

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: P392553

Luminaire Tested: **MWL-3-00-33-UNV-L930-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392553
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-00-33-UNV-L930-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

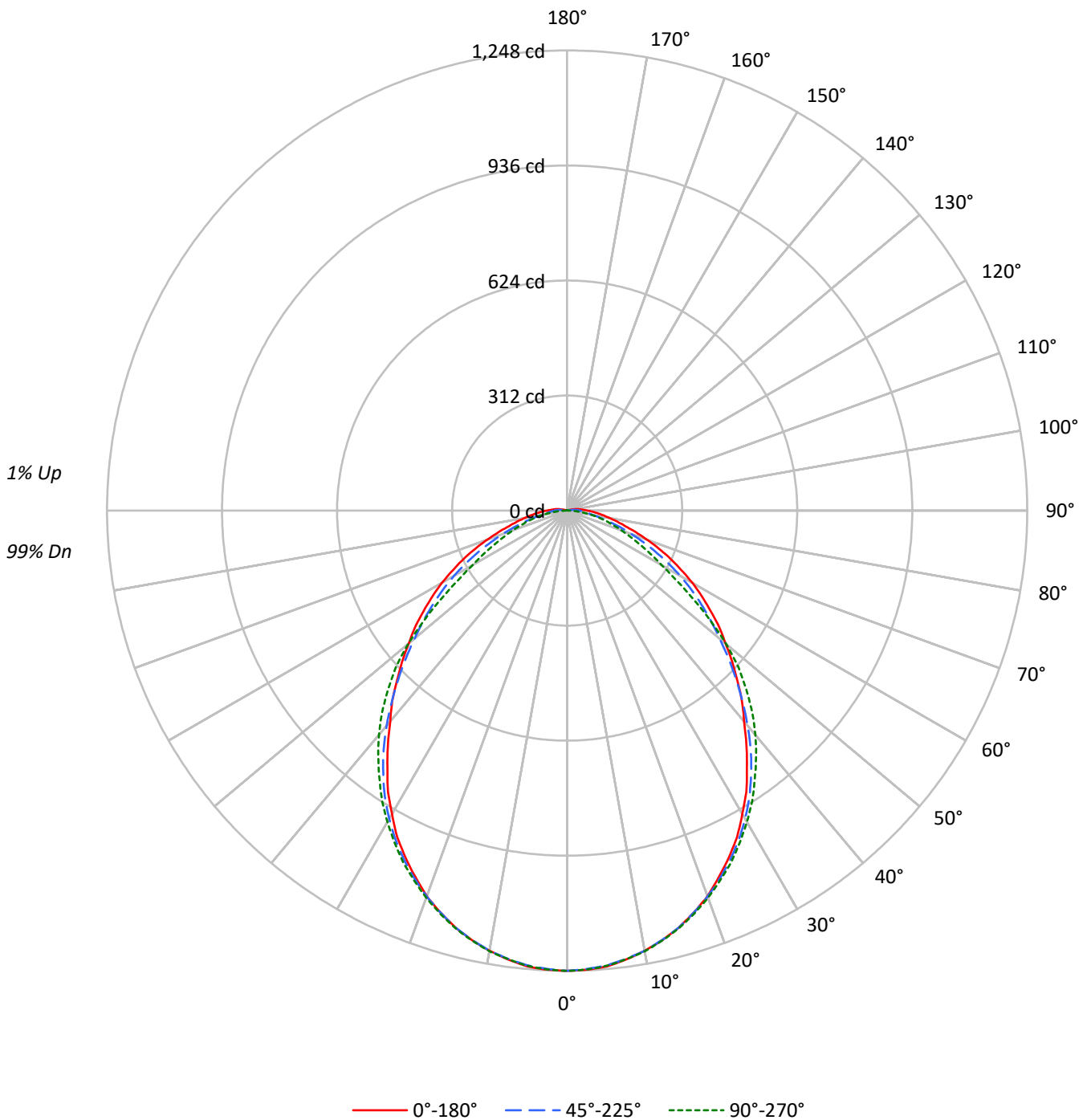
Lumens per Lamp: N/A
Luminaire Lumens: 2866.1 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 36.158
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	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°	10749	10749	10749
5°	10596	9999	9848
10°	10344	9280	9022
15°	10060	8583	8242
20°	9709	7894	7507
25°	9261	7222	6818
30°	8745	6551	6148
35°	8145	5846	5487
40°	7514	5108	4856
45°	6977	4373	4184
50°	6441	3692	3445
55°	5951	3104	2576
60°	5445	2541	1865
65°	4856	1976	1402
70°	4190	1451	1056
75°	3576	1004	766
80°	3259	647	490
85°	3165	474	208



