

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: P687845

Luminaire Tested: FLR-HA-22-L3C3 (LOW)-50-CA08

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P687845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2303-938-1)
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-CA08
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

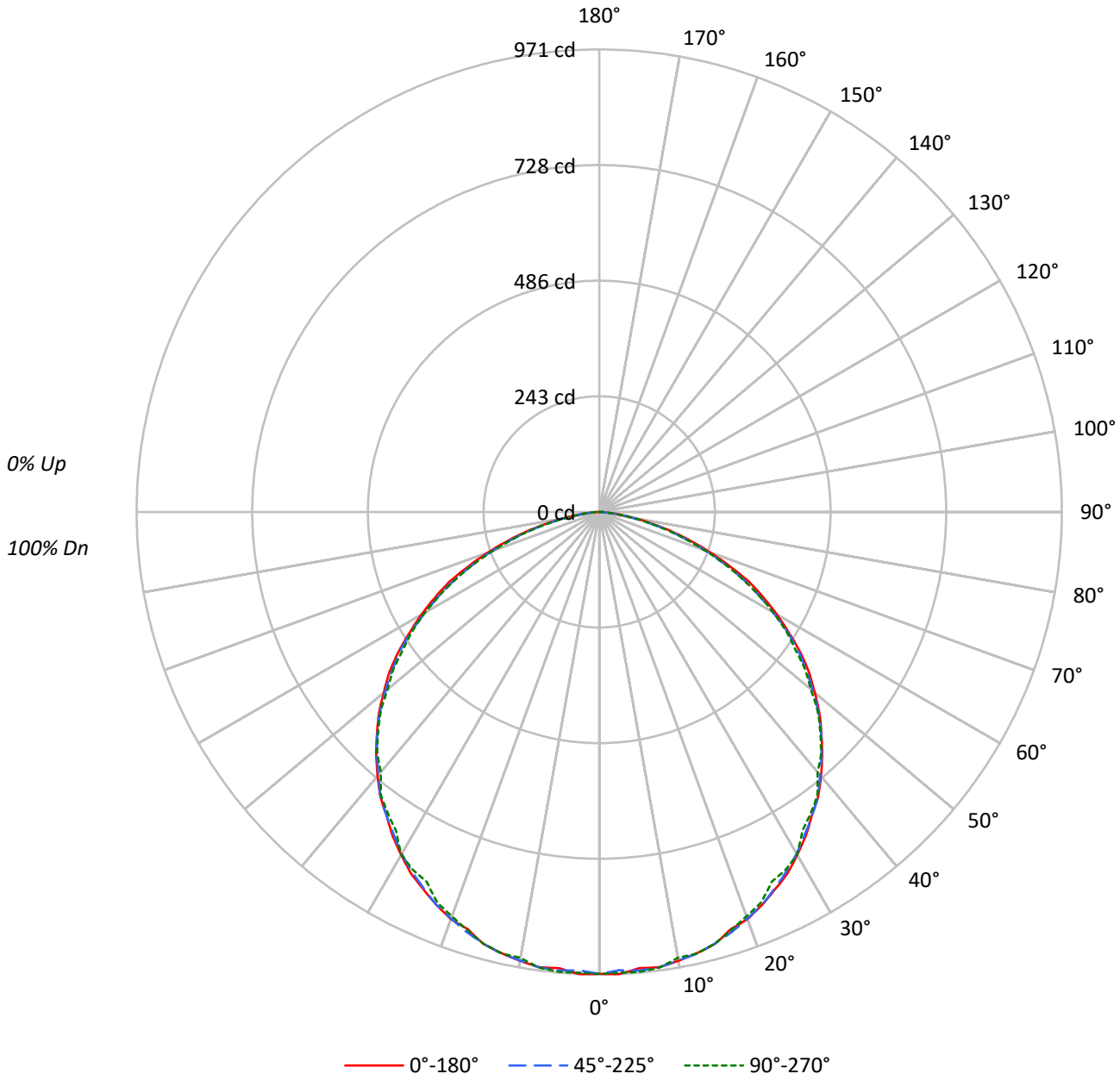
Lumens per Lamp: N/A
Luminaire Lumens: 2724.5 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	89	91	89	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2610	2610	2610
5°	2598	2611	2619
10°	2616	2613	2598
15°	2616	2613	2615
20°	2605	2602	2588
25°	2595	2589	2544
30°	2583	2576	2582
35°	2556	2557	2540
40°	2544	2532	2504
45°	2512	2508	2499
50°	2472	2454	2427
55°	2421	2398	2352
60°	2316	2266	2266
65°	2210	2120	2098
70°	1946	1869	1845
75°	1624	1543	1557
80°	1161	1093	1085
85°	605	559	590

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 2517 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.9	3.4
10°-20°	264.3	9.7
20°-30°	402.1	14.8
30°-40°	487.2	17.9
40°-50°	507.3	18.6
50°-60°	454.2	16.7
60°-70°	329.8	12.1
70°-80°	160.1	5.9
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°	758.3	27.8
0°-40°	1245.5	45.7
0°-60°	2207.0	81.0
0°-90°	2724.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2724.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	962	968	966	964	969	92
15°	939	937	938	931	939	264
25°	874	876	872	870	857	403
35°	778	782	778	781	773	488
45°	660	662	659	656	657	509
55°	516	512	511	505	501	459
65°	347	338	333	332	330	339
75°	156	153	148	149	150	166
85°	20	20	18	18	19	29
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	969.9	969.9	969.9	969.9	969.9
2.5°	971.4	970.9	963.1	966.5	968.5
5°	961.6	967.5	966.5	964.5	969.4
7.5°	964.1	961.6	964.5	964.1	965.0
10°	957.2	954.8	956.2	956.7	950.8
12.5°	948.9	947.4	949.9	951.8	949.4
15°	939.1	937.1	938.1	931.2	938.6
17.5°	918.5	923.4	924.9	921.0	920.5
20°	909.7	908.2	908.7	907.3	903.8
22.5°	893.1	898.9	893.1	890.1	887.7
25°	874.0	875.9	872.0	870.5	856.8
27.5°	855.8	855.4	851.0	851.0	847.0
30°	831.4	827.9	828.9	825.0	830.9
32.5°	806.9	807.4	803.0	804.4	793.7
35°	778.0	782.4	778.5	780.9	773.1
37.5°	754.5	751.6	754.5	750.6	752.0
40°	724.1	723.2	720.7	721.7	712.9
42.5°	692.8	691.3	690.8	688.9	689.4
45°	660.0	661.5	659.0	655.6	656.6
47.5°	627.2	628.7	624.3	619.9	622.8
50°	590.5	591.5	586.1	584.6	579.7
52.5°	555.7	551.3	548.4	545.9	545.4
55°	516.1	512.1	511.2	505.3	501.4
57.5°	472.0	471.0	468.1	463.7	465.6
60°	430.4	426.5	421.1	420.1	421.1
62.5°	387.8	383.4	376.5	378.5	376.5
65°	347.1	337.8	332.9	332.0	329.5
67.5°	295.2	288.4	284.5	283.0	284.0
70°	247.3	246.8	237.5	236.0	234.5
72.5°	200.7	196.8	191.4	191.0	190.5
75°	156.2	152.8	148.4	148.8	149.8
77.5°	112.6	109.2	105.3	106.7	104.8
80°	74.9	73.9	70.5	70.0	70.0
82.5°	44.6	42.6	40.6	40.6	41.1
85°	19.6	20.1	18.1	18.1	19.1
87.5°	4.9	5.4	4.9	4.9	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)