

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: P688419

Luminaire Tested: FLR-MC-24-45-35-CA125

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688419
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2303-938-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-MC-24-45-35-CA125
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 3500K Luminaire for Medical/Cleanroom
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

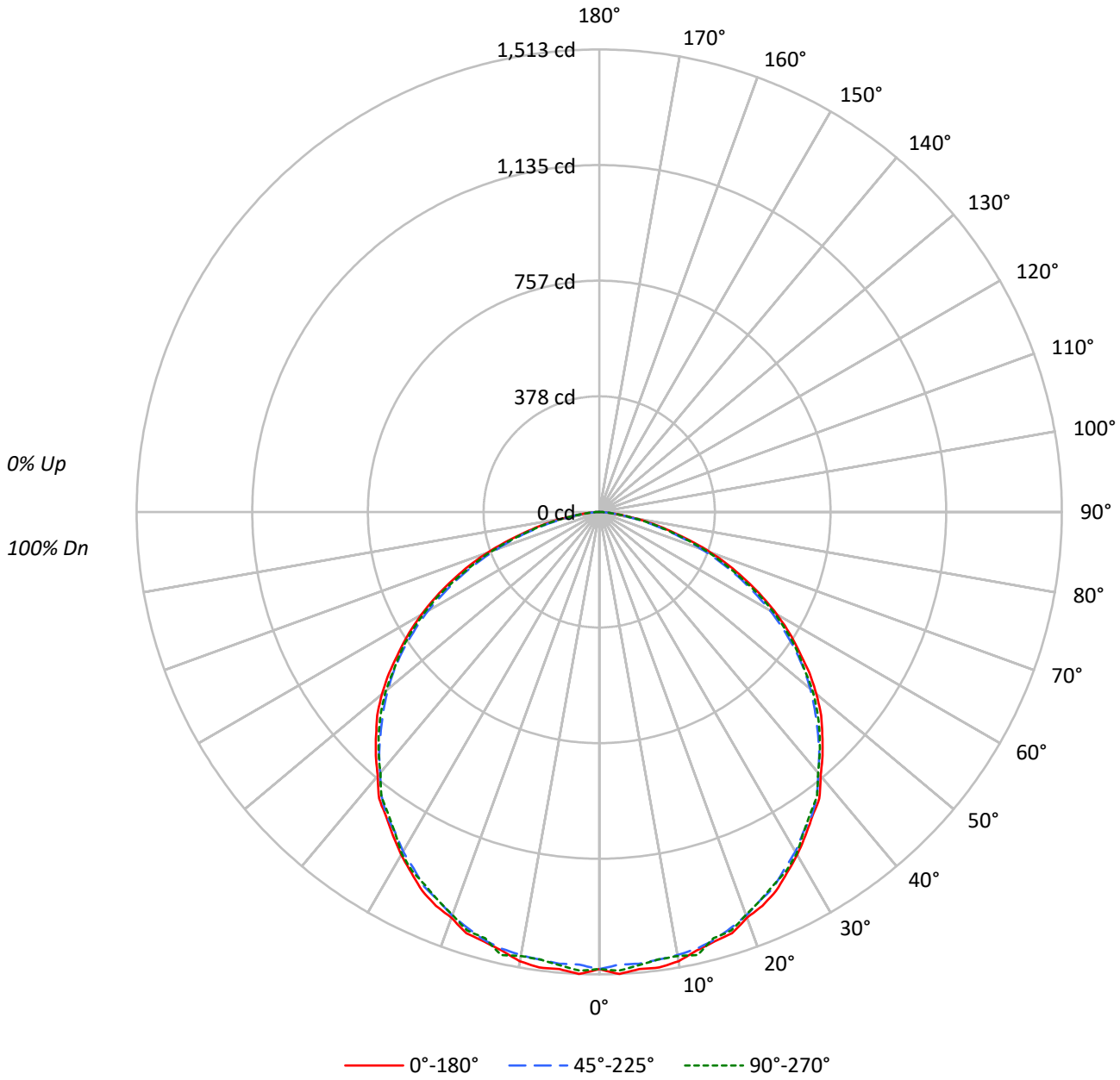
Lumens per Lamp: N/A
Luminaire Lumens: 4202.4 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.8
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	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	35	29	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2013	2013	2013
5°	2027	2004	2010
10°	2039	2012	2016
15°	2027	2020	2011
20°	2023	2012	2009
25°	2031	2009	2000
30°	2012	1993	2006
35°	1996	1991	1977
40°	1979	1958	1955
45°	1964	1922	1939
50°	1942	1887	1907
55°	1874	1831	1852
60°	1806	1738	1776
65°	1688	1594	1633
70°	1525	1400	1463
75°	1247	1141	1180
80°	894	800	836
85°	489	420	431

