

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: P973371

Luminaire Tested: FLR2-14-20-L835-CP080

Issue Date: 3/13/2025

**Test Information**

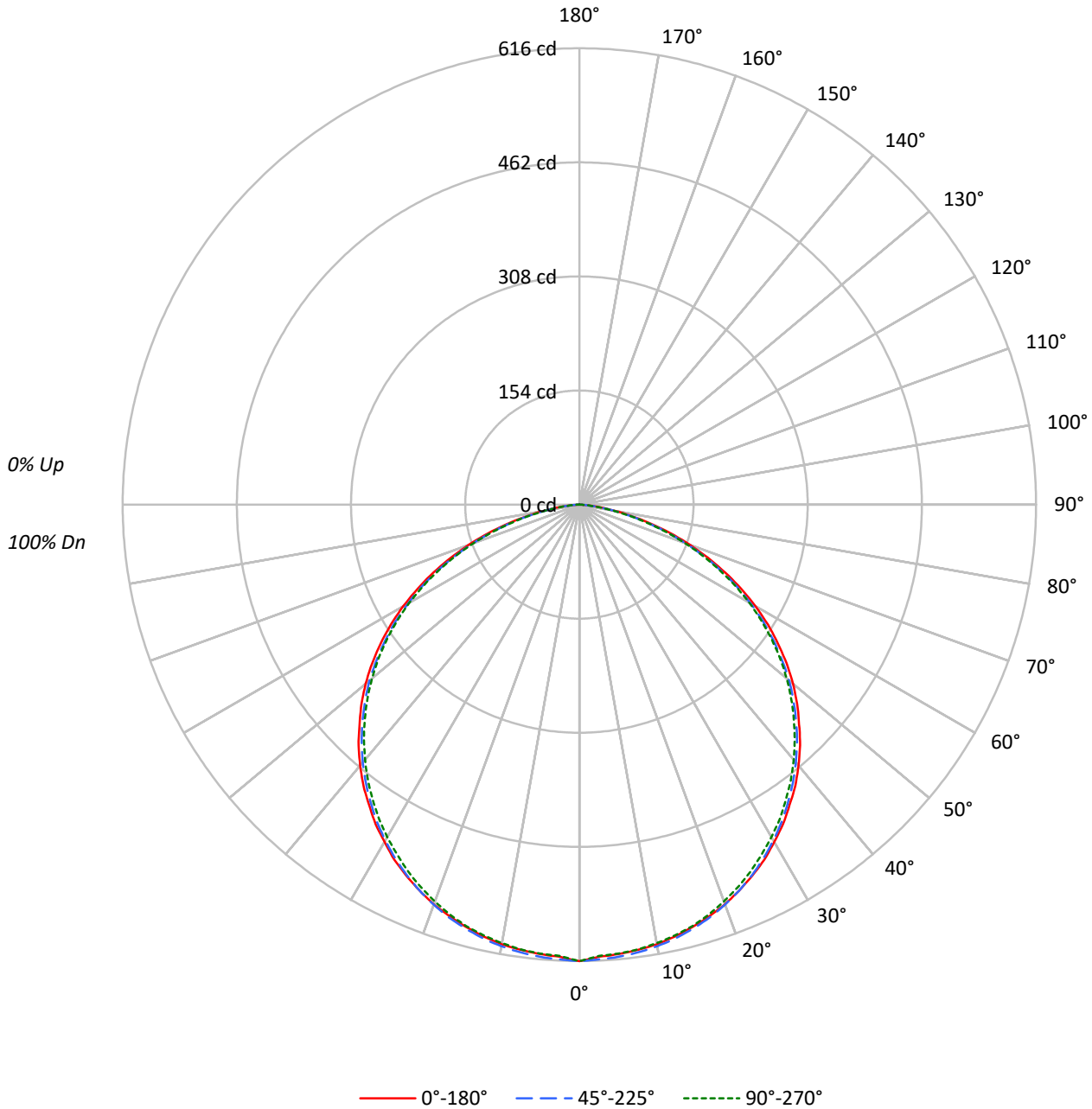
Test Method: LM-79-2019  
Report Number: P973371  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20-L835-CP080  
Description: 1\*4 FLR-2.0 2000 LUMEN at 3500 CCT & 80CRI with Clear Polycarbonate (0.080" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1724.8 lumens  
Efficiency: N/A  
Efficacy: 105.2 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

