

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: P688205

Luminaire Tested: FLR-HA-22-L3C3 (LOW)-50-CP187

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688205
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-22-L3C3 (LOW)-50-CP187
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 5000K Luminaire at Low Lumen setting for High Abuse
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

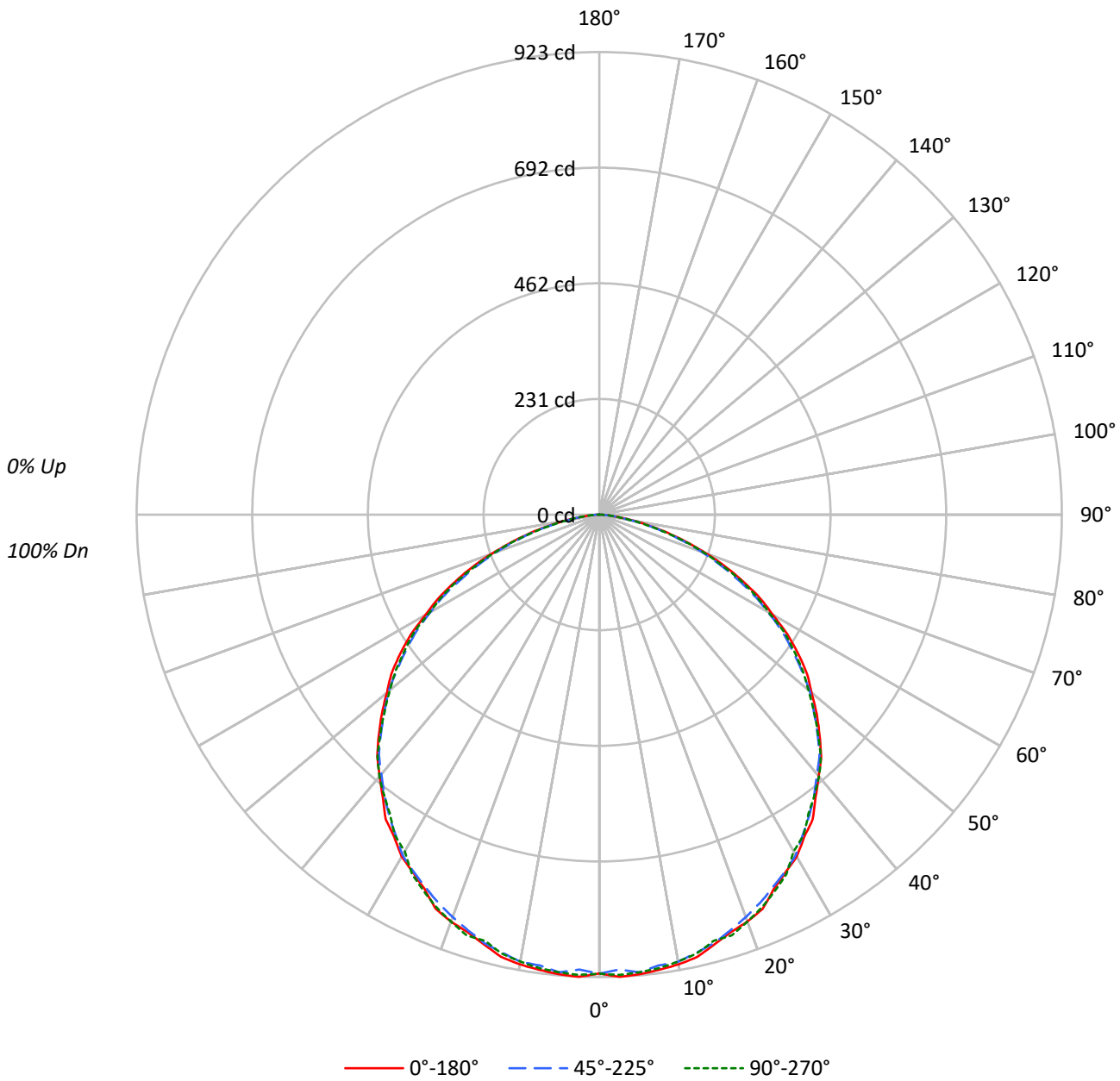
Lumens per Lamp: N/A
Luminaire Lumens: 2542.4 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.9
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	103	99	95	98	95	92	94	92	90	91	89	87	85		
2	100	92	85	79	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	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	57	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°	2465	2465	2465
5°	2487	2477	2477
10°	2491	2476	2475
15°	2474	2466	2454
20°	2475	2448	2476
25°	2448	2436	2461
30°	2449	2438	2411
35°	2439	2403	2392
40°	2394	2375	2397
45°	2366	2342	2349
50°	2314	2298	2281
55°	2276	2203	2223
60°	2150	2092	2103
65°	2023	1926	1985
70°	1791	1707	1760
75°	1476	1410	1405
80°	1054	979	979
85°	513	500	513

