

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: P392557

Luminaire Tested: **MWL-3-00-47-UNV-L935-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392557
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-14)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-00-47-UNV-L935-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

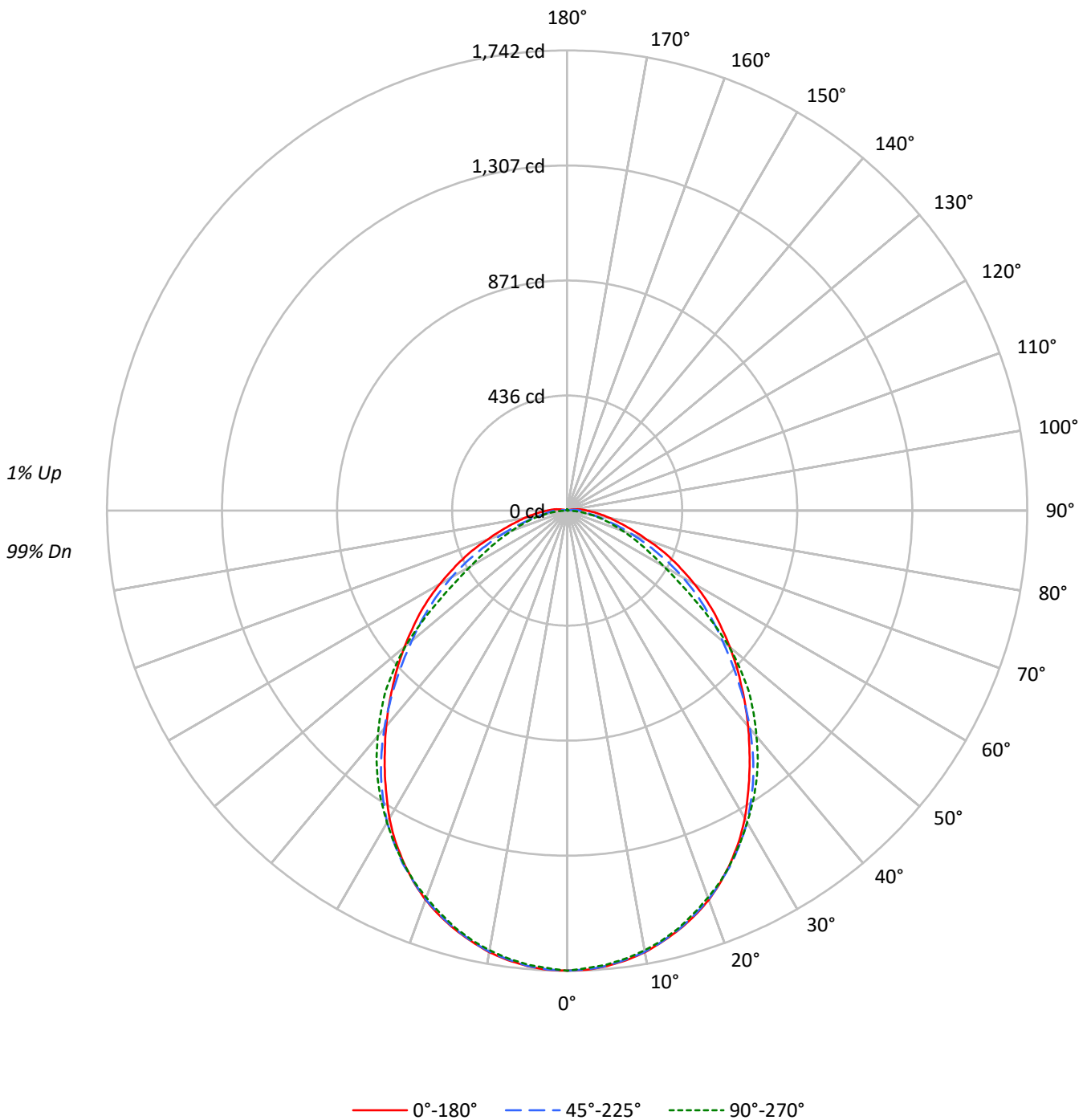
Lumens per Lamp: N/A
Luminaire Lumens: 4047.8 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.17 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 55.146
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