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1964 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.8	3.4
10°-20°	408.7	9.7
20°-30°	622.0	14.8
30°-40°	754.3	17.9
40°-50°	784.2	18.7
50°-60°	700.9	16.7
60°-70°	505.3	12.0
70°-80°	243.5	5.8
80°-90°	41.7	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°	1172.6	27.9
0°-40°	1926.9	45.9
0°-60°	3412.0	81.2
0°-90°	4202.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4202.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1501	1488	1484	1491	1488	143
15°	1455	1444	1450	1442	1444	412
25°	1368	1347	1353	1346	1347	629
35°	1215	1202	1212	1205	1204	762
45°	1032	1018	1010	1014	1019	796
55°	799	788	781	778	790	716
65°	530	517	501	505	513	525
75°	240	233	220	222	227	258
85°	32	29	27	28	28	44
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1495.8	1495.8	1495.8	1495.8	1495.8
2.5°	1513.1	1501.0	1482.2	1491.2	1501.8
5°	1501.0	1488.2	1483.7	1491.2	1488.2
7.5°	1503.3	1483.7	1477.7	1486.0	1476.9
10°	1492.7	1475.4	1472.4	1476.1	1475.4
12.5°	1470.1	1466.3	1464.1	1458.0	1484.4
15°	1455.0	1444.5	1450.5	1441.5	1443.7
17.5°	1445.2	1420.3	1427.9	1426.4	1436.2
20°	1412.8	1406.8	1405.2	1400.7	1403.0
22.5°	1394.7	1380.4	1375.8	1374.3	1375.8
25°	1368.3	1347.2	1353.2	1346.4	1347.2
27.5°	1330.6	1307.2	1314.7	1314.0	1324.5
30°	1295.1	1277.8	1283.1	1278.5	1291.3
32.5°	1255.1	1240.1	1242.3	1241.6	1243.1
35°	1215.2	1201.6	1212.1	1204.6	1203.8
37.5°	1182.7	1155.6	1169.9	1161.6	1170.7
40°	1126.9	1116.4	1114.8	1109.6	1113.3
42.5°	1080.9	1067.3	1065.1	1068.1	1068.1
45°	1031.9	1018.3	1010.0	1014.5	1019.0
47.5°	984.4	967.0	956.4	958.7	967.8
50°	927.8	905.2	901.4	904.4	911.2
52.5°	866.7	848.6	843.3	842.5	845.6
55°	798.8	788.2	780.7	778.4	789.7
57.5°	737.7	721.9	712.8	716.6	727.1
60°	671.3	654.0	645.7	648.7	660.0
62.5°	601.9	584.6	571.8	577.8	590.6
65°	530.3	517.4	500.8	504.6	512.9
67.5°	460.9	446.5	429.2	431.5	440.5
70°	387.7	372.6	356.0	359.8	371.9
72.5°	310.8	301.0	285.9	287.4	297.9
75°	239.9	233.1	219.5	221.8	227.0
77.5°	178.0	169.0	158.4	160.7	167.5
80°	115.4	112.4	103.3	104.8	107.9
82.5°	65.6	65.6	61.9	60.3	64.1
85°	31.7	29.4	27.2	27.9	27.9
87.5°	7.5	8.3	7.5	6.8	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)