

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: P688023

Luminaire Tested: FLR-HA-22-L3C3 (LOW)-35-CP375

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688023  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR-HA-22-L3C3 (LOW)-35-CP375  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 3500K Luminaire at Low Lumen setting for High Abuse  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

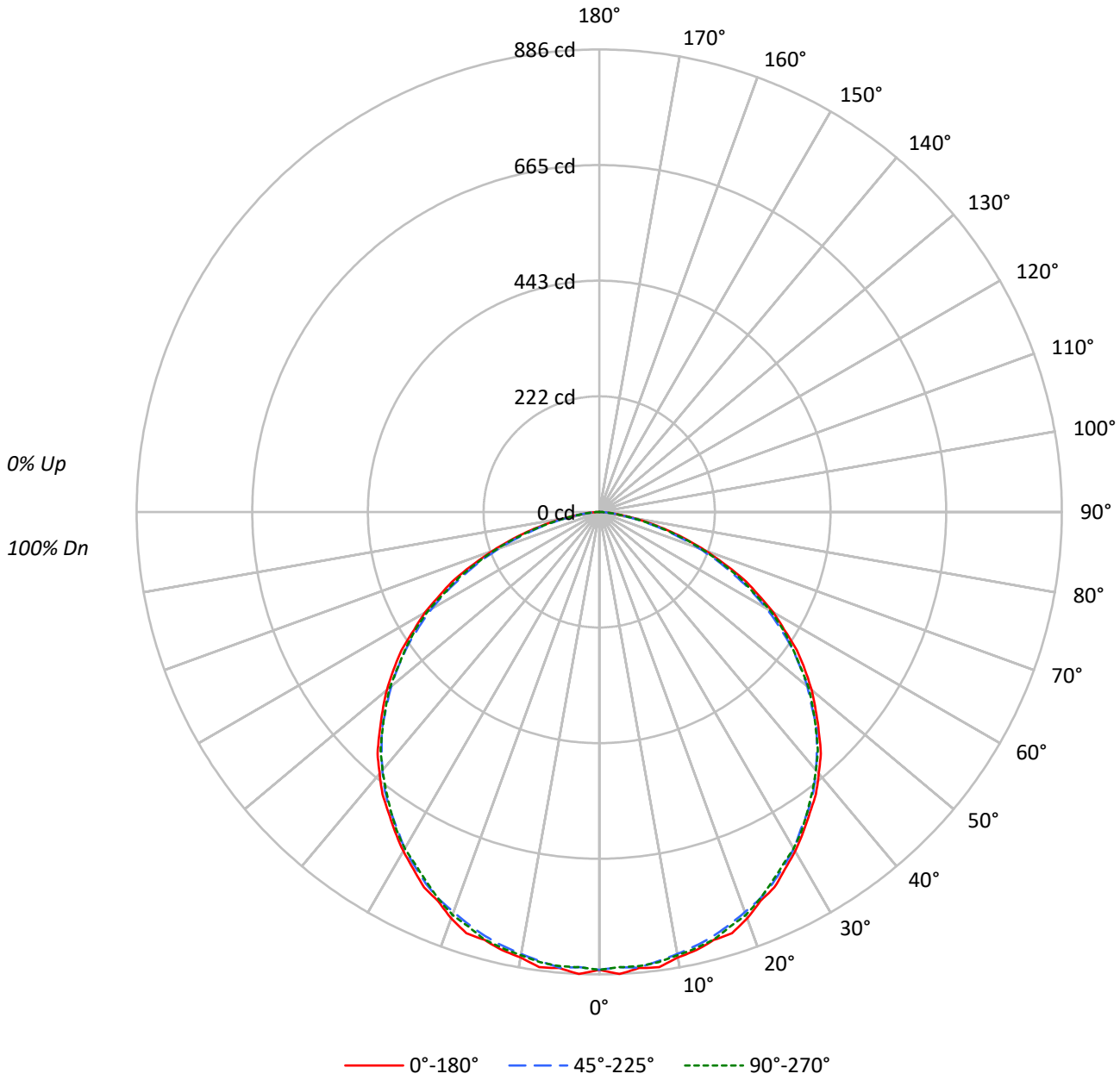
Lumens per Lamp: N/A  
Luminaire Lumens: 2418.1 lumens  
Efficiency: N/A  
Efficacy: 109.9 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 22  
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	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	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	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	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°	2361	2361	2361
5°	2370	2367	2360
10°	2368	2350	2357
15°	2365	2345	2362
20°	2373	2336	2353
25°	2357	2332	2322
30°	2332	2315	2314
35°	2310	2293	2288
40°	2298	2270	2268
45°	2263	2239	2232
50°	2224	2177	2192
55°	2168	2102	2113
60°	2075	1990	2036
65°	1944	1818	1876
70°	1702	1592	1653
75°	1410	1269	1339
80°	998	894	931
85°	503	445	475

