.67	27.53	28.15
	6H	23.84	24.57	24.43	25.18	25.81	27.75	28.48	28.34	29.08	29.72
	8H	24.03	24.69	24.63	25.30	25.95	28.66	29.32	29.26	29.94	30.58
	12H	24.15	24.74	24.76	25.34	26.05	29.70	30.29	30.31	30.89	31.60
12H	4H	23.45	24.23	24.04	24.83	25.46	26.11	26.89	26.70	27.49	28.12
	6H	24.14	24.80	24.75	25.42	26.07	27.78	28.44	28.39	29.06	29.71
	8H	24.43	25.02	25.04	25.63	26.34	28.76	29.35	29.37	29.96	30.67