

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: P392458

Luminaire Tested: **MWL-2-00-13-UNV-L835-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-30)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-2-00-13-UNV-L835-EDD
Description: MWL 2FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

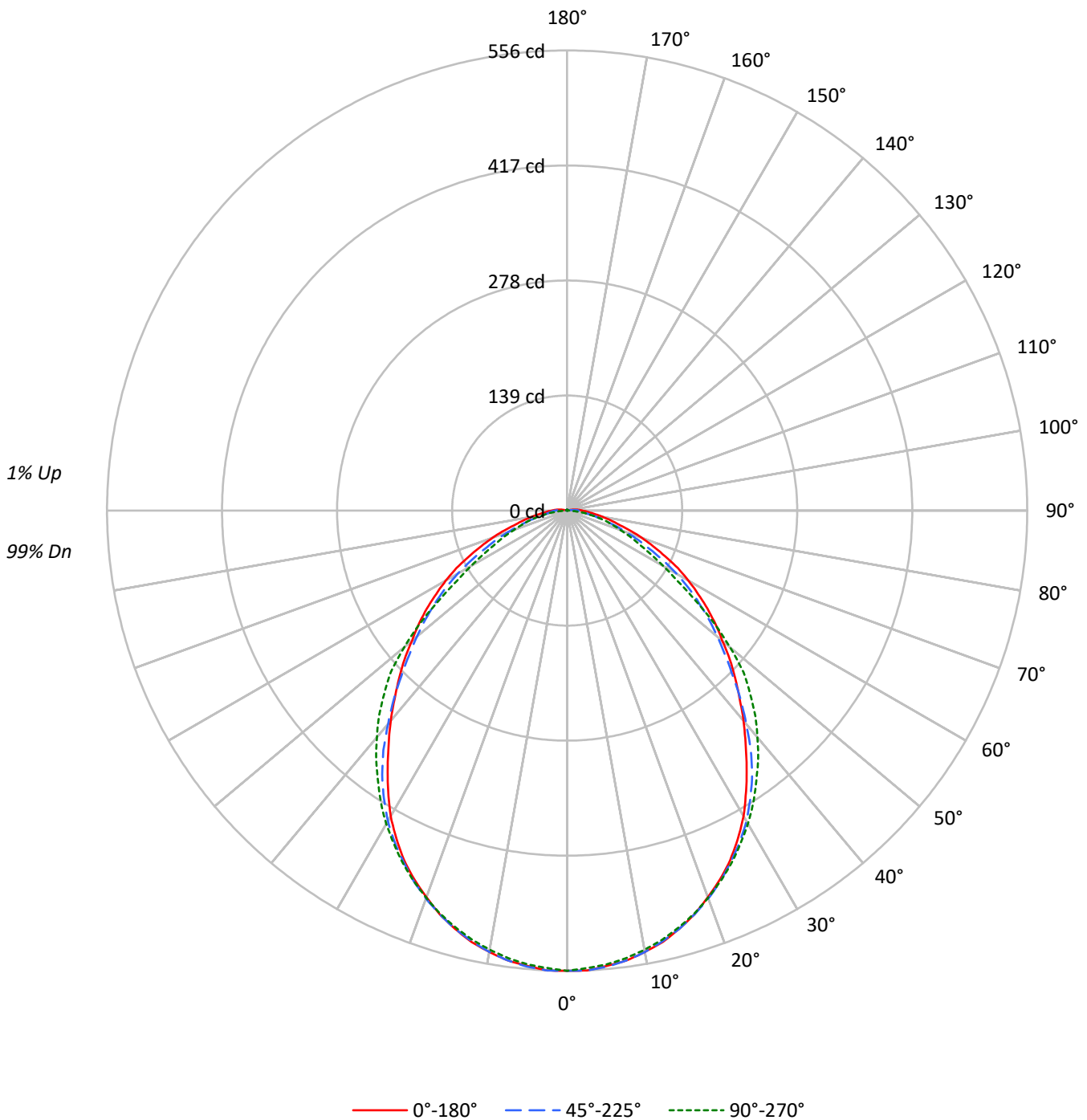
Lumens per Lamp: N/A
Luminaire Lumens: 1263.1 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.18 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')
CIE Type: Direct

Input Watts (W): 11.9
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	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	82	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	38	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°	7183	7183	7183
5°	7032	6674	6561
10°	6852	6174	6006
15°	6626	5693	5498
20°	6351	5232	5019
25°	6055	4771	4568
30°	5678	4328	4133
35°	5203	3845	3695
40°	4761	3305	3280
45°	4342	2792	2853
50°	3939	2359	2358
55°	3593	1972	1749
60°	3212	1592	1271
65°	2759	1189	930
70°	2299	851	692
75°	1791	565	500
80°	1483	356	312
85°	1227	279	126



