

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-L830-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-L830-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

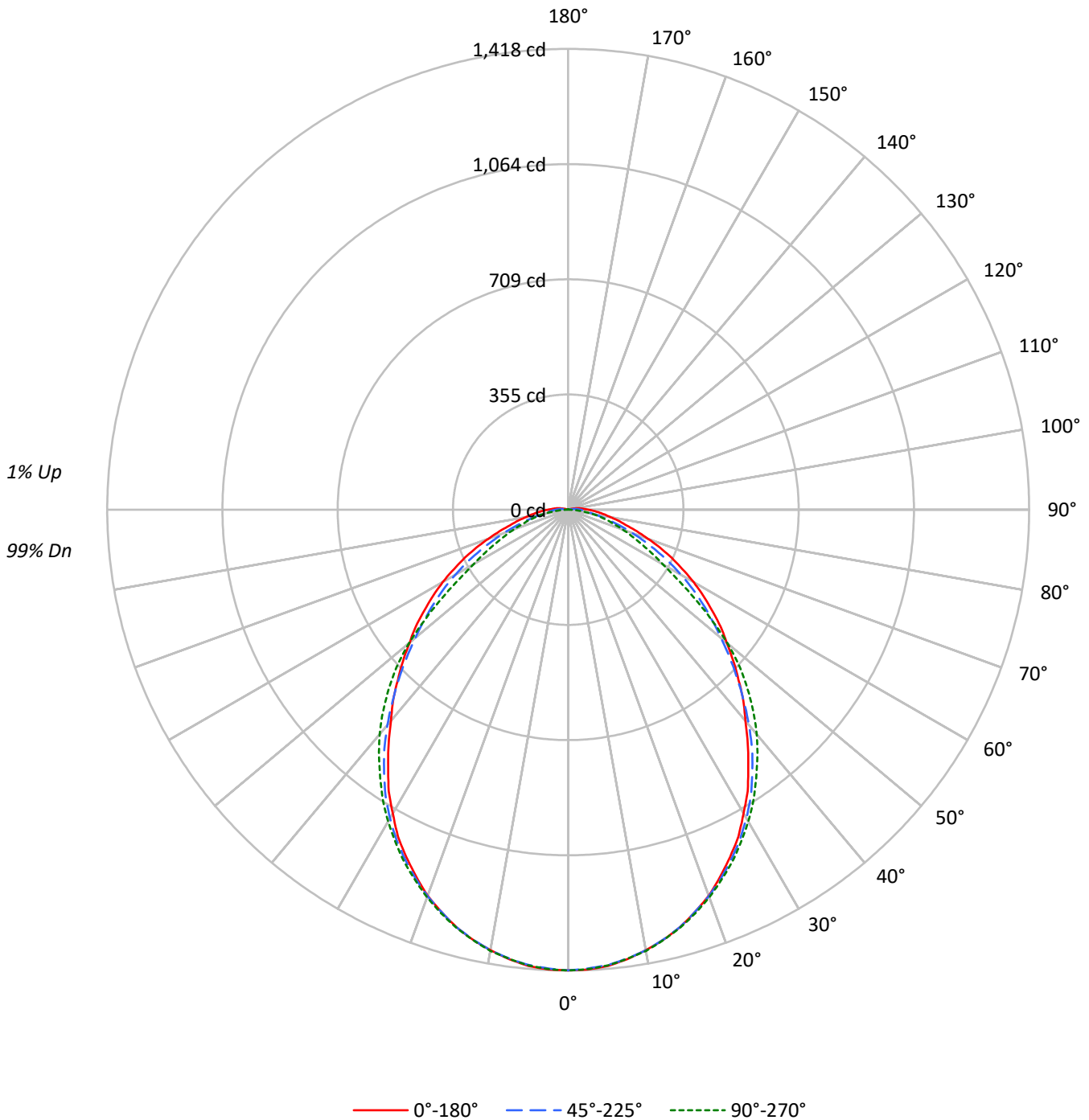
Lumens per Lamp: N/A
Luminaire Lumens: 3255.0 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 35.8
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°	12208	12208	12208
5°	12034	11355	11185
10°	11748	10539	10246
15°	11426	9748	9360
20°	11027	8965	8526
25°	10518	8202	7743
30°	9931	7440	6983
35°	9251	6639	6232
40°	8533	5801	5515
45°	7923	4966	4752
50°	7315	4193	3913
55°	6759	3525	2926
60°	6183	2885	2118
65°	5515	2245	1592
70°	4758	1647	1199
75°	4060	1140	870
80°	3700	735	557
85°	3593	539	237



