

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: P688291

Luminaire Tested: FLR-HA-22-L3C3 (HI)-40-CP125

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688291  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR-HA-22-L3C3 (HI)-40-CP125  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at High Lumen setting for High Abuse  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

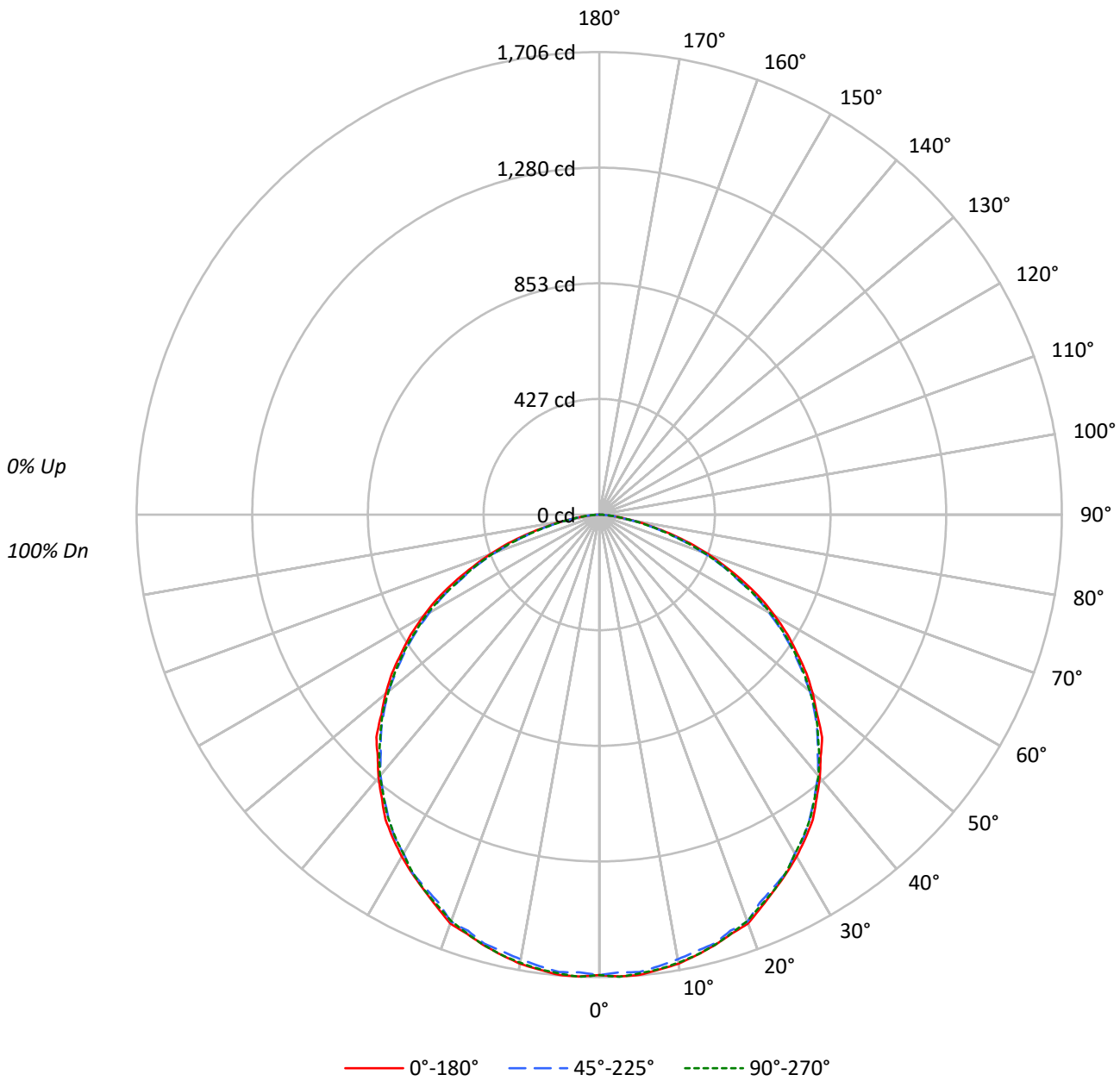
Lumens per Lamp: N/A  
Luminaire Lumens: 4711.3 lumens  
Efficiency: N/A  
Efficacy: 122.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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	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	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	56	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°	4570	4570	4570
5°	4604	4575	4590
10°	4596	4552	4587
15°	4582	4564	4579
20°	4597	4576	4568
25°	4537	4508	4535
30°	4524	4484	4487
35°	4512	4459	4468
40°	4444	4410	4416
45°	4423	4331	4338
50°	4304	4244	4244
55°	4177	4084	4110
60°	4031	3891	3944
65°	3754	3561	3595
70°	3365	3175	3224
75°	2772	2604	2595
80°	1942	1830	1830
85°	1050	939	939

