

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: P688374

Luminaire Tested: FLR-HA-14-40-35-CA125

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688374
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-14-40-35-CA125
Description: Fail-Safe - FLR Fully Luminous Recessed 1X4 3500K Luminaire for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

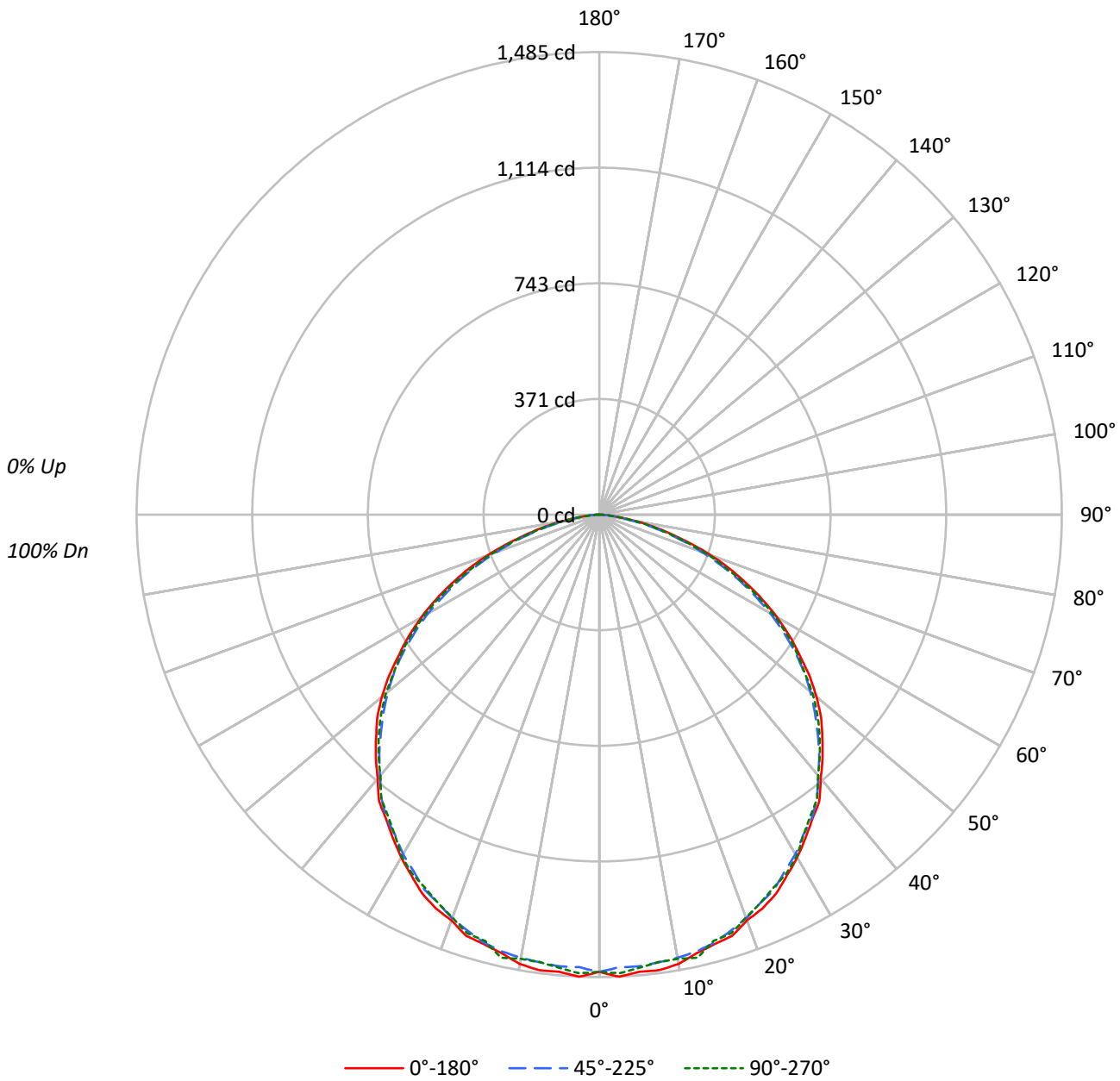
Lumens per Lamp: N/A
Luminaire Lumens: 4124.6 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3951	3951	3951
5°	3980	3934	3946
10°	4003	3949	3957
15°	3979	3966	3948
20°	3971	3950	3943
25°	3988	3944	3926
30°	3950	3913	3938
35°	3918	3908	3882
40°	3886	3844	3838
45°	3854	3773	3806
50°	3812	3704	3744
55°	3678	3595	3636
60°	3546	3411	3486
65°	3314	3130	3205
70°	2994	2749	2872
75°	2447	2240	2316
80°	1756	1571	1641
85°	960	824	846

