

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: P688015

Luminaire Tested: FLR-HA-14-40-40-CP375

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688015  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR-HA-14-40-40-CP375  
Description: Fail-Safe - FLR Fully Luminous Recessed 1X4 4000K Luminaire for High Abuse  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

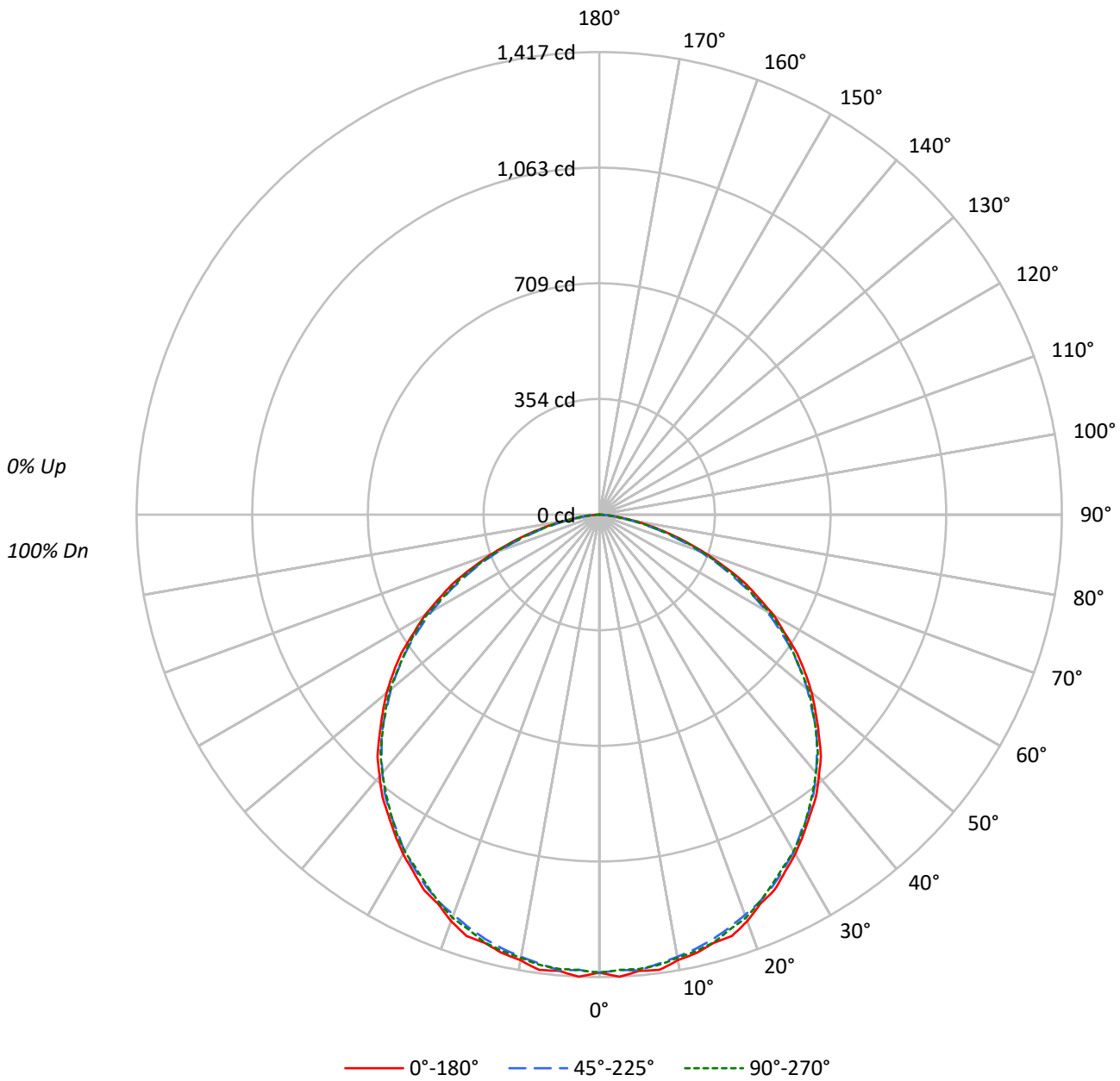
Lumens per Lamp: N/A  
Luminaire Lumens: 3868.1 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 39.4  
Input Voltage (V): 120  
Input Current (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



