

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: P392552

Luminaire Tested: **MWL-3-00-28-UNV-L940-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392552
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-L940-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

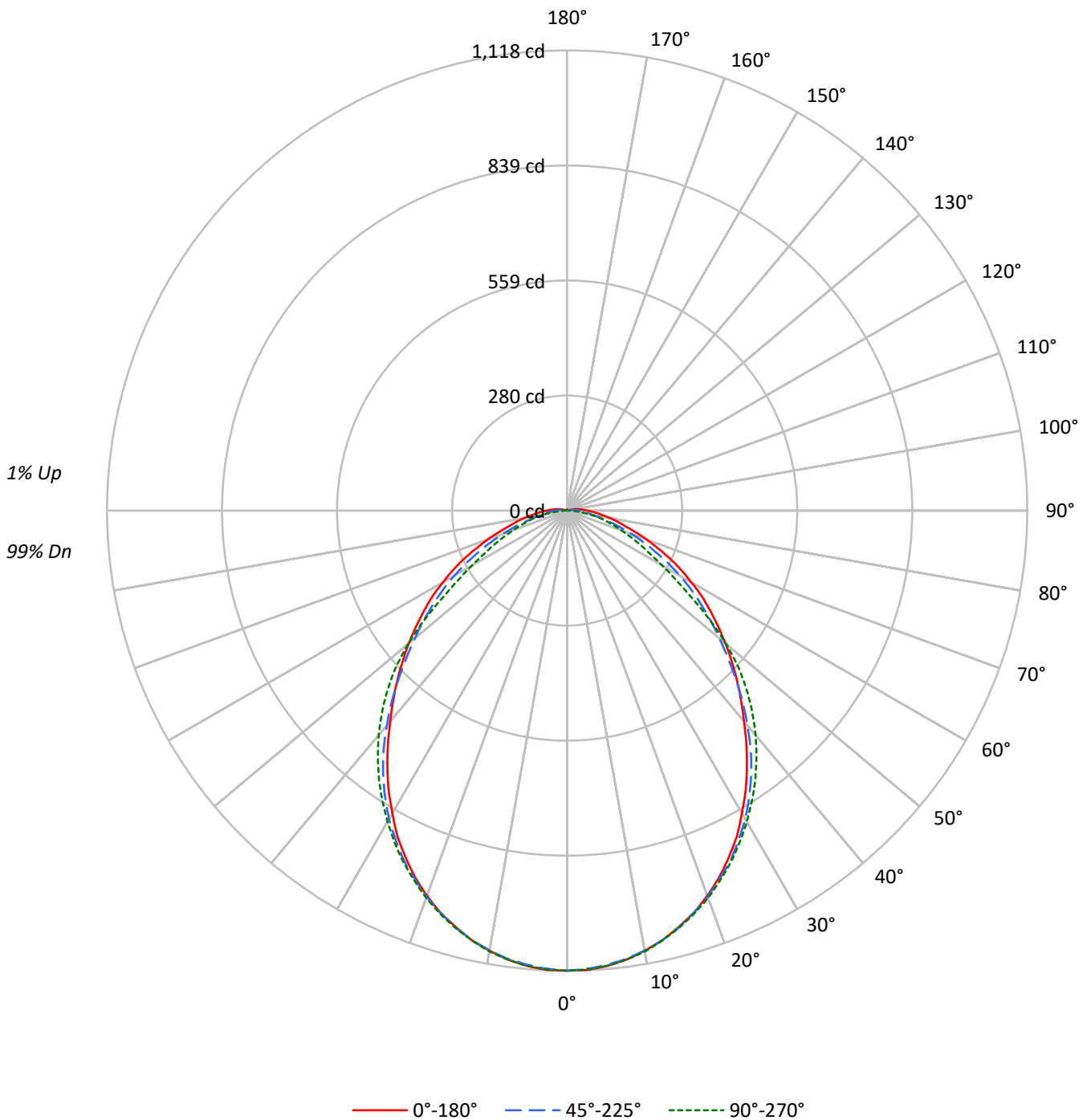
Lumens per Lamp: N/A
Luminaire Lumens: 2565.6 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 28.583
Input Voltage (V): NR
Input Current (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	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	98	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°	9626	9626	9626
5°	9485	8946	8828
10°	9269	8308	8087
15°	8998	7690	7380
20°	8686	7077	6727
25°	8293	6482	6105
30°	7816	5875	5502
35°	7297	5242	4929
40°	6732	4572	4355
45°	6245	3909	3761
50°	5770	3301	3085
55°	5319	2773	2281
60°	4831	2280	1677
65°	4321	1763	1269
70°	3736	1306	937
75°	3195	885	679
80°	2957	576	447
85°	2818	432	181



