

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: P688401

Luminaire Tested: FLR-HA-24-L3C3 (MED)-35-CA125

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688401
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2303-938-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-24-L3C3 (MED)-35-CA125
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 3500K Luminaire at Medium Lumen setting for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

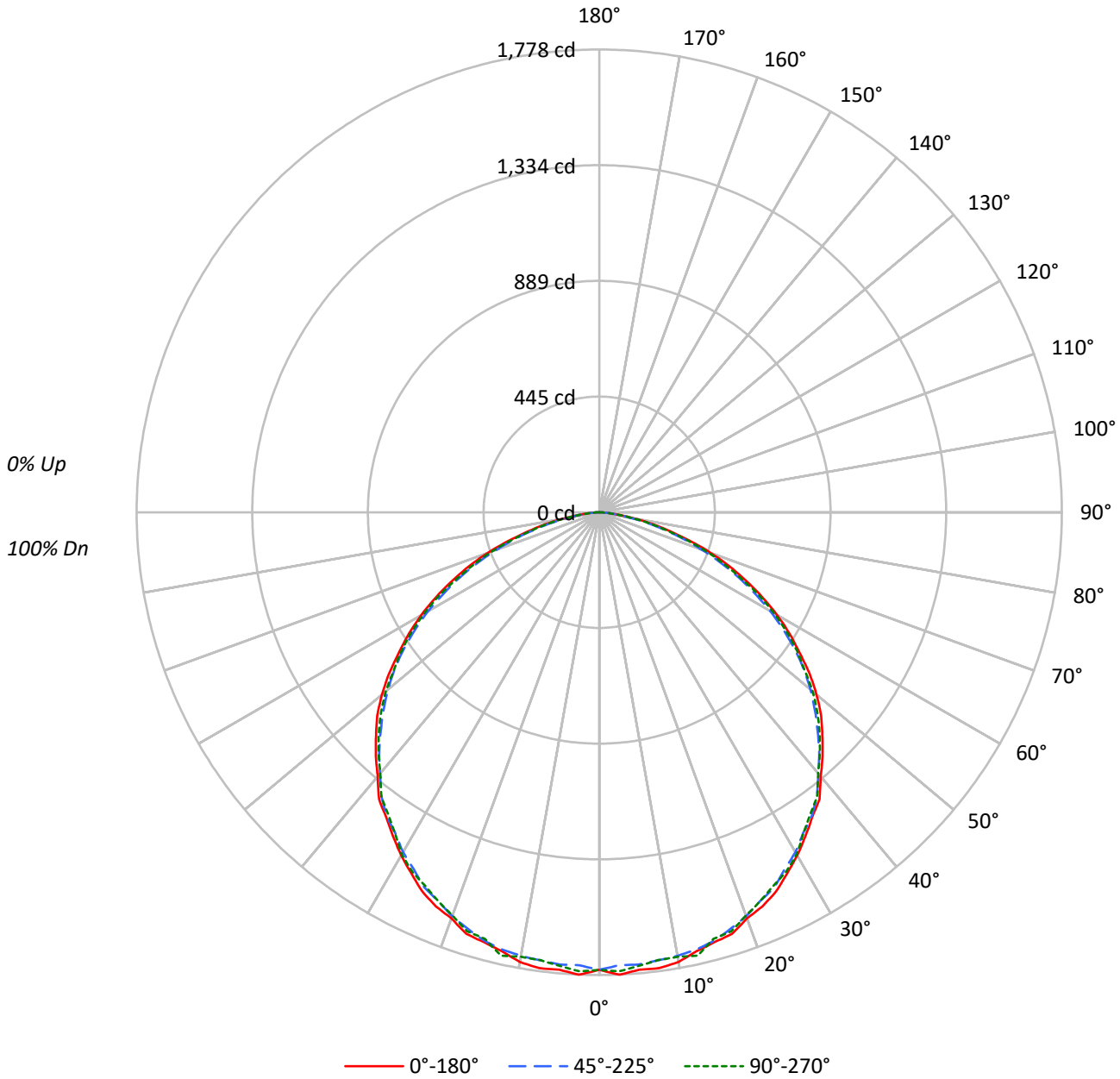
Lumens per Lamp: N/A
Luminaire Lumens: 4938.9 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	35	29	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2365	2365	2365
5°	2383	2355	2362
10°	2397	2364	2369
15°	2382	2375	2363
20°	2377	2365	2361
25°	2387	2361	2351
30°	2365	2343	2358
35°	2346	2340	2324
40°	2326	2301	2298
45°	2308	2259	2279
50°	2282	2218	2242
55°	2202	2152	2177
60°	2123	2042	2087
65°	1984	1874	1919
70°	1793	1646	1719
75°	1465	1341	1387
80°	1051	941	982
85°	574	492	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2308 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.7	3.4
10°-20°	480.4	9.7
20°-30°	731.1	14.8
30°-40°	886.4	17.9
40°-50°	921.7	18.7
50°-60°	823.7	16.7
60°-70°	593.8	12.0
70°-80°	286.1	5.8
80°-90°	49.0	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°	1378.1	27.9
0°-40°	2264.6	45.9
0°-60°	4009.9	81.2
0°-90°	4938.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4938.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1758	1758	1758	1758	1758	
5°	1764	1749	1744	1753	1749	168
15°	1710	1698	1705	1694	1697	484
25°	1608	1583	1590	1582	1583	739
