

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: P392459

Luminaire Tested: **MWL-2-00-13-UNV-L940-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392459
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-L940-EDD
Description: MWL 2FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

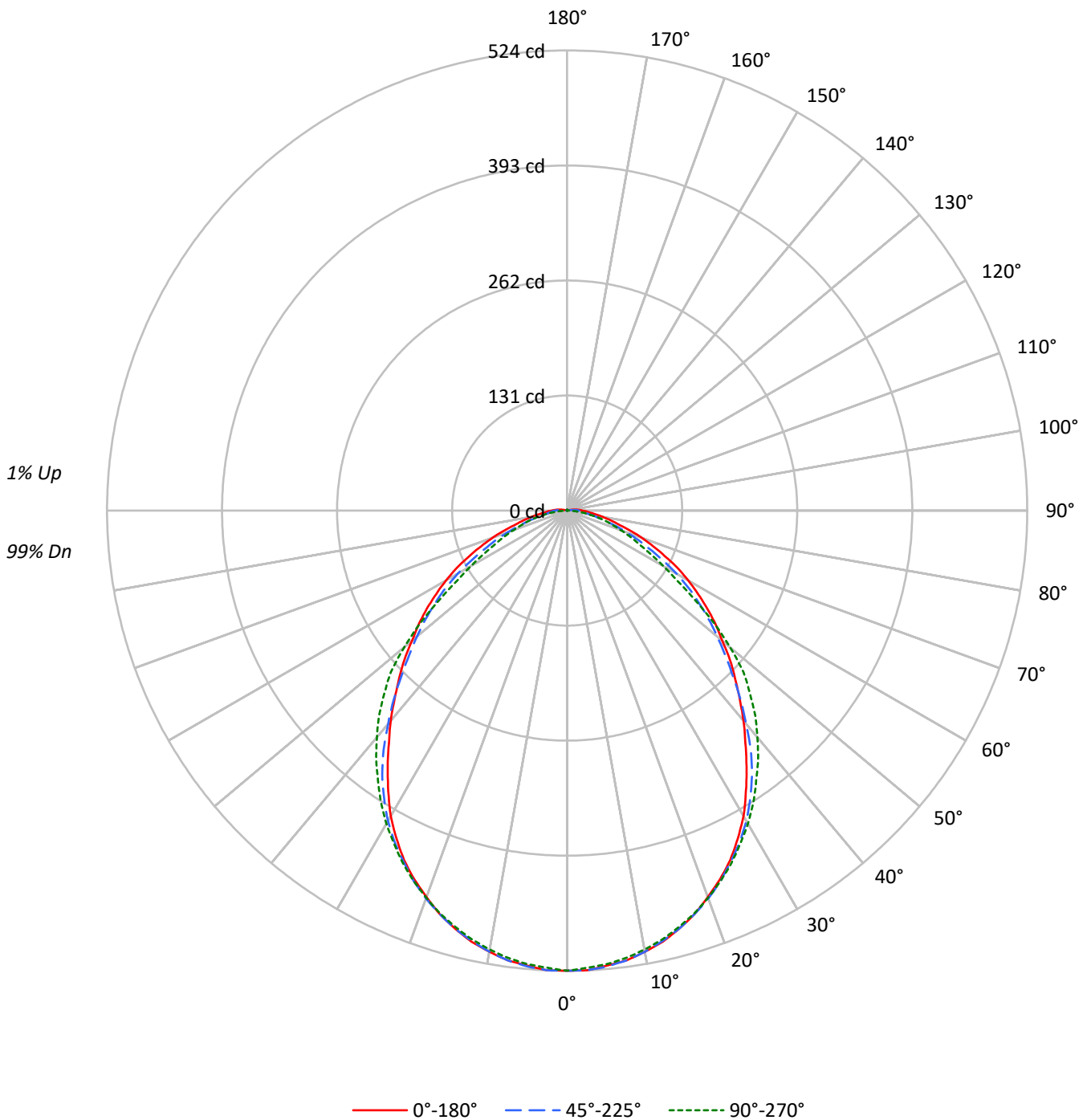
Lumens per Lamp: N/A
Luminaire Lumens: 1189.8 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.18 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')
CIE Type: Direct

