

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: P392560

Luminaire Tested: **MWL-3-00-57-UNV-L835-EDD**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P392560  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MWL-3-00-57-UNV-L835-EDD  
Description: MWL 3FT MEDICAL LED FIXTURE  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

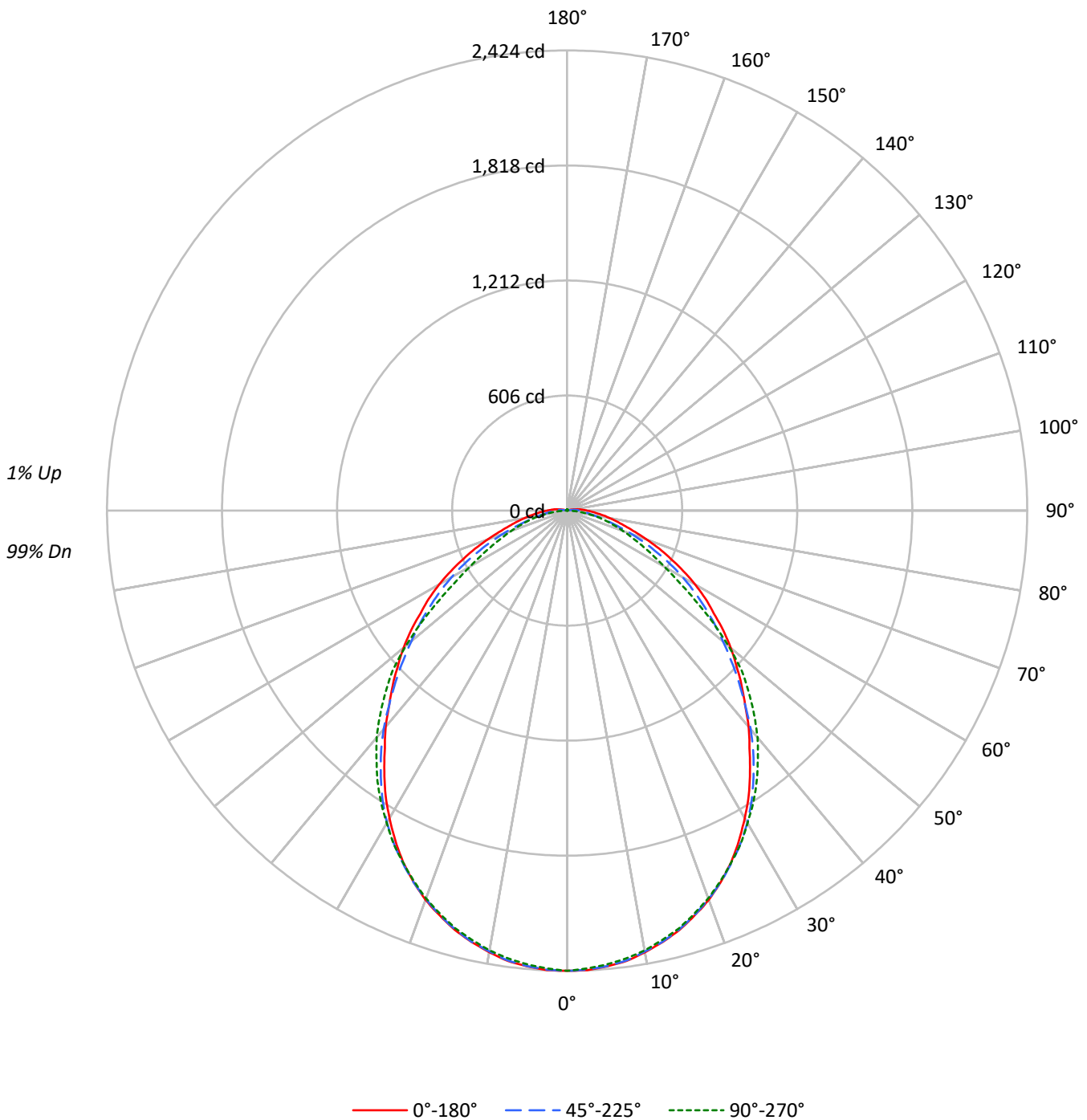
Lumens per Lamp: N/A  
Luminaire Lumens: 5635.9 lumens  
Efficiency: N/A  
Efficacy: 81.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.17 / 1.25  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')  
CIE Type: Direct

