

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: P688403

Luminaire Tested: FLR-HA-24-L3C3 (MED)-50-CA125

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688403  
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-HA-24-L3C3 (MED)-50-CA125  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 5000K Luminaire at Medium Lumen setting for High Abuse  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

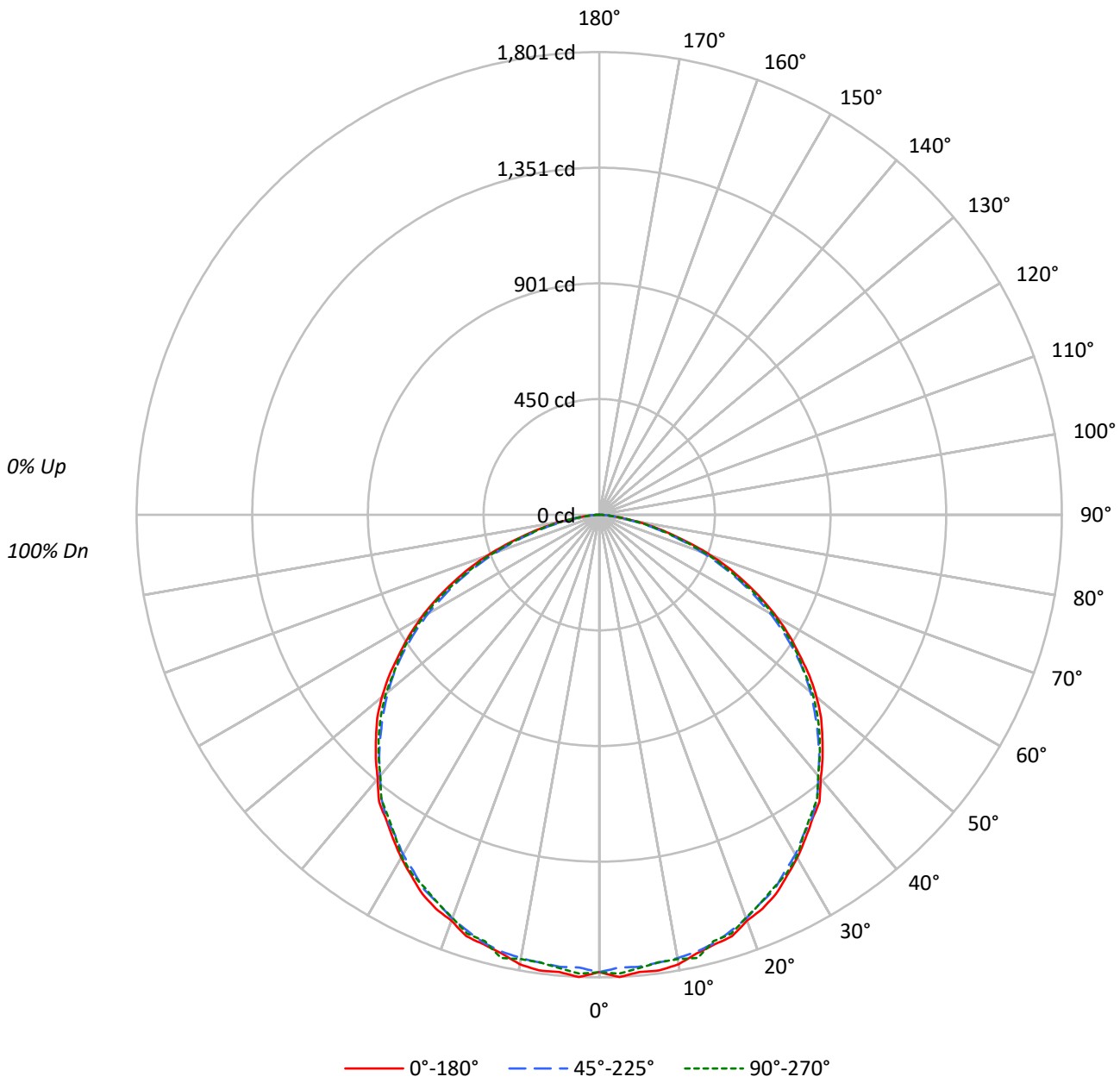
Lumens per Lamp: N/A  
Luminaire Lumens: 5002.9 lumens  
Efficiency: N/A  
Efficacy: 126.0 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 39.7  
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°	2396	2396	2396
5°	2414	2386	2393
10°	2428	2395	2400
15°	2413	2405	2394
20°	2408	2395	2391
25°	2418	2392	2381
30°	2395	2373	2388
35°	2376	2370	2354
40°	2356	2331	2328
45°	2337	2288	2308
50°	2312	2246	2271
55°	2231	2180	2206
60°	2151	2069	2114
65°	2010	1898	1944
70°	1816	1667	1742
75°	1485	1358	1405
80°	1065	953	995
85°	582	499	513

