

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: P688033

Luminaire Tested: FLR-HA-24-55-40-CP375

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-24-55-40-CP375
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 4000K Luminaire for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

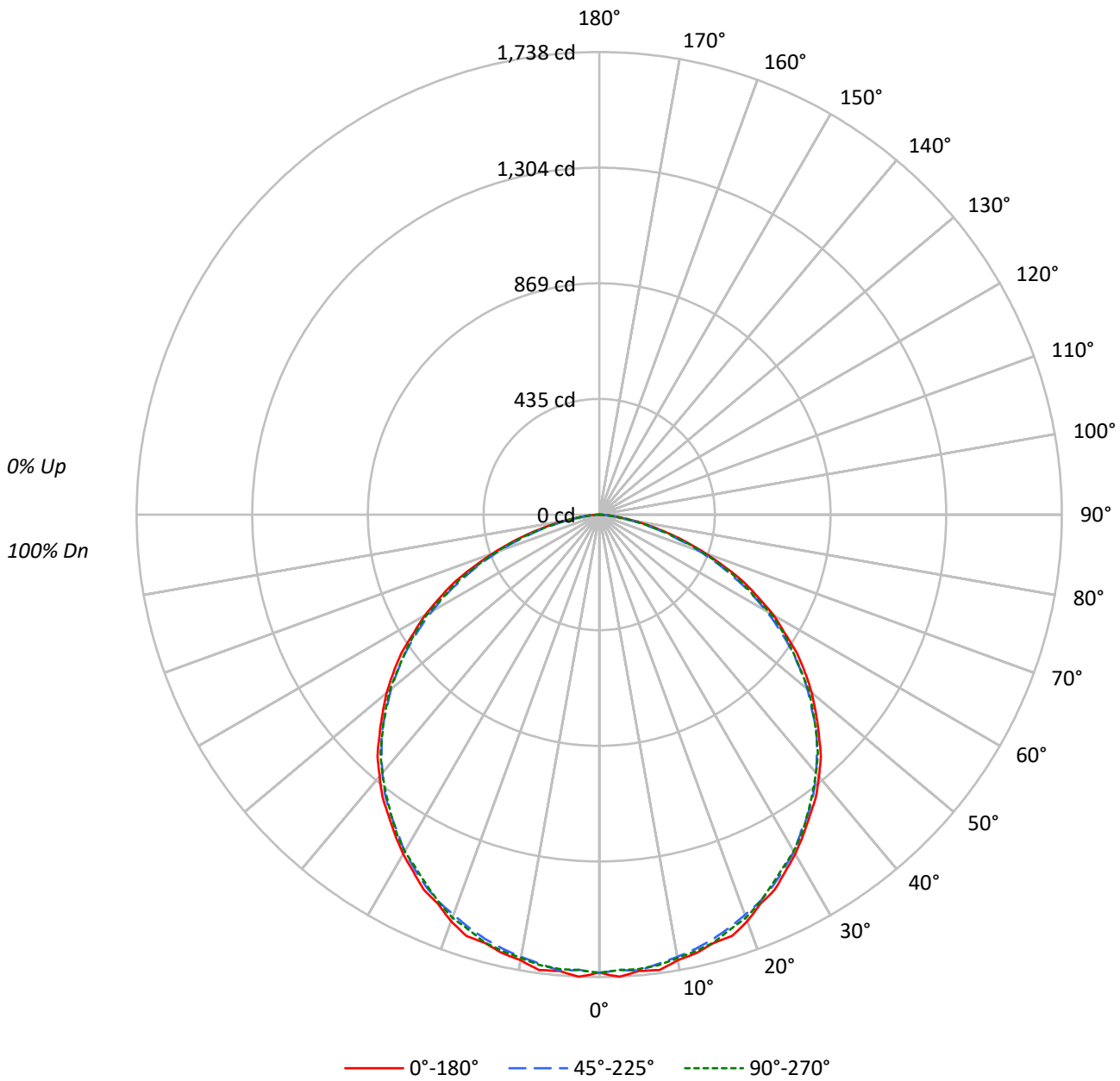
Lumens per Lamp: N/A
Luminaire Lumens: 4744.6 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	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	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	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	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	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°	2316	2316	2316
5°	2325	2322	2315
10°	2324	2306	2312
15°	2320	2301	2318
20°	2328	2292	2308
25°	2312	2288	2278
30°	2288	2271	2270
35°	2267	2250	2245
40°	2255	2227	2225
45°	2220	2197	2190
50°	2182	2136	2150
55°	2126	2062	2073
60°	2036	1952	1998
65°	1907	1784	1841
70°	1670	1562	1622
75°	1383	1246	1314
80°	979	877	914
85°	496	437	466

