

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: P688154

Luminaire Tested: FLR-MC-24-55-50-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688154
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-MC-24-55-50-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 5000K Luminaire for Medical/Cleanroom
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

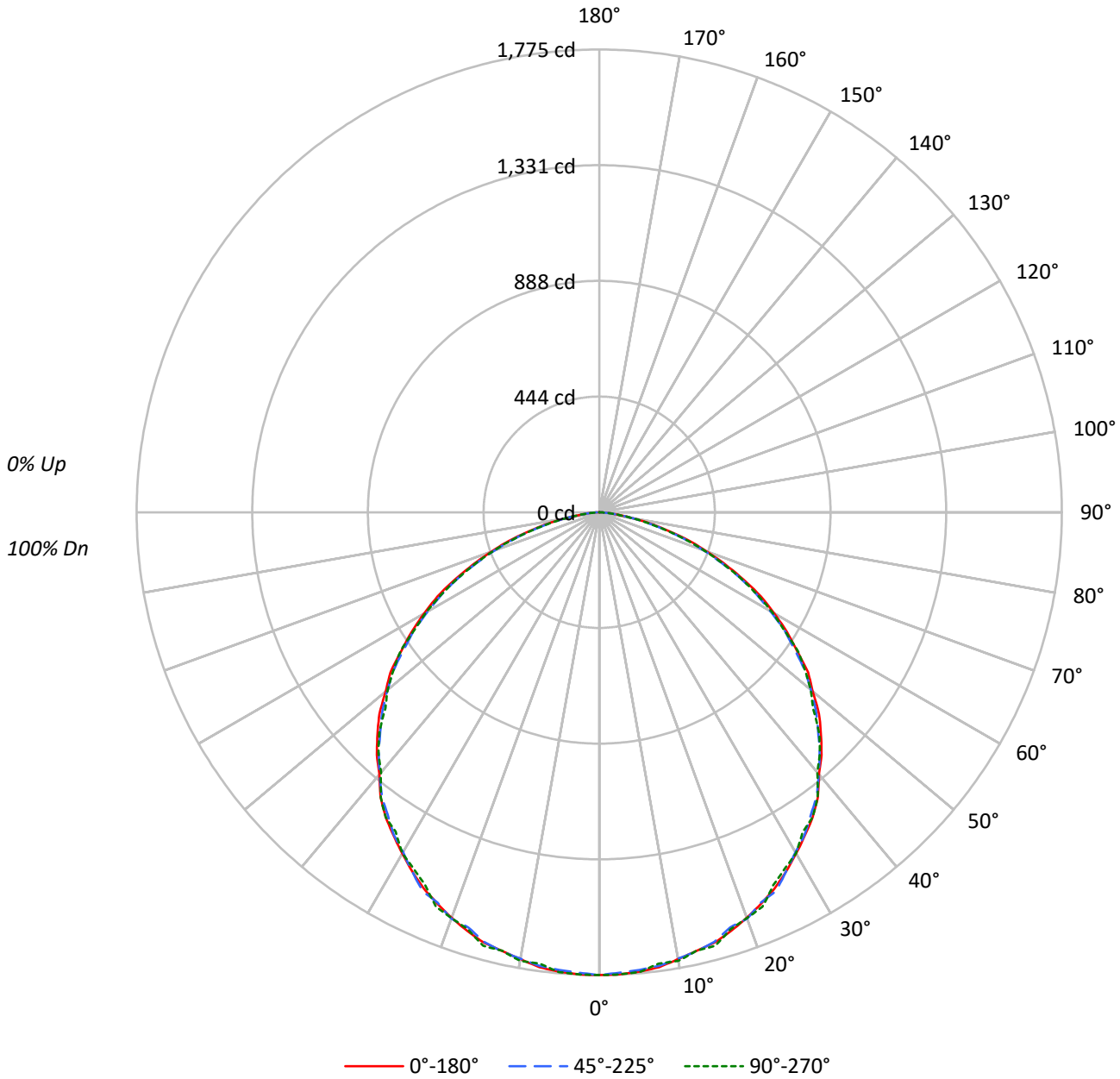
Lumens per Lamp: N/A
Luminaire Lumens: 4920.1 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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	102	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	79	97	90	84	78	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	53	51
5	76	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
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°	2388	2388	2388
5°	2389	2380	2391
10°	2378	2375	2388
15°	2381	2377	2398
20°	2370	2376	2371
25°	2364	2380	2344
30°	2348	2339	2346
35°	2346	2325	2346
40°	2304	2303	2286
45°	2288	2260	2270
50°	2237	2219	2217
55°	2173	2142	2186
60°	2084	2038	2061
65°	1943	1901	1904
70°	1721	1674	1692
75°	1417	1363	1383
80°	994	972	986
85°	509	480	480

