

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: P688396

Luminaire Tested: FLR-HA-24-L3C3 (HI)-40-CA125

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688396  
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-24-L3C3 (HI)-40-CA125  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 4000K Luminaire at High Lumen setting for High Abuse  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

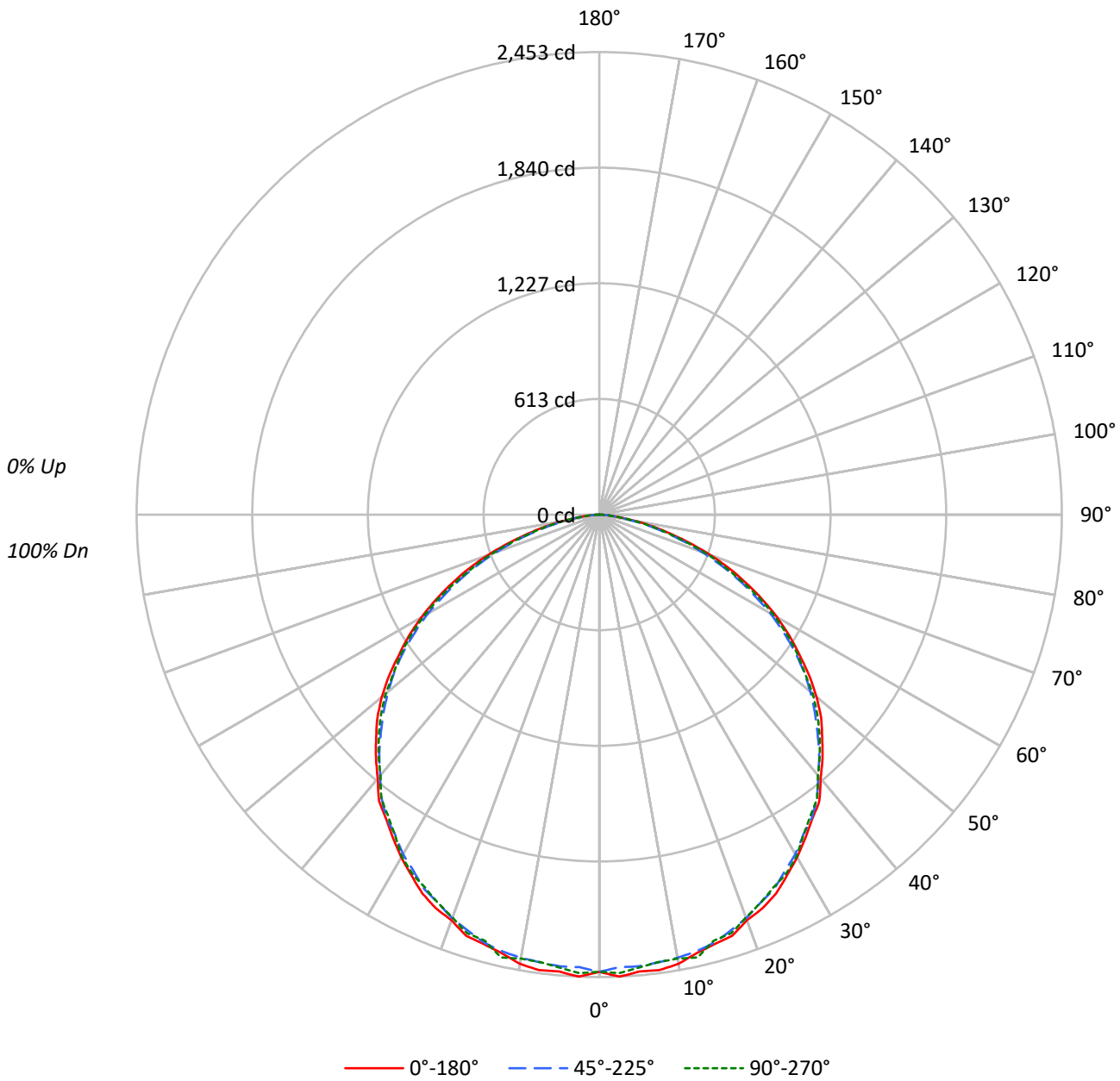
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6811.6 lumens  
Efficiency: N/A  
Efficacy: 134.4 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 50.7  
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	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°	3262	3262	3262
5°	3286	3248	3258
10°	3306	3261	3267
15°	3285	3275	3260
20°	3279	3261	3256
25°	3293	3256	3242
30°	3262	3231	3252
35°	3235	3227	3205
40°	3208	3174	3170
45°	3183	3115	3143
50°	3148	3058	3091
55°	3037	2968	3003
60°	2928	2816	2879
65°	2736	2585	2647
70°	2472	2270	2371
75°	2021	1850	1913
80°	1450	1298	1354
85°	794	679	698

