

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: P392467

Luminaire Tested: **MWL-2-00-31-UNV-L935-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392467
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-26)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-2-00-31-UNV-L935-EDD
Description: MWL 2FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

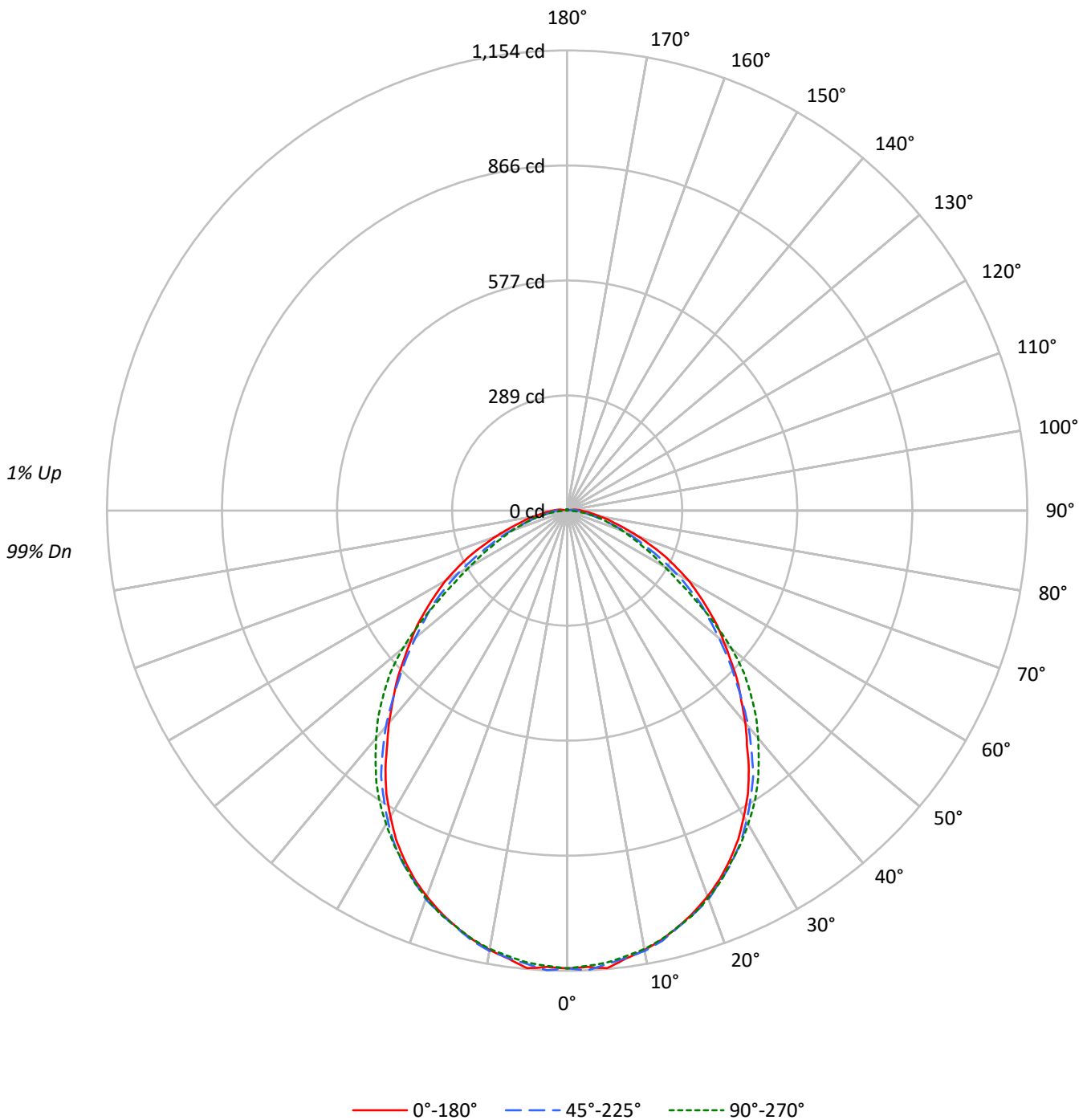
Lumens per Lamp: N/A
Luminaire Lumens: 2621.4 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.18 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')
CIE Type: Direct

