

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: P688127

Luminaire Tested: FLR-HA-24-L3C3 (HI)-50-CP250

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688127  
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-24-L3C3 (HI)-50-CP250  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 5000K Luminaire at High Lumen setting for High Abuse  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

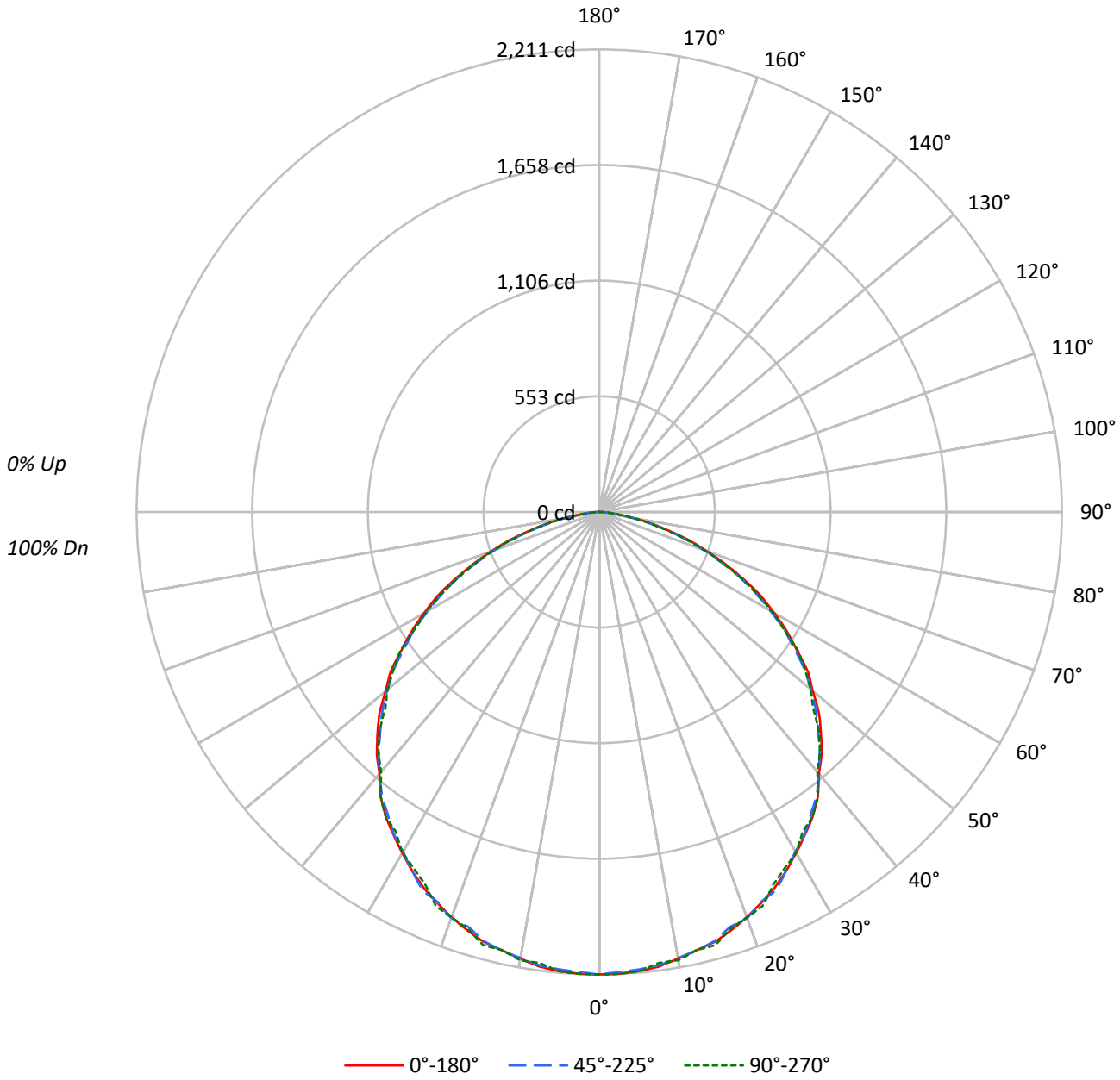
Lumens per Lamp: N/A  
Luminaire Lumens: 6128.7 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 52.8  
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°	2975	2975	2975
5°	2975	2964	2978
10°	2961	2958	2974
15°	2965	2960	2987
20°	2952	2959	2954
25°	2944	2965	2920
30°	2924	2913	2922
35°	2922	2897	2922
40°	2870	2868	2848
45°	2850	2815	2828
50°	2786	2764	2762
55°	2706	2668	2723
60°	2596	2539	2567
65°	2420	2368	2372
70°	2144	2085	2107
75°	1765	1698	1722
80°	1238	1211	1229
85°	634	599	599

