

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: P688375

Luminaire Tested: FLR-HA-14-40-40-CA125

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688375
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-14-40-40-CA125
Description: Fail-Safe - FLR Fully Luminous Recessed 1X4 4000K Luminaire for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

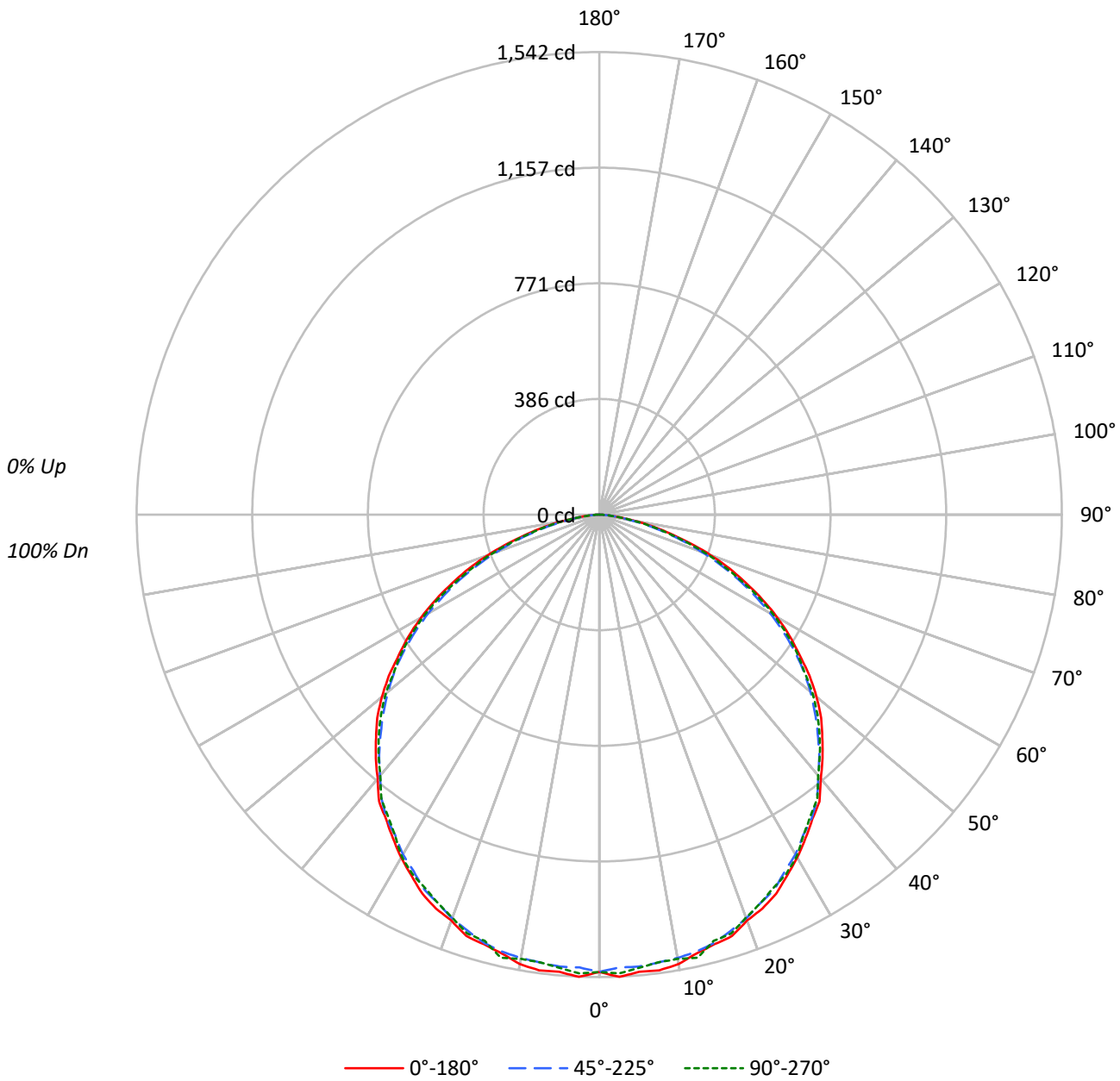
Lumens per Lamp: N/A
Luminaire Lumens: 4284.1 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 39.4
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°	4103	4103	4103
5°	4133	4086	4098
10°	4158	4101	4110
15°	4132	4120	4100
20°	4125	4103	4096
25°	4142	4096	4078
30°	4103	4064	4091
35°	4070	4059	4032
40°	4036	3992	3987
45°	4003	3918	3954
50°	3960	3847	3889
55°	3820	3734	3777
60°	3683	3542	3621
65°	3442	3251	3330
70°	3109	2855	2983
75°	2542	2327	2407
80°	1824	1632	1705
85°	997	855	880