35°	1428	1412	1425	1416	1415	895
45°	1213	1197	1187	1192	1198	936
55°	939	926	918	915	928	842
65°	623	608	589	593	603	617
75°	282	274	258	261	267	303
85°	37	35	32	33	33	52
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1757.9	1757.9	1757.9	1757.9	1757.9
2.5°	1778.3	1764.1	1741.9	1752.6	1765.0
5°	1764.1	1749.0	1743.7	1752.6	1749.0
7.5°	1766.8	1743.7	1736.6	1746.4	1735.7
10°	1754.4	1734.0	1730.4	1734.9	1734.0
12.5°	1727.8	1723.3	1720.7	1713.6	1744.6
15°	1710.0	1697.6	1704.7	1694.1	1696.7
17.5°	1698.5	1669.3	1678.1	1676.3	1687.9
20°	1660.4	1653.3	1651.5	1646.2	1648.9
22.5°	1639.1	1622.3	1617.0	1615.2	1617.0
25°	1608.1	1583.3	1590.4	1582.4	1583.3
27.5°	1563.8	1536.3	1545.1	1544.3	1556.7
30°	1522.1	1501.7	1507.9	1502.6	1517.7
32.5°	1475.1	1457.4	1460.0	1459.2	1460.9
35°	1428.1	1412.2	1424.6	1415.7	1414.8
37.5°	1390.0	1358.1	1374.9	1365.2	1375.8
40°	1324.4	1312.0	1310.2	1304.0	1308.5
42.5°	1270.3	1254.4	1251.7	1255.3	1255.3
45°	1212.7	1196.8	1187.0	1192.3	1197.6
47.5°	1156.9	1136.5	1124.1	1126.7	1137.4
50°	1090.4	1063.8	1059.4	1062.9	1070.9
52.5°	1018.6	997.3	991.1	990.2	993.8
55°	938.8	926.4	917.5	914.9	928.2
57.5°	867.0	848.4	837.7	842.2	854.6
60°	789.0	768.6	758.8	762.4	775.7
62.5°	707.4	687.0	672.0	679.0	694.1
65°	623.2	608.1	588.6	593.1	602.8
67.5°	541.6	524.8	504.4	507.1	517.7
70°	455.7	437.9	418.4	422.9	437.0
72.5°	365.2	353.7	336.0	337.8	350.2
75°	281.9	273.9	258.0	260.6	266.8
77.5°	209.2	198.6	186.2	188.8	196.8
80°	135.6	132.1	121.4	123.2	126.8
82.5°	77.1	77.1	72.7	70.9	75.4
85°	37.2	34.6	31.9	32.8	32.8
87.5°	8.9	9.8	8.9	8.0	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)