

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: P392550

Luminaire Tested: **MWL-3-00-28-UNV-L830-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392550
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-L830-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

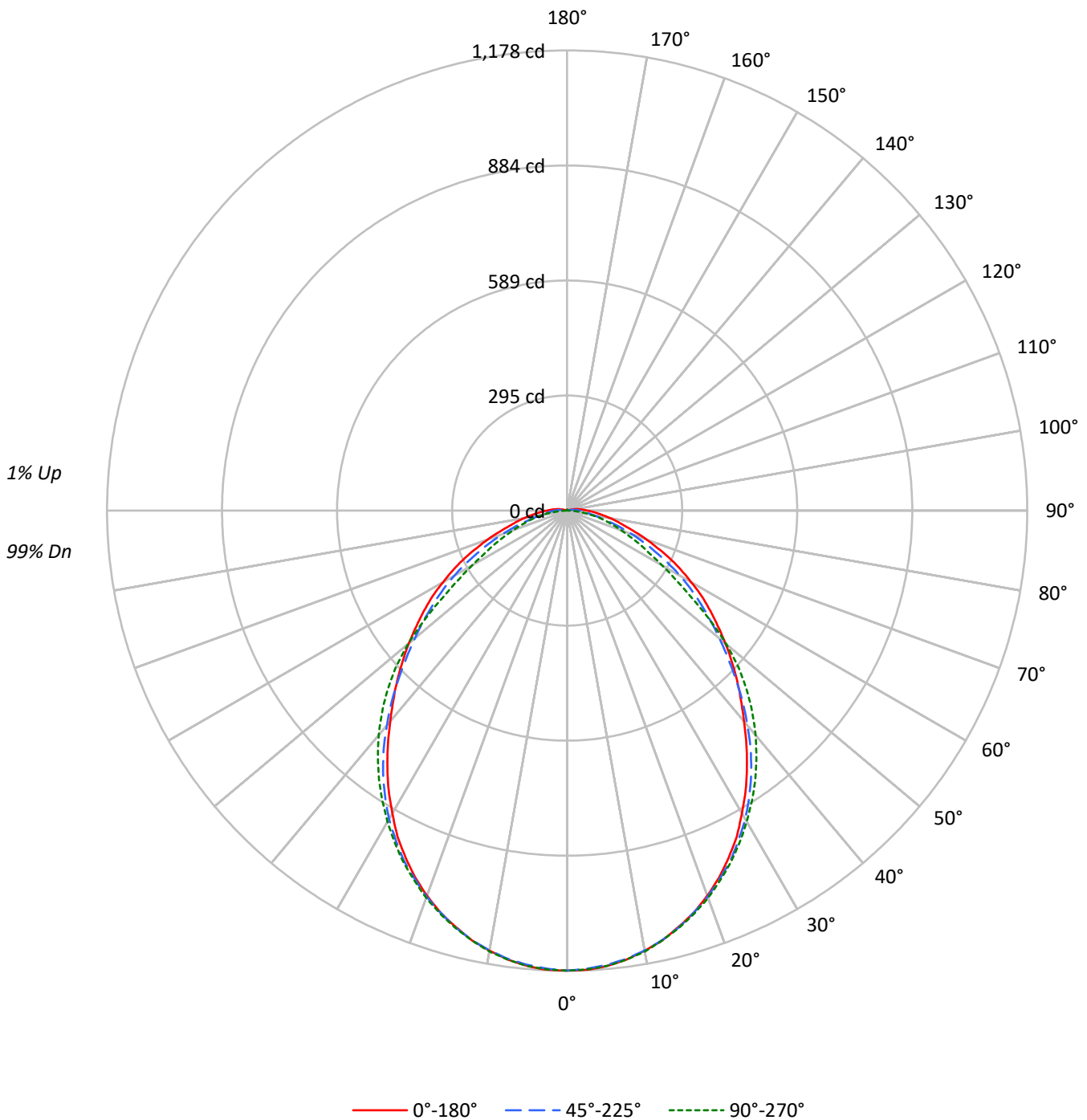
Lumens per Lamp: N/A
Luminaire Lumens: 2703.0 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 28.3
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°	10141	10141	10141
5°	9993	9425	9301
10°	9765	8753	8519
15°	9479	8101	7775
20°	9151	7455	7087
25°	8737	6829	6431
30°	8235	6189	5796
35°	7687	5523	5193
40°	7093	4816	4588
45°	6579	4118	3963
50°	6079	3477	3250
55°	5604	2922	2403
60°	5091	2402	1767
65°	4551	1857	1337
70°	3936	1377	987
75°	3366	933	715
80°	3115	607	471
85°	2967	455	191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.8	4.1
10°-20°	311.2	11.5
20°-30°	453.9	16.8
30°-40°	512.4	19.0
40°-50°	478.7	17.7
50°-60°	377.4	14.0
60°-70°	246.4	9.1
70°-80°	127.2	4.7
80°-90°	53.9	2.0
90°-100°	20.5	0.8
100°-110°	3.6	0.1
110°-120°	1.5	0.1
120°-130°	1.4	0.1
130°-140°	1.3	0.0
140°-150°	1.1	0.0
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	875.9	32.4
0°-40°	1388.3	51.4
0°-60°	2244.3	83.0
0°-90°	2671.9	98.9
90°-120°	25.6	0.9
90°-150°	29.5	1.1
90°-180°	31.0	1.1
0°-180°	2703.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1178	1178	1178	1178	1178	
5°	1170	1170	1167	1168	1170	111
15°	1103	1105	1105	1107	1106	311
25°	979	982	989	992	992	450
35°	802	805	822	836	840	501
45°	615	604	610	634	651	475
55°	447	438	418	410	389	400
65°	290	281	249	209	206	287
75°	154	132	112	96	102	167
85°	78	62	47	31	24	70
90°	51	46	32	16	1	28
95°	36	34	19	3	1	26
105°	7	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°	1177.7	1177.7	1177.7	1177.7	1177.7
2.5°	1176.8	1176.8	1173.9	1174.9	1175.8
5°	1170.1	1170.1	1167.2	1168.1	1170.1
7.5°	1159.5	1159.5	1157.6	1158.5	1159.5
10°	1144.1	1144.1	1143.2	1144.1	1146.1
12.5°	1126.9	1126.9	1125.9	1126.9	1126.9
15°	1102.9	1104.8	1104.8	1106.7	1105.8
