

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: P687860

Luminaire Tested: FLR-HA-24-L3C3 (LOW)-50-CA08

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P687860
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2303-938-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-24-L3C3 (LOW)-50-CA08
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 5000K Luminaire at Low Lumen setting for High Abuse
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

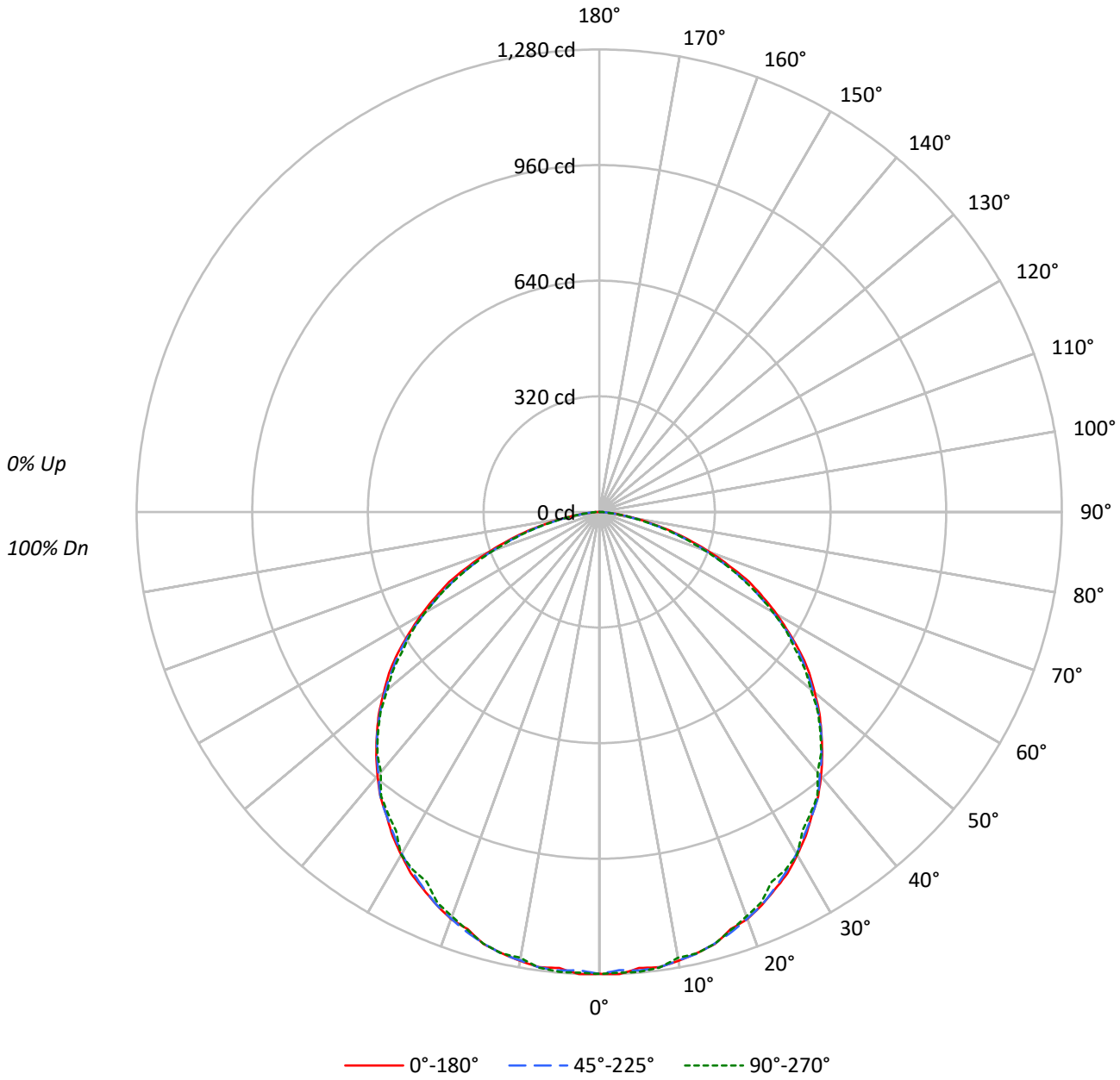
Lumens per Lamp: N/A
Luminaire Lumens: 3591.0 lumens
Efficiency: N/A
Efficacy: 129.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27.8
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	89	91	89	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1720	1720	1720
5°	1712	1721	1726
10°	1724	1722	1712
15°	1724	1722	1723
20°	1717	1715	1706
25°	1710	1706	1677
30°	1702	1698	1701
35°	1684	1685	1674
40°	1676	1668	1650
45°	1655	1653	1647
50°	1629	1617	1599
55°	1596	1580	1550
60°	1527	1493	1493
65°	1457	1397	1383
70°	1282	1231	1216
75°	1070	1016	1027
80°	765	720	715
85°	398	369	389

