

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: P392461

Luminaire Tested: **MWL-2-00-17-UNV-L835-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392461
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-29)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-2-00-17-UNV-L835-EDD
Description: MWL 2FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1697.1 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')
CIE Type: Direct

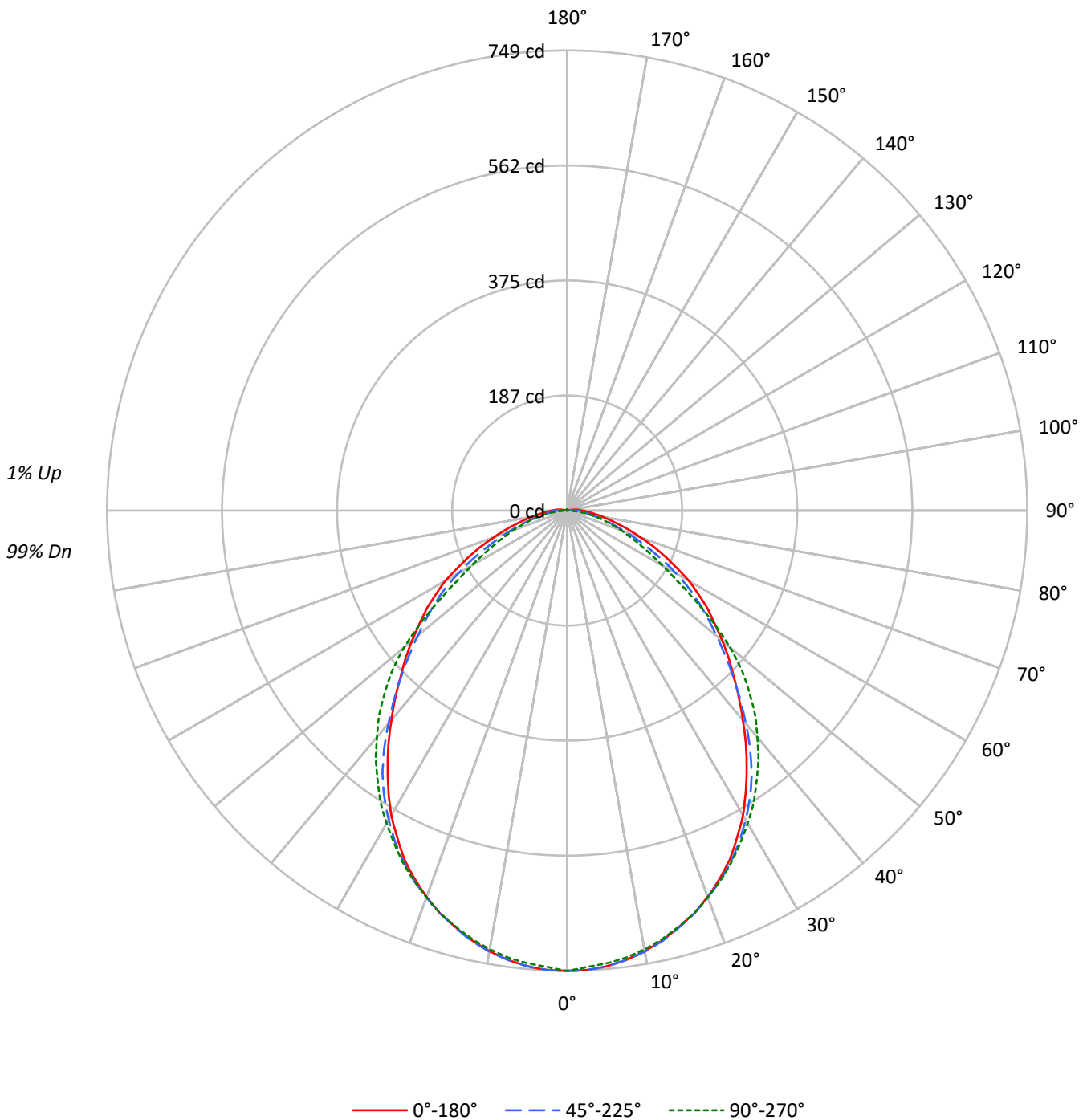
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	109	105	101	98	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	93	87	81	98	91	85	80	87	82	78	84	80	76	81	77	75	72
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	72	68	64	62
4	85	74	66	59	83	72	65	59	70	63	58	67	62	57	65	60	56	54
5	79	66	58	52	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	52	46	71	59	51	45	57	50	45	56	49	45	54	48	44	42
7	68	55	47	41	66	54	46	41	52	45	40	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	36	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°	9678	9678	9678
5°	9480	8982	8819
10°	9211	8310	8086
15°	8891	7648	7393
20°	8549	7025	6752
25°	8138	6425	6146
30°	7621	5804	5559
35°	7011	5170	4986
40°	6384	4444	4415
45°	5802	3762	3832
50°	5307	3157	3173
55°	4849	2657	2349
60°	4349	2136	1700
65°	3697	1596	1260
70°	3043	1145	935
75°	2443	772	662
80°	1978	480	432
85°	1696	373	185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.5	4.2
10°-20°	198.0	11.7
20°-30°	289.5	17.1
30°-40°	326.4	19.2
40°-50°	302.8	17.8
50°-60°	237.8	14.0
60°-70°	150.0	8.8
70°-80°	74.0	4.4
80°-90°	30.8	1.8
90°-100°	10.7	0.6
100°-110°	1.4	0.1
110°-120°	1.0	0.1
120°-130°	0.9	0.1
130°-140°	0.8	0.0
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	557.9	32.9
0°-40°	884.4	52.1
0°-60°	1425.0	84.0
0°-90°	1679.8	99.0
90°-120°	13.1	0.8
90°-150°	15.9	0.9
90°-180°	17.0	1.0
0°-180°	1697.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	744	744	744	742	740	71
15°	702	703	703	702	701	198
25°	626	628	630	631	632	287
35°	510	512	524	534	538	318
45°	384	381	382	405	420	297
55°	279	276	262	260	253	249
65°	175	169	148	130	130	174
75°	87	74	65	58	63	94
85°	39	37	27	18	16	36
90°	25	28	18	11	0	14
95°	17	18	11	1	0	12
105°	1	1	1	1	1	3
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	2	2	2	2	1	1
155°	2	2	2	2	1	1