TEST NUMBER: P688015  
CATALOG NUMBER: FLR-HA-14-40-40-CP375

### Luminous Intensity Polar Plot



TEST NUMBER: P688015  
 CATALOG NUMBER: FLR-HA-14-40-40-CP375

**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	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
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°	3777	3777	3777
5°	3791	3787	3774
10°	3789	3759	3770
15°	3783	3751	3779
20°	3796	3737	3763
25°	3770	3731	3715
30°	3730	3704	3701
35°	3696	3668	3661
40°	3677	3631	3628
45°	3620	3582	3570
50°	3557	3483	3506
55°	3467	3362	3380
60°	3319	3182	3257
65°	3109	2909	3002
70°	2722	2547	2644
75°	2255	2031	2143
80°	1596	1430	1489
85°	806	713	760

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3620 cd/sqm

TEST NUMBER: P688015  
 CATALOG NUMBER: FLR-HA-14-40-40-CP375

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.8	3.4
10°-20°	381.3	9.9
20°-30°	578.9	15.0
30°-40°	698.6	18.1
40°-50°	724.3	18.7
50°-60°	641.6	16.6
60°-70°	458.0	11.8
70°-80°	217.0	5.6
80°-90°	35.5	0.9
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°	1093.0	28.3
0°-40°	1791.6	46.3
0°-60°	3157.6	81.6
0°-90°	3868.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3868.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1403	1403	1403	1403	1403	
5°	1403	1396	1402	1392	1397	134
15°	1358	1350	1346	1354	1356	385
25°	1270	1249	1256	1257	1251	583
35°	1125	1114	1117	1112	1114	705
45°	951	937	941	938	938	734
55°	739	718	717	714	720	657
65°	488	457	457	460	471	477
75°	217	199	195	200	206	231
85°	26	24	23	22	25	39
90°	0	0	0	0	0	

TEST NUMBER: P688015

CATALOG NUMBER: FLR-HA-14-40-40-CP375

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1403.4	1403.4	1403.4	1403.4	1403.4
2.5°	1417.2	1392.6	1396.5	1399.5	1396.5
5°	1403.4	1396.5	1401.9	1391.9	1397.2
7.5°	1407.2	1390.3	1388.0	1384.9	1391.9
10°	1386.5	1376.5	1375.7	1381.1	1379.6
12.5°	1375.7	1367.2	1362.6	1363.4	1369.6
15°	1358.0	1350.3	1346.5	1354.2	1356.5
17.5°	1353.4	1326.5	1326.5	1328.0	1332.6
20°	1325.7	1308.0	1305.0	1308.0	1314.2
22.5°	1290.4	1284.2	1284.2	1286.5	1285.0
25°	1269.6	1248.8	1256.5	1257.3	1251.1
27.5°	1233.4	1225.8	1224.2	1221.1	1218.8
30°	1200.4	1188.1	1191.9	1191.9	1191.2
32.5°	1163.5	1155.0	1151.2	1151.9	1155.8
35°	1125.0	1113.5	1116.6	1111.9	1114.3
37.5°	1090.4	1075.0	1078.1	1075.8	1073.5
40°	1046.6	1034.3	1033.5	1029.7	1032.7
42.5°	1005.1	987.4	986.6	987.4	991.2
45°	951.2	937.4	941.2	938.2	938.2
47.5°	899.7	890.5	883.6	884.3	887.4
50°	849.7	832.0	832.0	825.9	837.4
52.5°	794.4	776.7	774.4	776.7	775.1
55°	739.0	718.2	716.7	713.6	720.5
57.5°	672.1	652.1	653.6	655.2	665.2
60°	616.7	589.8	591.3	592.9	605.2
62.5°	548.3	526.0	525.2	527.5	530.6
65°	488.3	456.8	456.8	459.9	471.4
67.5°	412.2	392.9	392.2	396.0	400.6
70°	346.0	323.7	323.7	328.4	336.0
72.5°	279.9	261.5	258.4	265.3	270.7
75°	216.9	199.2	195.3	199.9	206.1
77.5°	155.3	143.8	140.7	145.3	146.9
80°	103.0	93.0	92.3	94.6	96.1
82.5°	59.2	53.1	50.8	53.1	53.8
85°	26.1	23.8	23.1	22.3	24.6
87.5°	6.2	6.2	6.2	6.2	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)