

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: P688388

Luminaire Tested: FLR-HA-22-L3C3 (MED)-50-CA125

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688388  
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-22-L3C3 (MED)-50-CA125  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 5000K Luminaire at Midium Lumen setting for High Abuse  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

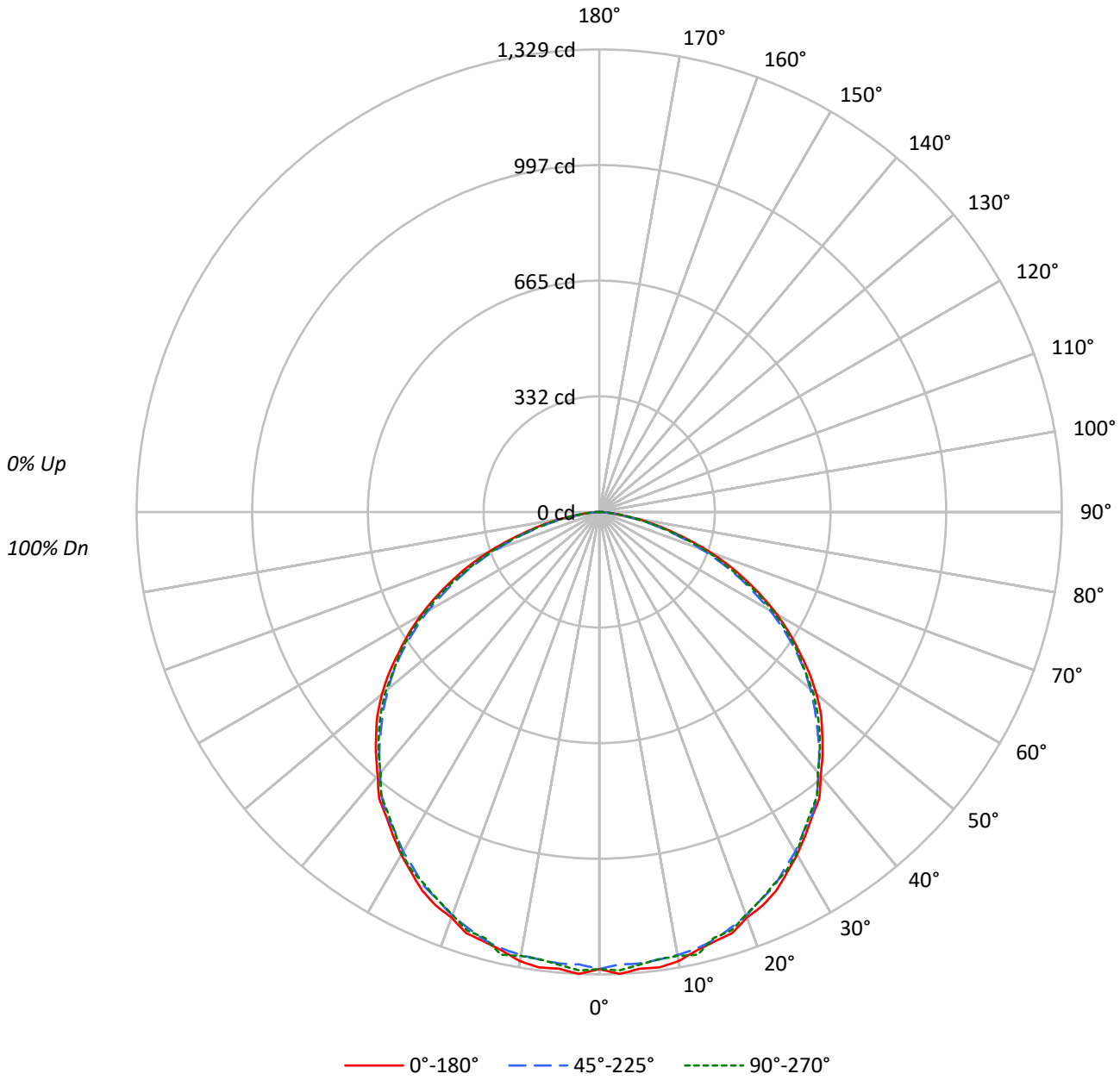
Lumens per Lamp: N/A  
Luminaire Lumens: 3690.4 lumens  
Efficiency: N/A  
Efficacy: 122.6 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 30.1  
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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	90	91	89	87	85	85	85
2	100	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71	71	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60	60	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51	51	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44	44	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39	39	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34	34	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30	30	30
9	57	43	35	30	55	43	35	30	42	35	29	41	34	29	40	34	29	27	27	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25	25	25

