

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: P688384

Luminaire Tested: FLR-HA-22-L3C3 (LOW)-40-CA125

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688384  
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 (LOW)-40-CA125  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at Low Lumen setting for High Abuse  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

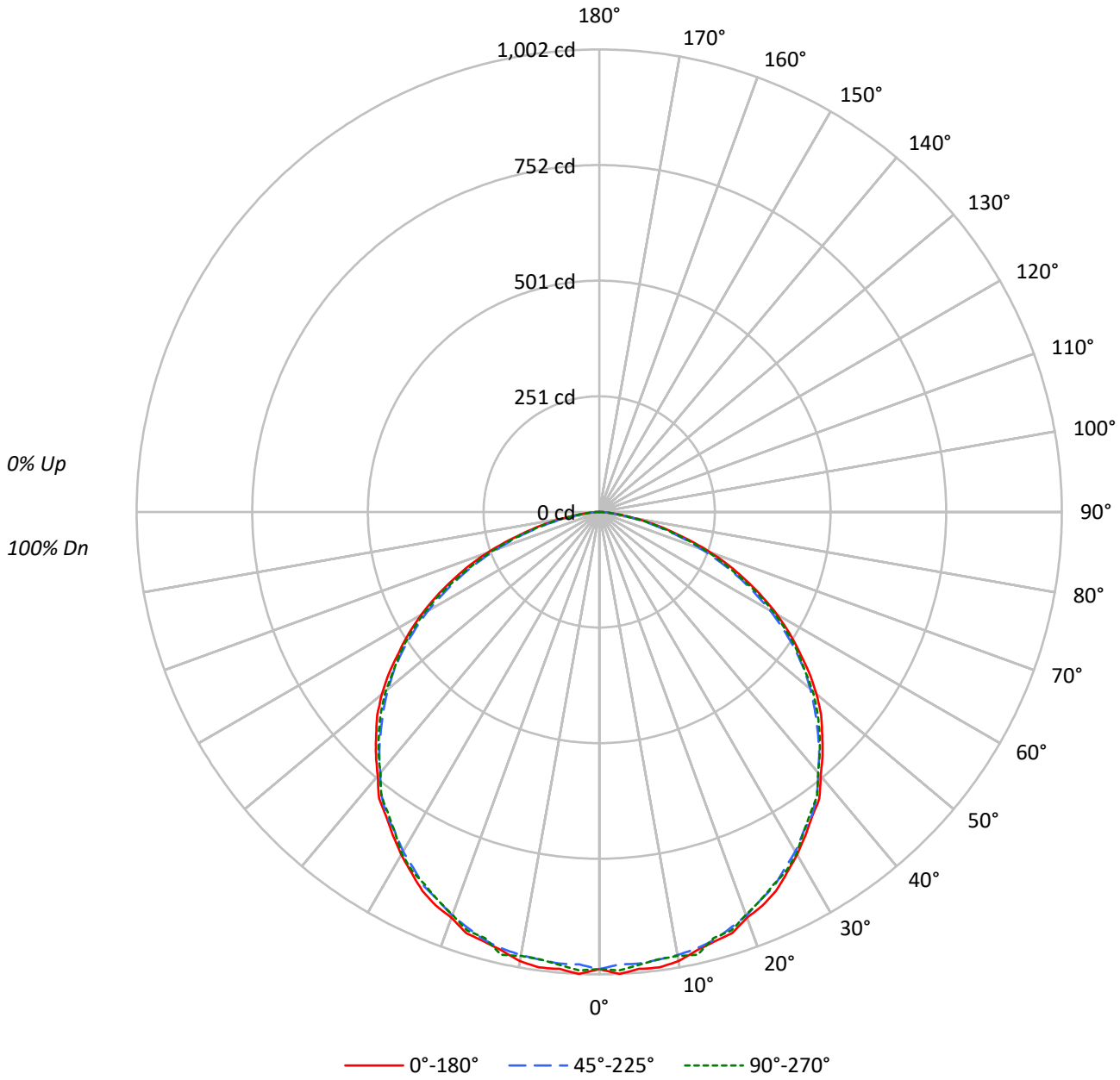
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2782.6 lumens  
Efficiency: N/A  
Efficacy: 130.6 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): 21.3  
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		
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°	2665	2665	2665
5°	2685	2654	2662
10°	2701	2664	2669
15°	2684	2676	2663
20°	2679	2665	2660
25°	2690	2660	2648
30°	2664	2640	2657
35°	2643	2637	2619
40°	2621	2593	2590
45°	2600	2545	2568
50°	2572	2498	2526
55°	2481	2425	2453
60°	2392	2301	2352
65°	2236	2111	2162
70°	2020	1854	1937
75°	1651	1511	1563
80°	1184	1060	1106
85°	648	556	571

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2600 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.9	3.4
10°-20°	270.6	9.7
20°-30°	411.9	14.8
30°-40°	499.4	17.9
40°-50°	519.3	18.7
50°-60°	464.1	16.7
60°-70°	334.6	12.0
70°-80°	161.2	5.8
80°-90°	27.6	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°	776.4	27.9
0°-40°	1275.9	45.9
0°-60°	2259.2	81.2
0°-90°	2782.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2782.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	994	985	982	987	985	95
15°	963	956	960	954	956	273
25°	906	892	896	892	892	416
35°	805	796	803	798	797	505
45°	683	674	669	672	675	527
55°	529	522	517	515	523	474
65°	351	343	332	334	340	348
75°	159	154	145	147	150	171
85°	21	20	18	18	18	29
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	990.4	990.4	990.4	990.4	990.4
2.5°	1001.9	993.9	981.4	987.4	994.4
5°	993.9	985.4	982.4	987.4	985.4
7.5°	995.4	982.4	978.4	983.9	977.9
10°	988.4	976.9	974.9	977.4	976.9
12.5°	973.4	970.9	969.4	965.4	982.9
15°	963.4	956.4	960.4	954.4	955.9
17.5°	956.9	940.5	945.4	944.4	950.9
20°	935.5	931.5	930.5	927.5	929.0
22.5°	923.5	914.0	911.0	910.0	911.0
25°	906.0	892.0	896.0	891.5	892.0
27.5°	881.0	865.5	870.5	870.0	877.0
30°	857.5	846.1	849.6	846.6	855.0
32.5°	831.1	821.1	822.6	822.1	823.1
35°	804.6	795.6	802.6	797.6	797.1
37.5°	783.1	765.1	774.6	769.1	775.1
40°	746.2	739.2	738.2	734.7	737.2
42.5°	715.7	706.7	705.2	707.2	707.2
45°	683.2	674.2	668.8	671.8	674.7
47.5°	651.8	640.3	633.3	634.8	640.8
50°	614.3	599.3	596.8	598.8	603.3
52.5°	573.9	561.9	558.4	557.9	559.9
55°	528.9	521.9	516.9	515.4	522.9
57.5°	488.5	478.0	472.0	474.5	481.5
60°	444.5	433.0	427.5	429.5	437.0
62.5°	398.6	387.1	378.6	382.6	391.1
65°	351.1	342.6	331.6	334.1	339.6
67.5°	305.2	295.7	284.2	285.7	291.7
70°	256.7	246.7	235.7	238.2	246.2
72.5°	205.8	199.3	189.3	190.3	197.3
75°	158.8	154.3	145.3	146.8	150.3
77.5°	117.9	111.9	104.9	106.4	110.9
80°	76.4	74.4	68.4	69.4	71.4
82.5°	43.5	43.5	41.0	40.0	42.5
85°	21.0	19.5	18.0	18.5	18.5
87.5°	5.0	5.5	5.0	4.5	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)