

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P892119

Luminaire Tested: **FLR-HA-22-L3C3 (MED)-40-CP080**

Issue Date: 10/22/2024



**Test Information**

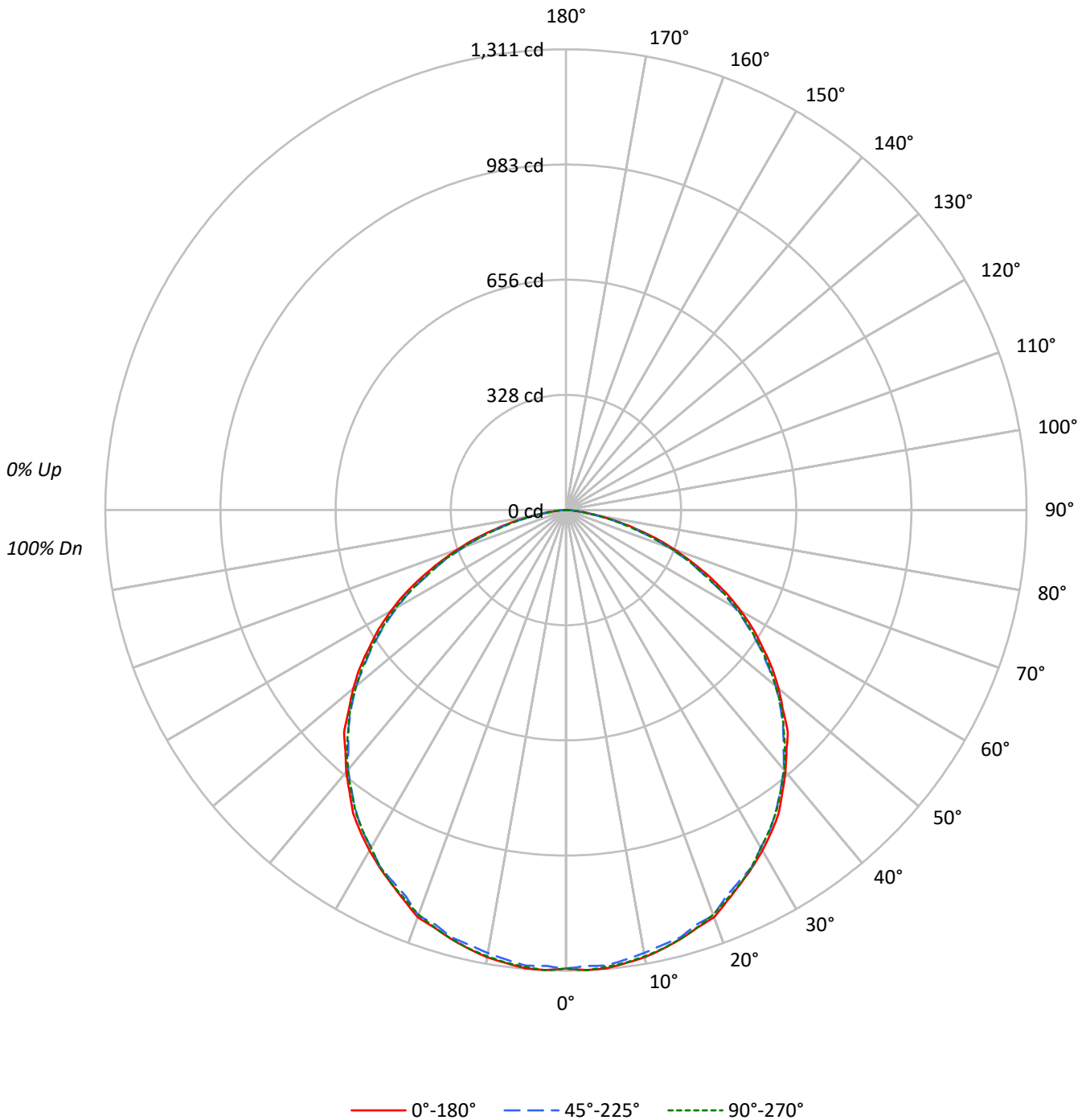
Test Method: LM-79-08  
Report Number: P892119  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FLR-HA-22-L3C3 (MED)-40-CP080  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at  
Midium Lumen setting for High Abuse  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3619.8 lumens  
Efficiency: N/A  
Efficacy: 125.3 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.9  
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: 25 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				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	102	102	102	100	
1	109	105	101	97	107	103	99	95	98	95	92	94	92	90	91	89	87	87	87	87	85	
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	73	73	73	71	
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	62	62	62	60	
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	54	54	54	51	
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	47	47	47	44	
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	41	41	41	39	
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	34	
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	33	33	33	33	31	
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	29	29	29	28	
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	27	27	27	25	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3511	3511	3511
5°	3538	3515	3526
10°	3531	3498	3524
15°	3520	3507	3518
20°	3532	3516	3510
25°	3486	3464	3484
30°	3475	3446	3448
35°	3466	3426	3433
40°	3415	3388	3393
45°	3398	3328	3333
50°	3307	3261	3261
55°	3209	3138	3157
60°	3097	2990	3030
65°	2884	2736	2762
70°	2585	2439	2478
75°	2130	2001	1994
80°	1491	1406	1406
85°	806	722	722



