

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: P973422

Luminaire Tested: FLR2-14-20-L840-CP250

Issue Date: 3/13/2025

**Test Information**

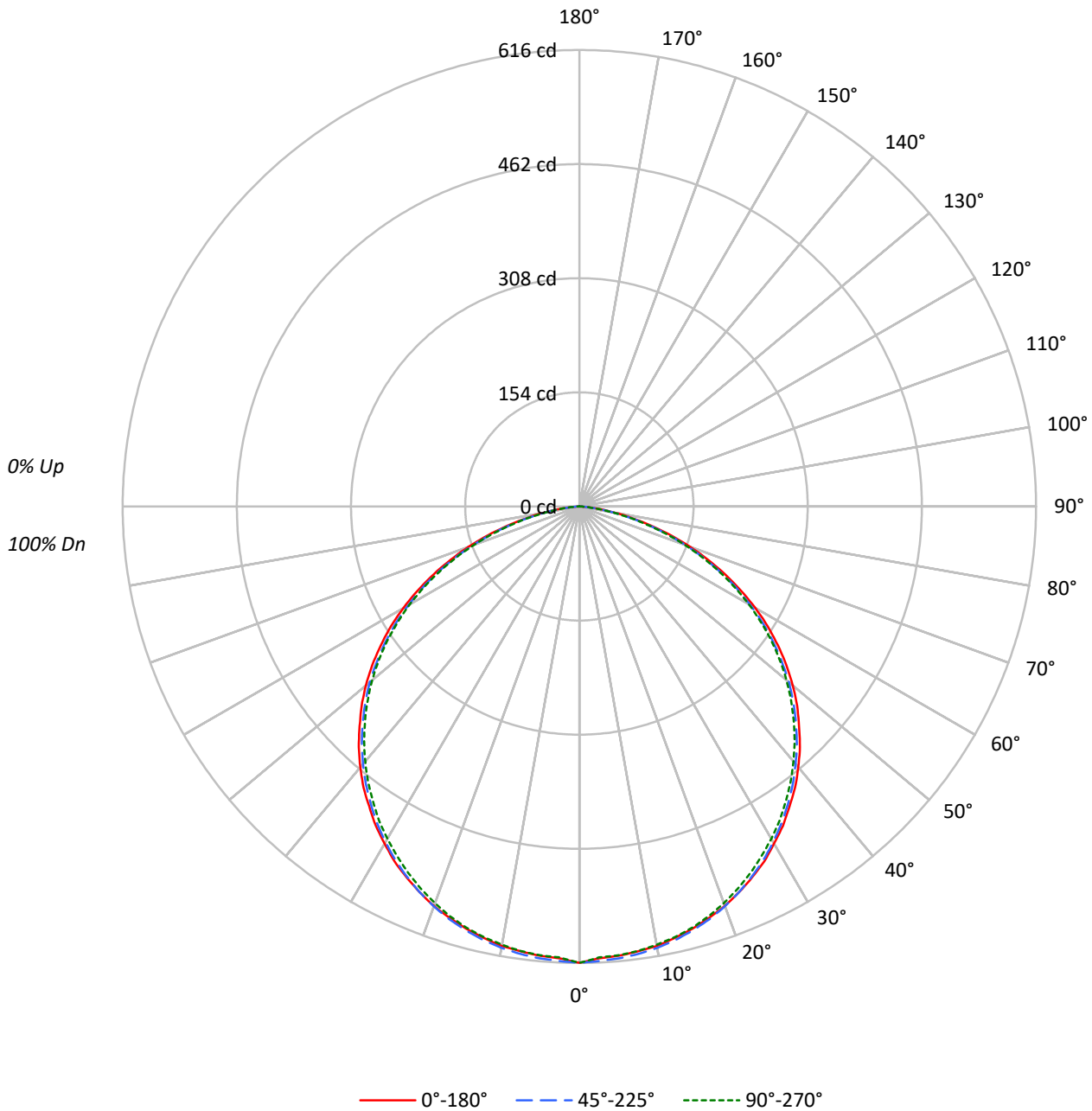
Test Method: LM-79-2019  
Report Number: P973422  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20-L840-CP250  
Description: 1\*4 FLR-2.0 2000 LUMEN at 4000 CCT & 80CRI with Clear Polycarbonate (0.250" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1723.4 lumens  
Efficiency: N/A  
Efficacy: 105.1 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				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°	1657	1657	1657
5°	1644	1654	1642
10°	1646	1653	1641
15°	1643	1650	1640
20°	1643	1644	1631
25°	1639	1636	1621
30°	1632	1625	1609
35°	1623	1611	1595
40°	1614	1594	1578
45°	1595	1572	1556
50°	1574	1545	1527
55°	1534	1498	1484
60°	1475	1433	1421
65°	1381	1340	1326
70°	1245	1195	1185
75°	1044	991	980
80°	758	707	687
85°	401	355	321

