

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: P973461

Luminaire Tested: FLR2-14-20-L850-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973461  
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-L850-CP187  
Description: 1\*4 FLR-2.0 2000 LUMEN at 5000 CCT & 80CRI with Clear Polycarbonate (0.187" thickness)  
  
Light Source:  
Ballast/Driver: -

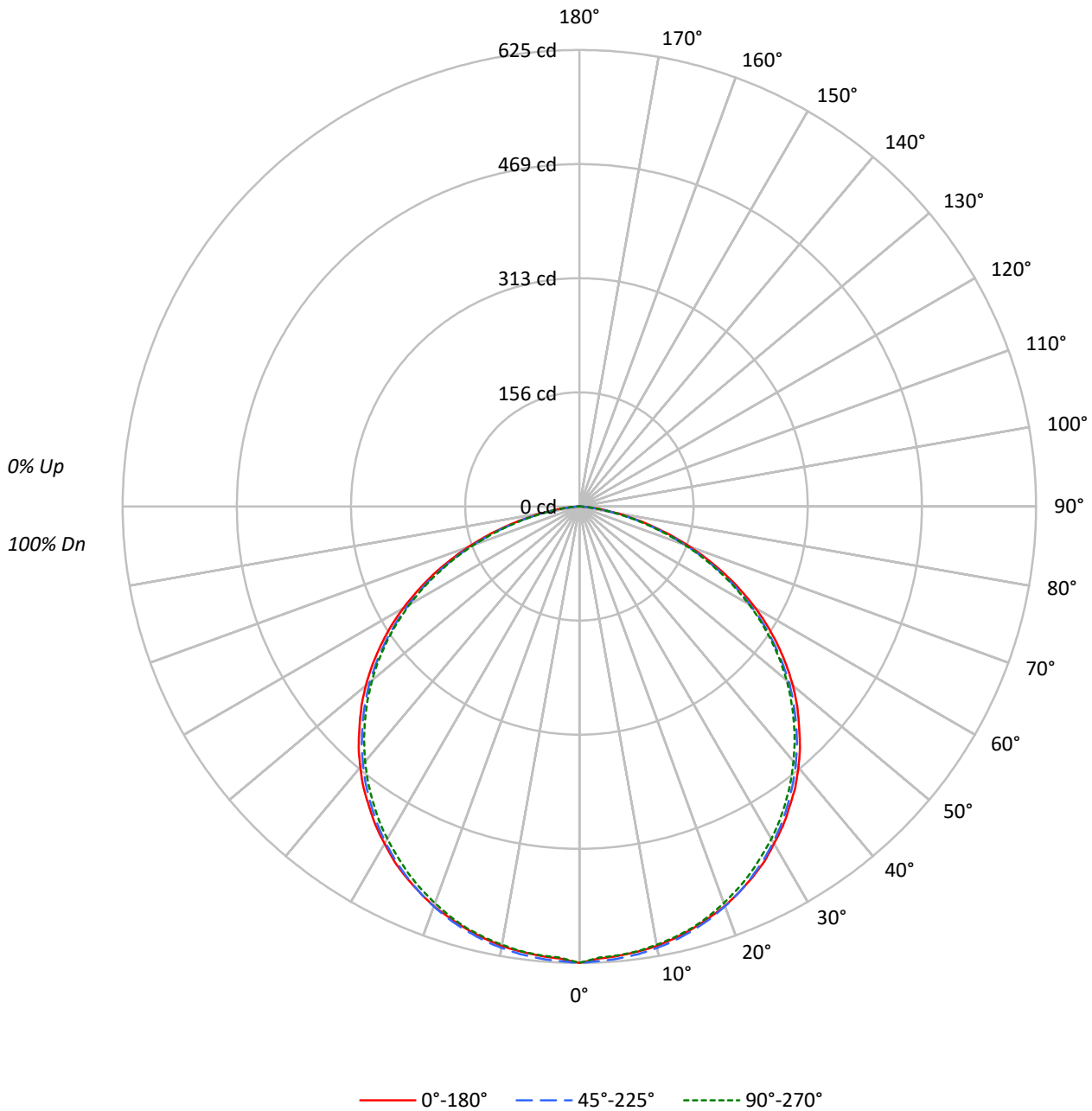
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1749.1 lumens  
Efficiency: N/A  
Efficacy: 106.7 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°	1682	1682	1682
5°	1669	1678	1666
10°	1670	1677	1665
15°	1668	1674	1664
20°	1668	1669	1655
25°	1664	1660	1645
30°	1656	1649	1633
35°	1648	1635	1619
40°	1638	1618	1602
45°	1619	1596	1579
50°	1597	1568	1550
55°	1557	1521	1506
60°	1497	1455	1442
65°	1401	1361	1345
70°	1264	1213	1203
75°	1059	1005	995
80°	770	717	697
85°	408	358	327