TEST NUMBER: P392557
CATALOG NUMBER: MWL-3-00-47-UNV-L935-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P392557

CATALOG NUMBER: MWL-3-00-47-UNV-L935-EDD

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	74	69	65	72	67	64	62				
4	85	73	65	59	82	72	64	58	69	63	57	67	61	56	65	60	56	53				
5	78	66	57	51	76	65	57	51	63	56	50	61	54	50	59	53	49	47				
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	53	48	43	41				
7	67	54	46	40	66	54	46	40	52	45	40	50	44	39	49	43	39	37				
8	63	50	42	36	61	49	41	36	48	41	36	46	40	35	45	39	35	33				
9	59	46	38	33	57	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	27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14999	14999	14999
5°	14782	13970	13711
10°	14491	12987	12564
15°	14111	12026	11496
20°	13678	11100	10472
25°	13092	10175	9523
30°	12389	9255	8596
35°	11529	8260	7723
40°	10732	7225	6816
45°	9957	6184	5933
50°	9241	5252	4883
55°	8543	4429	3644
60°	7723	3641	2668
65°	6856	2800	2017
70°	5842	2047	1493
75°	5036	1373	1079
80°	4585	900	681
85°	4338	665	283



TEST NUMBER: P392557

CATALOG NUMBER: MWL-3-00-47-UNV-L935-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.0	4.1
10°-20°	461.8	11.4
20°-30°	676.4	16.7
30°-40°	766.4	18.9
40°-50°	720.5	17.8
50°-60°	571.7	14.1
60°-70°	371.8	9.2
70°-80°	188.5	4.7
80°-90°	79.4	2.0
90°-100°	29.8	0.7
100°-110°	5.4	0.1
110°-120°	2.4	0.1
120°-130°	2.5	0.1
130°-140°	2.4	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	1302.1	32.2
0°-40°	2068.5	51.1
0°-60°	3360.7	83.0
0°-90°	4000.5	98.8
90°-120°	37.6	0.9
90°-150°	44.6	1.1
90°-180°	47.0	1.2
0°-180°	4047.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1742	1742	1742	1742	1742	
5°	1731	1732	1730	1727	1725	164
15°	1642	1641	1640	1638	1635	463
25°	1467	1469	1473	1473	1470	674
35°	1203	1209	1229	1248	1249	753
45°	931	918	917	949	974	720
55°	682	667	634	620	589	608
65°	437	425	375	316	311	433
75°	230	198	165	141	154	248
85°	114	92	69	45	36	103
90°	75	68	48	25	1	41
95°	50	48	29	3	1	37
105°	9	6	2	2	2	13
115°	3	2	2	2	2	3
125°	3	3	2	2	2	3
135°	3	3	3	2	2	3
145°	3	3	3	3	2	2
155°	3	3	3	3	2	2
165°	3	3	3	3	3	1
175°	2	2	3	3	3	0
180°	3	3	3	3	3	



