

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: P688223

Luminaire Tested: FLR-HA-24-L3C3 (MED)-50-CP187

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688223
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 (MED)-50-CP187
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

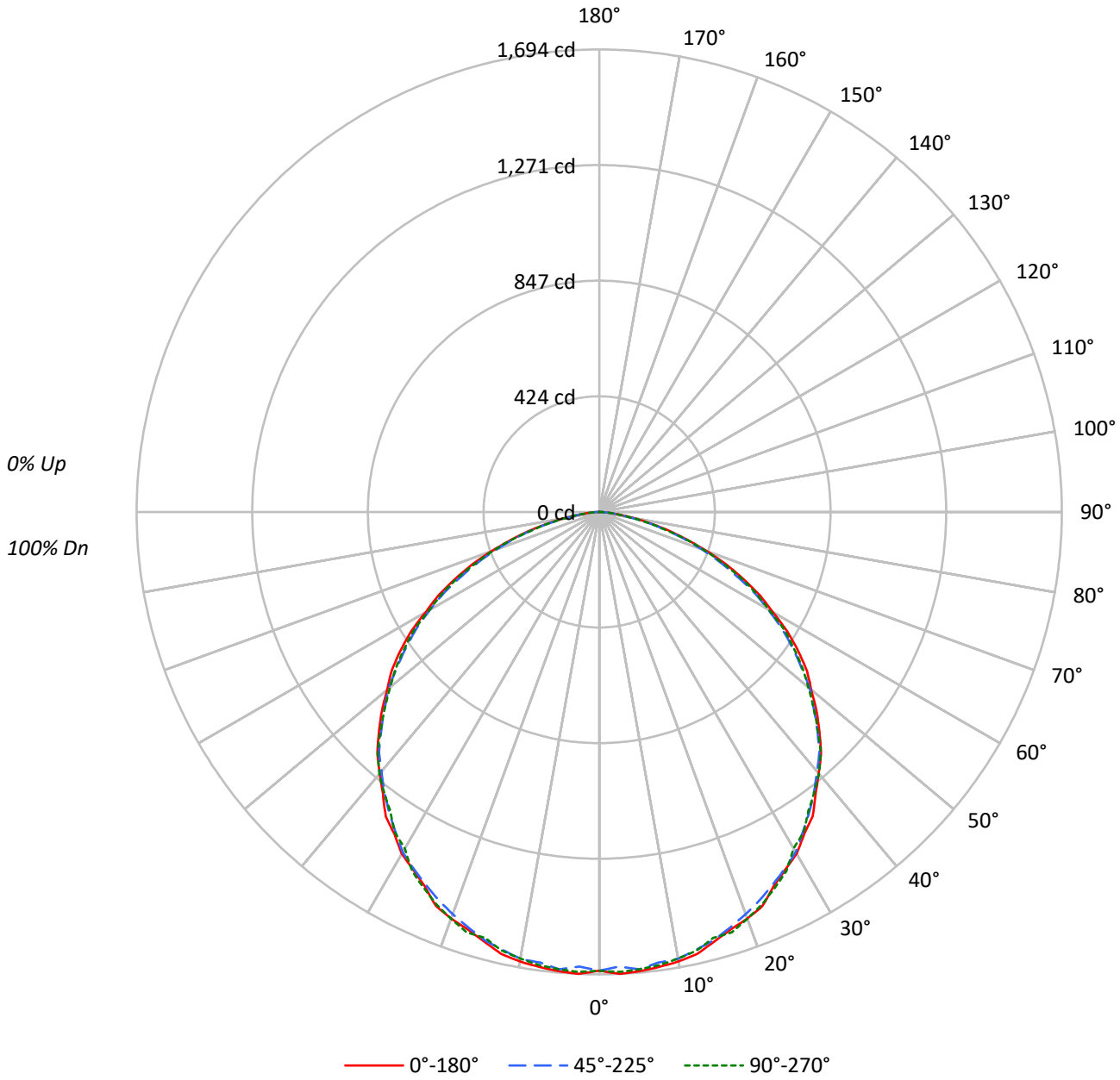
Lumens per Lamp: N/A
Luminaire Lumens: 4663.4 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	50	30	10
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	103	99	95	98	95	92	94	92	90	91	89	87	85		
2	100	92	85	79	97	90	84	79	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	54	51		
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44		
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39		
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34		
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	33	31		
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	28		
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°	2261	2261	2261
5°	2281	2272	2272
10°	2284	2271	2270
15°	2269	2261	2250
20°	2269	2245	2271
25°	2245	2234	2257
30°	2246	2236	2211
35°	2237	2204	2193
40°	2196	2178	2199
45°	2170	2148	2155
50°	2122	2107	2092
55°	2088	2020	2039
60°	1972	1919	1928
65°	1855	1767	1821
70°	1643	1565	1614
75°	1354	1293	1288
80°	967	897	897
85°	471	457	471

