

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: P688104

Luminaire Tested: FLR-HA-14-40-35-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688104
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-14-40-35-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 1X4 3500K Luminaire for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

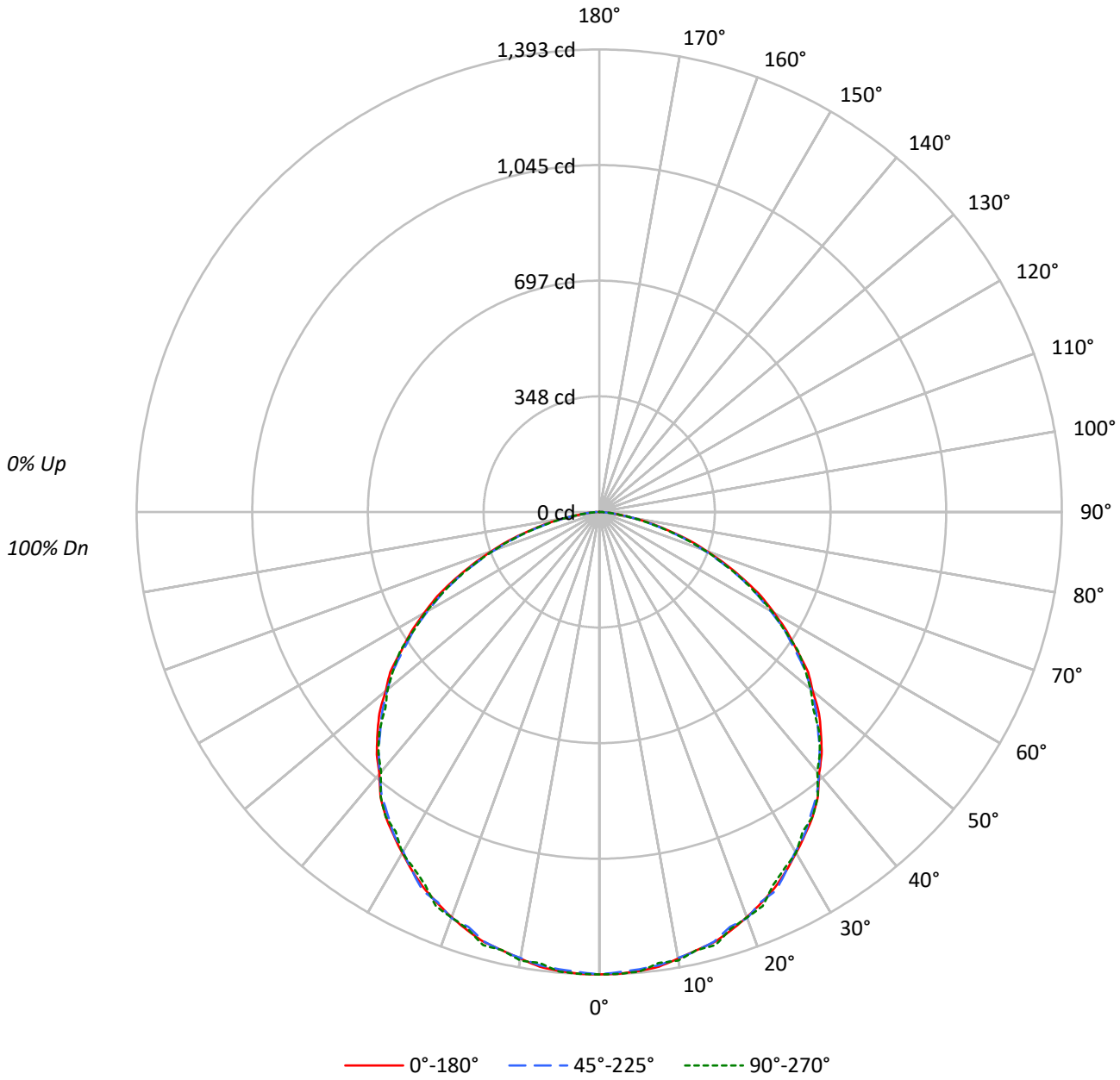
Lumens per Lamp: N/A
Luminaire Lumens: 3861.8 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 39.4
Input Voltage (V): 120
Input Current (A_{in}): 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	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	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71				
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60				
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	53	51				
5	76	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	46	44				
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39				
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34				
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31				
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27				
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°	3749	3749	3749
5°	3750	3736	3753
10°	3732	3728	3748
15°	3737	3731	3764
20°	3720	3729	3723
25°	3710	3737	3680
30°	3685	3671	3683
35°	3682	3650	3682
40°	3618	3615	3589
45°	3592	3547	3564
50°	3512	3484	3481
55°	3411	3362	3431
60°	3271	3200	3235
65°	3050	2984	2989
70°	2703	2627	2656
75°	2224	2140	2171
80°	1561	1526	1548
85°	800	753	753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3592 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	3.4
10°-20°	377.9	9.8
20°-30°	574.6	14.9
30°-40°	694.9	18.0
40°-50°	720.1	18.6
50°-60°	642.8	16.6
60°-70°	461.6	12.0
70°-80°	221.4	5.7
80°-90°	36.8	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°	1084.2	28.1
