

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: P688126

Luminaire Tested: FLR-HA-24-L3C3 (HI)-40-CP250

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688126  
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)-40-CP250  
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: -

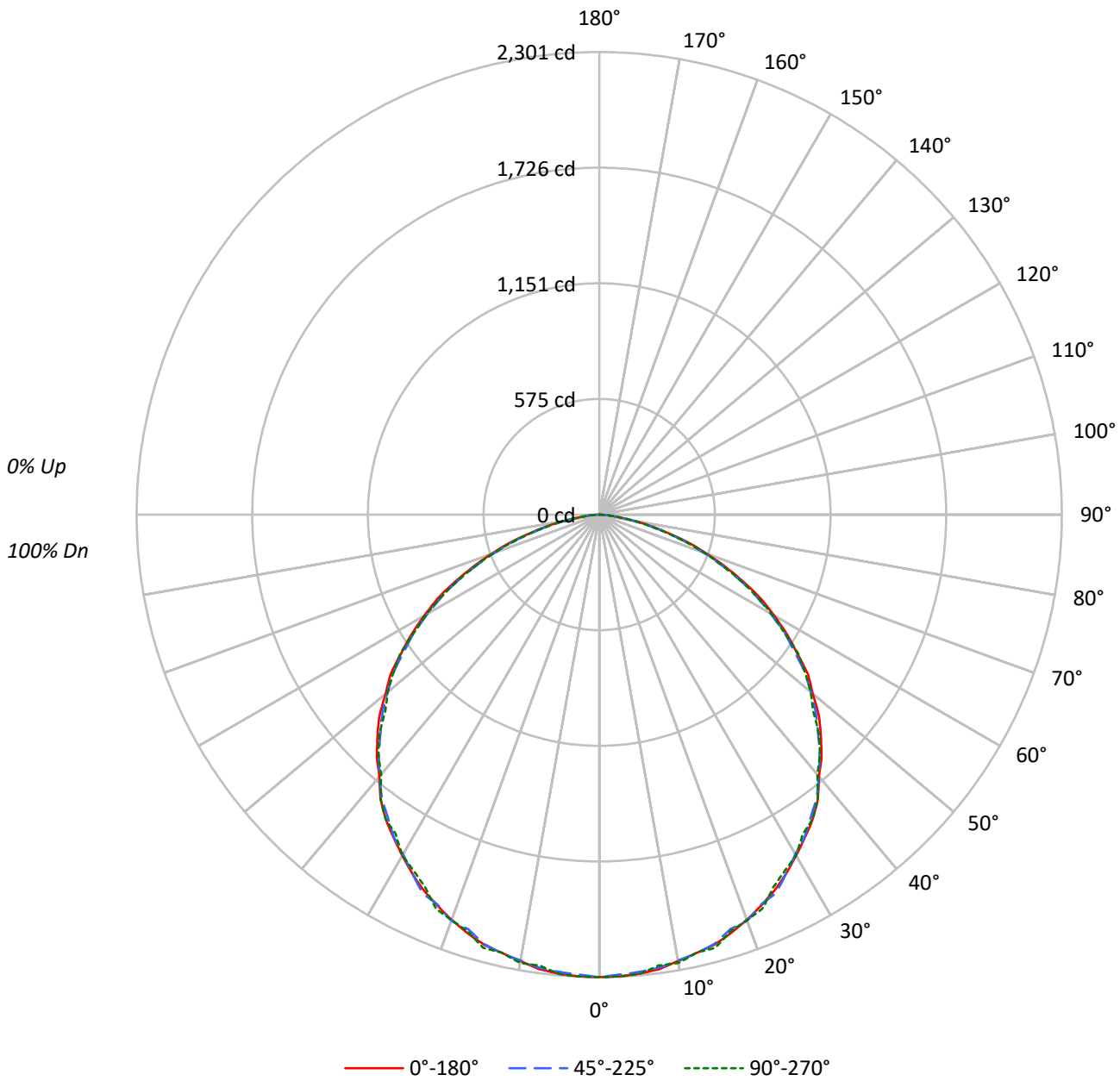
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6377.6 lumens  
Efficiency: N/A  
Efficacy: 125.8 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): 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	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°	3096	3096	3096
5°	3096	3085	3099
10°	3082	3078	3095
15°	3086	3081	3108
20°	3072	3079	3074
25°	3064	3086	3038
30°	3043	3031	3041
35°	3040	3014	3040
40°	2987	2985	2963
45°	2966	2929	2943
50°	2900	2876	2874
55°	2816	2776	2833
60°	2701	2642	2671
65°	2518	2464	2468
70°	2232	2169	2193
75°	1837	1767	1792
80°	1289	1260	1278
85°	661	622	622