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3183 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	229.9	3.4
10°-20°	662.5	9.7
20°-30°	1008.3	14.8
30°-40°	1222.6	17.9
40°-50°	1271.1	18.7
50°-60°	1136.0	16.7
60°-70°	819.0	12.0
70°-80°	394.6	5.8
80°-90°	67.5	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°	1900.7	27.9
0°-40°	3123.3	45.9
0°-60°	5530.4	81.2
0°-90°	6811.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6811.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2424	2424	2424	2424	2424	
5°	2433	2412	2405	2417	2412	232
15°	2358	2341	2351	2336	2340	667
25°	2218	2184	2193	2182	2184	1019
35°	1970	1948	1965	1952	1951	1235
45°	1673	1651	1637	1644	1652	1291
55°	1295	1278	1265	1262	1280	1161
65°	860	839	812	818	831	851
75°	389	378	356	360	368	418
85°	51	48	44	45	45	72
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2424.5	2424.5	2424.5	2424.5	2424.5
2.5°	2452.6	2433.0	2402.5	2417.1	2434.3
5°	2433.0	2412.3	2404.9	2417.1	2412.3
7.5°	2436.7	2404.9	2395.1	2408.6	2393.9
10°	2419.6	2391.5	2386.6	2392.7	2391.5
12.5°	2382.9	2376.8	2373.1	2363.3	2406.1
15°	2358.5	2341.3	2351.1	2336.4	2340.1
17.5°	2342.6	2302.2	2314.4	2312.0	2327.9
20°	2290.0	2280.2	2277.8	2270.4	2274.1
22.5°	2260.6	2237.4	2230.1	2227.6	2230.1
25°	2217.9	2183.6	2193.4	2182.4	2183.6
27.5°	2156.7	2118.8	2131.0	2129.8	2146.9
30°	2099.3	2071.1	2079.7	2072.4	2093.1
32.5°	2034.5	2010.0	2013.7	2012.5	2014.9
35°	1969.7	1947.7	1964.8	1952.5	1951.3
37.5°	1917.1	1873.1	1896.3	1882.9	1897.5
40°	1826.6	1809.5	1807.0	1798.5	1804.6
42.5°	1752.0	1730.0	1726.4	1731.2	1731.2
45°	1672.6	1650.6	1637.1	1644.4	1651.8
47.5°	1595.5	1567.4	1550.3	1554.0	1568.6
50°	1503.8	1467.2	1461.0	1465.9	1476.9
52.5°	1404.8	1375.5	1366.9	1365.7	1370.6
55°	1294.8	1277.6	1265.4	1261.8	1280.1
57.5°	1195.7	1170.1	1155.4	1161.5	1178.6
60°	1088.1	1060.0	1046.6	1051.5	1069.8
62.5°	975.7	947.5	926.8	936.5	957.3
65°	859.5	838.7	811.8	817.9	831.4
67.5°	747.0	723.8	695.7	699.3	714.0
70°	628.4	604.0	577.1	583.2	602.8
72.5°	503.7	487.8	463.4	465.8	482.9
75°	388.8	377.8	355.8	359.5	368.0
77.5°	288.5	273.9	256.8	260.4	271.4
80°	187.1	182.2	167.5	169.9	174.8
82.5°	106.4	106.4	100.3	97.8	103.9
85°	51.4	47.7	44.0	45.2	45.2
87.5°	12.2	13.4	12.2	11.0	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)