

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: P688215

Luminaire Tested: FLR-HA-24-L3C3 (HI)-35-CP187

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688215
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-24-L3C3 (HI)-35-CP187
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 3500K Luminaire at High Lumen setting for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

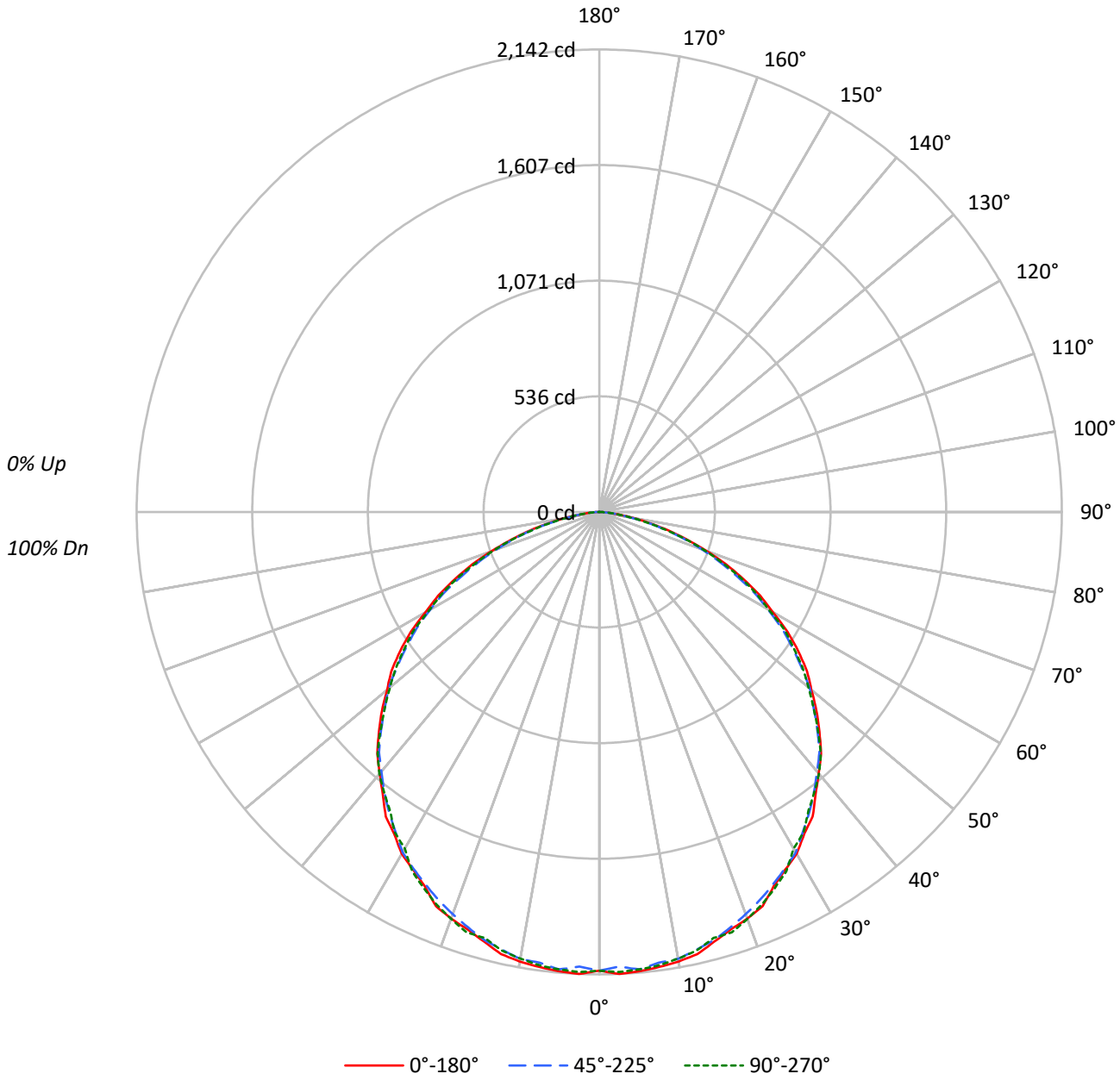
Lumens per Lamp: N/A
Luminaire Lumens: 5897.9 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	102	100	
1	109	105	101	97	107	103	99	95	98	95	92	94	92	90	91	89	87	85	85	
2	100	92	85	79	97	90	84	79	86	81	77	83	79	75	80	76	73	71	71	
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60	60	
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51	51	
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44	44	
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39	39	
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	33	31	31	
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	28	28	
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25	25	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2859	2859	2859
5°	2885	2873	2873
10°	2889	2872	2870
15°	2870	2860	2846
20°	2870	2839	2872
25°	2839	2826	2854
30°	2841	2828	2797
35°	2830	2787	2774
40°	2777	2755	2781
45°	2744	2716	2725
50°	2684	2665	2646
55°	2640	2555	2579
60°	2494	2426	2439
65°	2347	2235	2303
70°	2078	1979	2042
75°	1712	1635	1629
80°	1223	1135	1135
85°	596	579	596