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2366 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	3.4
10°-20°	249.5	9.8
20°-30°	379.2	14.9
30°-40°	458.5	18.0
40°-50°	475.1	18.7
50°-60°	422.3	16.6
60°-70°	302.8	11.9
70°-80°	144.1	5.7
80°-90°	23.9	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°	715.8	28.2
0°-40°	1174.2	46.2
0°-60°	2071.6	81.5
0°-90°	2542.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2542.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	916	916	916	916	916	
5°	921	916	917	912	917	88
15°	888	885	885	880	881	251
25°	824	822	820	820	829	382
35°	743	731	731	732	728	462
45°	622	615	615	613	617	479
55°	485	470	470	472	474	431
65°	318	301	302	306	312	314
75°	142	128	136	137	135	151
85°	17	15	16	16	17	25
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	915.9	915.9	915.9	915.9	915.9
2.5°	923.3	918.4	908.6	915.0	919.4
5°	920.8	916.4	916.9	912.5	916.9
7.5°	916.4	912.0	907.6	906.2	913.0
10°	911.5	903.2	906.2	902.7	905.7
12.5°	904.2	897.3	895.4	891.0	897.3
15°	888.0	885.1	885.1	880.2	880.7
17.5°	873.8	868.0	869.9	867.5	880.2
20°	864.1	854.8	854.8	853.3	864.5
22.5°	851.8	841.0	838.6	839.6	848.4
25°	824.4	822.4	820.5	820.0	828.8
27.5°	804.8	799.4	802.9	801.4	808.7
30°	788.2	778.9	784.7	779.4	775.9
32.5°	761.7	758.3	756.8	757.3	758.8
35°	742.6	730.9	731.4	731.9	728.0
37.5°	709.4	710.8	704.5	704.5	705.4
40°	681.5	679.5	676.1	676.1	682.4
42.5°	655.5	646.7	650.6	644.7	654.5
45°	621.7	614.9	615.4	612.9	617.3
47.5°	588.4	582.6	580.6	582.6	580.6
50°	552.7	548.8	548.8	546.8	544.9
52.5°	522.8	509.1	508.2	511.1	511.6
55°	485.1	470.5	469.5	471.9	473.9
57.5°	445.5	428.4	431.8	435.7	438.1
60°	399.5	387.2	388.7	395.1	390.7
62.5°	362.3	345.6	348.1	353.5	353.5
65°	317.7	300.6	302.5	306.5	311.8
67.5°	274.6	256.5	259.5	263.9	265.3
70°	227.6	208.5	216.9	221.3	223.7
72.5°	182.6	167.9	175.3	177.7	179.7
75°	142.0	128.3	135.6	136.6	135.1
77.5°	100.8	91.1	96.9	98.9	97.4
80°	68.0	58.3	63.2	64.6	63.2
82.5°	37.2	34.3	36.2	36.7	35.7
85°	16.6	14.7	16.2	16.2	16.6
87.5°	4.9	4.4	4.4	4.9	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)