

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: P688122

Luminaire Tested: FLR-HA-24-55-35-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688122
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-24-55-35-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 3500K Luminaire for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

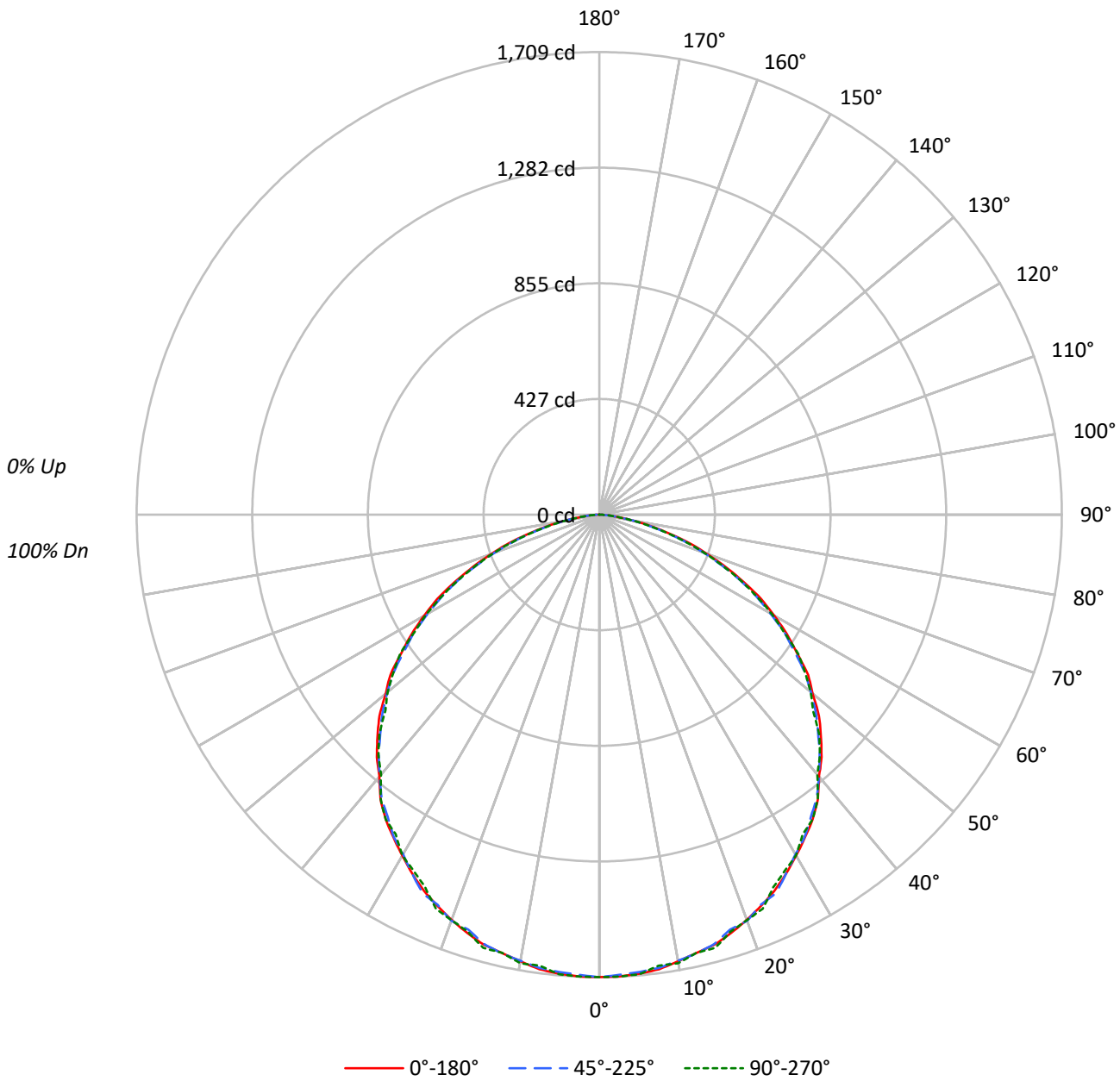
Lumens per Lamp: N/A
Luminaire Lumens: 4737.6 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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	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°	2300	2300	2300
5°	2300	2291	2302
10°	2289	2287	2299
15°	2292	2288	2309
20°	2282	2287	2283
25°	2276	2292	2257
30°	2260	2252	2259
35°	2258	2239	2258
40°	2219	2217	2201
45°	2203	2176	2186
50°	2154	2137	2135
55°	2092	2062	2105
60°	2006	1963	1984
65°	1871	1830	1833
70°	1658	1611	1629
75°	1365	1313	1331
80°	957	936	950
85°	491	463	463

