

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: P392551

Luminaire Tested: **MWL-3-00-28-UNV-L935-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392551
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-17)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-00-28-UNV-L935-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

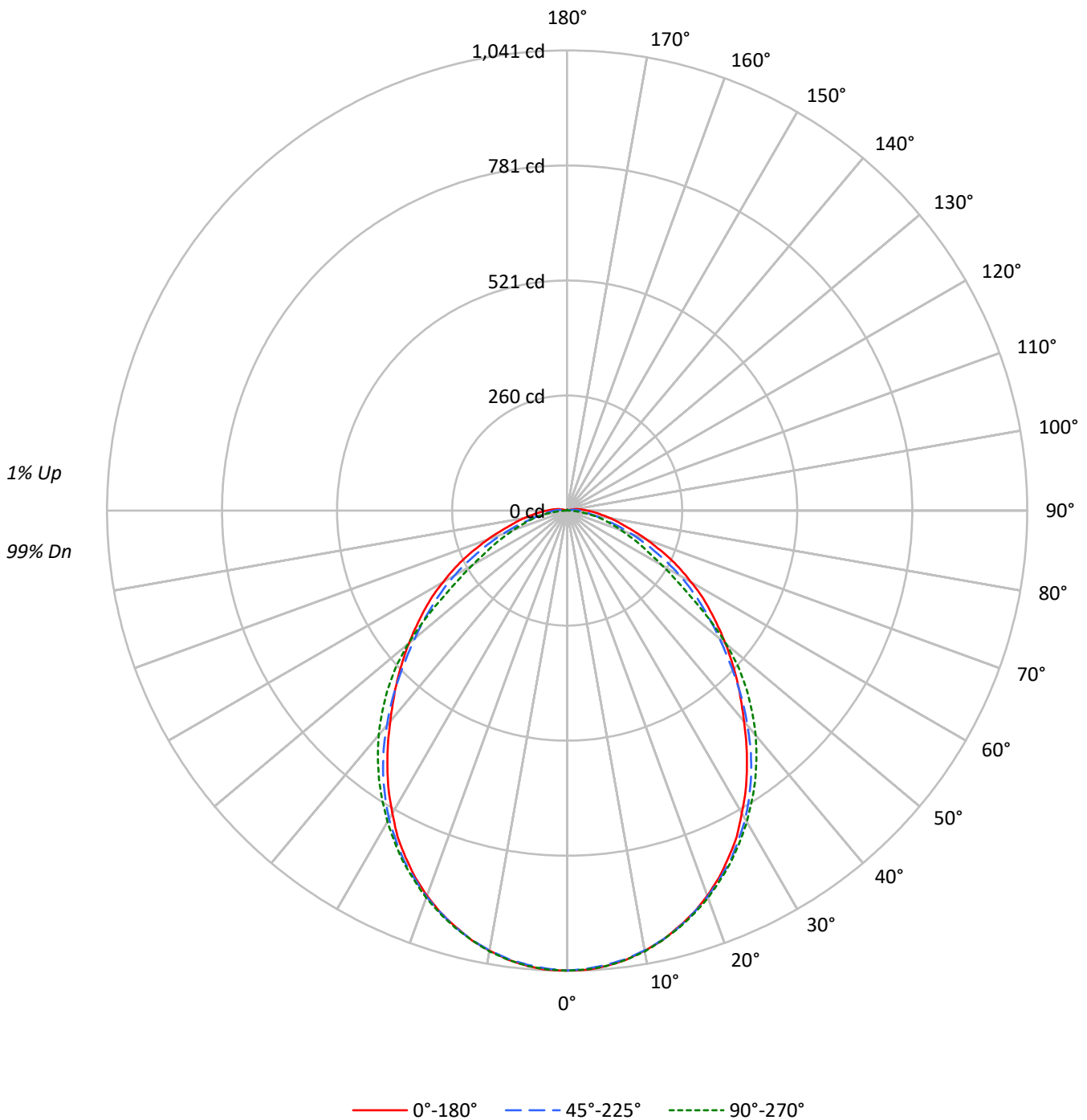
Lumens per Lamp: N/A
Luminaire Lumens: 2388.6 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 28.583
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	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	75	69	65	72	68	64	62				
4	85	73	65	59	82	72	64	58	69	63	57	67	61	57	65	60	56	54				
5	78	66	58	51	76	65	57	51	63	56	50	61	54	50	59	53	49	47				
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42				
7	67	55	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37				
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	45	40	35	33				
9	59	46	38	33	58	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	28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8962	8962	8962
5°	8830	8329	8218
10°	8630	7735	7528
15°	8377	7159	6870
20°	8086	6588	6262
25°	7720	6034	5683
30°	7277	5469	5122
35°	6793	4880	4589
40°	6268	4256	4054
45°	5814	3639	3501
50°	5371	3073	2872
55°	4951	2582	2124
60°	4498	2123	1561
65°	4021	1642	1181
70°	3479	1216	872
75°	2974	824	632
80°	2752	536	416
85°	2623	403	169