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.2	4.1
10°-20°	295.4	11.5
20°-30°	430.8	16.8
30°-40°	486.4	19.0
40°-50°	454.4	17.7
50°-60°	358.2	14.0
60°-70°	233.9	9.1
70°-80°	120.8	4.7
80°-90°	51.2	2.0
90°-100°	19.5	0.8
100°-110°	3.4	0.1
110°-120°	1.4	0.1
120°-130°	1.3	0.1
130°-140°	1.2	0.0
140°-150°	1.1	0.0
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	831.4	32.4
0°-40°	1317.8	51.4
0°-60°	2130.3	83.0
0°-90°	2536.2	98.9
90°-120°	24.3	0.9
90°-150°	27.9	1.1
90°-180°	29.0	1.1
0°-180°	2565.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1118	1118	1118	1118	1118	
5°	1111	1111	1108	1109	1111	105
15°	1047	1049	1049	1050	1050	295
25°	929	932	938	942	942	427
35°	762	764	780	794	797	476
45°	584	573	580	602	618	451
55°	425	416	397	389	369	380
65°	275	267	236	199	196	272
75°	146	126	107	91	97	158
85°	74	59	45	29	23	67
90°	48	44	30	16	1	27
95°	34	32	18	3	1	25
105°	6	3	1	1	1	9
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	1
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°	1117.9	1117.9	1117.9	1117.9	1117.9
2.5°	1117.0	1117.0	1114.3	1115.2	1116.1
5°	1110.6	1110.6	1107.9	1108.8	1110.6
7.5°	1100.6	1100.6	1098.8	1099.7	1100.6
10°	1086.0	1086.0	1085.1	1086.0	1087.9
12.5°	1069.6	1069.6	1068.7	1069.6	1069.6
15°	1046.9	1048.7	1048.7	1050.5	1049.6
17.5°	1024.1	1025.0	1024.1	1026.8	1026.8
20°	995.8	997.7	998.6	1001.3	1001.3
22.5°	964.9	966.7	968.5	973.1	972.1
25°	929.3	932.1	938.4	942.1	942.1
27.5°	892.9	895.6	902.0	907.5	908.4
30°	849.1	854.6	865.5	871.9	872.8
32.5°	807.2	811.8	823.6	834.6	835.5
35°	761.7	764.4	779.9	793.6	797.2
37.5°	715.2	716.1	732.5	751.7	755.3
40°	668.7	666.9	681.5	705.2	712.5
42.5°	625.0	618.6	631.4	656.9	666.0
45°	584.0	573.1	579.5	602.2	617.7
47.5°	542.1	532.1	529.3	548.5	564.9
50°	502.0	491.1	482.9	494.7	504.7
52.5°	461.9	451.9	439.2	441.0	438.2
55°	424.6	415.5	397.2	389.0	369.0
57.5°	388.1	379.9	357.2	335.3	313.4
60°	348.0	343.5	317.1	283.4	266.0
62.5°	311.6	306.1	276.1	238.7	226.0
65°	275.2	267.0	236.0	198.6	195.9
67.5°	237.8	229.6	200.4	167.6	164.9
70°	205.0	192.2	166.7	137.6	139.4
72.5°	174.0	155.8	136.7	113.0	117.5
75°	145.8	125.7	106.6	91.1	96.6
77.5°	124.8	102.0	82.9	72.0	79.3
80°	106.6	83.8	64.7	54.7	60.1
82.5°	87.5	70.2	53.8	38.3	41.0
85°	73.8	59.2	44.6	29.2	22.8
87.5°	60.1	51.0	37.4	21.9	6.4
90°	48.3	43.7	30.1	15.5	0.9
92.5°	40.1	36.4	24.6	9.1	0.9
95°	33.7	31.9	18.2	2.7	0.9
97.5°	26.4	24.6	11.8	0.9	0.9
100°	20.0	17.3	4.6	0.9	0.9
102.5°	13.7	10.0	0.9	0.9	0.9
105°	6.4	2.7	0.9	0.9	0.9
107.5°	1.8	1.8	0.9	0.9	0.9
110°	1.8	1.8	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.8	1.8	0.9	0.9	0.9
115°	1.8	1.8	1.8	0.9	0.9
117.5°	1.8	1.8	1.8	0.9	0.9
120°	1.8	1.8	1.8	0.9	0.9
122.5°	1.8	1.8	1.8	0.9	0.9
125°	1.8	1.8	1.8	0.9	0.9
127.5°	1.8	1.8	1.8	0.9	0.9
130°	1.8	1.8	1.8	0.9	0.9
132.5°	1.8	1.8	1.8	0.9	0.9
135°	1.8	1.8	1.8	1.8	0.9
137.5°	1.8	1.8	1.8	1.8	0.9
140°	1.8	1.8	1.8	1.8	0.9
142.5°	1.8	1.8	1.8	1.8	0.9
145°	1.8	1.8	1.8	1.8	0.9
147.5°	1.8	1.8	1.8	1.8	0.9
150°	1.8	1.8	1.8	1.8	1.8
152.5°	1.8	1.8	1.8	1.8	1.8
155°	1.8	1.8	1.8	1.8	1.8
157.5°	1.8	1.8	1.8	1.8	1.8
160°	1.8	1.8	1.8	1.8	1.8
162.5°	1.8	1.8	1.8	1.8	1.8
165°	1.8	1.8	1.8	1.8	1.8
167.5°	1.8	1.8	1.8	1.8	1.8
170°	1.8	1.8	1.8	1.8	1.8
172.5°	0.9	1.8	1.8	1.8	1.8
175°	0.9	1.8	1.8	1.8	1.8
177.5°	0.9	1.8	1.8	1.8	1.8
180°	1.8	1.8	1.8	1.8	1.8

(END OF REPORT)