

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: P687863

Luminaire Tested: FLR-HA-24-L3C3 (MED)-50-CA08

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P687863
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2303-938-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-24-L3C3 (MED)-50-CA08
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 5000K Luminaire at Medium Lumen setting for High Abuse
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

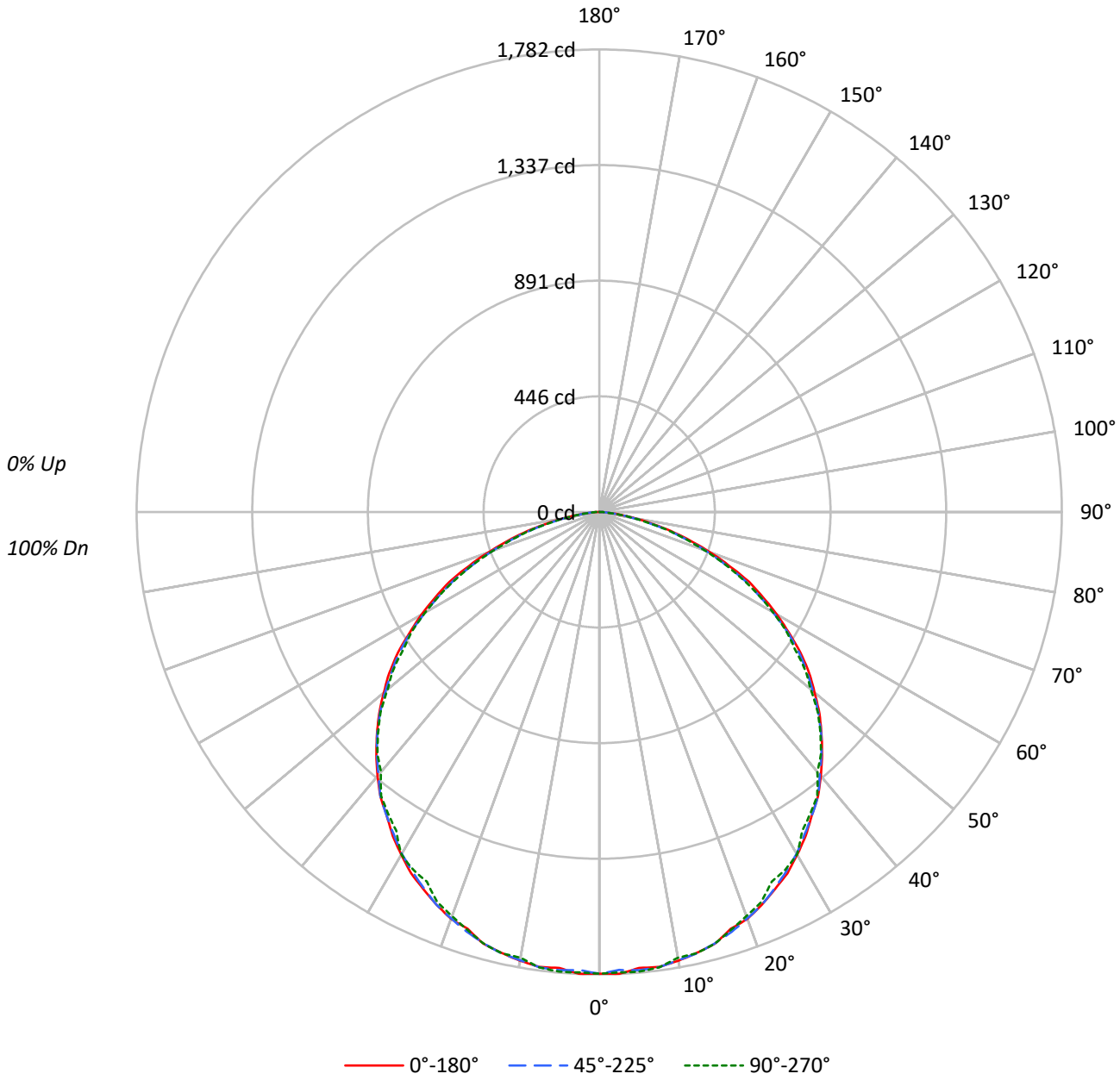
Lumens per Lamp: N/A
Luminaire Lumens: 4997.5 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 39.7
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	89	91	89	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2394	2394	2394
5°	2382	2394	2402
10°	2399	2396	2383
15°	2400	2397	2398
20°	2389	2387	2374
25°	2380	2375	2333
30°	2369	2362	2368
35°	2344	2346	2329
40°	2333	2322	2297
45°	2304	2300	2292
50°	2267	2250	2226
55°	2221	2199	2157
60°	2124	2079	2079
65°	2027	1944	1924
70°	1784	1714	1692
75°	1489	1415	1429
80°	1065	1002	995
85°	554	513	540