Input Watts (W): 12.019
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°	6767	6767	6767
5°	6624	6287	6181
10°	6455	5816	5659
15°	6243	5363	5179
20°	5983	4929	4728
25°	5705	4494	4304
30°	5349	4077	3894
35°	4902	3623	3482
40°	4485	3114	3091
45°	4091	2630	2688
50°	3711	2222	2222
55°	3384	1857	1648
60°	3026	1500	1197
65°	2598	1121	877
70°	2166	802	652
75°	1687	531	470
80°	1398	336	294
85°	1157	263	119



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.3	4.1
10°-20°	138.7	11.7
20°-30°	202.8	17.0
30°-40°	228.7	19.2
40°-50°	212.5	17.9
50°-60°	166.7	14.0
60°-70°	105.5	8.9
70°-80°	51.9	4.4
80°-90°	21.6	1.8
90°-100°	7.4	0.6
100°-110°	0.8	0.1
110°-120°	0.9	0.1
120°-130°	0.8	0.1
130°-140°	0.7	0.1
140°-150°	0.6	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	390.9	32.9
0°-40°	619.6	52.1
0°-60°	998.8	83.9
0°-90°	1177.8	99.0
90°-120°	9.2	0.8
90°-150°	11.2	0.9
90°-180°	12.0	1.0
0°-180°	1189.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	524	524	524	524	524	
5°	520	521	521	519	518	49
15°	493	493	493	493	491	139
25°	439	439	441	443	443	202
35°	356	359	367	374	375	223
45°	271	268	267	284	294	209
55°	195	193	183	183	178	174
65°	123	118	104	92	90	123
75°	60	53	45	41	45	66
85°	26	26	19	13	10	25
90°	17	19	14	7	0	10
95°	12	13	7	0	0	8
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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CATALOG NUMBER: MWL-2-00-13-UNV-L940-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	523.9	523.9	523.9	523.9	523.9
2.5°	523.9	523.9	523.9	522.1	521.1
5°	520.2	521.1	521.1	519.3	518.4
7.5°	516.6	516.6	516.6	514.8	513.9
10°	510.2	510.2	510.2	509.3	507.5
12.5°	502.9	502.9	502.0	501.1	500.2
15°	492.9	492.9	492.9	492.9	491.1
17.5°	482.0	482.0	482.0	482.0	481.1
20°	468.3	469.2	470.1	469.2	469.2
22.5°	454.6	454.6	456.5	457.4	456.5
25°	439.2	439.2	441.0	442.8	442.8
27.5°	420.9	421.8	425.5	427.3	427.3
30°	401.8	403.6	408.2	410.9	411.8
32.5°	379.0	381.8	388.1	393.6	394.5
35°	356.2	359.0	367.2	374.5	375.4
37.5°	333.5	334.4	343.5	354.4	357.2
40°	312.5	310.7	317.1	333.5	337.1
42.5°	290.6	287.9	292.5	309.8	317.1
45°	270.6	267.9	267.0	284.3	294.3
47.5°	251.5	246.9	244.2	257.8	272.4
50°	230.5	228.7	223.2	231.4	242.4
52.5°	213.2	210.5	203.2	206.8	211.4
55°	195.0	193.2	183.1	183.1	177.7
57.5°	176.8	174.9	164.0	157.6	148.5
60°	159.4	157.6	144.0	133.9	126.6
62.5°	142.1	138.5	123.0	110.2	106.6
65°	123.0	118.4	103.9	92.0	90.2
67.5°	105.7	99.3	87.5	76.5	77.4
70°	90.2	82.0	71.1	62.9	64.7
72.5°	74.7	65.6	57.4	51.0	53.8
75°	60.1	52.8	44.6	41.0	44.6
77.5°	50.1	42.8	34.6	31.9	35.5
80°	41.0	35.5	26.4	24.6	26.4
82.5°	32.8	30.1	21.9	17.3	18.2
85°	26.4	26.4	19.1	12.8	10.0
87.5°	21.9	22.8	16.4	10.0	2.7
90°	17.3	19.1	13.7	7.3	0.0
92.5°	14.6	16.4	10.9	3.6	0.0
95°	11.8	12.8	7.3	0.0	0.0
97.5°	9.1	8.2	3.6	0.0	0.0
100°	5.5	4.6	0.9	0.0	0.0
102.5°	2.7	1.8	0.0	0.0	0.0
105°	0.9	0.9	0.0	0.0	0.0
107.5°	0.9	0.9	0.9	0.0	0.0
110°	0.9	0.9	0.9	0.9	0.0



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CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)