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1619 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.2	3.4
10°-20°	170.0	9.7
20°-30°	258.3	14.8
30°-40°	312.4	17.9
40°-50°	324.7	18.6
50°-60°	290.7	16.6
60°-70°	212.0	12.1
70°-80°	104.4	6.0
80°-90°	17.5	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°	487.4	27.9
0°-40°	799.9	45.7
0°-60°	1415.2	80.9
0°-90°	1749.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1749.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	625	625	625	625	625	
5°	618	624	621	627	617	59
15°	599	604	601	606	597	169
25°	560	563	559	562	554	258
35°	502	503	498	500	493	314
45°	425	425	419	420	415	328
55°	332	329	324	323	321	296
65°	220	218	214	212	211	217
75°	102	100	97	96	96	109
85°	13	13	12	10	11	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	624.9	624.9	624.9	624.9	624.9
2.5°	619.5	626.5	623.1	629.3	618.2
5°	617.7	624.4	621.3	627.3	616.9
7.5°	614.6	621.6	618.2	623.9	614.1
10°	611.2	617.4	613.8	619.5	609.4
12.5°	605.3	611.5	608.1	613.3	604.0
15°	598.6	604.0	600.9	606.1	597.3
17.5°	590.8	596.0	592.6	597.3	588.5
20°	582.3	586.4	582.8	586.7	578.1
22.5°	571.7	575.5	571.7	574.2	566.7
25°	560.3	563.1	559.2	561.8	554.1
27.5°	548.1	549.7	545.8	547.9	539.8
30°	533.1	534.9	530.8	533.4	525.6
32.5°	518.6	519.7	515.0	517.1	510.1
35°	501.6	502.6	497.7	499.7	492.8
37.5°	485.3	485.0	479.8	481.1	475.2
40°	466.4	466.1	460.7	461.7	456.0
42.5°	447.0	445.9	440.8	441.3	436.1
45°	425.3	424.7	419.3	420.1	414.9
47.5°	404.3	402.7	397.3	397.6	393.2
50°	381.5	379.2	374.6	374.0	370.2
52.5°	357.2	354.6	349.5	348.9	346.1
55°	331.9	329.0	324.1	323.3	321.0
57.5°	305.7	302.1	298.2	296.7	294.9
60°	278.1	274.7	270.3	268.8	268.0
62.5°	249.4	246.0	242.6	241.1	240.0
65°	220.1	217.5	213.7	212.1	211.3
67.5°	190.4	188.1	184.4	182.6	182.4
70°	160.6	158.3	154.2	153.1	152.9
72.5°	130.9	128.8	124.9	123.9	123.9
75°	101.9	100.1	96.7	95.7	95.7
77.5°	74.5	72.9	70.4	69.1	69.1
80°	49.7	48.6	46.3	45.3	45.0
82.5°	28.7	28.2	26.1	25.1	25.6
85°	13.2	12.7	11.6	10.3	10.6
87.5°	3.4	3.1	2.3	1.8	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)