Input Watts (W): 33.128
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	111	111	111	106	106	106	101	101	101	99				
1	110	105	101	98	107	103	99	96	98	96	93	94	92	90	91	89	87	85				
2	101	93	87	81	98	91	85	80	87	83	78	84	80	76	81	78	75	73				
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	72	68	65	62				
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	65	60	56	54				
5	79	67	58	52	77	65	57	52	63	56	51	61	55	50	59	54	50	48				
6	73	60	52	46	71	59	51	46	57	50	45	56	49	45	54	49	44	42				
7	68	55	47	41	66	54	46	41	53	45	40	51	45	40	50	44	40	38				
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34				
9	59	46	39	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31				
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	39	34	30	28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14828	14828	14828
5°	14671	13770	13568
10°	14154	12781	12447
15°	13673	11756	11386
20°	13154	10873	10417
25°	12550	9940	9455
30°	11796	8983	8583
35°	10929	8026	7730
40°	9975	6948	6830
45°	9131	5868	5943
50°	8260	4942	4942
55°	7472	4164	3668
60°	6684	3294	2675
65°	5693	2440	1987
70°	4568	1732	1471
75°	3512	1144	1029
80°	2816	711	651
85°	2376	529	268



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	4.1
10°-20°	304.7	11.6
20°-30°	446.7	17.0
30°-40°	506.5	19.3
40°-50°	472.4	18.0
50°-60°	370.3	14.1
60°-70°	230.8	8.8
70°-80°	110.8	4.2
80°-90°	44.7	1.7
90°-100°	15.0	0.6
100°-110°	1.9	0.1
110°-120°	1.5	0.1
120°-130°	1.9	0.1
130°-140°	1.9	0.1
140°-150°	1.7	0.1
150°-160°	1.4	0.1
160°-170°	0.8	0.0
170°-180°	0.2	0.0
0°-30°	859.7	32.8
0°-40°	1366.2	52.1
0°-60°	2208.9	84.3
0°-90°	2595.1	99.0
90°-120°	18.4	0.7
90°-150°	23.9	0.9
90°-180°	26.0	1.0
0°-180°	2621.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1148	1148	1148	1148	1148	
5°	1152	1143	1141	1140	1138	109
15°	1080	1080	1080	1078	1080	304
25°	966	967	975	973	973	444
35°	794	794	814	829	834	495
45°	604	594	596	632	651	465
55°	430	430	410	406	396	386
65°	270	257	226	203	204	266
75°	125	109	96	89	98	138
85°	54	53	38	28	22	50
90°	35	39	27	14	1	20
95°	24	24	15	1	1	17
105°	2	2	1	1	1	4
115°	2	2	2	2	2	2
125°	2	2	2	2	2	2
135°	2	2	2	2	2	2
145°	2	3	2	2	2	2
155°	3	3	3	2	2	2
165°	3	2	2	2	2	1
175°	2	2	2	3	3	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1148.0	1148.0	1148.0	1148.0	1148.0
