

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: P1356875

Luminaire Tested: 2ASL4-20HE-2-92765-UNV\_5000K

Issue Date: 2/17/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1356875  
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\_5000K  
Description: 2FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 5000K LEDS 2 ROW  
Light Source: -  
Ballast/Driver: -

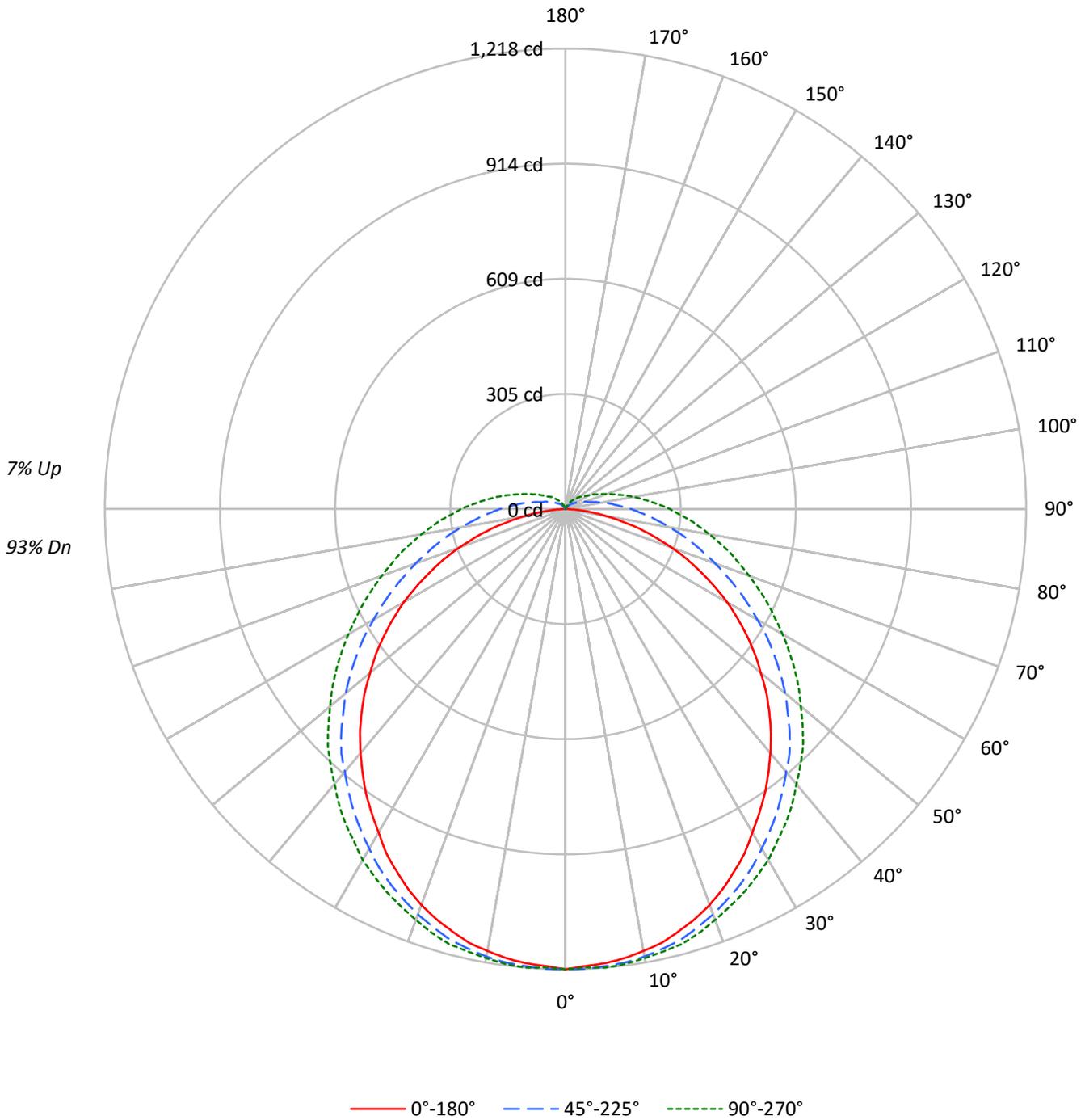
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4181.0 lumens  
Efficiency: N/A  
Efficacy: 111.8 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				
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°	19871	19871	19871
5°	19668	19446	19416
10°	19488	19057	18943
15°	19265	18636	18565
20°	18987	18114	18031
25°	18573	17599	17572
30°	18067	17017	17114
35°	17658	16474	16586
40°	17187	15890	16027
45°	16706	15381	15620
50°	16098	14719	15016
55°	15504	14008	14539
60°	14773	13213	14029
65°	13686	12466	13634
70°	12449	11758	13270
75°	10696	11188	13151
80°	8039	10661	13110
85°	4477	10523	13488