Input Watts (W): 69.4  
Input Voltage (V): NR  
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	110	110	110	106	106	106	101	101	101	99				
1	109	105	101	97	106	102	99	96	98	95	92	94	92	89	90	88	86	84				
2	100	92	86	81	97	91	85	80	87	82	78	83	79	76	80	77	74	72				
3	92	82	74	68	89	80	73	68	77	71	66	74	69	65	72	67	64	62				
4	85	73	65	59	82	72	64	58	69	63	57	67	61	56	65	60	56	53				
5	78	66	57	51	76	65	57	51	63	56	50	61	54	50	59	53	49	47				
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	53	48	43	41				
7	67	54	46	40	66	54	46	40	52	45	40	50	44	39	49	43	39	37				
8	63	50	42	36	61	49	41	36	48	41	36	46	40	35	45	39	35	33				
9	59	46	38	33	57	45	38	33	44	37	32	43	37	32	42	36	32	30				
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	27				

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

	0°	45°	90°
0°	20875	20875	20875
5°	20585	19449	19073
10°	20162	18058	17487
15°	19653	16746	16015
20°	19038	15432	14603
25°	18239	14152	13257
30°	17223	12886	11980
35°	16090	11500	10766
40°	14978	10086	9538
45°	13891	8630	8233
50°	12932	7329	6775
55°	11818	6168	5085
60°	10817	5067	3729
65°	9487	3899	2808
70°	8148	2826	2100
75°	6933	1910	1513
80°	6297	1252	964
85°	5964	923	390