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2263 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.0	3.4
10°-20°	238.3	9.9
20°-30°	361.9	15.0
30°-40°	436.7	18.1
40°-50°	452.8	18.7
50°-60°	401.1	16.6
60°-70°	286.3	11.8
70°-80°	135.6	5.6
80°-90°	22.2	0.9
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°	683.3	28.3
0°-40°	1120.0	46.3
0°-60°	1973.9	81.6
0°-90°	2418.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2418.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	877	873	876	870	874	84
15°	849	844	842	847	848	241
25°	794	781	786	786	782	365
35°	703	696	698	695	697	441
45°	595	586	588	586	586	459
55°	462	449	448	446	450	411
65°	305	286	286	288	295	298
75°	136	124	122	125	129	144
85°	16	15	14	14	15	24
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	877.3	877.3	877.3	877.3	877.3
2.5°	886.0	870.6	873.0	874.9	873.0
5°	877.3	873.0	876.4	870.1	873.5
7.5°	879.7	869.1	867.7	865.8	870.1
10°	866.7	860.5	860.0	863.4	862.4
12.5°	860.0	854.7	851.8	852.3	856.2
15°	849.0	844.2	841.7	846.6	848.0
17.5°	846.1	829.2	829.2	830.2	833.1
20°	828.8	817.7	815.8	817.7	821.6
22.5°	806.7	802.8	802.8	804.3	803.3
25°	793.7	780.7	785.5	786.0	782.1
27.5°	771.1	766.3	765.3	763.4	761.9
30°	750.4	742.7	745.1	745.1	744.6
32.5°	727.3	722.0	719.6	720.1	722.5
35°	703.3	696.1	698.0	695.1	696.6
37.5°	681.7	672.1	674.0	672.5	671.1
40°	654.3	646.6	646.1	643.7	645.6
42.5°	628.3	617.2	616.8	617.2	619.7
45°	594.7	586.0	588.4	586.5	586.5
47.5°	562.4	556.7	552.4	552.8	554.8
50°	531.2	520.1	520.1	516.3	523.5
52.5°	496.6	485.5	484.1	485.5	484.6
55°	462.0	449.0	448.0	446.1	450.4
57.5°	420.2	407.7	408.6	409.6	415.8
60°	385.5	368.7	369.7	370.6	378.3
62.5°	342.8	328.8	328.3	329.8	331.7
65°	305.3	285.5	285.5	287.5	294.7
67.5°	257.7	245.6	245.2	247.6	250.5
70°	216.3	202.4	202.4	205.3	210.1
72.5°	175.0	163.4	161.5	165.8	169.2
75°	135.6	124.5	122.1	125.0	128.8
77.5°	97.1	89.9	88.0	90.9	91.8
80°	64.4	58.2	57.7	59.1	60.1
82.5°	37.0	33.2	31.7	33.2	33.7
85°	16.3	14.9	14.4	13.9	15.4
87.5°	3.8	3.8	3.8	3.8	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)