165°	2	2	2	1	1	1
175°	1	1	2	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	749.3	749.3	749.3	749.3	749.3
2.5°	748.4	748.4	748.4	745.5	743.5
5°	744.5	744.5	744.5	741.6	739.7
7.5°	737.7	737.7	737.7	735.8	733.9
10°	728.1	729.0	729.0	727.1	725.2
12.5°	716.5	717.4	717.4	715.5	714.5
15°	702.0	702.9	702.9	702.0	701.0
17.5°	687.4	687.4	687.4	688.4	687.4
20°	669.1	670.0	670.0	671.0	670.0
22.5°	648.8	649.7	651.7	651.7	651.7
25°	626.5	627.5	630.4	631.4	632.3
27.5°	599.5	603.3	607.2	609.1	610.1
30°	572.4	575.3	581.1	586.9	587.9
32.5°	541.5	545.3	554.0	561.8	564.7
35°	509.5	511.5	524.0	533.7	537.6
37.5°	477.6	476.7	489.2	506.6	511.5
40°	444.8	442.8	452.5	475.7	481.5
42.5°	413.8	411.9	416.7	442.8	453.5
45°	383.8	380.9	381.9	405.1	419.6
47.5°	356.8	351.9	349.0	366.4	386.8
50°	329.7	324.9	317.1	329.7	346.1
52.5°	302.6	299.7	289.1	294.9	300.7
55°	279.4	275.6	262.0	260.1	253.3
57.5°	253.3	251.4	235.0	224.3	211.7
60°	229.1	224.3	205.0	189.5	179.8
62.5°	200.1	197.2	176.0	156.6	152.8
65°	175.0	169.2	147.9	130.5	129.6
67.5°	150.8	141.2	122.8	108.3	109.3
70°	126.7	116.0	101.5	89.0	92.8
72.5°	106.4	93.8	82.2	72.5	76.4
75°	87.0	74.4	64.8	58.0	62.8
77.5°	71.5	60.9	49.3	46.4	50.3
80°	58.0	50.3	37.7	34.8	38.7
82.5°	47.4	43.5	31.9	24.2	26.1
85°	38.7	36.7	27.1	18.4	15.5
87.5°	30.9	31.9	22.2	14.5	3.9
90°	25.1	28.0	18.4	10.6	0.0
92.5°	20.3	23.2	15.5	4.8	0.0
95°	17.4	18.4	10.6	1.0	0.0
97.5°	12.6	12.6	4.8	0.0	0.0
100°	7.7	6.8	1.0	0.0	0.0
102.5°	3.9	1.9	1.0	0.0	0.0
105°	1.0	1.0	1.0	1.0	1.0
107.5°	1.0	1.0	1.0	1.0	1.0
110°	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	1.0	1.0	1.0	1.0
115°	1.0	1.0	1.0	1.0	1.0
117.5°	1.0	1.0	1.0	1.0	1.0
120°	1.0	1.0	1.0	1.0	1.0
122.5°	1.0	1.0	1.0	1.0	1.0
125°	1.0	1.0	1.0	1.0	1.0
127.5°	1.0	1.0	1.0	1.0	1.0
130°	1.0	1.0	1.0	1.0	1.0
132.5°	1.0	1.0	1.0	1.0	1.0
135°	1.0	1.0	1.0	1.0	1.0
137.5°	1.0	1.0	1.0	1.0	1.0
140°	1.9	1.9	1.9	1.0	1.0
142.5°	1.9	1.9	1.9	1.0	1.0
145°	1.9	1.9	1.9	1.9	1.0
147.5°	1.9	1.9	1.9	1.9	1.0
150°	1.9	1.9	1.9	1.9	1.0
152.5°	1.9	1.9	1.9	1.9	1.0
155°	1.9	1.9	1.9	1.9	1.0
157.5°	1.9	1.9	1.9	1.9	1.0
160°	1.9	1.9	1.9	1.0	1.0
162.5°	1.9	1.9	1.9	1.0	1.0
165°	1.9	1.9	1.9	1.0	1.0
167.5°	1.9	1.9	1.0	1.0	1.0
170°	1.0	1.9	1.0	1.9	1.9
172.5°	1.0	1.0	1.0	1.9	1.9
175°	1.0	1.0	1.9	1.9	1.9
177.5°	1.0	1.0	1.9	1.9	1.9
180°	1.9	1.9	1.9	1.9	1.9

(END OF REPORT)