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16706 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.5	2.8
10°-20°	332.0	7.9
20°-30°	503.1	12.0
30°-40°	608.4	14.6
40°-50°	641.4	15.3
50°-60°	598.7	14.3
60°-70°	494.3	11.8
70°-80°	358.6	8.6
80°-90°	226.5	5.4
90°-100°	135.2	3.2
100°-110°	77.5	1.9
110°-120°	44.0	1.1
120°-130°	25.1	0.6
130°-140°	13.6	0.3
140°-150°	6.0	0.1
150°-160°	1.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
<b>0°-30°</b>	<b>950.6</b>	<b>22.7</b>
<b>0°-40°</b>	<b>1559.0</b>	<b>37.3</b>
<b>0°-60°</b>	<b>2799.1</b>	<b>66.9</b>
<b>0°-90°</b>	<b>3878.5</b>	<b>92.8</b>
<b>90°-120°</b>	<b>256.8</b>	<b>6.1</b>
<b>90°-150°</b>	<b>301.4</b>	<b>7.2</b>
<b>90°-180°</b>	<b>303.0</b>	<b>7.2</b>
<b>0°-180°</b>	<b>4181.0</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1206	1218	1214	1214	1218	115
15°	1157	1172	1180	1183	1191	326
25°	1057	1072	1095	1111	1118	487
35°	919	942	977	1003	1015	574
45°	762	793	839	873	888	588
55°	586	620	674	720	739	524
65°	394	437	502	563	590	392
75°	203	257	348	421	452	213
85°	38	119	222	299	329	47
90°	0	73	172	245	276	2
95°	0	46	130	199	226	0
105°	0	15	73	126	146	0
115°	0	8	42	77	92	0
125°	0	4	27	50	57	0
135°	0	0	15	31	38	0
145°	0	0	8	19	23	0
155°	0	0	0	4	8	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°	1217.9	1217.9	1217.9	1217.9	1217.9
2.5°	1210.2	1221.7	1217.9	1214.1	1214.1
5°	1206.4	1217.9	1214.1	1214.1	1217.9
7.5°	1198.7	1210.2	1210.2	1210.2	1214.1
10°	1187.2	1202.6	1202.6	1202.6	1206.4
12.5°	1175.8	1187.2	1191.1	1194.9	1198.7
15°	1156.6	1171.9	1179.6	1183.4	1191.1
17.5°	1137.5	1148.9	1160.4	1171.9	1175.8
20°	1114.5	1129.8	1141.3	1152.8	1156.6
22.5°	1087.7	1103.0	1118.3	1129.8	1137.5
25°	1057.0	1072.3	1095.3	1110.6	1118.3
27.5°	1026.4	1041.7	1068.5	1087.7	1095.3
30°	988.1	1011.1	1037.9	1060.9	1072.3
32.5°	953.6	976.6	1007.2	1034.1	1041.7
35°	919.2	942.1	976.6	1003.4	1014.9
37.5°	880.9	907.7	942.1	972.8	984.3
40°	842.6	869.4	907.7	942.1	949.8
42.5°	804.3	831.1	877.0	907.7	919.2
45°	762.1	792.8	838.7	873.2	888.5
47.5°	720.0	750.6	796.6	834.9	850.2
50°	674.0	708.5	758.3	796.6	811.9
52.5°	631.9	666.4	716.2	758.3	777.5
55°	586.0	620.4	674.0	720.0	739.2
57.5°	540.0	574.5	631.9	681.7	700.9
60°	494.0	528.5	586.0	643.4	662.6
62.5°	444.3	482.6	543.8	601.3	624.3
65°	394.5	436.6	501.7	563.0	589.8
67.5°	348.5	390.6	459.6	528.5	551.5
70°	298.7	344.7	421.3	490.2	517.0
