

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: P892109

Luminaire Tested: **FLR-HA-22-35-35-CP080**

Issue Date: 10/22/2024



**Test Information**

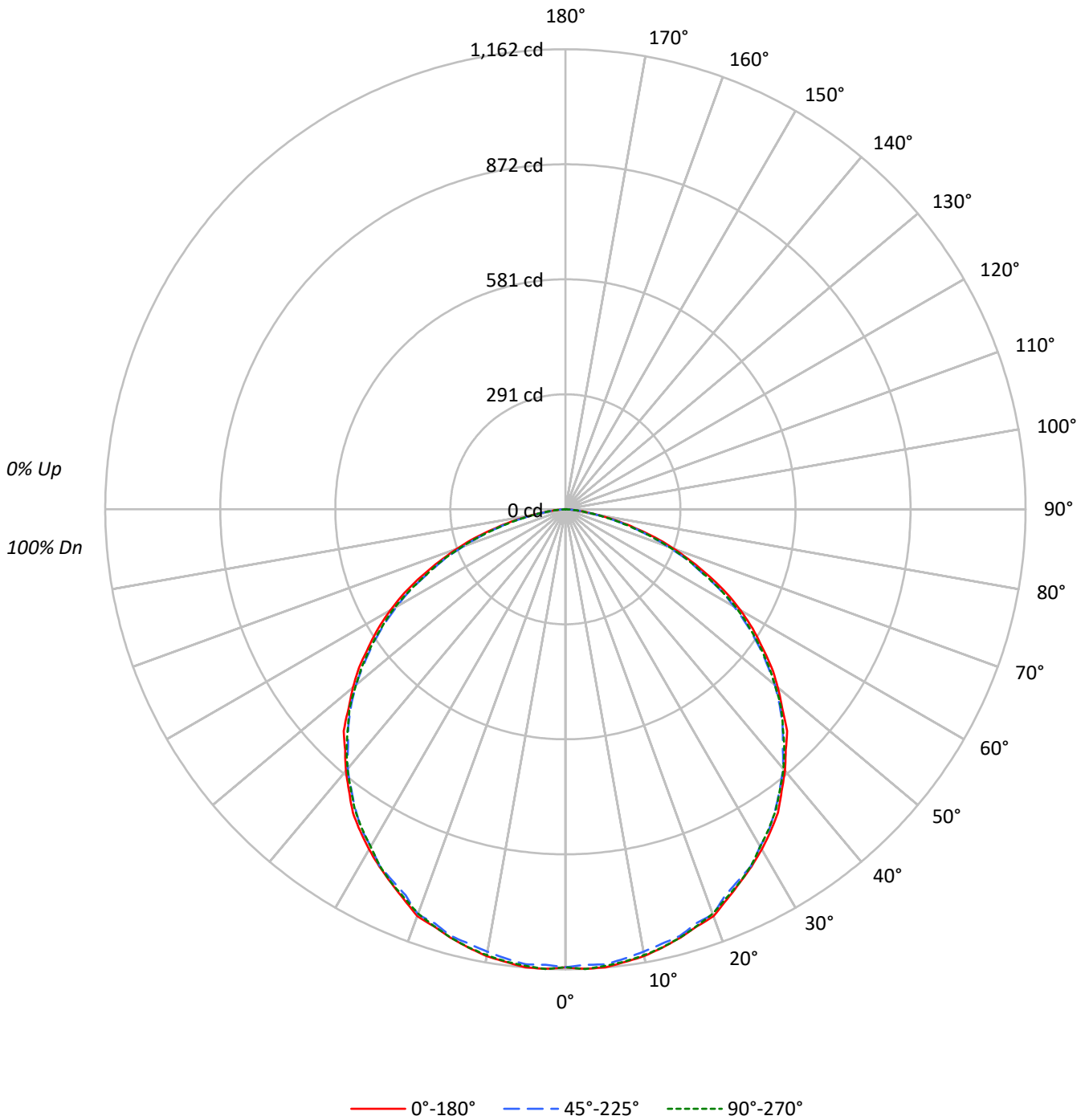
Test Method: LM-79-08  
Report Number: P892109  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FLR-HA-22-35-35-CP080  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 3500K Luminaire for High Abuse  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3209.5 lumens  
Efficiency: N/A  
Efficacy: 102.2 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): 31.4  
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: 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				
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°	3113	3113	3113
5°	3136	3117	3127
10°	3131	3101	3125
15°	3121	3109	3119
20°	3131	3117	3112
25°	3091	3071	3089
30°	3081	3055	3057
35°	3074	3037	3044
40°	3028	3004	3008
45°	3013	2950	2955
50°	2932	2891	2891
55°	2845	2783	2799
60°	2746	2651	2687
65°	2558	2426	2449
70°	2293	2163	2197
75°	1888	1775	1769
80°	1322	1247	1247
85°	716	639	639