TEST NUMBER: P392557

CATALOG NUMBER: MWL-3-00-47-UNV-L935-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1741.8	1741.8	1741.8	1741.8	1741.8
2.5°	1740.2	1741.1	1738.5	1735.1	1733.4
5°	1730.9	1731.7	1730.0	1726.6	1724.9
7.5°	1716.5	1718.1	1713.9	1712.2	1709.7
10°	1697.8	1698.6	1696.1	1691.8	1690.2
12.5°	1670.7	1671.5	1669.8	1666.4	1665.6
15°	1641.8	1641.0	1640.1	1637.6	1635.0
17.5°	1607.1	1607.1	1604.5	1602.8	1597.7
20°	1568.1	1566.3	1566.3	1563.0	1558.7
22.5°	1520.5	1520.5	1519.7	1519.7	1518.0
25°	1467.1	1468.8	1473.1	1473.1	1469.7
27.5°	1409.5	1412.0	1418.8	1423.0	1417.9
30°	1345.9	1350.1	1363.6	1369.6	1363.6
32.5°	1273.7	1280.5	1296.7	1309.4	1308.5
35°	1203.4	1209.3	1228.9	1247.5	1249.1
37.5°	1133.0	1133.9	1154.2	1179.6	1185.5
40°	1066.0	1063.4	1077.0	1107.5	1115.2
42.5°	998.1	988.8	995.6	1032.0	1045.7
45°	931.2	918.5	916.7	948.9	974.4
47.5°	868.4	852.3	840.4	865.0	889.6
50°	804.0	786.1	768.3	783.6	798.9
52.5°	740.4	726.0	700.5	699.6	694.5
55°	681.9	667.4	634.3	619.9	589.4
57.5°	619.9	608.9	570.7	534.3	496.1
60°	556.3	550.4	506.3	448.6	423.2
62.5°	495.2	490.1	440.2	378.2	362.9
65°	436.7	424.9	374.8	315.5	311.2
67.5°	380.8	365.5	313.8	264.6	264.6
70°	320.6	301.9	261.2	218.8	222.2
72.5°	273.9	243.4	212.0	177.2	184.8
75°	229.8	197.6	165.3	140.7	153.5
77.5°	192.5	159.5	127.2	110.3	123.0
80°	165.3	132.3	101.0	82.2	91.6
82.5°	137.4	110.3	82.2	59.4	65.3
85°	113.6	91.6	68.7	45.0	35.6
87.5°	90.8	78.9	56.8	34.8	11.0
90°	74.6	67.8	47.5	24.6	0.9
92.5°	61.9	57.6	39.0	14.4	0.9
95°	50.0	47.5	28.8	3.4	0.9
97.5°	40.7	38.1	16.1	1.7	0.9
100°	28.0	23.7	6.8	1.7	0.9
102.5°	17.0	12.7	2.5	1.7	0.9
105°	9.3	6.0	2.5	1.7	1.7
107.5°	5.1	3.4	2.5	1.7	1.7
110°	4.2	3.4	2.5	1.7	1.7



TEST NUMBER: P392557

CATALOG NUMBER: MWL-3-00-47-UNV-L935-EDD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.4	2.5	2.5	1.7	1.7
115°	3.4	2.5	2.5	1.7	1.7
117.5°	3.4	2.5	2.5	1.7	1.7
120°	3.4	3.4	2.5	1.7	1.7
122.5°	3.4	3.4	2.5	2.5	2.5
125°	3.4	3.4	2.5	2.5	2.5
127.5°	3.4	3.4	2.5	2.5	2.5
130°	3.4	3.4	3.4	2.5	2.5
132.5°	3.4	3.4	3.4	2.5	2.5
135°	3.4	3.4	3.4	2.5	2.5
137.5°	3.4	3.4	3.4	3.4	2.5
140°	3.4	3.4	3.4	3.4	2.5
142.5°	3.4	3.4	3.4	3.4	2.5
145°	3.4	3.4	3.4	3.4	2.5
147.5°	3.4	3.4	3.4	3.4	2.5
150°	3.4	3.4	3.4	3.4	2.5
152.5°	3.4	3.4	3.4	3.4	2.5
155°	3.4	3.4	3.4	3.4	2.5
157.5°	3.4	3.4	3.4	2.5	2.5
160°	3.4	3.4	3.4	3.4	2.5
162.5°	3.4	3.4	3.4	3.4	3.4
165°	3.4	3.4	3.4	3.4	3.4
167.5°	3.4	3.4	3.4	3.4	3.4
170°	2.5	2.5	3.4	3.4	3.4
172.5°	1.7	2.5	3.4	3.4	3.4
175°	1.7	2.5	3.4	3.4	3.4
177.5°	1.7	2.5	3.4	3.4	3.4
180°	3.4	3.4	3.4	3.4	3.4

(END OF REPORT)