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.4	4.1
10°-20°	329.7	11.5
20°-30°	481.0	16.8
30°-40°	543.2	19.0
40°-50°	507.7	17.7
50°-60°	400.5	14.0
60°-70°	261.6	9.1
70°-80°	135.1	4.7
80°-90°	57.2	2.0
90°-100°	21.8	0.8
100°-110°	4.0	0.1
110°-120°	1.5	0.1
120°-130°	1.5	0.1
130°-140°	1.3	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°	928.1	32.4
0°-40°	1471.4	51.3
0°-60°	2379.6	83.0
0°-90°	2833.5	98.9
90°-120°	27.3	1.0
90°-150°	31.2	1.1
90°-180°	33.0	1.2
0°-180°	2866.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1241	1241	1238	1238	1239	117
15°	1170	1170	1170	1171	1172	329
25°	1038	1042	1046	1052	1052	477
35°	850	854	870	888	888	532
45°	652	642	648	674	687	504
55°	475	465	445	434	417	426
65°	309	299	264	223	216	306
75°	163	141	121	101	109	177
85°	83	67	49	32	26	75
90°	55	48	34	18	1	30
95°	37	36	21	3	1	28
105°	8	3	2	1	1	10
115°	3	2	2	1	1	2
125°	2	2	2	2	2	2
135°	2	2	2	2	2	1
145°	2	2	2	2	2	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°	1248.3	1248.3	1248.3	1248.3	1248.3
2.5°	1246.6	1247.5	1244.1	1244.1	1245.8
5°	1240.7	1240.7	1238.2	1238.2	1239.0
7.5°	1228.0	1228.9	1226.4	1227.2	1227.2
10°	1212.0	1213.7	1212.0	1212.0	1213.7
12.5°	1193.3	1194.2	1192.5	1194.2	1194.2
15°	1170.5	1170.5	1170.5	1171.4	1172.2
17.5°	1142.7	1145.2	1142.7	1146.1	1146.1
20°	1113.1	1113.1	1113.9	1116.5	1117.4
22.5°	1075.9	1078.4	1081.0	1085.2	1085.2
25°	1037.8	1042.1	1045.5	1052.2	1052.2
27.5°	998.1	999.0	1007.5	1015.9	1014.2
30°	950.0	954.2	965.2	974.4	975.3
32.5°	904.4	906.0	920.4	931.4	933.9
35°	850.2	854.4	869.7	887.5	887.5
37.5°	798.7	801.3	818.2	840.1	841.8
40°	746.3	745.4	761.5	786.8	794.5
42.5°	702.4	692.2	704.0	731.1	742.9
45°	652.5	642.3	648.2	673.6	687.1
47.5°	606.8	594.2	593.3	612.7	630.5
50°	560.4	548.6	540.1	553.6	563.7
52.5°	520.6	504.5	491.1	494.4	488.5
55°	475.0	464.8	444.6	434.4	416.7
57.5°	433.6	424.3	399.7	374.4	349.0
60°	392.2	382.8	353.3	316.1	295.8
62.5°	348.2	342.3	308.5	266.3	255.3
65°	309.3	299.2	264.5	223.1	216.3
67.5°	268.7	256.0	223.1	186.0	185.1
70°	229.9	215.5	185.1	153.8	157.2
72.5°	195.2	175.8	151.3	125.9	130.1
75°	163.2	141.1	120.9	101.4	109.0
77.5°	139.5	114.9	93.0	79.4	87.1
80°	117.5	94.7	72.6	60.8	65.9
82.5°	98.9	78.6	59.2	43.1	46.5
85°	82.9	66.7	49.0	32.1	26.2
87.5°	67.6	56.6	41.4	24.5	7.6
90°	54.9	48.2	33.8	17.8	0.9
92.5°	43.9	40.6	27.9	10.1	0.9
95°	37.2	35.5	21.1	2.6	0.9
97.5°	30.5	27.9	12.7	0.9	0.9
100°	22.8	19.5	5.9	0.9	0.9
102.5°	15.2	11.8	1.7	0.9	0.9
105°	7.6	3.3	1.7	0.9	0.9
107.5°	2.6	1.7	1.7	0.9	0.9
110°	2.6	1.7	1.7	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.6	1.7	1.7	0.9	0.9
115°	2.6	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	1.7	1.7
125°	1.7	1.7	1.7	1.7	1.7
127.5°	1.7	1.7	1.7	1.7	1.7
130°	1.7	1.7	1.7	1.7	1.7
132.5°	1.7	1.7	1.7	1.7	1.7
135°	1.7	1.7	1.7	1.7	1.7
137.5°	1.7	1.7	1.7	1.7	1.7
140°	1.7	1.7	1.7	1.7	1.7
142.5°	1.7	1.7	1.7	1.7	1.7
145°	1.7	1.7	1.7	1.7	1.7
147.5°	1.7	1.7	1.7	1.7	1.7
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)