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2170 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.6	3.4
10°-20°	457.7	9.8
20°-30°	695.6	14.9
30°-40°	840.9	18.0
40°-50°	871.4	18.7
50°-60°	774.5	16.6
60°-70°	555.4	11.9
70°-80°	264.4	5.7
80°-90°	43.8	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°	1313.0	28.2
0°-40°	2153.9	46.2
0°-60°	3799.8	81.5
0°-90°	4663.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4663.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1680	1680	1680	1680	1680	
5°	1689	1681	1682	1674	1682	161
15°	1629	1624	1624	1615	1616	461
25°	1512	1509	1505	1504	1520	700
35°	1362	1341	1342	1342	1335	847
45°	1140	1128	1129	1124	1132	879
55°	890	863	861	866	869	791
65°	583	551	555	562	572	575
75°	260	235	249	250	248	277
85°	30	27	30	30	30	46
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1680.1	1680.1	1680.1	1680.1	1680.1
2.5°	1693.6	1684.6	1666.6	1678.3	1686.4
5°	1689.1	1681.0	1681.9	1673.8	1681.9
7.5°	1681.0	1672.9	1664.8	1662.2	1674.7
10°	1672.0	1656.8	1662.2	1655.9	1661.3
12.5°	1658.6	1646.0	1642.4	1634.3	1646.0
15°	1628.9	1623.5	1623.5	1614.6	1615.5
17.5°	1602.9	1592.1	1595.7	1591.2	1614.6
20°	1584.9	1567.9	1567.9	1565.2	1585.8
22.5°	1562.5	1542.7	1538.2	1540.0	1556.2
25°	1512.2	1508.6	1505.0	1504.1	1520.3
27.5°	1476.3	1466.4	1472.7	1470.0	1483.5
30°	1445.7	1428.7	1439.5	1429.6	1423.3
32.5°	1397.3	1391.0	1388.3	1389.2	1391.9
35°	1362.2	1340.7	1341.6	1342.5	1335.3
37.5°	1301.2	1303.9	1292.2	1292.2	1294.0
40°	1250.0	1246.4	1240.1	1240.1	1251.8
42.5°	1202.4	1186.2	1193.4	1182.6	1200.6
45°	1140.4	1127.9	1128.8	1124.3	1132.3
47.5°	1079.4	1068.6	1065.0	1068.6	1065.0
50°	1013.8	1006.6	1006.6	1003.0	999.4
52.5°	959.0	933.9	932.1	937.5	938.4
55°	889.9	863.0	861.2	865.6	869.2
57.5°	817.2	785.7	792.0	799.2	803.7
60°	732.7	710.3	713.0	724.7	716.6
62.5°	664.5	634.0	638.5	648.3	648.3
65°	582.8	551.4	554.9	562.1	572.0
67.5°	503.8	470.5	475.9	484.0	486.7
70°	417.6	382.5	397.8	405.9	410.4
72.5°	334.9	308.0	321.5	326.0	329.6
75°	260.4	235.3	248.7	250.5	247.8
77.5°	185.0	167.0	177.8	181.4	178.7
80°	124.8	106.9	115.8	118.5	115.8
82.5°	68.2	62.9	66.5	67.3	65.6
85°	30.5	26.9	29.6	29.6	30.5
87.5°	9.0	8.1	8.1	9.0	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)