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2288 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.8	3.4
10°-20°	481.5	9.8
20°-30°	732.0	14.9
30°-40°	885.3	18.0
40°-50°	917.4	18.6
50°-60°	819.0	16.6
60°-70°	588.1	12.0
70°-80°	282.1	5.7
80°-90°	46.8	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°	1381.3	28.1
0°-40°	2266.7	46.1
0°-60°	4003.1	81.4
0°-90°	4920.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4920.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1775	1775	1775	1775	1775	
5°	1768	1774	1762	1763	1770	168
15°	1709	1711	1706	1706	1721	482
25°	1592	1588	1603	1584	1579	733
35°	1428	1417	1416	1410	1428	891
45°	1203	1194	1188	1186	1193	927
55°	926	916	913	911	932	830
65°	610	592	597	588	598	603
75°	273	255	262	262	266	295
85°	33	31	31	31	31	49
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1775.1	1775.1	1775.1	1775.1	1775.1
2.5°	1774.1	1776.0	1767.5	1765.6	1774.1
5°	1768.5	1774.1	1761.9	1762.8	1770.4
7.5°	1760.0	1756.2	1754.3	1760.9	1745.8
10°	1740.2	1748.7	1738.3	1733.6	1747.7
12.5°	1723.2	1724.1	1725.1	1727.0	1722.2
15°	1709.0	1710.9	1706.2	1706.2	1721.3
17.5°	1683.6	1687.4	1669.4	1680.7	1677.0
20°	1655.3	1651.5	1659.1	1656.2	1656.2
22.5°	1624.2	1624.2	1620.4	1622.3	1637.4
25°	1592.1	1588.3	1603.4	1583.6	1578.9
27.5°	1553.4	1549.6	1553.4	1543.0	1541.2
30°	1511.0	1501.5	1505.3	1506.3	1510.0
32.5°	1469.5	1460.0	1466.6	1460.0	1453.4
35°	1428.0	1416.7	1415.7	1410.1	1428.0
37.5°	1378.0	1365.7	1370.4	1352.5	1377.0
40°	1312.0	1304.4	1311.0	1305.4	1301.6
42.5°	1262.9	1254.4	1251.6	1247.8	1253.5
45°	1202.6	1194.1	1187.5	1186.5	1193.1
47.5°	1144.1	1122.4	1128.0	1119.6	1112.0
50°	1068.6	1063.0	1060.1	1051.6	1059.2
52.5°	1010.1	989.4	994.1	986.6	995.1
55°	926.2	915.8	913.0	911.1	931.9
57.5°	853.6	840.4	842.3	837.5	840.4
60°	774.4	762.1	757.4	756.4	765.9
62.5°	699.8	674.4	678.1	677.2	681.9
65°	610.2	592.3	597.0	588.5	598.0
67.5°	524.4	506.5	508.4	506.5	511.2
70°	437.6	417.8	425.4	421.6	430.1
72.5°	362.2	338.6	345.2	338.6	346.1
75°	272.6	254.7	262.2	262.2	266.0
77.5°	200.9	184.9	190.5	188.6	192.4
80°	128.3	121.7	125.4	122.6	127.3
82.5°	73.6	68.9	68.9	70.7	71.7
85°	33.0	31.1	31.1	31.1	31.1
87.5°	8.5	8.5	8.5	8.5	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)