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2203 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.6	3.4
10°-20°	463.6	9.8
20°-30°	704.9	14.9
30°-40°	852.5	18.0
40°-50°	883.4	18.6
50°-60°	788.6	16.6
60°-70°	566.3	12.0
70°-80°	271.6	5.7
80°-90°	45.1	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°	1330.1	28.1
0°-40°	2182.6	46.1
0°-60°	3854.6	81.4
0°-90°	4737.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4737.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1709	1709	1709	1709	1709	
5°	1703	1708	1696	1697	1705	162
15°	1646	1648	1643	1643	1657	464
25°	1533	1529	1544	1525	1520	706
35°	1375	1364	1363	1358	1375	858
45°	1158	1150	1143	1142	1149	892
55°	892	882	879	877	897	799
65°	588	570	575	567	576	581
75°	262	245	252	252	256	284
85°	32	30	30	30	30	47
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1709.2	1709.2	1709.2	1709.2	1709.2
2.5°	1708.3	1710.1	1701.9	1700.1	1708.3
5°	1702.9	1708.3	1696.5	1697.4	1704.7
7.5°	1694.7	1691.0	1689.2	1695.6	1681.1
10°	1675.6	1683.8	1673.8	1669.3	1682.9
12.5°	1659.3	1660.2	1661.1	1662.9	1658.4
15°	1645.6	1647.5	1642.9	1642.9	1657.4
17.5°	1621.1	1624.8	1607.5	1618.4	1614.8
20°	1593.9	1590.2	1597.5	1594.8	1594.8
22.5°	1563.9	1563.9	1560.3	1562.1	1576.6
25°	1533.0	1529.4	1543.9	1524.9	1520.3
27.5°	1495.8	1492.2	1495.8	1485.8	1484.0
30°	1454.9	1445.8	1449.5	1450.4	1454.0
32.5°	1415.0	1405.9	1412.2	1405.9	1399.5
35°	1375.0	1364.1	1363.2	1357.7	1375.0
37.5°	1326.9	1315.1	1319.6	1302.3	1326.0
40°	1263.3	1256.0	1262.4	1256.9	1253.3
42.5°	1216.1	1207.9	1205.2	1201.5	1207.0
45°	1157.9	1149.8	1143.4	1142.5	1148.9
47.5°	1101.6	1080.7	1086.2	1078.0	1070.8
50°	1029.0	1023.5	1020.8	1012.6	1019.9
52.5°	972.7	952.7	957.2	950.0	958.1
55°	891.8	881.9	879.1	877.3	897.3
57.5°	821.9	809.2	811.0	806.5	809.2
60°	745.6	733.8	729.3	728.4	737.4
62.5°	673.9	649.4	653.0	652.1	656.6
65°	587.6	570.3	574.9	566.7	575.8
67.5°	505.0	487.7	489.5	487.7	492.2
70°	421.4	402.3	409.6	406.0	414.1
72.5°	348.7	326.0	332.4	326.0	333.3
75°	262.5	245.2	252.5	252.5	256.1
77.5°	193.4	178.0	183.5	181.6	185.3
80°	123.5	117.2	120.8	118.1	122.6
82.5°	70.8	66.3	66.3	68.1	69.0
85°	31.8	30.0	30.0	30.0	30.0
87.5°	8.2	8.2	8.2	8.2	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)