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4423 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.1	3.4
10°-20°	462.2	9.8
20°-30°	702.5	14.9
30°-40°	849.6	18.0
40°-50°	879.5	18.7
50°-60°	781.4	16.6
60°-70°	561.4	11.9
70°-80°	268.5	5.7
80°-90°	45.2	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°	1325.7	28.1
0°-40°	2175.3	46.2
0°-60°	3836.2	81.4
0°-90°	4711.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4711.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1698	1698	1698	1698	1698	
5°	1704	1693	1694	1696	1699	162
15°	1645	1634	1638	1635	1644	465
25°	1528	1520	1518	1525	1527	706
35°	1373	1364	1357	1356	1360	856
45°	1162	1145	1138	1134	1140	889
55°	890	881	871	865	876	797
65°	590	583	559	545	565	583
75°	267	262	250	229	250	286
85°	34	32	30	29	30	48
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1698.2	1698.2	1698.2	1698.2	1698.2
2.5°	1705.4	1692.9	1690.2	1706.3	1706.3
5°	1704.5	1692.9	1693.8	1695.6	1699.1
7.5°	1692.9	1686.6	1680.3	1686.6	1691.1
10°	1682.1	1667.8	1666.0	1668.7	1678.6
12.5°	1664.2	1648.1	1649.9	1654.4	1663.3
15°	1644.6	1633.8	1638.3	1634.7	1643.7
17.5°	1621.3	1621.3	1609.7	1607.0	1620.4
20°	1605.2	1582.8	1598.0	1584.6	1595.3
22.5°	1564.9	1552.4	1548.8	1559.6	1559.6
25°	1528.2	1520.2	1518.4	1524.7	1527.3
27.5°	1493.3	1488.9	1490.7	1489.8	1489.8
30°	1455.8	1444.1	1443.2	1443.2	1444.1
32.5°	1415.5	1407.4	1406.6	1401.2	1403.9
35°	1373.4	1364.5	1357.3	1355.6	1360.0
37.5°	1317.1	1306.3	1305.4	1307.2	1307.2
40°	1265.2	1253.6	1255.3	1249.1	1257.1
42.5°	1208.8	1199.0	1192.7	1190.9	1200.8
45°	1162.3	1145.3	1138.1	1134.5	1139.9
47.5°	1088.9	1084.4	1077.3	1071.0	1083.5
50°	1028.1	1030.8	1013.8	1007.5	1013.8
52.5°	963.7	952.0	940.4	929.6	947.5
55°	890.3	881.3	870.6	865.2	876.0
57.5°	823.2	813.3	797.2	784.7	803.5
60°	748.9	740.0	723.0	709.5	732.8
62.5°	672.9	663.0	646.9	625.4	649.6
65°	589.6	583.4	559.2	544.9	564.6
67.5°	505.5	502.0	487.6	463.5	492.1
70°	427.7	420.5	403.5	382.1	409.8
72.5°	350.7	338.2	325.7	305.1	328.4
75°	266.6	262.2	250.5	229.1	249.6
77.5°	193.3	188.8	180.7	164.6	180.7
80°	125.3	124.4	118.1	106.5	118.1
82.5°	71.6	71.6	67.1	62.6	67.1
85°	34.0	32.2	30.4	28.6	30.4
87.5°	8.9	8.9	8.9	8.9	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)