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1595 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.3	3.4
10°-20°	167.5	9.7
20°-30°	254.5	14.8
30°-40°	307.8	17.9
40°-50°	319.9	18.6
50°-60°	286.4	16.6
60°-70°	208.9	12.1
70°-80°	102.9	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°	480.3	27.9
0°-40°	788.1	45.7
0°-60°	1394.4	80.9
0°-90°	1723.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1723.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	616	616	616	616	616	
5°	609	615	612	618	608	58
15°	590	595	592	597	588	167
25°	552	555	551	554	546	254
35°	494	495	490	492	486	309
45°	419	418	413	414	409	324
55°	327	324	319	319	316	292
65°	217	214	210	209	208	214
75°	100	99	95	94	94	107
85°	13	12	12	10	10	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	615.8	615.8	615.8	615.8	615.8
2.5°	610.4	617.3	614.0	620.1	609.1
5°	608.6	615.2	612.2	618.0	607.9
7.5°	605.6	612.4	609.1	614.7	605.1
10°	602.2	608.4	604.8	610.4	600.5
12.5°	596.4	602.5	599.2	604.3	595.1
15°	589.8	595.1	592.1	597.1	588.5
17.5°	582.1	587.2	583.9	588.5	579.8
20°	573.7	577.8	574.2	578.0	569.6
22.5°	563.3	567.1	563.3	565.8	558.4
25°	552.0	554.8	551.0	553.6	545.9
27.5°	540.1	541.6	537.8	539.8	531.9
30°	525.3	527.1	523.0	525.5	517.9
32.5°	511.0	512.0	507.4	509.5	502.6
35°	494.2	495.2	490.4	492.4	485.5
37.5°	478.1	477.9	472.8	474.0	468.2
40°	459.5	459.3	453.9	454.9	449.3
42.5°	440.4	439.4	434.3	434.8	429.7
45°	419.0	418.5	413.1	413.9	408.8
47.5°	398.4	396.8	391.5	391.7	387.4
50°	375.9	373.6	369.0	368.5	364.7
52.5°	352.0	349.4	344.3	343.8	341.0
55°	327.0	324.2	319.3	318.6	316.3
57.5°	301.3	297.7	293.9	292.3	290.5
60°	274.0	270.7	266.3	264.8	264.0
62.5°	245.7	242.4	239.1	237.5	236.5
65°	216.9	214.3	210.5	209.0	208.2
67.5°	187.6	185.3	181.7	179.9	179.7
70°	158.3	156.0	151.9	150.9	150.6
72.5°	129.0	126.9	123.1	122.1	122.1
75°	100.4	98.6	95.3	94.3	94.3
77.5°	73.4	71.9	69.3	68.0	68.0
80°	48.9	47.9	45.6	44.6	44.3
82.5°	28.3	27.8	25.7	24.7	25.2
85°	13.0	12.5	11.5	10.2	10.4
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)