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2220 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.9	3.4
10°-20°	467.7	9.9
20°-30°	710.1	15.0
30°-40°	857.0	18.1
40°-50°	888.4	18.7
50°-60°	787.0	16.6
60°-70°	561.8	11.8
70°-80°	266.1	5.6
80°-90°	43.6	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°	1340.7	28.3
0°-40°	2197.6	46.3
0°-60°	3873.1	81.6
0°-90°	4744.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4744.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1721	1721	1721	1721	1721	
5°	1721	1713	1720	1707	1714	164
15°	1666	1656	1652	1661	1664	472
25°	1557	1532	1541	1542	1535	716
35°	1380	1366	1370	1364	1367	865
45°	1167	1150	1154	1151	1151	901
55°	906	881	879	875	884	806
65°	599	560	560	564	578	585
75°	266	244	240	245	253	283
85°	32	29	28	27	30	48
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1721.4	1721.4	1721.4	1721.4	1721.4
2.5°	1738.4	1708.2	1712.9	1716.7	1712.9
5°	1721.4	1712.9	1719.5	1707.3	1713.9
7.5°	1726.1	1705.4	1702.6	1698.8	1707.3
10°	1700.7	1688.4	1687.5	1694.1	1692.2
12.5°	1687.5	1677.1	1671.4	1672.4	1679.9
15°	1665.8	1656.3	1651.6	1661.1	1663.9
17.5°	1660.1	1627.1	1627.1	1629.0	1634.6
20°	1626.2	1604.5	1600.7	1604.5	1612.0
22.5°	1582.8	1575.2	1575.2	1578.0	1576.2
25°	1557.3	1531.8	1541.3	1542.2	1534.7
27.5°	1513.0	1503.5	1501.6	1497.9	1495.0
30°	1472.4	1457.3	1462.0	1462.0	1461.1
32.5°	1427.1	1416.8	1412.0	1413.0	1417.7
35°	1380.0	1365.8	1369.6	1363.9	1366.8
37.5°	1337.5	1318.7	1322.4	1319.6	1316.8
40°	1283.8	1268.7	1267.7	1263.0	1266.8
42.5°	1232.8	1211.1	1210.2	1211.1	1215.8
45°	1166.8	1149.8	1154.5	1150.8	1150.8
47.5°	1103.6	1092.3	1083.8	1084.7	1088.5
50°	1042.3	1020.6	1020.6	1013.0	1027.2
52.5°	974.4	952.7	949.8	952.7	950.8
55°	906.5	881.0	879.1	875.3	883.8
57.5°	824.4	799.9	801.8	803.6	815.9
60°	756.5	723.5	725.4	727.2	742.3
62.5°	672.5	645.2	644.2	647.1	650.8
65°	599.0	560.3	560.3	564.1	578.2
67.5°	505.6	482.0	481.1	485.8	491.4
70°	424.5	397.1	397.1	402.8	412.2
72.5°	343.3	320.7	316.9	325.4	332.0
75°	266.0	244.3	239.6	245.2	252.8
77.5°	190.5	176.4	172.6	178.3	180.2
80°	126.4	114.1	113.2	116.0	117.9
82.5°	72.6	65.1	62.3	65.1	66.0
85°	32.1	29.2	28.3	27.4	30.2
87.5°	7.5	7.5	7.5	7.5	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)