

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: P1356873

Luminaire Tested: 2ASL4-20HE-2-92765-UNV\_3500K

Issue Date: 2/17/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1356873  
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: 2ASL4-20HE-2-92765-UNV\_3500K  
Description: 2FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 3500K LEDS 2 ROW  
Light Source: -  
Ballast/Driver: -

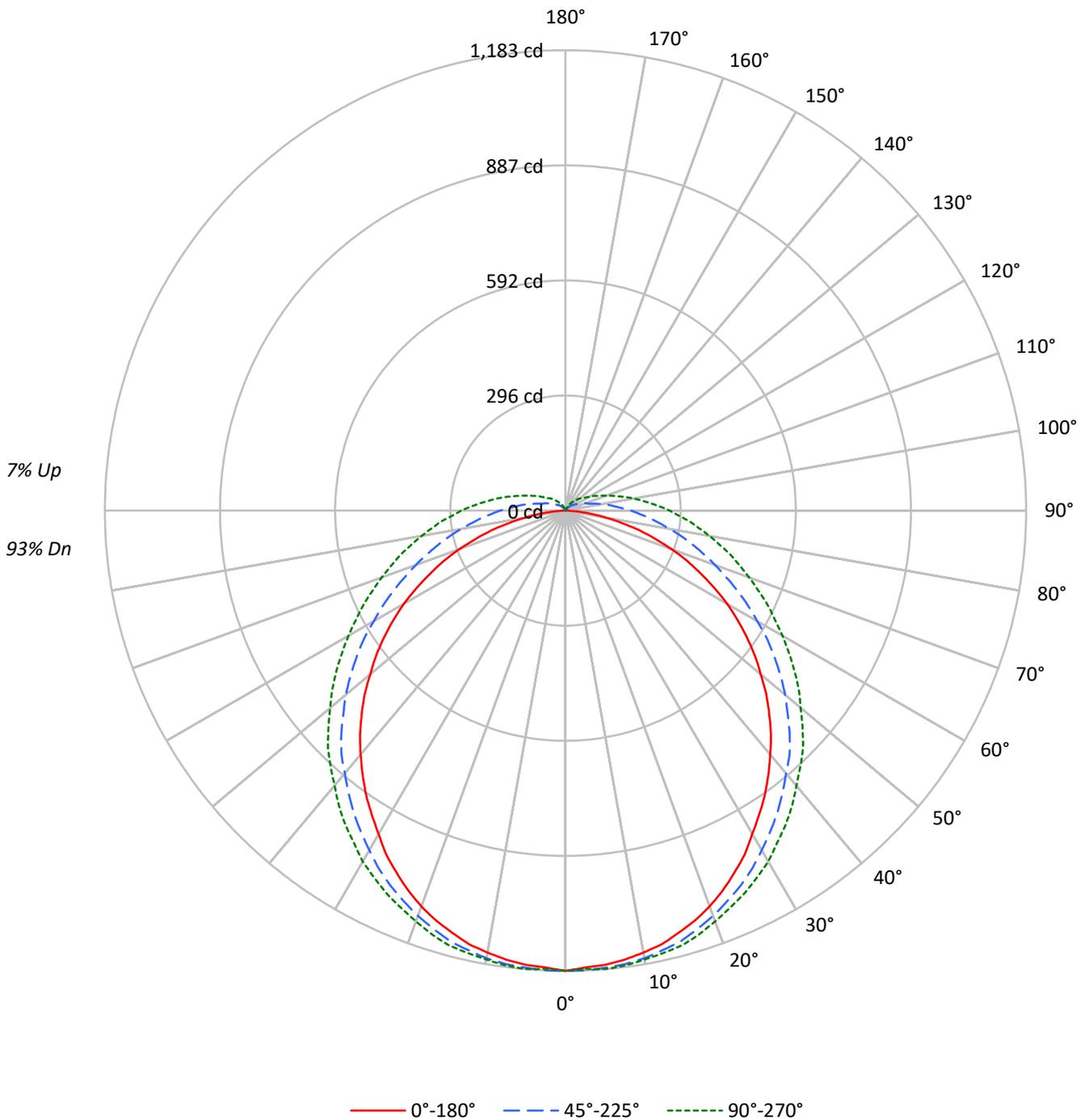
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4060.0 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.4  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1.98' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 37.4  
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				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°	19295	19295	19295
5°	19099	18882	18853
10°	18925	18505	18395
15°	18707	18096	18027
20°	18437	17590	17509
25°	18035	17090	17063
30°	17544	16524	16620
35°	17147	15996	16105
40°	16690	15430	15563
45°	16223	14937	15168
50°	15633	14294	14582
55°	15054	13602	14118
60°	14346	12830	13622
65°	13290	12106	13238
70°	12091	11417	12887
75°	10385	10864	12769
80°	7808	10352	12730
85°	4348	10220	13095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16223 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.2	2.8
10°-20°	322.4	7.9
20°-30°	488.5	12.0
30°-40°	590.8	14.6
40°-50°	622.9	15.3
50°-60°	581.3	14.3
60°-70°	480.0	11.8
70°-80°	348.2	8.6
80°-90°	220.0	5.4
90°-100°	131.3	3.2
100°-110°	75.3	1.9
110°-120°	42.7	1.1
120°-130°	24.4	0.6
130°-140°	13.2	0.3
140°-150°	5.8	0.1
150°-160°	1.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	923.0	22.7
0°-40°	1513.9	37.3
0°-60°	2718.1	66.9
0°-90°	3766.3	92.8
90°-120°	249.3	6.1
90°-150°	292.7	7.2
90°-180°	294.0	7.2
0°-180°	4060.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1183	1183	1183	1183	1183	
5°	1172	1183	1179	1179	1183	111
15°	1123	1138	1145	1149	1157	317
