

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: P688115

Luminaire Tested: FLR-HA-22-L3C3 (LOW)-50-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688115
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-14)
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-CP250
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

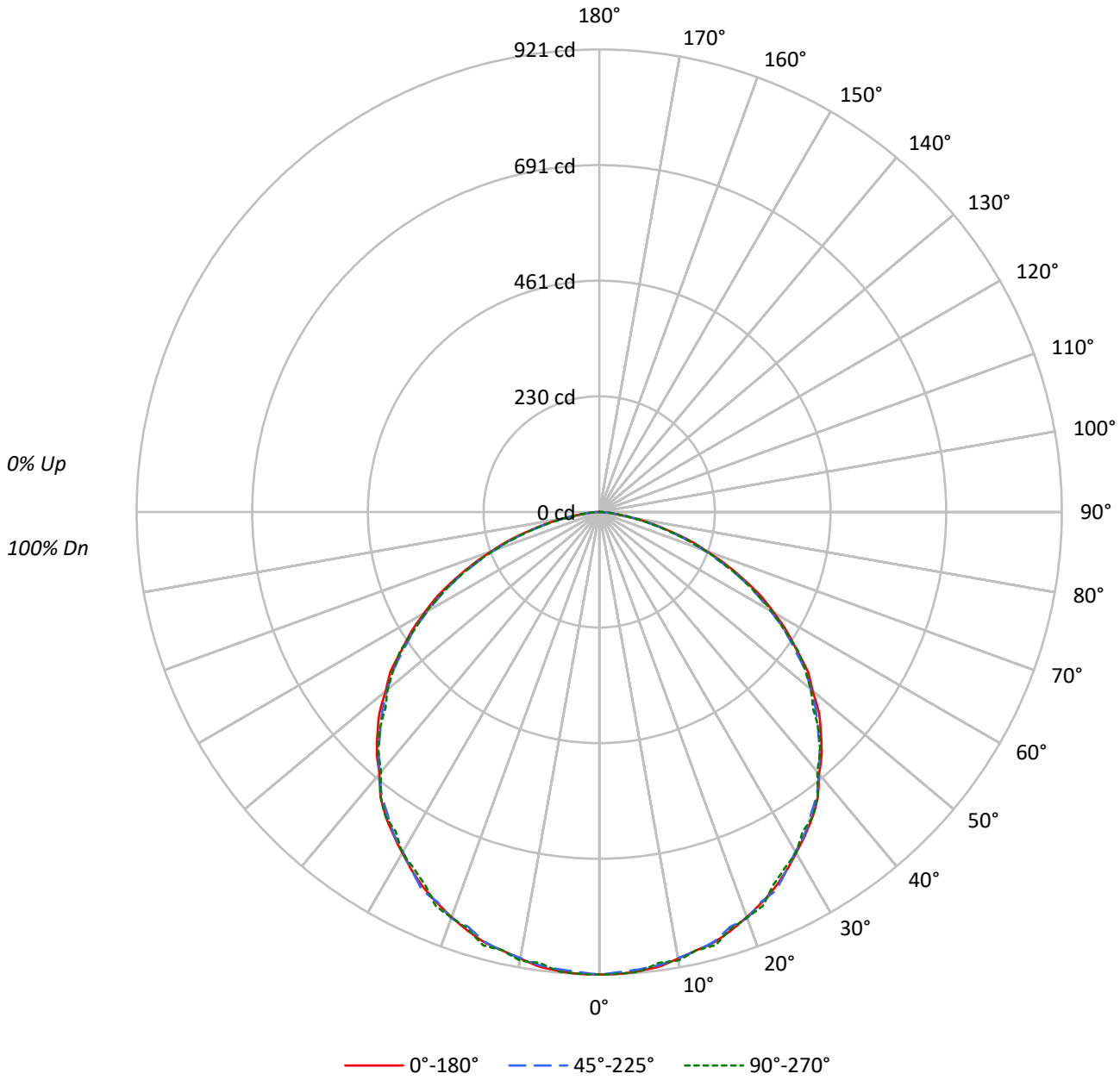
Lumens per Lamp: N/A
Luminaire Lumens: 2553.6 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	102	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	53	51
5	76	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
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°	2479	2479	2479
5°	2479	2470	2482
10°	2468	2465	2479
15°	2471	2467	2489
20°	2460	2466	2462
25°	2453	2471	2433
30°	2437	2428	2435
35°	2435	2414	2435
40°	2392	2390	2373
45°	2375	2345	2357
50°	2322	2303	2301
55°	2255	2223	2269
60°	2163	2116	2139
65°	2017	1973	1976
70°	1787	1737	1756
75°	1471	1415	1435
80°	1032	1009	1024
85°	528	500	500

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2375 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	3.4
10°-20°	249.9	9.8
20°-30°	379.9	14.9
30°-40°	459.5	18.0
40°-50°	476.2	18.6
50°-60°	425.1	16.6
60°-70°	305.2	12.0
70°-80°	146.4	5.7
80°-90°	24.3	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°	716.9	28.1
0°-40°	1176.5	46.1
0°-60°	2077.7	81.4
0°-90°	2553.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2553.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	921	921	921	921	921	
5°	918	921	914	915	919	87
15°	887	888	886	886	893	250
25°	826	824	832	822	820	381
35°	741	735	735	732	741	462
45°	624	620	616	616	619	481
55°	481	475	474	473	484	431
65°	317	307	310	306	310	313
75°	142	132	136	136	138	153
85°	17	16	16	16	16	25
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	921.3	921.3	921.3	921.3	921.3
2.5°	920.8	921.8	917.4	916.4	920.8
5°	917.9	920.8	914.4	914.9	918.8
7.5°	913.5	911.5	910.5	913.9	906.1
10°	903.2	907.6	902.2	899.8	907.1
12.5°	894.4	894.9	895.3	896.3	893.9
15°	887.0	888.0	885.6	885.6	893.4
17.5°	873.8	875.8	866.5	872.3	870.4
20°	859.1	857.2	861.1	859.6	859.6
22.5°	843.0	843.0	841.0	842.0	849.8
25°	826.3	824.4	832.2	821.9	819.5
27.5°	806.3	804.3	806.3	800.9	799.9
30°	784.2	779.3	781.3	781.8	783.7
32.5°	762.7	757.8	761.2	757.8	754.4
35°	741.1	735.3	734.8	731.8	741.1
37.5°	715.2	708.8	711.3	702.0	714.7
40°	680.9	677.0	680.4	677.5	675.5
42.5°	655.5	651.1	649.6	647.6	650.6
45°	624.1	619.7	616.3	615.8	619.3
47.5°	593.8	582.5	585.5	581.1	577.2
50°	554.6	551.7	550.2	545.8	549.7
52.5°	524.3	513.5	516.0	512.0	516.5
55°	480.7	475.3	473.9	472.9	483.7
57.5°	443.0	436.2	437.1	434.7	436.2
60°	401.9	395.5	393.1	392.6	397.5
62.5°	363.2	350.0	352.0	351.5	353.9
65°	316.7	307.4	309.9	305.5	310.4
67.5°	272.2	262.9	263.9	262.9	265.3
70°	227.1	216.9	220.8	218.8	223.2
72.5°	188.0	175.7	179.2	175.7	179.7
75°	141.5	132.2	136.1	136.1	138.0
77.5°	104.3	95.9	98.9	97.9	99.9
80°	66.6	63.1	65.1	63.6	66.1
82.5°	38.2	35.7	35.7	36.7	37.2
85°	17.1	16.2	16.2	16.2	16.2
87.5°	4.4	4.4	4.4	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)