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 1659 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.2	3.4
10°-20°	348.3	9.7
20°-30°	530.0	14.8
30°-40°	642.1	17.9
40°-50°	668.7	18.6
50°-60°	598.7	16.7
60°-70°	434.6	12.1
70°-80°	211.0	5.9
80°-90°	36.4	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°	999.5	27.8
0°-40°	1641.6	45.7
0°-60°	2909.0	81.0
0°-90°	3591.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3591.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1278	1278	1278	1278	1278	
5°	1267	1275	1274	1271	1278	121
15°	1238	1235	1236	1227	1237	348
25°	1152	1154	1149	1147	1129	531
35°	1025	1031	1026	1029	1019	644
45°	870	872	869	864	865	671
55°	680	675	674	666	661	605
65°	458	445	439	438	434	446
75°	206	201	196	196	198	219
85°	26	26	24	24	25	38
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1278.4	1278.4	1278.4	1278.4	1278.4
2.5°	1280.4	1279.7	1269.4	1273.9	1276.5
5°	1267.4	1275.2	1273.9	1271.3	1277.8
7.5°	1270.7	1267.4	1271.3	1270.7	1272.0
10°	1261.6	1258.4	1260.3	1261.0	1253.2
12.5°	1250.7	1248.7	1252.0	1254.5	1251.3
15°	1237.8	1235.2	1236.5	1227.4	1237.1
17.5°	1210.7	1217.1	1219.0	1213.9	1213.2
20°	1199.0	1197.1	1197.7	1195.8	1191.3
22.5°	1177.1	1184.8	1177.1	1173.2	1170.0
25°	1151.9	1154.5	1149.3	1147.4	1129.3
27.5°	1128.1	1127.4	1121.6	1121.6	1116.4
30°	1095.8	1091.3	1092.6	1087.4	1095.1
32.5°	1063.5	1064.2	1058.4	1060.3	1046.1
35°	1025.4	1031.3	1026.1	1029.3	1019.0
37.5°	994.5	990.6	994.5	989.3	991.2
40°	954.5	953.2	949.9	951.2	939.6
42.5°	913.2	911.2	910.6	908.0	908.6
45°	869.9	871.9	868.6	864.1	865.4
47.5°	826.7	828.6	822.8	817.0	820.9
50°	778.3	779.6	772.5	770.5	764.1
52.5°	732.5	726.7	722.8	719.6	718.9
55°	680.2	675.0	673.7	666.0	660.8
57.5°	622.1	620.8	616.9	611.1	613.7
60°	567.3	562.1	555.0	553.7	555.0
62.5°	511.1	505.3	496.3	498.8	496.3
65°	457.5	445.3	438.8	437.5	434.3
67.5°	389.1	380.1	374.9	373.0	374.3
70°	325.9	325.3	313.0	311.1	309.1
72.5°	264.6	259.4	252.3	251.7	251.0
75°	205.9	201.3	195.5	196.2	197.5
77.5°	148.4	143.9	138.7	140.7	138.1
80°	98.7	97.4	92.9	92.3	92.3
82.5°	58.7	56.1	53.6	53.6	54.2
85°	25.8	26.5	23.9	23.9	25.2
87.5°	6.5	7.1	6.5	6.5	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)