

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: P973377

Luminaire Tested: FLR2-14-20-L835-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973377  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20-L835-CP187  
Description: 1\*4 FLR-2.0 2000 LUMEN at 3500 CCT & 80CRI with Clear Polycarbonate (0.187" thickness)  
  
Light Source:  
Ballast/Driver: -

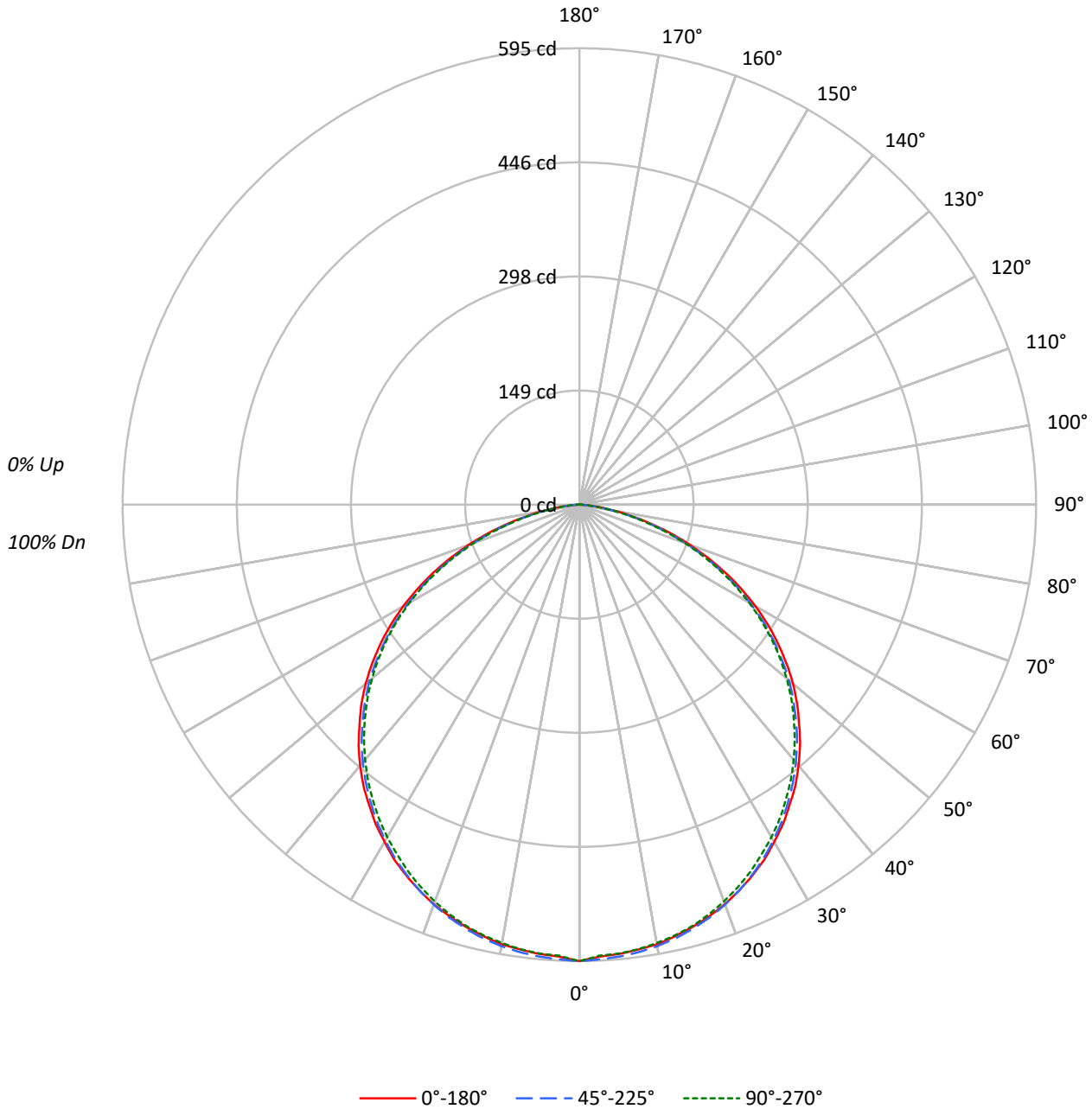
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1665.8 lumens  
Efficiency: N/A  
Efficacy: 101.6 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor:  
Total Harmonic Distortion (THDi):  
Frequency (hertz): 60  
Stabilization Time: HR  
Operation Time: HR  
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									
RC	80									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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100																
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85			85																
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71			71																
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60			60																
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51			51																
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44			44																
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39			39																
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34			34																
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30			30																
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27			27																
10	53	40	32	27	52	39	32	27	38	32	27	38	31	27	37	31	26	25			25																