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.7	3.4
10°-20°	355.1	9.8
20°-30°	539.7	14.9
30°-40°	652.8	18.0
40°-50°	675.7	18.7
50°-60°	600.4	16.6
60°-70°	431.3	11.9
70°-80°	206.3	5.7
80°-90°	34.8	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
<b>0°-30°</b>	<b>1018.6</b>	<b>28.1</b>
<b>0°-40°</b>	<b>1671.4</b>	<b>46.2</b>
<b>0°-60°</b>	<b>2947.4</b>	<b>81.4</b>
<b>0°-90°</b>	<b>3619.8</b>	<b>100.0</b>
90°-120°	0.0	0.0
90°-150°	0.0	0.0
<b>90°-180°</b>	<b>0.0</b>	<b>0.0</b>
<b>0°-180°</b>	<b>3619.8</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1305	1305	1305	1305	1305	
5°	1310	1301	1301	1303	1306	124
15°	1264	1255	1259	1256	1263	357
25°	1174	1168	1167	1171	1174	542
35°	1055	1048	1043	1042	1045	658
45°	893	880	874	872	876	683
55°	684	677	669	665	673	613
65°	453	448	430	419	434	448
75°	205	201	192	176	192	220
85°	26	25	23	22	23	37
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1304.8	1304.8	1304.8	<i>1304.8</i>	1304.8
2.5°	<i>1310.3</i>	<i>1300.7</i>	<i>1298.6</i>	<i>1311.0</i>	<i>1311.0</i>
5°	1309.6	1300.7	1301.4	<i>1302.7</i>	1305.5
7.5°	1300.7	1295.9	1291.0	<i>1295.9</i>	1299.3
10°	1292.4	1281.4	1280.0	<i>1282.1</i>	1289.7
12.5°	1278.7	1266.3	1267.7	<i>1271.1</i>	1278.0
15°	1263.5	1255.3	1258.7	<i>1256.0</i>	1262.9
17.5°	1245.7	1245.7	1236.7	<i>1234.7</i>	1245.0
20°	1233.3	1216.1	1227.8	<i>1217.5</i>	1225.7
22.5°	1202.4	1192.7	1190.0	<i>1198.2</i>	1198.2
25°	1174.2	1168.0	1166.6	<i>1171.4</i>	1173.5
27.5°	1147.4	1143.9	1145.3	<i>1144.6</i>	1144.6
30°	1118.5	1109.6	1108.9	<i>1108.9</i>	1109.6
32.5°	1087.6	1081.4	1080.7	<i>1076.6</i>	1078.6
35°	1055.2	1048.4	1042.9	<i>1041.5</i>	1044.9
37.5°	1011.9	1003.7	1003.0	<i>1004.4</i>	1004.4
40°	972.1	963.1	964.5	<i>959.7</i>	965.9
42.5°	928.8	921.2	916.4	<i>915.0</i>	922.6
45°	893.0	879.9	874.4	<i>871.7</i>	875.8
47.5°	836.6	833.2	827.7	<i>822.9</i>	832.5
50°	789.9	792.0	778.9	<i>774.1</i>	778.9
52.5°	740.4	731.5	722.5	<i>714.3</i>	728.0
55°	684.0	677.1	668.9	<i>664.8</i>	673.0
57.5°	632.5	624.9	612.5	<i>602.9</i>	617.3
60°	575.4	568.5	555.5	<i>545.2</i>	563.0
62.5°	517.0	509.4	497.0	<i>480.5</i>	499.1
65°	453.0	448.2	429.7	<i>418.7</i>	433.8
67.5°	388.4	385.7	374.7	<i>356.1</i>	378.1
70°	328.6	323.1	310.0	<i>293.5</i>	314.9
72.5°	269.5	259.9	250.2	<i>234.4</i>	252.3
75°	204.9	201.4	192.5	<i>176.0</i>	191.8
77.5°	148.5	145.1	138.9	<i>126.5</i>	138.9
80°	96.2	95.6	90.7	<i>81.8</i>	90.7
82.5°	55.0	55.0	51.6	<i>48.1</i>	51.6
85°	26.1	24.7	23.4	<i>22.0</i>	23.4
87.5°	6.9	6.9	6.9	<i>6.9</i>	7.6
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)