17.5°	1078.9	1079.8	1078.9	1081.8	1081.8
20°	1049.1	1051.0	1052.0	1054.9	1054.9
22.5°	1016.5	1018.4	1020.3	1025.1	1024.2
25°	979.1	981.9	988.7	992.5	992.5
27.5°	940.7	943.5	950.3	956.0	957.0
30°	894.6	900.3	911.9	918.6	919.5
32.5°	850.4	855.2	867.7	879.2	880.2
35°	802.4	805.3	821.6	836.0	839.9
37.5°	753.5	754.4	771.7	791.9	795.7
40°	704.5	702.6	718.0	742.9	750.6
42.5°	658.5	651.7	665.2	692.1	701.7
45°	615.3	603.7	610.5	634.5	650.8
47.5°	571.1	560.6	557.7	577.8	595.1
50°	528.9	517.4	508.7	521.2	531.8
52.5°	486.6	476.1	462.6	464.6	461.7
55°	447.3	437.7	418.5	409.9	388.7
57.5°	408.9	400.3	376.3	353.2	330.2
60°	366.7	361.9	334.0	298.5	280.3
62.5°	328.3	322.5	290.8	251.5	238.0
65°	289.9	281.2	248.6	209.2	206.4
67.5°	250.5	241.9	211.2	176.6	173.7
70°	216.0	202.5	175.7	144.9	146.9
72.5°	183.3	164.1	144.0	119.0	123.8
75°	153.6	132.5	112.3	96.0	101.7
77.5°	131.5	107.5	87.3	75.8	83.5
80°	112.3	88.3	68.1	57.6	63.4
82.5°	92.1	73.9	56.6	40.3	43.2
85°	77.7	62.4	47.0	30.7	24.0
87.5°	63.4	53.8	39.4	23.0	6.7
90°	50.9	46.1	31.7	16.3	1.0
92.5°	42.2	38.4	25.9	9.6	1.0
95°	35.5	33.6	19.2	2.9	1.0
97.5°	27.8	25.9	12.5	1.0	1.0
100°	21.1	18.2	4.8	1.0	1.0
102.5°	14.4	10.6	1.0	1.0	1.0
105°	6.7	2.9	1.0	1.0	1.0
107.5°	1.9	1.9	1.0	1.0	1.0
110°	1.9	1.9	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.9	1.9	1.0	1.0	1.0
115°	1.9	1.9	1.9	1.0	1.0
117.5°	1.9	1.9	1.9	1.0	1.0
120°	1.9	1.9	1.9	1.0	1.0
122.5°	1.9	1.9	1.9	1.0	1.0
125°	1.9	1.9	1.9	1.0	1.0
127.5°	1.9	1.9	1.9	1.0	1.0
130°	1.9	1.9	1.9	1.0	1.0
132.5°	1.9	1.9	1.9	1.0	1.0
135°	1.9	1.9	1.9	1.9	1.0
137.5°	1.9	1.9	1.9	1.9	1.0
140°	1.9	1.9	1.9	1.9	1.0
142.5°	1.9	1.9	1.9	1.9	1.0
145°	1.9	1.9	1.9	1.9	1.0
147.5°	1.9	1.9	1.9	1.9	1.0
150°	1.9	1.9	1.9	1.9	1.9
152.5°	1.9	1.9	1.9	1.9	1.9
155°	1.9	1.9	1.9	1.9	1.9
157.5°	1.9	1.9	1.9	1.9	1.9
160°	1.9	1.9	1.9	1.9	1.9
162.5°	1.9	1.9	1.9	1.9	1.9
165°	1.9	1.9	1.9	1.9	1.9
167.5°	1.9	1.9	1.9	1.9	1.9
170°	1.9	1.9	1.9	1.9	1.9
172.5°	1.0	1.9	1.9	1.9	1.9
175°	1.0	1.9	1.9	1.9	1.9
177.5°	1.0	1.9	1.9	1.9	1.9
180°	1.9	1.9	1.9	1.9	1.9

(END OF REPORT)