2.5°	1145.5	1151.4	1153.9	1142.1	1143.0
5°	1152.1	1143.0	1141.4	1140.5	1138.0
7.5°	1133.0	1137.1	1131.3	1129.6	1127.1
10°	1118.8	1122.1	1121.3	1115.5	1116.3
12.5°	1101.3	1104.6	1104.6	1098.0	1100.5
15°	1079.6	1080.4	1080.4	1077.9	1079.6
17.5°	1056.2	1059.6	1059.6	1060.4	1060.4
20°	1029.5	1034.5	1037.0	1032.9	1033.7
22.5°	1000.4	1001.1	1004.5	998.6	1006.1
25°	966.1	967.0	975.3	972.8	972.8
27.5°	929.4	929.4	940.2	937.7	942.7
30°	886.0	893.5	899.4	911.9	907.7
32.5°	843.5	847.6	856.0	865.1	872.7
35°	794.2	794.2	813.5	829.3	833.5
37.5°	740.9	742.5	759.2	783.4	789.2
40°	695.0	691.6	707.5	739.2	745.0
42.5°	646.6	641.6	649.9	688.3	701.6
45°	604.0	594.0	595.7	631.6	650.7
47.5°	556.5	553.1	546.5	570.6	600.7
50°	513.1	506.4	496.4	516.4	539.0
52.5°	474.7	468.9	450.5	462.2	467.2
55°	430.5	429.6	410.5	405.5	395.5
57.5°	390.5	388.8	361.2	352.1	332.9
60°	352.1	346.2	316.2	292.9	282.9
62.5°	308.7	305.4	268.6	243.6	242.0
65°	269.5	257.0	226.1	202.7	204.4
67.5°	226.9	214.4	187.7	166.9	173.5
70°	190.2	173.5	153.5	136.0	146.0
72.5°	156.0	138.5	123.5	111.0	120.1
75°	125.1	109.3	96.0	89.3	97.6
77.5°	105.1	88.4	72.6	69.2	79.3
80°	82.6	73.4	55.9	51.7	58.4
82.5°	66.7	62.6	46.7	36.7	40.0
85°	54.2	53.4	38.4	27.5	22.5
87.5°	43.4	45.9	32.5	20.9	6.6
90°	35.0	39.2	26.7	14.2	0.9
92.5°	30.0	32.5	21.7	6.6	0.9
95°	24.2	24.2	15.0	0.9	0.9
97.5°	18.4	16.7	5.9	0.9	0.9
100°	10.9	8.4	0.9	0.9	0.9
102.5°	5.0	2.5	0.9	0.9	0.9
105°	1.6	1.6	0.9	0.9	0.9
107.5°	1.6	1.6	1.6	0.9	0.9
110°	1.6	1.6	1.6	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.6	1.6	1.6	1.6	0.9
115°	1.6	1.6	1.6	1.6	1.6
117.5°	1.6	1.6	1.6	1.6	1.6
120°	1.6	1.6	1.6	1.6	1.6
122.5°	2.5	1.6	1.6	1.6	1.6
125°	2.5	2.5	2.5	1.6	1.6
127.5°	2.5	2.5	2.5	2.5	2.5
130°	2.5	2.5	2.5	2.5	2.5
132.5°	2.5	2.5	2.5	2.5	2.5
135°	2.5	2.5	2.5	2.5	2.5
137.5°	2.5	2.5	2.5	2.5	2.5
140°	2.5	2.5	2.5	2.5	2.5
142.5°	2.5	2.5	2.5	2.5	2.5
145°	2.5	3.4	2.5	2.5	2.5
147.5°	3.4	3.4	3.4	2.5	2.5
150°	3.4	3.4	3.4	2.5	2.5
152.5°	3.4	3.4	3.4	2.5	2.5
155°	3.4	3.4	3.4	2.5	2.5
157.5°	3.4	3.4	2.5	2.5	2.5
160°	3.4	3.4	2.5	2.5	2.5
162.5°	3.4	3.4	2.5	2.5	2.5
165°	3.4	2.5	2.5	2.5	2.5
167.5°	3.4	2.5	2.5	2.5	2.5
170°	2.5	2.5	2.5	2.5	2.5
172.5°	1.6	2.5	2.5	2.5	2.5
175°	1.6	2.5	2.5	3.4	3.4
177.5°	1.6	1.6	2.5	3.4	3.4
180°	2.5	2.5	2.5	2.5	2.5

(END OF REPORT)