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2966 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	217.5	3.4
10°-20°	624.1	9.8
20°-30°	948.9	14.9
30°-40°	1147.6	18.0
40°-50°	1189.2	18.6
50°-60°	1061.6	16.6
60°-70°	762.3	12.0
70°-80°	365.6	5.7
80°-90°	60.7	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°	1790.5	28.1
0°-40°	2938.2	46.1
0°-60°	5188.9	81.4
0°-90°	6377.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6377.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2301	2301	2301	2301	2301	
5°	2292	2300	2284	2285	2295	218
15°	2215	2218	2212	2212	2231	624
25°	2064	2059	2078	2053	2047	950
35°	1851	1836	1835	1828	1851	1155
45°	1559	1548	1539	1538	1547	1201
55°	1201	1187	1184	1181	1208	1076
65°	791	768	774	763	775	782
75°	353	330	340	340	345	382
85°	43	40	40	40	40	63
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2300.9	2300.9	2300.9	2300.9	2300.9
2.5°	2299.7	2302.1	2291.1	2288.7	2299.7
5°	2292.3	2299.7	2283.8	2285.0	2294.8
7.5°	2281.3	2276.4	2274.0	2282.6	2263.0
10°	2255.7	2266.7	2253.2	2247.1	2265.4
12.5°	2233.7	2234.9	2236.1	2238.5	2232.4
15°	2215.3	2217.8	2211.7	2211.7	2231.2
17.5°	2182.3	2187.2	2164.0	2178.6	2173.8
20°	2145.6	2140.7	2150.5	2146.9	2146.9
22.5°	2105.3	2105.3	2100.4	2102.8	2122.4
25°	2063.7	2058.8	2078.4	2052.7	2046.6
27.5°	2013.6	2008.7	2013.6	2000.1	1997.7
30°	1958.6	1946.4	1951.2	1952.5	1957.4
32.5°	1904.8	1892.6	1901.1	1892.6	1884.0
35°	1851.0	1836.3	1835.1	1827.8	1851.0
37.5°	1786.2	1770.3	1776.4	1753.2	1785.0
40°	1700.6	1690.8	1699.4	1692.1	1687.2
42.5°	1637.0	1626.0	1622.4	1617.5	1624.8
45°	1558.8	1547.8	1539.2	1538.0	1546.6
47.5°	1483.0	1454.9	1462.2	1451.2	1441.4
50°	1385.2	1377.9	1374.2	1363.2	1373.0
52.5°	1309.4	1282.5	1288.6	1278.8	1289.8
55°	1200.6	1187.1	1183.5	1181.0	1207.9
57.5°	1106.4	1089.3	1091.8	1085.7	1089.3
60°	1003.7	987.8	981.7	980.5	992.7
62.5°	907.2	874.1	879.0	877.8	883.9
65°	791.0	767.8	773.9	762.9	775.1
67.5°	679.8	656.5	659.0	656.5	662.6
70°	567.3	541.6	551.4	546.5	557.5
72.5°	469.5	438.9	447.5	438.9	448.7
75°	353.3	330.1	339.9	339.9	344.8
77.5°	260.4	239.6	247.0	244.5	249.4
80°	166.3	157.7	162.6	158.9	165.0
82.5°	95.4	89.2	89.2	91.7	92.9
85°	42.8	40.3	40.3	40.3	40.3
87.5°	11.0	11.0	11.0	11.0	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)