

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: P688399

Luminaire Tested: FLR-HA-24-L3C3 (LOW)-40-CA125

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688399
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 (LOW)-40-CA125
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 4000K Luminaire at Low Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

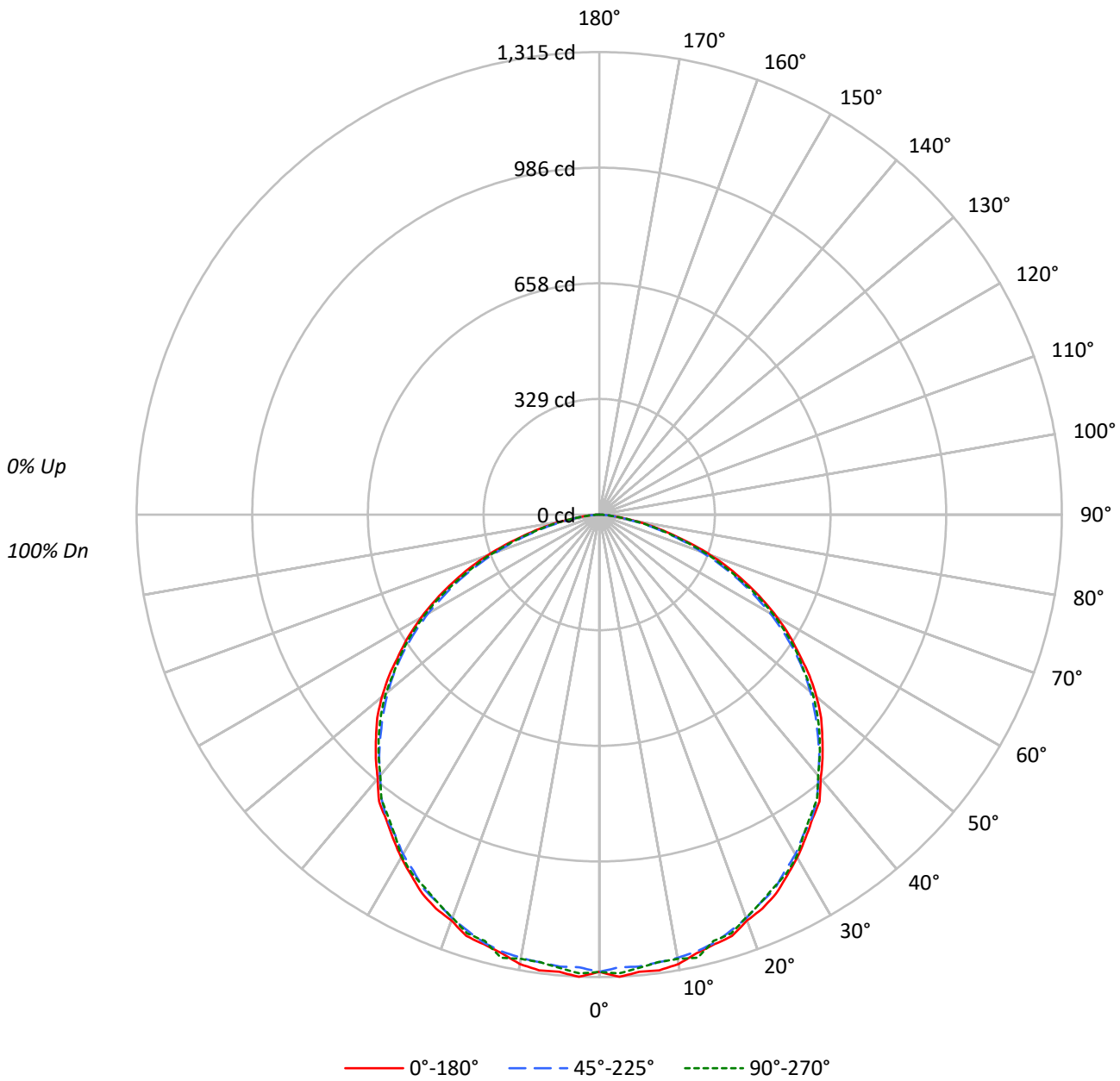
Lumens per Lamp: N/A
Luminaire Lumens: 3653.0 lumens
Efficiency: N/A
Efficacy: 134.8 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27.1
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°	1749	1749	1749
5°	1762	1742	1747
10°	1773	1749	1752
15°	1762	1756	1748
20°	1758	1749	1746
25°	1766	1746	1738
30°	1749	1733	1744
35°	1735	1731	1719
40°	1721	1702	1700
45°	1707	1670	1686
50°	1688	1640	1658
55°	1629	1592	1610
60°	1570	1510	1544
65°	1467	1386	1420
70°	1326	1218	1271
75°	1084	992	1026
80°	777	696	727
85°	425	364	375

