

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: P688132

Luminaire Tested: FLR-HA-24-L3C3 (MED)-40-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688132
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-L3C3 (MED)-40-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 4000K Luminaire at Medium Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

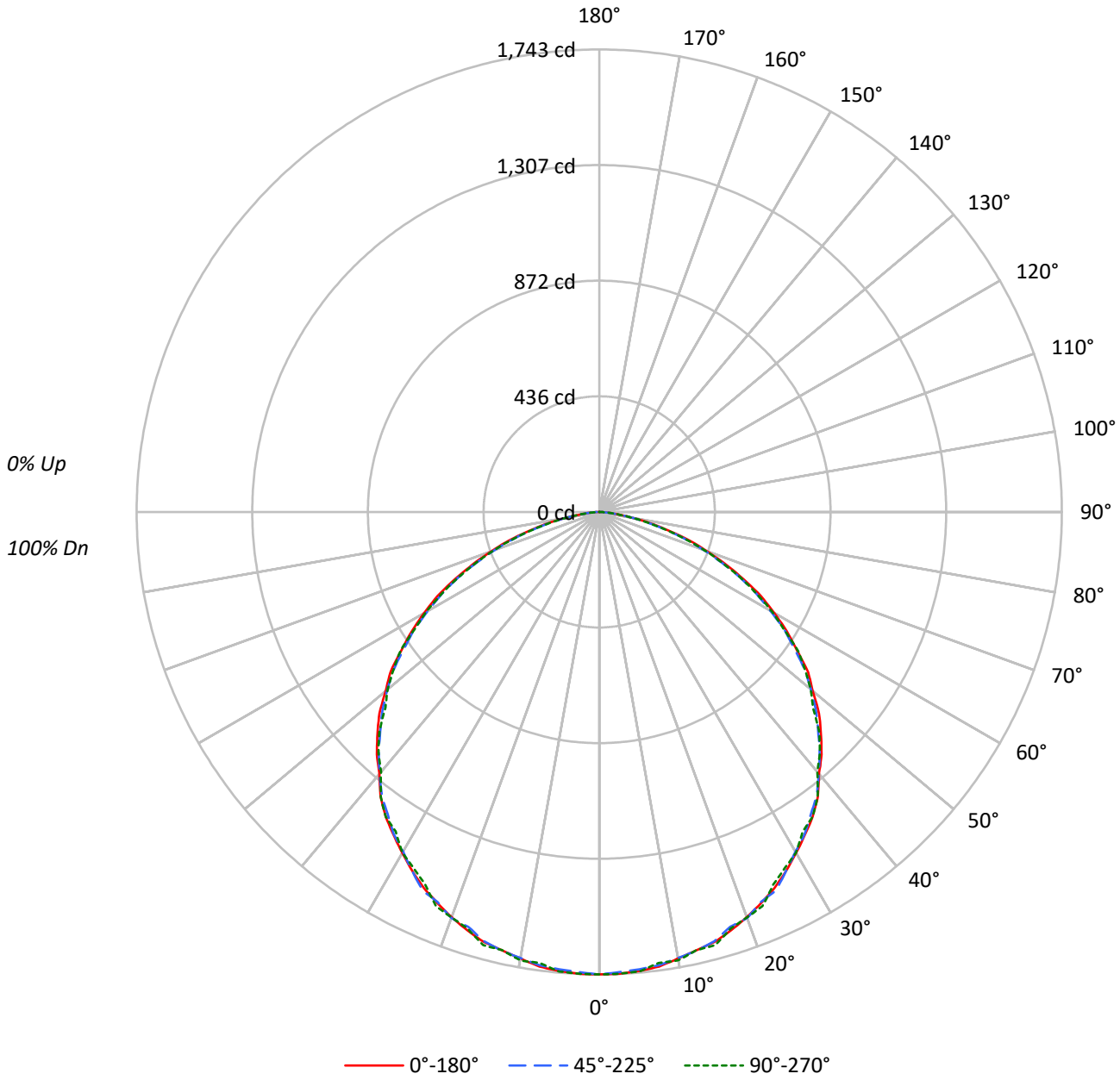
Lumens per Lamp: N/A
Luminaire Lumens: 4831.6 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.5
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°	2345	2345	2345
5°	2346	2337	2348
10°	2335	2332	2345
15°	2338	2334	2355
20°	2327	2333	2329
25°	2321	2338	2302
30°	2305	2297	2304
35°	2303	2283	2303
40°	2263	2261	2245
45°	2247	2219	2230
50°	2197	2179	2177
55°	2133	2103	2147
60°	2046	2002	2024
65°	1908	1867	1869
70°	1691	1643	1662
75°	1392	1339	1358
80°	976	955	969
85°	500	472	472

