

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: P688231

Luminaire Tested: FLR-MC-22-L3C3 (HI)-40-CP187

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688231  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR-MC-22-L3C3 (HI)-40-CP187  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at High Lumen setting for Medical/Cleanroom  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

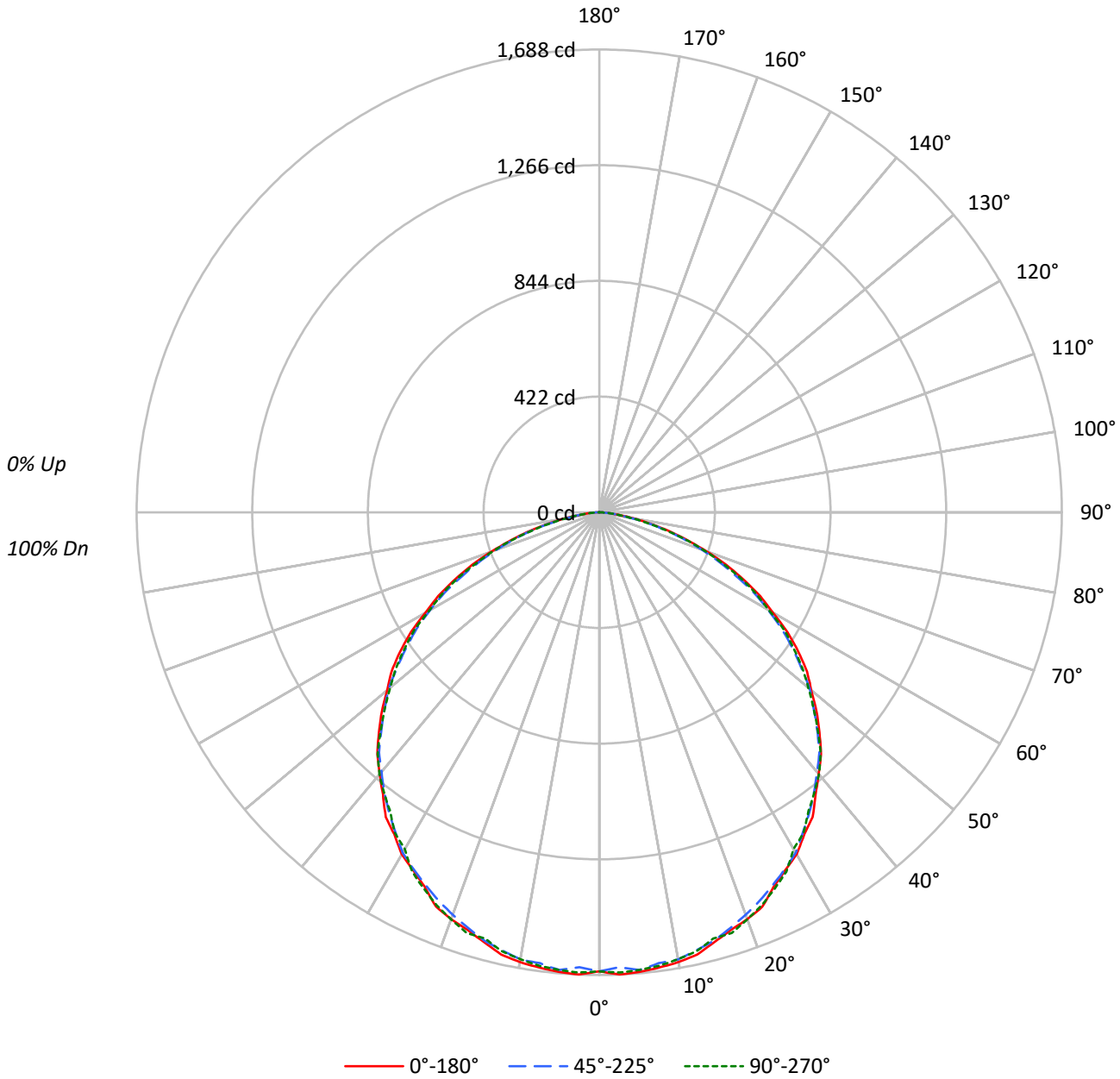
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4646.9 lumens  
Efficiency: N/A  
Efficacy: 120.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.5  
Input Voltage (V): 120  
Input Current (Ain): 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	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	103	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	79	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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