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.4	4.1
10°-20°	147.3	11.7
20°-30°	215.3	17.0
30°-40°	242.8	19.2
40°-50°	225.5	17.9
50°-60°	177.0	14.0
60°-70°	112.0	8.9
70°-80°	55.1	4.4
80°-90°	22.9	1.8
90°-100°	7.9	0.6
100°-110°	0.9	0.1
110°-120°	1.0	0.1
120°-130°	0.9	0.1
130°-140°	0.8	0.1
140°-150°	0.6	0.0
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	414.9	32.8
0°-40°	657.7	52.1
0°-60°	1060.2	83.9
0°-90°	1250.2	99.0
90°-120°	9.8	0.8
90°-150°	12.1	1.0
90°-180°	13.0	1.0
0°-180°	1263.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	552	553	553	551	550	52
15°	523	523	523	523	521	147
25°	466	466	468	470	470	214
35°	378	381	390	398	398	237
45°	287	284	283	302	312	222
55°	207	205	194	194	189	185
65°	131	126	110	98	96	130
75°	64	56	47	44	47	70
85°	28	28	20	14	11	26
90°	18	20	14	8	0	10
95°	13	14	8	0	0	9
105°	1	1	0	0	0	2
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	1	1	1
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	556.1	556.1	556.1	556.1	556.1
2.5°	556.1	556.1	556.1	554.1	553.2
5°	552.2	553.2	553.2	551.2	550.3
7.5°	548.3	548.3	548.3	546.4	545.4
10°	541.6	541.6	541.6	540.6	538.7
12.5°	533.8	533.8	532.9	531.9	530.9
15°	523.2	523.2	523.2	523.2	521.3
17.5°	511.6	511.6	511.6	511.6	510.6
20°	497.1	498.0	499.0	498.0	498.0
22.5°	482.6	482.6	484.5	485.5	484.5
25°	466.1	466.1	468.1	470.0	470.0
27.5°	446.8	447.8	451.6	453.6	453.6
30°	426.5	428.4	433.3	436.2	437.1
32.5°	402.3	405.2	412.0	417.8	418.7
35°	378.1	381.0	389.7	397.5	398.4
37.5°	354.0	354.9	364.6	376.2	379.1
40°	331.7	329.8	336.5	354.0	357.8
42.5°	308.5	305.6	310.4	328.8	336.5
45°	287.2	284.3	283.4	301.7	312.4
47.5°	266.9	262.1	259.2	273.7	289.2
50°	244.7	242.7	236.9	245.6	257.2
52.5°	226.3	223.4	215.7	219.5	224.4
55°	207.0	205.0	194.4	194.4	188.6
57.5°	187.6	185.7	174.1	167.3	157.6
60°	169.2	167.3	152.8	142.2	134.4
62.5°	150.9	147.0	130.6	117.0	113.1
65°	130.6	125.7	110.2	97.7	95.7
67.5°	112.2	105.4	92.8	81.2	82.2
70°	95.7	87.0	75.4	66.7	68.7
72.5°	79.3	69.6	60.9	54.2	57.1
75°	63.8	56.1	47.4	43.5	47.4
77.5°	53.2	45.5	36.7	33.8	37.7
80°	43.5	37.7	28.0	26.1	28.0
82.5°	34.8	31.9	23.2	18.4	19.3
85°	28.0	28.0	20.3	13.5	10.6
87.5°	23.2	24.2	17.4	10.6	2.9
90°	18.4	20.3	14.5	7.7	0.0
92.5°	15.5	17.4	11.6	3.9	0.0
95°	12.6	13.5	7.7	0.0	0.0
97.5°	9.7	8.7	3.9	0.0	0.0
100°	5.8	4.8	1.0	0.0	0.0
102.5°	2.9	1.9	0.0	0.0	0.0
105°	1.0	1.0	0.0	0.0	0.0
107.5°	1.0	1.0	1.0	0.0	0.0
110°	1.0	1.0	1.0	1.0	0.0



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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°	1.0	1.0	1.0	1.0	1.0
142.5°	1.0	1.0	1.0	1.0	1.0
145°	1.0	1.0	1.0	1.0	1.0
147.5°	1.0	1.0	1.0	1.0	1.0
150°	1.0	1.0	1.0	1.0	1.0
152.5°	1.0	1.0	1.0	1.0	1.0
155°	1.0	1.0	1.0	1.0	1.0
157.5°	1.0	1.0	1.0	1.0	1.0
160°	1.0	1.0	1.0	1.0	1.0
162.5°	1.0	1.0	1.0	1.0	1.0
165°	1.0	1.0	1.0	1.0	1.0
167.5°	1.0	1.0	1.0	1.0	1.0
170°	1.0	1.0	1.0	1.0	1.0
172.5°	1.0	1.0	1.0	1.0	1.0
175°	1.0	1.0	1.0	1.0	1.0
177.5°	1.0	1.0	1.0	1.0	1.0
180°	1.0	1.0	1.0	1.0	1.0

(END OF REPORT)