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2850 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.0	3.4
10°-20°	599.8	9.8
20°-30°	911.9	14.9
30°-40°	1102.8	18.0
40°-50°	1142.8	18.6
50°-60°	1020.1	16.6
60°-70°	732.6	12.0
70°-80°	351.3	5.7
80°-90°	58.4	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°	1720.7	28.1
0°-40°	2823.5	46.1
0°-60°	4986.4	81.4
0°-90°	6128.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6128.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2211	2211	2211	2211	2211	
5°	2203	2210	2195	2196	2205	209
15°	2129	2131	2125	2125	2144	600
25°	1983	1978	1997	1973	1967	913
35°	1779	1765	1764	1756	1779	1110
45°	1498	1487	1479	1478	1486	1154
55°	1154	1141	1137	1135	1161	1034
65°	760	738	744	733	745	752
75°	340	317	327	327	331	367
85°	41	39	39	39	39	61
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2211.1	2211.1	2211.1	2211.1	2211.1
2.5°	2209.9	2212.3	2201.7	2199.4	2209.9
5°	2202.9	2209.9	2194.7	2195.8	2205.2
7.5°	2192.3	2187.6	2185.3	2193.5	2174.7
10°	2167.6	2178.2	2165.3	2159.4	2177.0
12.5°	2146.5	2147.7	2148.8	2151.2	2145.3
15°	2128.9	2131.2	2125.3	2125.3	2144.1
17.5°	2097.1	2101.8	2079.5	2093.6	2088.9
20°	2061.9	2057.2	2066.6	2063.1	2063.1
22.5°	2023.1	2023.1	2018.4	2020.8	2039.6
25°	1983.2	1978.5	1997.3	1972.6	1966.7
27.5°	1935.0	1930.3	1935.0	1922.1	1919.7
30°	1882.1	1870.4	1875.1	1876.3	1881.0
32.5°	1830.4	1818.7	1826.9	1818.7	1810.5
35°	1778.7	1764.7	1763.5	1756.4	1778.7
37.5°	1716.5	1701.2	1707.1	1684.8	1715.3
40°	1634.2	1624.8	1633.1	1626.0	1621.3
42.5°	1573.1	1562.6	1559.0	1554.3	1561.4
45°	1498.0	1487.4	1479.2	1478.0	1486.2
47.5°	1425.1	1398.1	1405.1	1394.6	1385.2
50°	1331.1	1324.1	1320.6	1310.0	1319.4
52.5°	1258.3	1232.4	1238.3	1228.9	1239.5
55°	1153.7	1140.8	1137.3	1134.9	1160.8
57.5°	1063.3	1046.8	1049.2	1043.3	1046.8
60°	964.6	949.3	943.4	942.2	954.0
62.5°	871.8	840.0	844.7	843.6	849.4
65°	760.1	737.8	743.7	733.1	744.9
67.5°	653.2	630.9	633.3	630.9	636.8
70°	545.1	520.5	529.9	525.2	535.7
72.5°	451.1	421.8	430.0	421.8	431.2
75°	339.5	317.2	326.6	326.6	331.3
77.5°	250.2	230.3	237.3	235.0	239.7
80°	159.8	151.6	156.3	152.7	158.6
82.5°	91.6	85.8	85.8	88.1	89.3
85°	41.1	38.8	38.8	38.8	38.8
87.5°	10.6	10.6	10.6	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)