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3854 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.2	3.4
10°-20°	401.2	9.7
20°-30°	610.5	14.8
30°-40°	740.3	17.9
40°-50°	769.7	18.7
50°-60°	687.9	16.7
60°-70°	495.9	12.0
70°-80°	239.0	5.8
80°-90°	40.9	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°	1150.9	27.9
0°-40°	1891.2	45.9
0°-60°	3348.8	81.2
0°-90°	4124.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4124.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1468	1468	1468	1468	1468	
5°	1473	1461	1456	1464	1461	141
15°	1428	1418	1424	1415	1417	404
25°	1343	1322	1328	1322	1322	617
35°	1193	1179	1190	1182	1182	748
45°	1013	999	991	996	1000	782
55°	784	774	766	764	775	703
65°	520	508	492	495	503	515
75°	235	229	215	218	223	253
85°	31	29	27	27	27	43
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1468.1	1468.1	1468.1	1468.1	1468.1
2.5°	1485.1	1473.3	1454.7	1463.6	1474.0
5°	1473.3	1460.7	1456.2	1463.6	1460.7
7.5°	1475.5	1456.2	1450.3	1458.4	1449.6
10°	1465.1	1448.1	1445.1	1448.8	1448.1
12.5°	1442.9	1439.2	1437.0	1431.1	1457.0
15°	1428.1	1417.7	1423.7	1414.8	1417.0
17.5°	1418.5	1394.0	1401.4	1400.0	1409.6
20°	1386.6	1380.7	1379.2	1374.8	1377.0
22.5°	1368.9	1354.8	1350.4	1348.9	1350.4
25°	1343.0	1322.2	1328.2	1321.5	1322.2
27.5°	1305.9	1283.0	1290.4	1289.7	1300.0
30°	1271.1	1254.1	1259.3	1254.9	1267.4
32.5°	1231.9	1217.1	1219.3	1218.6	1220.1
35°	1192.7	1179.3	1189.7	1182.3	1181.6
37.5°	1160.8	1134.2	1148.3	1140.1	1149.0
40°	1106.1	1095.7	1094.2	1089.0	1092.7
42.5°	1060.9	1047.6	1045.3	1048.3	1048.3
45°	1012.8	999.4	991.3	995.7	1000.2
47.5°	966.1	949.1	938.7	941.0	949.8
50°	910.6	888.4	884.7	887.7	894.3
52.5°	850.6	832.9	827.7	826.9	829.9
55°	784.0	773.6	766.2	764.0	775.1
57.5°	724.0	708.5	699.6	703.3	713.7
60°	658.9	641.9	633.7	636.7	647.8
62.5°	590.8	573.8	561.2	567.1	579.7
65°	520.5	507.9	491.6	495.3	503.4
67.5°	452.3	438.3	421.2	423.5	432.4
70°	380.5	365.7	349.4	353.1	365.0
72.5°	305.0	295.4	280.6	282.1	292.4
75°	235.4	228.8	215.4	217.7	222.8
77.5°	174.7	165.8	155.5	157.7	164.4
80°	113.3	110.3	101.4	102.9	105.9
82.5°	64.4	64.4	60.7	59.2	62.9
85°	31.1	28.9	26.7	27.4	27.4
87.5°	7.4	8.1	7.4	6.7	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)