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1707 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.3	3.4
10°-20°	355.3	9.7
20°-30°	540.7	14.8
30°-40°	655.6	17.9
40°-50°	681.7	18.7
50°-60°	609.2	16.7
60°-70°	439.2	12.0
70°-80°	211.6	5.8
80°-90°	36.2	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°	1019.3	27.9
0°-40°	1675.0	45.9
0°-60°	2965.9	81.2
0°-90°	3653.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3653.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1300	1300	1300	1300	1300	
5°	1305	1294	1290	1296	1294	125
15°	1265	1256	1261	1253	1255	358
25°	1189	1171	1176	1170	1171	547
35°	1056	1044	1054	1047	1046	662
45°	897	885	878	882	886	692
55°	694	685	679	677	686	623
65°	461	450	435	439	446	456
75°	208	203	191	193	197	224
85°	28	26	24	24	24	38
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1300.2	1300.2	1300.2	1300.2	1300.2
2.5°	1315.3	1304.8	1288.4	1296.3	1305.4
5°	1304.8	1293.6	1289.7	1296.3	1293.6
7.5°	1306.8	1289.7	1284.5	1291.7	1283.8
10°	1297.6	1282.5	1279.9	1283.2	1282.5
12.5°	1277.9	1274.6	1272.7	1267.4	1290.4
15°	1264.8	1255.6	1260.9	1253.0	1255.0
17.5°	1256.3	1234.6	1241.2	1239.9	1248.4
20°	1228.1	1222.8	1221.5	1217.6	1219.6
22.5°	1212.3	1199.9	1196.0	1194.6	1196.0
25°	1189.4	1171.0	1176.3	1170.4	1171.0
27.5°	1156.6	1136.3	1142.8	1142.2	1151.4
30°	1125.8	1110.7	1115.3	1111.4	1122.5
32.5°	1091.0	1077.9	1079.9	1079.2	1080.6
35°	1056.3	1044.5	1053.7	1047.1	1046.5
37.5°	1028.1	1004.5	1017.0	1009.7	1017.6
40°	979.6	970.4	969.1	964.5	967.8
42.5°	939.6	927.8	925.8	928.4	928.4
45°	897.0	885.2	877.9	881.9	885.8
47.5°	855.7	840.6	831.4	833.4	841.2
50°	806.5	786.8	783.5	786.2	792.1
52.5°	753.4	737.6	733.0	732.4	735.0
55°	694.4	685.2	678.6	676.7	686.5
57.5°	641.3	627.5	619.6	622.9	632.1
60°	583.6	568.5	561.3	563.9	573.7
62.5°	523.2	508.1	497.0	502.2	513.4
65°	460.9	449.8	435.4	438.6	445.9
67.5°	400.6	388.2	373.1	375.0	382.9
70°	337.0	323.9	309.5	312.8	323.2
72.5°	270.1	261.6	248.5	249.8	259.0
75°	208.5	202.6	190.8	192.8	197.4
77.5°	154.7	146.9	137.7	139.7	145.6
80°	100.3	97.7	89.8	91.1	93.8
82.5°	57.0	57.0	53.8	52.5	55.7
85°	27.5	25.6	23.6	24.3	24.3
87.5°	6.6	7.2	6.6	5.9	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)