TEST NUMBER: P973371  
CATALOG NUMBER: FLR2-14-20-L835-CP080

### Luminous Intensity Polar Plot





TEST NUMBER: P973371  
 CATALOG NUMBER: FLR2-14-20-L835-CP080

**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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	32	27	38	31	27	37	31	26	25

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

	0°	45°	90°
0°	1658	1658	1658
5°	1645	1655	1643
10°	1647	1654	1642
15°	1644	1651	1641
20°	1644	1646	1633
25°	1640	1637	1622
30°	1633	1626	1611
35°	1625	1612	1596
40°	1616	1596	1580
45°	1596	1574	1557
50°	1575	1546	1528
55°	1536	1499	1485
60°	1476	1435	1422
65°	1382	1342	1327
70°	1246	1196	1186
75°	1045	992	981
80°	759	708	688
85°	401	355	324

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1596 cd/sqm



TEST NUMBER: P973371  
 CATALOG NUMBER: FLR2-14-20-L835-CP080

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.4	3.4
10°-20°	167.6	9.7
20°-30°	254.7	14.8
30°-40°	308.1	17.9
40°-50°	320.2	18.6
50°-60°	286.7	16.6
60°-70°	209.1	12.1
70°-80°	103.0	6.0
80°-90°	17.2	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°	480.7	27.9
0°-40°	788.7	45.7
0°-60°	1395.6	80.9
0°-90°	1724.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1724.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	616	616	616	616	616	
5°	609	616	613	619	608	58
15°	590	596	592	598	589	167
25°	552	555	552	554	546	255
35°	495	496	491	493	486	310
45°	419	419	414	414	409	324
55°	327	324	320	319	316	292
65°	217	214	211	209	208	214
75°	100	99	95	94	94	107
85°	13	12	12	10	10	19
90°	0	0	0	0	0	



TEST NUMBER: P973371  
 CATALOG NUMBER: FLR2-14-20-L835-CP080

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	616.3	616.3	616.3	616.3	616.3
2.5°	610.9	617.8	614.5	620.6	609.6
5°	609.1	615.8	612.7	618.6	608.4
7.5°	606.1	612.9	609.6	615.2	605.5
10°	602.7	608.9	605.3	610.9	601.0
12.5°	596.9	603.0	599.7	604.8	595.6
15°	590.2	595.6	592.5	597.6	589.0
17.5°	582.6	587.7	584.4	589.0	580.3
20°	574.2	578.3	574.7	578.5	570.1
22.5°	563.7	567.5	563.7	566.3	558.9
25°	552.5	555.3	551.5	554.0	546.4
27.5°	540.5	542.0	538.2	540.2	532.3
30°	525.7	527.5	523.4	526.0	518.3
32.5°	511.4	512.4	507.9	509.9	503.0
35°	494.6	495.6	490.8	492.8	485.9
37.5°	478.5	478.3	473.2	474.4	468.6
40°	459.9	459.6	454.3	455.3	449.7
42.5°	440.8	439.7	434.6	435.2	430.1
45°	419.3	418.8	413.5	414.2	409.1
47.5°	398.7	397.2	391.8	392.1	387.7
50°	376.2	373.9	369.3	368.8	365.0
52.5°	352.3	349.7	344.6	344.1	341.3
55°	327.3	324.5	319.6	318.8	316.5
57.5°	301.5	297.9	294.1	292.6	290.8
60°	274.2	270.9	266.6	265.0	264.3
62.5°	245.9	242.6	239.3	237.7	236.7
65°	217.1	214.5	210.7	209.2	208.4
67.5°	187.7	185.4	181.9	180.1	179.8
70°	158.4	156.1	152.0	151.0	150.7
72.5°	129.1	127.0	123.2	122.2	122.2
75°	100.5	98.7	95.4	94.4	94.4
77.5°	73.5	71.9	69.4	68.1	68.1
80°	49.0	48.0	45.7	44.6	44.4
82.5°	28.3	27.8	25.8	24.7	25.3
85°	13.0	12.5	11.5	10.2	10.5
87.5°	3.3	3.1	2.3	1.8	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)