

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: P688397

Luminaire Tested: FLR-HA-24-L3C3 (HI)-50-CA125

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688397  
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)-50-CA125  
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: -

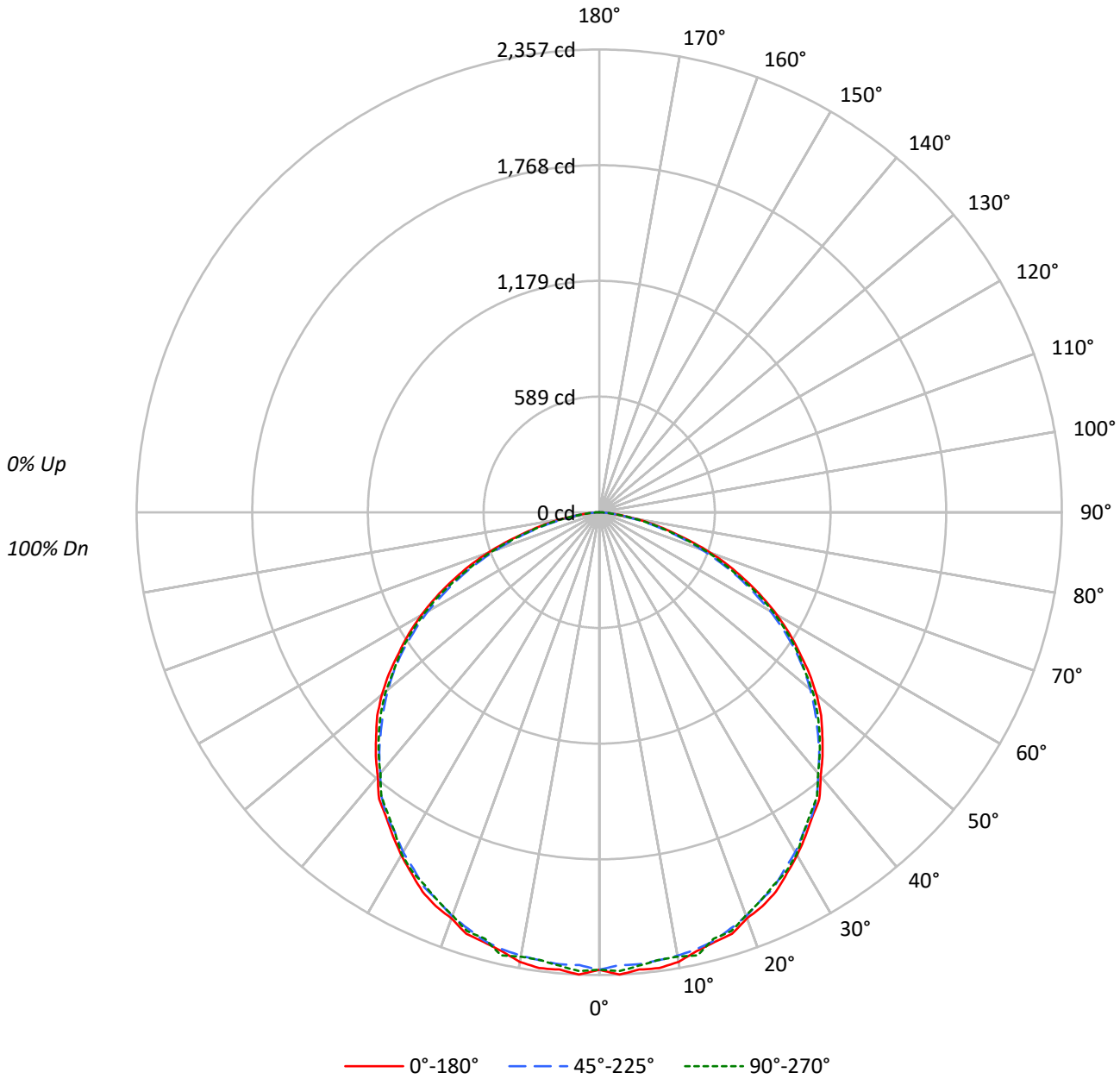
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6545.8 lumens  
Efficiency: N/A  
Efficacy: 124.0 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): 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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	90	91	89	87	85	85	85
2	100	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71	71	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60	60	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51	51	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44	44	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39	39	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34	34	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30	30	30
9	57	43	35	30	55	43	35	30	42	35	29	41	34	29	40	34	29	27	27	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25	25	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3135	3135	3135
5°	3158	3121	3131
10°	3177	3133	3140
15°	3157	3147	3132
20°	3151	3134	3129
25°	3164	3129	3115
30°	3134	3105	3125
35°	3109	3101	3080
40°	3083	3050	3046
45°	3058	2993	3020
50°	3025	2939	2971
55°	2919	2852	2886
60°	2814	2706	2766
65°	2630	2484	2543
70°	2376	2182	2279
75°	1942	1777	1838
80°	1393	1247	1302
85°	761	653	672