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

	0°	45°	90°
0°	3535	3535	3535
5°	3561	3519	3530
10°	3582	3533	3540
15°	3560	3549	3532
20°	3553	3534	3528
25°	3568	3528	3513
30°	3534	3501	3524
35°	3506	3497	3473
40°	3476	3439	3434
45°	3449	3375	3406
50°	3411	3314	3350
55°	3291	3217	3254
60°	3173	3052	3119
65°	2965	2800	2868
70°	2679	2460	2570
75°	2190	2005	2073
80°	1570	1406	1468
85°	858	735	756

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3449 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.5	3.4
10°-20°	359.0	9.7
20°-30°	546.3	14.8
30°-40°	662.4	17.9
40°-50°	688.7	18.7
50°-60°	615.5	16.7
60°-70°	443.7	12.0
70°-80°	213.8	5.8
80°-90°	36.6	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°	1029.8	27.9
0°-40°	1692.1	45.9
0°-60°	2996.3	81.2
0°-90°	3690.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3690.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1318	1307	1303	1310	1307	126
15°	1278	1268	1274	1266	1268	362
25°	1202	1183	1188	1182	1183	552
35°	1067	1055	1064	1058	1057	669
45°	906	894	887	891	895	699
55°	702	692	686	684	694	629
65°	466	454	440	443	450	461
75°	211	205	193	195	199	227
85°	28	26	24	24	24	39
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1313.5	1313.5	1313.5	1313.5	1313.5
2.5°	1328.8	1318.2	1301.6	1309.5	1318.8
5°	1318.2	1306.9	1302.9	1309.5	1306.9
7.5°	1320.1	1302.9	1297.6	1304.9	1297.0
10°	1310.9	1295.6	1293.0	1296.3	1295.6
12.5°	1291.0	1287.7	1285.7	1280.4	1303.6
15°	1277.8	1268.5	1273.8	1265.8	1267.8
17.5°	1269.1	1247.3	1253.9	1252.6	1261.2
20°	1240.7	1235.4	1234.0	1230.1	1232.0
22.5°	1224.8	1212.2	1208.2	1206.9	1208.2
25°	1201.6	1183.0	1188.3	1182.4	1183.0
27.5°	1168.5	1147.9	1154.5	1153.9	1163.2
30°	1137.3	1122.1	1126.7	1122.8	1134.0
32.5°	1102.2	1089.0	1091.0	1090.3	1091.6
35°	1067.1	1055.2	1064.5	1057.8	1057.2
37.5°	1038.6	1014.8	1027.4	1020.1	1028.0
40°	989.6	980.3	979.0	974.4	977.7
42.5°	949.2	937.3	935.3	937.9	937.9
45°	906.2	894.2	886.9	890.9	894.9
47.5°	864.4	849.2	839.9	841.9	849.8
50°	814.7	794.9	791.6	794.2	800.2
52.5°	761.1	745.2	740.6	739.9	742.5
55°	701.5	692.2	685.6	683.6	693.5
57.5°	647.8	633.9	626.0	629.3	638.5
60°	589.5	574.3	567.0	569.7	579.6
62.5°	528.6	513.4	502.1	507.4	518.7
65°	465.7	454.4	439.8	443.1	450.4
67.5°	404.7	392.1	376.9	378.9	386.8
70°	340.5	327.2	312.6	316.0	326.6
72.5°	272.9	264.3	251.0	252.4	261.6
75°	210.6	204.7	192.8	194.7	199.4
77.5°	156.3	148.4	139.1	141.1	147.1
80°	101.3	98.7	90.7	92.1	94.7
82.5°	57.6	57.6	54.3	53.0	56.3
85°	27.8	25.8	23.8	24.5	24.5
87.5°	6.6	7.3	6.6	6.0	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)