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.7	3.4
10°-20°	314.8	9.8
20°-30°	478.5	14.9
30°-40°	578.8	18.0
40°-50°	599.1	18.7
50°-60°	532.3	16.6
60°-70°	382.5	11.9
70°-80°	182.9	5.7
80°-90°	30.8	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°	903.1	28.1
0°-40°	1481.9	46.2
0°-60°	2613.3	81.4
0°-90°	3209.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3209.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1157	1157	1157	1157	1157	
5°	1161	1153	1154	1155	1158	110
15°	1120	1113	1116	1114	1120	317
25°	1041	1036	1034	1039	1040	481
35°	936	930	925	923	926	583
45°	792	780	775	773	776	606
55°	606	600	593	589	597	543
65°	402	397	381	371	385	397
75°	182	179	171	156	170	195
85°	23	22	21	20	21	33
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1156.9	1156.9	1156.9	<i>1156.9</i>	1156.9
2.5°	<i>1161.7</i>	<i>1153.2</i>	<i>1151.4</i>	<i>1162.4</i>	<i>1162.4</i>
5°	1161.1	1153.2	1153.8	<i>1155.0</i>	1157.5
7.5°	1153.2	1148.9	1144.7	<i>1148.9</i>	1152.0
10°	1145.9	1136.1	1134.9	<i>1136.8</i>	1143.5
12.5°	1133.7	1122.7	1124.0	<i>1127.0</i>	1133.1
15°	1120.3	1113.0	1116.0	<i>1113.6</i>	1119.7
17.5°	1104.5	1104.5	1096.5	<i>1094.7</i>	1103.8
20°	1093.5	1078.2	1088.6	<i>1079.5</i>	1086.8
22.5°	1066.1	1057.5	1055.1	<i>1062.4</i>	1062.4
25°	1041.1	1035.6	1034.4	<i>1038.6</i>	1040.5
27.5°	1017.3	1014.2	1015.5	<i>1014.9</i>	1014.9
30°	991.7	983.8	983.2	<i>983.2</i>	983.8
32.5°	964.3	958.8	958.2	<i>954.5</i>	956.3
35°	935.6	929.5	924.6	<i>923.4</i>	926.5
37.5°	897.2	889.9	889.3	<i>890.5</i>	890.5
40°	861.9	853.9	855.2	<i>850.9</i>	856.4
42.5°	823.5	816.8	812.5	<i>811.3</i>	818.0
45°	791.8	780.2	775.3	<i>772.9</i>	776.5
47.5°	741.8	738.7	733.9	<i>729.6</i>	738.1
50°	700.3	702.2	690.6	<i>686.3</i>	690.6
52.5°	656.5	648.5	640.6	<i>633.3</i>	645.5
55°	606.5	600.4	593.1	<i>589.4</i>	596.7
57.5°	560.8	554.1	543.1	<i>534.6</i>	547.4
60°	510.2	504.1	492.5	<i>483.4</i>	499.2
62.5°	458.4	451.7	440.7	<i>426.1</i>	442.5
65°	401.7	397.4	381.0	<i>371.2</i>	384.6
67.5°	344.4	341.9	332.2	<i>315.7</i>	335.2
70°	291.4	286.5	274.9	<i>260.3</i>	279.2
72.5°	238.9	230.4	221.9	<i>207.8</i>	223.7
75°	181.6	178.6	170.7	<i>156.0</i>	170.1
77.5°	131.7	128.6	123.1	<i>112.2</i>	123.1
80°	85.3	84.7	80.5	<i>72.5</i>	80.5
82.5°	48.8	48.8	45.7	<i>42.7</i>	45.7
85°	23.2	21.9	20.7	<i>19.5</i>	20.7
87.5°	6.1	6.1	6.1	<i>6.1</i>	6.7
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)