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2744 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.8	3.4
10°-20°	578.9	9.8
20°-30°	879.8	14.9
30°-40°	1063.5	18.0
40°-50°	1102.1	18.7
50°-60°	979.6	16.6
60°-70°	702.4	11.9
70°-80°	334.4	5.7
80°-90°	55.4	0.9
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°	1660.5	28.2
0°-40°	2724.1	46.2
0°-60°	4805.7	81.5
0°-90°	5897.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5897.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2125	2125	2125	2125	2125	
5°	2136	2126	2127	2117	2127	203
15°	2060	2053	2053	2042	2043	582
25°	1912	1908	1903	1902	1923	885
35°	1723	1696	1697	1698	1689	1071
45°	1442	1426	1428	1422	1432	1112
55°	1126	1091	1089	1095	1099	1001
65°	737	697	702	711	723	728
75°	329	298	315	317	313	350
85°	39	34	38	38	39	59
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2124.9	2124.9	2124.9	2124.9	2124.9
2.5°	2141.9	2130.5	2107.8	2122.6	2132.8
5°	2136.2	2126.0	2127.1	2116.9	2127.1
7.5°	2126.0	2115.8	2105.6	2102.1	2118.0
10°	2114.6	2095.3	2102.1	2094.2	2101.0
12.5°	2097.6	2081.7	2077.2	2066.9	2081.7
15°	2060.1	2053.3	2053.3	2042.0	2043.1
17.5°	2027.2	2013.6	2018.1	2012.4	2042.0
20°	2004.5	1982.9	1982.9	1979.5	2005.6
22.5°	1976.1	1951.1	1945.4	1947.7	1968.1
25°	1912.5	1907.9	1903.4	1902.3	1922.7
27.5°	1867.1	1854.6	1862.5	1859.1	1876.1
30°	1828.4	1806.9	1820.5	1808.0	1800.1
32.5°	1767.1	1759.2	1755.8	1756.9	1760.3
35°	1722.8	1695.6	1696.7	1697.8	1688.8
37.5°	1645.6	1649.0	1634.2	1634.2	1636.5
40°	1580.9	1576.3	1568.4	1568.4	1583.1
42.5°	1520.7	1500.2	1509.3	1495.7	1518.4
45°	1442.3	1426.4	1427.6	1421.9	1432.1
47.5°	1365.1	1351.5	1346.9	1351.5	1346.9
50°	1282.2	1273.1	1273.1	1268.6	1264.0
52.5°	1212.9	1181.1	1178.8	1185.7	1186.8
55°	1125.5	1091.4	1089.1	1094.8	1099.3
57.5°	1033.5	993.7	1001.7	1010.8	1016.4
60°	926.7	898.3	901.7	916.5	906.3
62.5°	840.4	801.8	807.5	820.0	820.0
65°	737.1	697.3	701.9	710.9	723.4
67.5°	637.1	595.1	601.9	612.1	615.5
70°	528.1	483.8	503.1	513.3	519.0
72.5°	423.6	389.5	406.6	412.3	416.8
75°	329.3	297.5	314.6	316.9	313.4
77.5°	234.0	211.2	224.9	229.4	226.0
80°	157.9	135.1	146.5	149.9	146.5
82.5°	86.3	79.5	84.0	85.2	82.9
85°	38.6	34.1	37.5	37.5	38.6
87.5°	11.4	10.2	10.2	11.4	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)