	0°	45°	90°
0°	4505	4505	4505
5°	4546	4527	4527
10°	4553	4526	4523
15°	4522	4507	4484
20°	4523	4474	4525
25°	4474	4453	4498
30°	4476	4457	4407
35°	4459	4391	4371
40°	4376	4341	4382
45°	4325	4281	4294
50°	4229	4199	4169
55°	4160	4026	4064
60°	3930	3824	3843
65°	3698	3521	3629
70°	3274	3119	3217
75°	2698	2577	2568
80°	1928	1788	1788
85°	939	911	939

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4325 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.0	3.4
10°-20°	456.1	9.8
20°-30°	693.2	14.9
30°-40°	838.0	18.0
40°-50°	868.3	18.7
50°-60°	771.8	16.6
60°-70°	553.4	11.9
70°-80°	263.4	5.7
80°-90°	43.6	0.9
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°	1308.3	28.2
0°-40°	2146.3	46.2
0°-60°	3786.4	81.5
0°-90°	4646.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4646.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1674	1674	1674	1674	1674	
5°	1683	1675	1676	1668	1676	160
15°	1623	1618	1618	1609	1610	459
25°	1507	1503	1500	1499	1515	697
35°	1357	1336	1337	1338	1331	844
45°	1136	1124	1125	1120	1128	876
55°	887	860	858	863	866	789
65°	581	549	553	560	570	573
75°	260	234	248	250	247	276
85°	30	27	30	30	30	46
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1674.2	1674.2	1674.2	1674.2	1674.2
2.5°	1687.6	1678.6	1660.7	1672.4	1680.4
5°	1683.1	1675.1	1676.0	1667.9	1676.0
7.5°	1675.1	1667.0	1659.0	1656.3	1668.8
10°	1666.1	1650.9	1656.3	1650.0	1655.4
12.5°	1652.7	1640.2	1636.6	1628.5	1640.2
15°	1623.2	1617.8	1617.8	1608.8	1609.7
17.5°	1597.2	1586.5	1590.1	1585.6	1608.8
20°	1579.3	1562.3	1562.3	1559.6	1580.2
22.5°	1556.9	1537.3	1532.8	1534.6	1550.7
25°	1506.8	1503.3	1499.7	1498.8	1514.9
27.5°	1471.0	1461.2	1467.5	1464.8	1478.2
30°	1440.6	1423.6	1434.4	1424.5	1418.3
32.5°	1392.3	1386.0	1383.4	1384.2	1386.9
35°	1357.4	1335.9	1336.8	1337.7	1330.6
37.5°	1296.6	1299.2	1287.6	1287.6	1289.4
40°	1245.6	1242.0	1235.7	1235.7	1247.3
42.5°	1198.1	1182.0	1189.2	1178.4	1196.3
45°	1136.4	1123.9	1124.8	1120.3	1128.3
47.5°	1075.5	1064.8	1061.2	1064.8	1061.2
50°	1010.2	1003.1	1003.1	999.5	995.9
52.5°	955.6	930.6	928.8	934.2	935.1
55°	886.7	859.9	858.1	862.6	866.2
57.5°	814.3	782.9	789.2	796.4	800.8
60°	730.2	707.8	710.5	722.1	714.0
62.5°	662.1	631.7	636.2	646.0	646.0
65°	580.7	549.4	553.0	560.1	570.0
67.5°	502.0	468.9	474.2	482.3	485.0
70°	416.1	381.2	396.4	404.4	408.9
72.5°	333.8	306.9	320.3	324.8	328.4
75°	259.5	234.4	247.9	249.6	247.0
77.5°	184.3	166.4	177.2	180.7	178.1
80°	124.4	106.5	115.4	118.1	115.4
82.5°	68.0	62.6	66.2	67.1	65.3
85°	30.4	26.8	29.5	29.5	30.4
87.5°	8.9	8.1	8.1	8.9	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)