72.5°	248.9	298.7	383.0	455.7	482.6
75°	203.0	256.6	348.5	421.3	451.9
77.5°	153.2	218.3	314.0	390.6	417.5
80°	111.1	180.0	279.6	360.0	386.8
82.5°	72.8	145.5	248.9	329.4	356.2
85°	38.3	118.7	222.1	298.7	329.4
87.5°	11.5	91.9	195.3	271.9	298.7
90°	0.0	72.8	172.3	245.1	275.7
92.5°	0.0	57.4	149.4	222.1	248.9
95°	0.0	46.0	130.2	199.2	226.0
97.5°	0.0	38.3	114.9	180.0	203.0
100°	0.0	30.6	99.6	160.9	183.8
102.5°	0.0	23.0	84.3	141.7	164.7
105°	0.0	15.3	72.8	126.4	145.5
107.5°	0.0	11.5	61.3	111.1	130.2
110°	0.0	11.5	57.4	95.7	114.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	7.7	49.8	88.1	103.4
115°	0.0	7.7	42.1	76.6	91.9
117.5°	0.0	7.7	38.3	68.9	84.3
120°	0.0	7.7	34.5	61.3	72.8
122.5°	0.0	3.8	30.6	53.6	65.1
125°	0.0	3.8	26.8	49.8	57.4
127.5°	0.0	3.8	23.0	46.0	53.6
130°	0.0	3.8	23.0	42.1	49.8
132.5°	0.0	0.0	19.1	38.3	46.0
135°	0.0	0.0	15.3	30.6	38.3
137.5°	0.0	0.0	15.3	26.8	34.5
140°	0.0	0.0	11.5	26.8	30.6
142.5°	0.0	0.0	7.7	23.0	26.8
145°	0.0	0.0	7.7	19.1	23.0
147.5°	0.0	0.0	3.8	15.3	19.1
150°	0.0	0.0	3.8	11.5	15.3
152.5°	0.0	0.0	0.0	7.7	11.5
155°	0.0	0.0	0.0	3.8	7.7
157.5°	0.0	0.0	0.0	0.0	3.8
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	19.67	21.20	20.14	21.66	22.15	21.64	23.18	22.12	23.64	24.13
	3H	21.17	22.57	21.66	23.04	23.57	24.06	25.46	24.54	25.93	26.46
	4H	21.65	22.98	22.16	23.47	24.01	25.24	26.57	25.74	27.05	27.60
	6H	21.93	23.17	22.45	23.67	24.23	26.46	27.70	26.98	28.20	28.76
	8H	21.98	23.17	22.51	23.69	24.26	27.08	28.27	27.61	28.79	29.36
	12H	22.00	23.13	22.54	23.65	24.25	27.75	28.89	28.29	29.40	30.00
4H	2H	20.53	21.86	21.04	22.35	22.89	22.08	23.41	22.59	23.89	24.44
	3H	22.27	23.41	22.79	23.94	24.50	24.72	25.86	25.24	26.39	26.95
	4H	22.88	23.92	23.42	24.46	25.06	26.08	27.11	26.62	27.66	28.25
	6H	23.29	24.20	23.84	24.77	25.38	27.50	28.41	28.06	28.98	29.59
	8H	23.38	24.25	23.95	24.81	25.44	28.23	29.09	28.79	29.66	30.28
	12H	23.43	24.21	24.02	24.81	25.44	29.02	29.80	29.61	30.40	31.03
8H	4H	23.56	24.42	24.12	24.99	25.61	26.30	27.16	26.87	27.73	28.36
	6H	24.15	24.88	24.74	25.49	26.12	27.90	28.63	28.50	29.24	29.87
	8H	24.33	24.99	24.94	25.61	26.26	28.77	29.43	29.38	30.05	30.69
	12H	24.46	25.05	25.07	25.65	26.36	29.75	30.34	30.36	30.95	31.66
12H	4H	23.75	24.53	24.34	25.13	25.76	26.31	27.09	26.90	27.69	28.32
	6H	24.44	25.10	25.05	25.72	26.36	27.94	28.60	28.55	29.22	29.86
	8H	24.72	25.31	25.33	25.92	26.63	28.88	29.47	29.49	30.08	30.79