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	228.3	4.1
10°-20°	642.8	11.4
20°-30°	941.9	16.7
30°-40°	1067.8	18.9
40°-50°	1003.6	17.8
50°-60°	796.3	14.1
60°-70°	517.5	9.2
70°-80°	262.5	4.7
80°-90°	110.3	2.0
90°-100°	41.1	0.7
100°-110°	7.2	0.1
110°-120°	3.4	0.1
120°-130°	3.4	0.1
130°-140°	3.3	0.1
140°-150°	2.8	0.0
150°-160°	2.0	0.0
160°-170°	1.3	0.0
170°-180°	0.4	0.0
0°-30°	1813.0	32.2
0°-40°	2880.8	51.1
0°-60°	4680.7	83.1
0°-90°	5571.0	98.8
90°-120°	51.8	0.9
90°-150°	61.2	1.1
90°-180°	65.0	1.2
0°-180°	5635.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2424	2424	2424	2424	2424	
5°	2410	2411	2408	2404	2400	229
15°	2287	2282	2284	2281	2278	644
25°	2044	2045	2049	2052	2046	939
35°	1679	1681	1711	1738	1741	1050
45°	1299	1276	1279	1322	1352	1003
55°	943	929	883	861	822	848
65°	604	592	522	440	433	602
75°	316	272	230	200	215	342
85°	156	129	95	62	49	143
90°	104	93	66	34	1	58
95°	70	66	40	5	1	51
105°	13	8	3	2	2	17
115°	5	4	4	3	2	5
125°	5	4	4	3	3	4
135°	5	5	4	4	4	4
145°	5	5	5	4	4	3
155°	5	5	4	4	4	2
165°	5	4	5	5	5	1
175°	3	4	5	5	5	0
180°	4	4	4	4	4	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2424.2	2424.2	2424.2	2424.2	2424.2
2.5°	2423.2	2422.2	2420.3	2416.3	2414.4
5°	2410.4	2411.4	2408.5	2403.6	2399.6
7.5°	2393.7	2390.8	2390.8	2382.9	2380.0
10°	2362.3	2362.3	2358.4	2355.4	2352.5
12.5°	2327.9	2326.9	2325.9	2321.0	2316.1
15°	2286.6	2281.7	2283.7	2280.7	2277.8
17.5°	2235.5	2234.6	2233.6	2232.6	2226.7
20°	2182.5	2179.5	2177.6	2178.5	2173.6
22.5°	2116.6	2116.6	2117.6	2116.6	2111.7
25°	2043.9	2044.9	2048.8	2051.8	2045.9
27.5°	1960.4	1967.3	1978.1	1981.0	1979.1
30°	1871.0	1876.9	1898.5	1909.3	1900.5
32.5°	1780.6	1782.5	1809.1	1824.8	1824.8
35°	1679.4	1681.3	1710.8	1738.3	1741.3
37.5°	1578.1	1580.1	1611.6	1642.0	1649.9
40°	1487.7	1476.9	1503.5	1540.8	1560.5
42.5°	1387.5	1373.7	1387.5	1434.7	1458.3
45°	1299.1	1275.5	1279.4	1321.7	1352.1
47.5°	1208.7	1184.1	1172.3	1210.6	1248.0
50°	1125.1	1095.7	1072.1	1088.8	1108.4
52.5°	1035.7	1011.2	976.8	978.7	965.9
55°	943.3	928.6	883.4	860.8	822.5
57.5°	863.8	847.0	793.0	742.9	693.8
60°	779.2	765.5	704.6	626.9	591.6
62.5°	690.8	681.0	614.2	525.7	507.0
65°	604.3	591.6	521.8	440.2	433.4
67.5°	524.7	505.1	440.2	367.5	366.5
70°	447.1	419.6	360.6	305.6	312.5
72.5°	375.4	342.9	290.9	248.6	258.4
75°	316.4	272.2	229.9	199.5	215.2
77.5°	269.2	223.1	177.9	153.3	172.0
80°	227.0	182.8	140.5	116.0	129.7
82.5°	192.6	151.3	114.0	83.5	89.4
85°	156.2	128.7	95.3	61.9	49.1
87.5°	128.7	109.1	79.6	48.2	14.7
90°	104.2	93.4	65.8	34.4	1.0
92.5°	84.5	79.6	54.0	19.7	1.0
95°	69.8	65.8	40.3	4.9	1.0
97.5°	56.0	52.1	22.6	2.0	1.0
100°	38.3	31.4	9.8	2.0	2.0
102.5°	23.6	18.7	2.9	2.0	2.0
105°	12.8	7.9	2.9	2.0	2.0
107.5°	6.9	4.9	2.9	2.0	2.0
110°	5.9	3.9	2.9	2.0	2.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.9	3.9	2.9	2.0	2.0
115°	4.9	3.9	3.9	2.9	2.0
117.5°	4.9	3.9	3.9	2.9	2.9
120°	4.9	3.9	3.9	2.9	2.9
122.5°	4.9	3.9	3.9	2.9	2.9
125°	4.9	3.9	3.9	2.9	2.9
127.5°	4.9	4.9	3.9	2.9	2.9
130°	4.9	4.9	3.9	3.9	2.9
132.5°	4.9	4.9	3.9	3.9	3.9
135°	4.9	4.9	3.9	3.9	3.9
137.5°	4.9	4.9	3.9	3.9	3.9
140°	4.9	4.9	3.9	3.9	3.9
142.5°	4.9	4.9	4.9	3.9	3.9
145°	4.9	4.9	4.9	3.9	3.9
147.5°	4.9	4.9	3.9	3.9	3.9
150°	4.9	4.9	3.9	4.9	3.9
152.5°	4.9	4.9	3.9	3.9	3.9
155°	4.9	4.9	3.9	3.9	3.9
157.5°	4.9	4.9	3.9	3.9	3.9
160°	4.9	3.9	3.9	3.9	3.9
162.5°	4.9	3.9	3.9	4.9	4.9
165°	4.9	3.9	4.9	4.9	4.9
167.5°	3.9	3.9	4.9	4.9	4.9
170°	2.9	3.9	4.9	4.9	4.9
172.5°	2.9	3.9	4.9	4.9	4.9
175°	2.9	3.9	4.9	4.9	4.9
177.5°	2.9	3.9	4.9	4.9	4.9
180°	3.9	3.9	3.9	3.9	3.9

(END OF REPORT)