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4003 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	3.4
10°-20°	416.7	9.7
20°-30°	634.1	14.8
30°-40°	768.9	17.9
40°-50°	799.5	18.7
50°-60°	714.5	16.7
60°-70°	515.1	12.0
70°-80°	248.2	5.8
80°-90°	42.5	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°	1195.4	27.9
0°-40°	1964.4	45.9
0°-60°	3478.3	81.2
0°-90°	4284.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4284.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1525	1525	1525	1525	1525	
5°	1530	1517	1512	1520	1517	146
15°	1483	1473	1479	1470	1472	420
25°	1395	1373	1380	1373	1373	641
35°	1239	1225	1236	1228	1227	777
45°	1052	1038	1030	1034	1039	812
55°	814	804	796	794	805	730
65°	541	528	511	514	523	535
75°	244	238	224	226	232	263
85°	32	30	28	28	28	45
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1524.8	1524.8	1524.8	1524.8	1524.8
2.5°	1542.5	1530.2	1511.0	1520.2	1531.0
5°	1530.2	1517.2	1512.5	1520.2	1517.2
7.5°	1532.5	1512.5	1506.4	1514.9	1505.6
10°	1521.8	1504.1	1501.0	1504.9	1504.1
12.5°	1498.7	1494.9	1492.6	1486.4	1513.3
15°	1483.3	1472.6	1478.7	1469.5	1471.8
17.5°	1473.3	1448.0	1455.6	1454.1	1464.1
20°	1440.3	1434.1	1432.6	1428.0	1430.3
22.5°	1421.8	1407.2	1402.6	1401.0	1402.6
25°	1394.9	1373.4	1379.5	1372.6	1373.4
27.5°	1356.4	1332.6	1340.3	1339.5	1350.3
30°	1320.3	1302.6	1308.0	1303.4	1316.5
32.5°	1279.6	1264.2	1266.5	1265.7	1267.2
35°	1238.8	1225.0	1235.7	1228.0	1227.3
37.5°	1205.7	1178.0	1192.7	1184.2	1193.4
40°	1148.8	1138.1	1136.5	1131.1	1135.0
42.5°	1101.9	1088.1	1085.8	1088.8	1088.8
45°	1051.9	1038.1	1029.6	1034.3	1038.9
47.5°	1003.5	985.8	975.0	977.3	986.6
50°	945.8	922.8	918.9	922.0	928.9
52.5°	883.5	865.1	859.7	858.9	862.0
55°	814.3	803.6	795.9	793.6	805.1
57.5°	752.0	735.9	726.7	730.5	741.3
60°	684.4	666.7	658.2	661.3	672.8
62.5°	613.6	595.9	582.9	589.0	602.1
65°	540.6	527.5	510.6	514.4	522.9
67.5°	469.8	455.2	437.5	439.8	449.1
70°	395.2	379.9	362.9	366.8	379.1
72.5°	316.8	306.8	291.4	293.0	303.7
75°	244.5	237.6	223.8	226.1	231.5
77.5°	181.5	172.2	161.5	163.8	170.7
80°	117.7	114.6	105.3	106.9	110.0
82.5°	66.9	66.9	63.1	61.5	65.4
85°	32.3	30.0	27.7	28.5	28.5
87.5°	7.7	8.5	7.7	6.9	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)