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 2309 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.6	3.4
10°-20°	484.8	9.7
20°-30°	737.6	14.8
30°-40°	893.6	17.9
40°-50°	930.5	18.6
50°-60°	833.2	16.7
60°-70°	604.9	12.1
70°-80°	293.7	5.9
80°-90°	50.6	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°	1391.0	27.8
0°-40°	2284.6	45.7
0°-60°	4048.3	81.0
0°-90°	4997.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4997.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1779	1779	1779	1779	1779	
5°	1764	1775	1773	1769	1778	169
15°	1723	1719	1721	1708	1722	485
25°	1603	1607	1600	1597	1572	740
35°	1427	1435	1428	1432	1418	896
45°	1211	1213	1209	1203	1204	934
55°	947	939	938	927	920	843
65°	637	620	611	609	604	621
75°	286	280	272	273	275	305
85°	36	37	33	33	35	53
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1779.1	1779.1	1779.1	1779.1	1779.1
2.5°	1781.8	1780.9	1766.6	1772.8	1776.4
5°	1763.9	1774.6	1772.8	1769.3	1778.2
7.5°	1768.4	1763.9	1769.3	1768.4	1770.2
10°	1755.8	1751.3	1754.0	1754.9	1744.1
12.5°	1740.5	1737.8	1742.3	1745.9	1741.4
15°	1722.6	1719.0	1720.8	1708.2	1721.7
17.5°	1684.8	1693.8	1696.5	1689.3	1688.4
20°	1668.7	1666.0	1666.9	1664.2	1657.9
22.5°	1638.1	1648.9	1638.1	1632.7	1628.3
25°	1603.1	1606.7	1599.5	1596.8	1571.7
27.5°	1569.9	1569.0	1560.9	1560.9	1553.7
30°	1525.0	1518.7	1520.5	1513.3	1524.1
32.5°	1480.1	1481.0	1472.9	1475.6	1455.8
35°	1427.1	1435.2	1428.0	1432.5	1418.1
37.5°	1384.0	1378.6	1384.0	1376.8	1379.5
40°	1328.3	1326.5	1322.0	1323.8	1307.6
42.5°	1270.8	1268.1	1267.2	1263.6	1264.5
45°	1210.6	1213.3	1208.8	1202.6	1204.4
47.5°	1150.5	1153.2	1145.1	1137.0	1142.4
50°	1083.1	1084.9	1075.0	1072.3	1063.4
52.5°	1019.3	1011.3	1005.9	1001.4	1000.5
55°	946.6	939.4	937.6	926.8	919.7
57.5°	865.8	864.0	858.6	850.5	854.1
60°	789.4	782.2	772.4	770.6	772.4
62.5°	711.3	703.2	690.6	694.2	690.6
65°	636.8	619.7	610.7	608.9	604.4
67.5°	541.6	529.0	521.8	519.1	520.9
70°	453.5	452.6	435.6	432.9	430.2
72.5°	368.2	361.0	351.2	350.3	349.4
75°	286.5	280.2	272.1	273.0	274.8
77.5°	206.6	200.3	193.1	195.8	192.2
80°	137.4	135.6	129.3	128.4	128.4
82.5°	81.7	78.1	74.5	74.5	75.4
85°	35.9	36.8	33.2	33.2	35.0
87.5°	9.0	9.9	9.0	9.0	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)