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2247 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.8	3.4
10°-20°	472.8	9.8
20°-30°	718.9	14.9
30°-40°	869.4	18.0
40°-50°	900.9	18.6
50°-60°	804.2	16.6
60°-70°	577.5	12.0
70°-80°	277.0	5.7
80°-90°	46.0	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°	1356.5	28.1
0°-40°	2225.9	46.1
0°-60°	3931.1	81.4
0°-90°	4831.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4831.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1743	1743	1743	1743	1743	
5°	1737	1742	1730	1731	1738	165
15°	1678	1680	1676	1676	1690	473
25°	1564	1560	1575	1555	1550	720
35°	1402	1391	1390	1385	1402	875
45°	1181	1173	1166	1165	1172	910
55°	910	899	897	895	915	815
65°	599	582	586	578	587	593
75°	268	250	258	258	261	289
85°	32	31	31	31	31	48
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1743.1	1743.1	1743.1	1743.1	1743.1
2.5°	1742.2	1744.1	1735.7	1733.9	1742.2
5°	1736.7	1742.2	1730.2	1731.1	1738.5
7.5°	1728.3	1724.6	1722.8	1729.2	1714.4
10°	1708.9	1717.2	1707.0	1702.4	1716.3
12.5°	1692.2	1693.1	1694.0	1695.9	1691.3
15°	1678.3	1680.2	1675.5	1675.5	1690.3
17.5°	1653.3	1657.0	1639.4	1650.5	1646.8
20°	1625.5	1621.8	1629.2	1626.4	1626.4
22.5°	1594.9	1594.9	1591.2	1593.1	1607.9
25°	1563.5	1559.7	1574.6	1555.1	1550.5
27.5°	1525.5	1521.8	1525.5	1515.3	1513.4
30°	1483.8	1474.5	1478.2	1479.2	1482.9
32.5°	1443.0	1433.8	1440.3	1433.8	1427.3
35°	1402.3	1391.2	1390.2	1384.7	1402.3
37.5°	1353.2	1341.2	1345.8	1328.2	1352.3
40°	1288.4	1281.0	1287.4	1281.9	1278.2
42.5°	1240.2	1231.9	1229.1	1225.4	1230.9
45°	1180.9	1172.6	1166.1	1165.2	1171.7
47.5°	1123.5	1102.2	1107.8	1099.4	1092.0
50°	1049.4	1043.8	1041.1	1032.7	1040.1
52.5°	992.0	971.6	976.2	968.8	977.2
55°	909.5	899.4	896.6	894.7	915.1
57.5°	838.2	825.3	827.1	822.5	825.3
60°	760.4	748.4	743.8	742.8	752.1
62.5°	687.3	662.2	665.9	665.0	669.7
65°	599.3	581.7	586.3	578.0	587.2
67.5°	515.0	497.4	499.2	497.4	502.0
70°	429.8	410.3	417.7	414.0	422.4
72.5°	355.7	332.5	339.0	332.5	339.9
75°	267.7	250.1	257.5	257.5	261.2
77.5°	197.3	181.5	187.1	185.2	188.9
80°	126.0	119.5	123.2	120.4	125.0
82.5°	72.2	67.6	67.6	69.5	70.4
85°	32.4	30.6	30.6	30.6	30.6
87.5°	8.3	8.3	8.3	8.3	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)