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3058 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.9	3.4
10°-20°	636.7	9.7
20°-30°	968.9	14.8
30°-40°	1174.9	17.9
40°-50°	1221.5	18.7
50°-60°	1091.7	16.7
60°-70°	787.1	12.0
70°-80°	379.2	5.8
80°-90°	64.9	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°	1826.5	27.9
0°-40°	3001.4	45.9
0°-60°	5314.6	81.2
0°-90°	6545.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6545.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2330	2330	2330	2330	2330	
5°	2338	2318	2311	2323	2318	223
15°	2266	2250	2259	2245	2249	641
25°	2131	2098	2108	2097	2098	979
35°	1893	1872	1888	1876	1875	1187
45°	1607	1586	1573	1580	1587	1241
55°	1244	1228	1216	1212	1230	1115
65°	826	806	780	786	799	818
75°	374	363	342	345	354	402
85°	49	46	42	44	44	69
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2329.9	2329.9	2329.9	2329.9	2329.9
2.5°	2356.9	2338.1	2308.7	2322.8	2339.3
5°	2338.1	2318.1	2311.1	2322.8	2318.1
7.5°	2341.6	2311.1	2301.7	2314.6	2300.5
10°	2325.2	2298.1	2293.4	2299.3	2298.1
12.5°	2289.9	2284.0	2280.5	2271.1	2312.2
15°	2266.4	2250.0	2259.4	2245.3	2248.8
17.5°	2251.1	2212.4	2224.1	2221.8	2237.0
20°	2200.6	2191.2	2188.9	2181.8	2185.3
22.5°	2172.4	2150.1	2143.0	2140.7	2143.0
25°	2131.3	2098.4	2107.8	2097.2	2098.4
27.5°	2072.5	2036.1	2047.9	2046.7	2063.1
30°	2017.3	1990.3	1998.5	1991.5	2011.5
32.5°	1955.1	1931.6	1935.1	1933.9	1936.3
35°	1892.8	1871.6	1888.1	1876.3	1875.2
37.5°	1842.3	1800.0	1822.3	1809.4	1823.5
40°	1755.3	1738.9	1736.5	1728.3	1734.2
42.5°	1683.7	1662.5	1659.0	1663.7	1663.7
45°	1607.3	1586.1	1573.2	1580.3	1587.3
47.5°	1533.3	1506.2	1489.8	1493.3	1507.4
50°	1445.1	1409.9	1404.0	1408.7	1419.3
52.5°	1350.0	1321.8	1313.6	1312.4	1317.1
55°	1244.2	1227.8	1216.0	1212.5	1230.1
57.5°	1149.1	1124.4	1110.3	1116.2	1132.6
60°	1045.7	1018.7	1005.7	1010.4	1028.0
62.5°	937.6	910.6	890.6	900.0	920.0
65°	826.0	806.0	780.1	786.0	798.9
67.5°	717.9	695.5	668.5	672.1	686.1
70°	603.9	580.4	554.6	560.4	579.2
72.5°	484.1	468.8	445.3	447.6	464.1
75°	373.6	363.0	341.9	345.4	353.6
77.5°	277.3	263.2	246.7	250.3	260.8
80°	179.8	175.1	161.0	163.3	168.0
82.5°	102.2	102.2	96.3	94.0	99.9
85°	49.3	45.8	42.3	43.5	43.5
87.5°	11.7	12.9	11.7	10.6	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)