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.9	4.1
10°-20°	275.0	11.5
20°-30°	401.0	16.8
30°-40°	452.8	19.0
40°-50°	423.0	17.7
50°-60°	333.4	14.0
60°-70°	217.8	9.1
70°-80°	112.4	4.7
80°-90°	47.7	2.0
90°-100°	18.1	0.8
100°-110°	3.2	0.1
110°-120°	1.3	0.1
120°-130°	1.3	0.1
130°-140°	1.2	0.0
140°-150°	1.0	0.0
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	774.0	32.4
0°-40°	1226.7	51.4
0°-60°	1983.2	83.0
0°-90°	2361.0	98.8
90°-120°	22.7	0.9
90°-150°	26.1	1.1
90°-180°	28.0	1.2
0°-180°	2388.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1041	1041	1041	1041	1041	
5°	1034	1034	1031	1032	1034	98
15°	975	976	976	978	977	275
25°	865	868	874	877	877	398
35°	709	712	726	739	742	443
45°	544	534	539	561	575	419
55°	395	387	370	362	344	354
65°	256	248	220	185	182	253
75°	136	117	99	85	90	147
85°	69	55	42	27	21	62
90°	45	41	28	14	1	25
95°	31	30	17	2	1	23
105°	6	2	1	1	1	8
115°	2	2	2	1	1	2
125°	2	2	2	1	1	2
135°	2	2	2	2	1	1
145°	2	2	2	2	1	1
155°	2	2	2	2	2	1
165°	2	2	2	2	2	0
175°	1	2	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°	1040.7	1040.7	1040.7	1040.7	1040.7
2.5°	1039.9	1039.9	1037.3	1038.2	1039.0
5°	1033.9	1033.9	1031.4	1032.2	1033.9
7.5°	1024.6	1024.6	1022.9	1023.7	1024.6
10°	1011.1	1011.1	1010.2	1011.1	1012.7
12.5°	995.8	995.8	994.9	995.8	995.8
15°	974.6	976.3	976.3	977.9	977.1
17.5°	953.3	954.2	953.3	955.9	955.9
20°	927.0	928.7	929.6	932.1	932.1
22.5°	898.2	899.9	901.6	905.9	905.0
25°	865.1	867.6	873.6	877.1	877.1
27.5°	831.2	833.7	839.7	844.8	845.6
30°	790.5	795.6	805.8	811.7	812.6
32.5°	751.5	755.7	766.8	777.0	777.8
35°	709.0	711.6	726.0	738.7	742.2
37.5°	665.8	666.7	681.9	699.7	703.2
40°	622.6	620.9	634.4	656.5	663.3
42.5°	581.9	575.9	587.8	611.5	620.0
45°	543.7	533.5	539.4	560.6	575.0
47.5°	504.6	495.3	492.8	510.6	525.9
50°	467.3	457.2	449.6	460.5	469.8
52.5°	430.0	420.7	408.8	410.5	408.0
55°	395.2	386.8	369.8	362.2	343.5
57.5°	361.3	353.7	332.5	312.1	291.7
60°	324.0	319.8	295.2	263.8	247.7
62.5°	290.1	285.0	257.0	222.2	210.4
65°	256.1	248.5	219.7	184.9	182.3
67.5°	221.3	213.7	186.6	156.1	153.5
70°	190.9	179.0	155.2	128.1	129.8
72.5°	162.0	145.1	127.2	105.2	109.4
75°	135.7	117.0	99.2	84.8	89.9
77.5°	116.2	95.0	77.1	67.0	73.8
80°	99.2	78.0	60.2	50.9	56.0
82.5°	81.5	65.3	50.0	35.6	38.1
85°	68.7	55.1	41.6	27.2	21.2
87.5°	56.0	47.5	34.8	20.4	6.0
90°	45.0	40.7	28.0	14.4	0.9
92.5°	37.3	33.9	22.9	8.5	0.9
95°	31.4	29.7	17.0	2.5	0.9
97.5°	24.6	22.9	11.0	0.9	0.9
100°	18.6	16.1	4.2	0.9	0.9
102.5°	12.7	9.3	0.9	0.9	0.9
105°	6.0	2.5	0.9	0.9	0.9
107.5°	1.7	1.7	0.9	0.9	0.9
110°	1.7	1.7	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.7	1.7	0.9	0.9	0.9
115°	1.7	1.7	1.7	0.9	0.9
117.5°	1.7	1.7	1.7	0.9	0.9
120°	1.7	1.7	1.7	0.9	0.9
122.5°	1.7	1.7	1.7	0.9	0.9
125°	1.7	1.7	1.7	0.9	0.9
127.5°	1.7	1.7	1.7	0.9	0.9
130°	1.7	1.7	1.7	0.9	0.9
132.5°	1.7	1.7	1.7	0.9	0.9
135°	1.7	1.7	1.7	1.7	0.9
137.5°	1.7	1.7	1.7	1.7	0.9
140°	1.7	1.7	1.7	1.7	0.9
142.5°	1.7	1.7	1.7	1.7	0.9
145°	1.7	1.7	1.7	1.7	0.9
147.5°	1.7	1.7	1.7	1.7	0.9
150°	1.7	1.7	1.7	1.7	1.7
152.5°	1.7	1.7	1.7	1.7	1.7
155°	1.7	1.7	1.7	1.7	1.7
157.5°	1.7	1.7	1.7	1.7	1.7
160°	1.7	1.7	1.7	1.7	1.7
162.5°	1.7	1.7	1.7	1.7	1.7
165°	1.7	1.7	1.7	1.7	1.7
167.5°	1.7	1.7	1.7	1.7	1.7
170°	1.7	1.7	1.7	1.7	1.7
172.5°	0.9	1.7	1.7	1.7	1.7
175°	0.9	1.7	1.7	1.7	1.7
177.5°	0.9	1.7	1.7	1.7	1.7
180°	1.7	1.7	1.7	1.7	1.7

(END OF REPORT)