0°-40°	1779.1	46.1
0°-60°	3142.0	81.4
0°-90°	3861.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3861.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1388	1392	1383	1384	1390	132
15°	1341	1343	1339	1339	1351	378
25°	1250	1247	1258	1243	1239	575
35°	1121	1112	1111	1107	1121	699
45°	944	937	932	931	936	727
55°	727	719	717	715	731	651
65°	479	465	469	462	469	474
75°	214	200	206	206	209	231
85°	26	24	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°	1393.2	1393.2	1393.2	1393.2	1393.2
2.5°	1392.5	1394.0	1387.3	1385.8	1392.5
5°	1388.1	1392.5	1382.9	1383.6	1389.5
7.5°	1381.4	1378.4	1377.0	1382.1	1370.3
10°	1365.9	1372.5	1364.4	1360.7	1371.8
12.5°	1352.5	1353.3	1354.0	1355.5	1351.8
15°	1341.4	1342.9	1339.2	1339.2	1351.0
17.5°	1321.4	1324.4	1310.3	1319.2	1316.3
20°	1299.2	1296.3	1302.2	1300.0	1300.0
22.5°	1274.8	1274.8	1271.8	1273.3	1285.2
25°	1249.6	1246.7	1258.5	1243.0	1239.3
27.5°	1219.3	1216.3	1219.3	1211.1	1209.7
30°	1186.0	1178.6	1181.5	1182.3	1185.2
32.5°	1153.4	1146.0	1151.2	1146.0	1140.8
35°	1120.8	1111.9	1111.2	1106.7	1120.8
37.5°	1081.6	1072.0	1075.7	1061.6	1080.8
40°	1029.8	1023.8	1029.0	1024.6	1021.6
42.5°	991.3	984.6	982.4	979.4	983.9
45°	943.9	937.2	932.0	931.3	936.5
47.5°	898.0	881.0	885.4	878.7	872.8
50°	838.8	834.3	832.1	825.4	831.4
52.5°	792.9	776.6	780.3	774.4	781.0
55°	727.0	718.8	716.6	715.1	731.4
57.5°	670.0	659.6	661.1	657.4	659.6
60°	607.8	598.2	594.5	593.7	601.1
62.5°	549.3	529.3	532.3	531.5	535.2
65°	479.0	464.9	468.6	461.9	469.4
67.5°	411.6	397.5	399.0	397.5	401.2
70°	343.5	328.0	333.9	330.9	337.6
72.5°	284.3	265.8	271.0	265.8	271.7
75°	213.9	199.9	205.8	205.8	208.8
77.5°	157.7	145.1	149.5	148.1	151.0
80°	100.7	95.5	98.5	96.2	99.9
82.5°	57.7	54.0	54.0	55.5	56.3
85°	25.9	24.4	24.4	24.4	24.4
87.5°	6.7	6.7	6.7	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)