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	4.1
10°-20°	374.5	11.5
20°-30°	546.3	16.8
30°-40°	616.9	19.0
40°-50°	576.7	17.7
50°-60°	454.9	14.0
60°-70°	297.1	9.1
70°-80°	153.4	4.7
80°-90°	65.0	2.0
90°-100°	24.8	0.8
100°-110°	4.6	0.1
110°-120°	1.6	0.1
120°-130°	1.7	0.1
130°-140°	1.5	0.0
140°-150°	1.2	0.0
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1054.1	32.4
0°-40°	1671.0	51.3
0°-60°	2702.6	83.0
0°-90°	3218.1	98.9
90°-120°	31.0	1.0
90°-150°	35.3	1.1
90°-180°	37.0	1.1
0°-180°	3255.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1418	1418	1418	1418	1418	
5°	1409	1409	1406	1406	1407	133
15°	1329	1329	1329	1330	1331	374
25°	1179	1184	1187	1195	1195	542
35°	966	970	988	1008	1008	604
45°	741	730	736	765	780	573
55°	540	528	505	493	473	484
65°	351	340	300	253	246	348
75°	185	160	137	115	124	201
85°	94	76	56	36	30	85
90°	62	55	38	20	1	34
95°	42	40	24	3	1	31
105°	9	4	2	1	1	12
115°	3	2	2	1	1	3
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	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°	1417.7	1417.7	1417.7	1417.7	1417.7
2.5°	1415.8	1416.8	1412.9	1412.9	1414.9
5°	1409.1	1409.1	1406.2	1406.2	1407.2
7.5°	1394.7	1395.7	1392.8	1393.7	1393.7
10°	1376.5	1378.4	1376.5	1376.5	1378.4
12.5°	1355.3	1356.3	1354.4	1356.3	1356.3
15°	1329.4	1329.4	1329.4	1330.4	1331.3
17.5°	1297.8	1300.6	1297.8	1301.6	1301.6
20°	1264.2	1264.2	1265.1	1268.0	1269.0
22.5°	1221.9	1224.8	1227.7	1232.5	1232.5
25°	1178.7	1183.5	1187.4	1195.0	1195.0
27.5°	1133.6	1134.6	1144.2	1153.8	1151.9
30°	1078.9	1083.7	1096.2	1106.7	1107.7
32.5°	1027.1	1029.0	1045.3	1057.8	1060.7
35°	965.6	970.4	987.7	1007.9	1007.9
37.5°	907.1	910.0	929.2	954.1	956.0
40°	847.6	846.6	864.8	893.6	902.3
42.5°	797.7	786.1	799.6	830.3	843.7
45°	741.0	729.5	736.2	765.0	780.4
47.5°	689.2	674.8	673.8	695.9	716.1
50°	636.4	623.0	613.4	628.7	640.2
52.5°	591.3	573.0	557.7	561.5	554.8
55°	539.5	527.9	504.9	493.4	473.2
57.5°	492.4	481.9	454.0	425.2	396.4
60°	445.4	434.8	401.2	359.0	336.0
62.5°	395.5	388.7	350.4	302.4	289.9
65°	351.3	339.8	300.4	253.4	245.7
67.5°	305.2	290.8	253.4	211.2	210.2
70°	261.1	244.8	210.2	174.7	178.5
72.5°	221.7	199.7	171.8	143.0	147.8
75°	185.3	160.3	137.3	115.2	123.8
77.5°	158.4	130.5	105.6	90.2	98.9
80°	133.4	107.5	82.5	69.1	74.9
82.5°	112.3	89.3	67.2	49.0	52.8
85°	94.1	75.8	55.7	36.5	29.8
87.5°	76.8	64.3	47.0	27.8	8.6
90°	62.4	54.7	38.4	20.2	1.0
92.5°	49.9	46.1	31.7	11.5	1.0
95°	42.2	40.3	24.0	2.9	1.0
97.5°	34.6	31.7	14.4	1.0	1.0
100°	25.9	22.1	6.7	1.0	1.0
102.5°	17.3	13.4	1.9	1.0	1.0
105°	8.6	3.8	1.9	1.0	1.0
107.5°	2.9	1.9	1.9	1.0	1.0
110°	2.9	1.9	1.9	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	1.9	1.9	1.0	1.0
115°	2.9	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	1.9	1.9
125°	1.9	1.9	1.9	1.9	1.9
127.5°	1.9	1.9	1.9	1.9	1.9
130°	1.9	1.9	1.9	1.9	1.9
132.5°	1.9	1.9	1.9	1.9	1.9
135°	1.9	1.9	1.9	1.9	1.9
137.5°	1.9	1.9	1.9	1.9	1.9
140°	1.9	1.9	1.9	1.9	1.9
142.5°	1.9	1.9	1.9	1.9	1.9
145°	1.9	1.9	1.9	1.9	1.9
147.5°	1.9	1.9	1.9	1.9	1.9
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)