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1602	1602	1602
5°	1589	1598	1587
10°	1591	1597	1586
15°	1588	1594	1585
20°	1588	1589	1577
25°	1584	1581	1567
30°	1578	1571	1556
35°	1569	1557	1542
40°	1560	1541	1526
45°	1541	1520	1504
50°	1521	1493	1476
55°	1483	1448	1434
60°	1425	1385	1373
65°	1335	1296	1282
70°	1204	1155	1146
75°	1010	958	947
80°	733	683	665
85°	389	343	312

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1541 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	3.4
10°-20°	161.9	9.7
20°-30°	246.0	14.8
30°-40°	297.5	17.9
40°-50°	309.2	18.6
50°-60°	276.8	16.6
60°-70°	201.9	12.1
70°-80°	99.4	6.0
80°-90°	16.6	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	464.2	27.9
0°-40°	761.8	45.7
0°-60°	1347.8	80.9
0°-90°	1665.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1665.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	588	595	592	597	588	56
15°	570	575	572	577	569	161
25°	534	536	533	535	528	246
35°	478	479	474	476	469	299
45°	405	404	399	400	395	313
55°	316	313	309	308	306	282
65°	210	207	204	202	201	207
75°	97	95	92	91	91	103
85°	13	12	11	10	10	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	595.2	595.2	595.2	595.2	595.2
2.5°	590.0	596.7	593.5	599.4	588.8
5°	588.3	594.7	591.7	597.4	587.5
7.5°	585.3	592.0	588.8	594.2	584.8
10°	582.1	588.0	584.6	590.0	580.4
12.5°	576.5	582.4	579.2	584.1	575.2
15°	570.1	575.2	572.3	577.2	568.8
17.5°	562.7	567.6	564.4	568.8	560.4
20°	554.5	558.5	555.0	558.7	550.6
22.5°	544.4	548.1	544.4	546.9	539.8
25°	533.6	536.3	532.6	535.1	527.7
27.5°	522.0	523.5	519.8	521.8	514.1
30°	507.7	509.5	505.5	508.0	500.6
32.5°	493.9	494.9	490.5	492.5	485.8
35°	477.7	478.7	474.0	475.9	469.3
37.5°	462.2	461.9	457.0	458.2	452.5
40°	444.2	443.9	438.8	439.7	434.3
42.5°	425.7	424.7	419.8	420.3	415.3
45°	405.0	404.5	399.3	400.1	395.1
47.5°	385.0	383.6	378.4	378.6	374.5
50°	363.4	361.2	356.7	356.2	352.5
52.5°	340.2	337.7	332.8	332.3	329.6
55°	316.1	313.4	308.7	307.9	305.7
57.5°	291.2	287.7	284.0	282.6	280.8
60°	264.8	261.6	257.4	256.0	255.2
62.5°	237.5	234.3	231.1	229.6	228.6
65°	209.6	207.2	203.5	202.0	201.3
67.5°	181.3	179.1	175.6	173.9	173.7
70°	153.0	150.8	146.8	145.8	145.6
72.5°	124.7	122.7	119.0	118.0	118.0
75°	97.1	95.3	92.1	91.1	91.1
77.5°	70.9	69.5	67.0	65.8	65.8
80°	47.3	46.3	44.1	43.1	42.9
82.5°	27.3	26.9	24.9	23.9	24.4
85°	12.6	12.1	11.1	9.9	10.1
87.5°	3.2	3.0	2.2	1.7	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)