25°	1026	1041	1064	1078	1086	473
35°	893	915	948	974	986	558
45°	740	770	814	848	863	571
55°	569	602	654	699	718	509
65°	383	424	487	547	573	380
75°	197	249	338	409	439	207
85°	37	115	216	290	320	46
90°	0	71	167	238	268	2
95°	0	45	126	193	219	0
105°	0	15	71	123	141	0
115°	0	7	41	74	89	0
125°	0	4	26	48	56	0
135°	0	0	15	30	37	0
145°	0	0	7	19	22	0
155°	0	0	0	4	7	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°	1182.6	1182.6	1182.6	1182.6	1182.6
2.5°	1175.2	1186.4	1182.6	1178.9	1178.9
5°	1171.5	1182.6	1178.9	1178.9	1182.6
7.5°	1164.0	1175.2	1175.2	1175.2	1178.9
10°	1152.9	1167.8	1167.8	1167.8	1171.5
12.5°	1141.7	1152.9	1156.6	1160.3	1164.0
15°	1123.1	1138.0	1145.4	1149.2	1156.6
17.5°	1104.5	1115.7	1126.9	1138.0	1141.7
20°	1082.2	1097.1	1108.3	1119.4	1123.1
22.5°	1056.2	1071.1	1085.9	1097.1	1104.5
25°	1026.4	1041.3	1063.6	1078.5	1085.9
27.5°	996.7	1011.6	1037.6	1056.2	1063.6
30°	959.5	981.8	1007.8	1030.2	1041.3
32.5°	926.0	948.3	978.1	1004.1	1011.6
35°	892.6	914.9	948.3	974.4	985.5
37.5°	855.4	881.4	914.9	944.6	955.8
40°	818.2	844.2	881.4	914.9	922.3
42.5°	781.0	807.0	851.6	881.4	892.6
45°	740.1	769.8	814.5	847.9	862.8
47.5°	699.2	728.9	773.5	810.7	825.6
50°	654.5	688.0	736.4	773.5	788.4
52.5°	613.6	647.1	695.4	736.4	755.0
55°	569.0	602.5	654.5	699.2	717.8
57.5°	524.4	557.8	613.6	662.0	680.6
60°	479.7	513.2	569.0	624.8	643.4
62.5°	431.4	468.6	528.1	583.9	606.2
65°	383.1	424.0	487.2	546.7	572.7
67.5°	338.4	379.3	446.3	513.2	535.5
70°	290.1	334.7	409.1	476.0	502.1
72.5°	241.7	290.1	371.9	442.6	468.6
75°	197.1	249.2	338.4	409.1	438.8
77.5°	148.8	212.0	305.0	379.3	405.4
80°	107.9	174.8	271.5	349.6	375.6
82.5°	70.7	141.3	241.7	319.8	345.9
85°	37.2	115.3	215.7	290.1	319.8
87.5°	11.2	89.3	189.7	264.0	290.1
90°	0.0	70.7	167.4	238.0	267.8
92.5°	0.0	55.8	145.0	215.7	241.7
95°	0.0	44.6	126.4	193.4	219.4
97.5°	0.0	37.2	111.6	174.8	197.1
100°	0.0	29.8	96.7	156.2	178.5
102.5°	0.0	22.3	81.8	137.6	159.9
105°	0.0	14.9	70.7	122.7	141.3