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2337 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.8	3.4
10°-20°	486.6	9.7
20°-30°	740.5	14.8
30°-40°	897.9	17.9
40°-50°	933.6	18.7
50°-60°	834.4	16.7
60°-70°	601.5	12.0
70°-80°	289.8	5.8
80°-90°	49.6	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°	1396.0	27.9
0°-40°	2293.9	45.9
0°-60°	4061.9	81.2
0°-90°	5002.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5002.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1781	1781	1781	1781	1781	
5°	1787	1772	1766	1775	1772	171
15°	1732	1720	1727	1716	1719	490
25°	1629	1604	1611	1603	1604	748
35°	1447	1430	1443	1434	1433	907
45°	1228	1212	1202	1208	1213	948
55°	951	938	929	927	940	853
65°	631	616	596	601	611	625
75°	286	278	261	264	270	307
85°	38	35	32	33	33	53
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1780.7	1780.7	1780.7	1780.7	1780.7
2.5°	1801.3	1787.0	1764.5	1775.3	1787.9
5°	1787.0	1771.7	1766.3	1775.3	1771.7
7.5°	1789.7	1766.3	1759.1	1769.0	1758.2
10°	1777.1	1756.4	1752.8	1757.3	1756.4
12.5°	1750.2	1745.7	1743.0	1735.8	1767.2
15°	1732.2	1719.6	1726.8	1716.0	1718.7
17.5°	1720.5	1690.9	1699.9	1698.1	1709.7
20°	1681.9	1674.7	1672.9	1667.5	1670.2
22.5°	1660.4	1643.3	1637.9	1636.1	1637.9
25°	1628.9	1603.8	1611.0	1602.9	1603.8
27.5°	1584.0	1556.2	1565.2	1564.3	1576.8
30°	1541.8	1521.2	1527.5	1522.1	1537.3
32.5°	1494.2	1476.3	1479.0	1478.1	1479.9
35°	1446.6	1430.5	1443.0	1434.1	1433.2
37.5°	1408.0	1375.7	1392.8	1382.9	1393.7
40°	1341.6	1329.0	1327.2	1320.9	1325.4
42.5°	1286.8	1270.6	1267.9	1271.5	1271.5
45°	1228.4	1212.3	1202.4	1207.8	1213.2
47.5°	1171.9	1151.2	1138.6	1141.3	1152.1
50°	1104.5	1077.6	1073.1	1076.7	1084.8
52.5°	1031.8	1010.2	1003.9	1003.0	1006.6
55°	951.0	938.4	929.4	926.7	940.2
57.5°	878.2	859.4	848.6	853.1	865.6
60°	799.2	778.5	768.7	772.3	785.7
62.5°	716.6	695.9	680.7	687.8	703.1
65°	631.3	616.0	596.3	600.7	610.6
67.5°	548.7	531.6	510.9	513.6	524.4
70°	461.6	443.6	423.8	428.3	442.7
72.5°	370.0	358.3	340.3	342.1	354.7
75°	285.6	277.5	261.3	264.0	270.3
77.5°	211.9	201.1	188.6	191.3	199.4
80°	137.4	133.8	123.0	124.8	128.4
82.5°	78.1	78.1	73.6	71.8	76.3
85°	37.7	35.0	32.3	33.2	33.2
87.5°	9.0	9.9	9.0	8.1	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)