107.5°	0.0	11.2	59.5	107.9	126.4
110°	0.0	11.2	55.8	93.0	111.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	7.4	48.3	85.5	100.4
115°	0.0	7.4	40.9	74.4	89.3
117.5°	0.0	7.4	37.2	66.9	81.8
120°	0.0	7.4	33.5	59.5	70.7
122.5°	0.0	3.7	29.8	52.1	63.2
125°	0.0	3.7	26.0	48.3	55.8
127.5°	0.0	3.7	22.3	44.6	52.1
130°	0.0	3.7	22.3	40.9	48.3
132.5°	0.0	0.0	18.6	37.2	44.6
135°	0.0	0.0	14.9	29.8	37.2
137.5°	0.0	0.0	14.9	26.0	33.5
140°	0.0	0.0	11.2	26.0	29.8
142.5°	0.0	0.0	7.4	22.3	26.0
145°	0.0	0.0	7.4	18.6	22.3
147.5°	0.0	0.0	3.7	14.9	18.6
150°	0.0	0.0	3.7	11.2	14.9
152.5°	0.0	0.0	0.0	7.4	11.2
155°	0.0	0.0	0.0	3.7	7.4
157.5°	0.0	0.0	0.0	0.0	3.7
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	19.56	21.10	20.04	21.56	22.05	21.54	23.08	22.01	23.54	24.03
	3H	21.07	22.47	21.55	22.94	23.47	23.96	25.36	24.44	25.83	26.36
	4H	21.55	22.88	22.06	23.37	23.91	25.14	26.46	25.64	26.95	27.50
	6H	21.83	23.06	22.35	23.56	24.12	26.36	27.59	26.88	28.09	28.66
	8H	21.88	23.07	22.41	23.59	24.16	26.98	28.16	27.51	28.69	29.25
	12H	21.90	23.03	22.43	23.55	24.15	27.65	28.78	28.18	29.30	29.90
4H	2H	20.43	21.76	20.93	22.24	22.79	21.98	23.30	22.48	23.79	24.34
	3H	22.17	23.30	22.69	23.83	24.40	24.62	25.75	25.14	26.28	26.85
	4H	22.78	23.82	23.32	24.36	24.96	25.98	27.01	26.52	27.55	28.15
	6H	23.18	24.10	23.74	24.67	25.28	27.40	28.31	27.96	28.88	29.49
	8H	23.28	24.14	23.85	24.71	25.34	28.13	28.99	28.69	29.55	30.18
	12H	23.33	24.11	23.92	24.71	25.34	28.92	29.70	29.50	30.30	30.93
8H	4H	23.46	24.32	24.02	24.89	25.51	26.20	27.06	26.76	27.63	28.25
	6H	24.04	24.78	24.64	25.38	26.02	27.80	28.53	28.39	29.14	29.77
	8H	24.23	24.89	24.84	25.51	26.15	28.67	29.33	29.28	29.95	30.59
	12H	24.35	24.94	24.96	25.55	26.26	29.65	30.24	30.26	30.85	31.56
12H	4H	23.65	24.43	24.23	25.03	25.66	26.21	26.99	26.80	27.59	28.22
	6H	24.34	25.00	24.94	25.62	26.26	27.84	28.50	28.45	29.12	29.76
	8H	24.62	25.21	25.23	25.82	26.53	28.78	29.37	29.39	29.98	30.69