

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: P392470

Luminaire Tested: **MWL-2-00-38-UNV-L835-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392470
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-25)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-2-00-38-UNV-L835-EDD
Description: MWL 2FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3721.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.18 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')
CIE Type: Direct

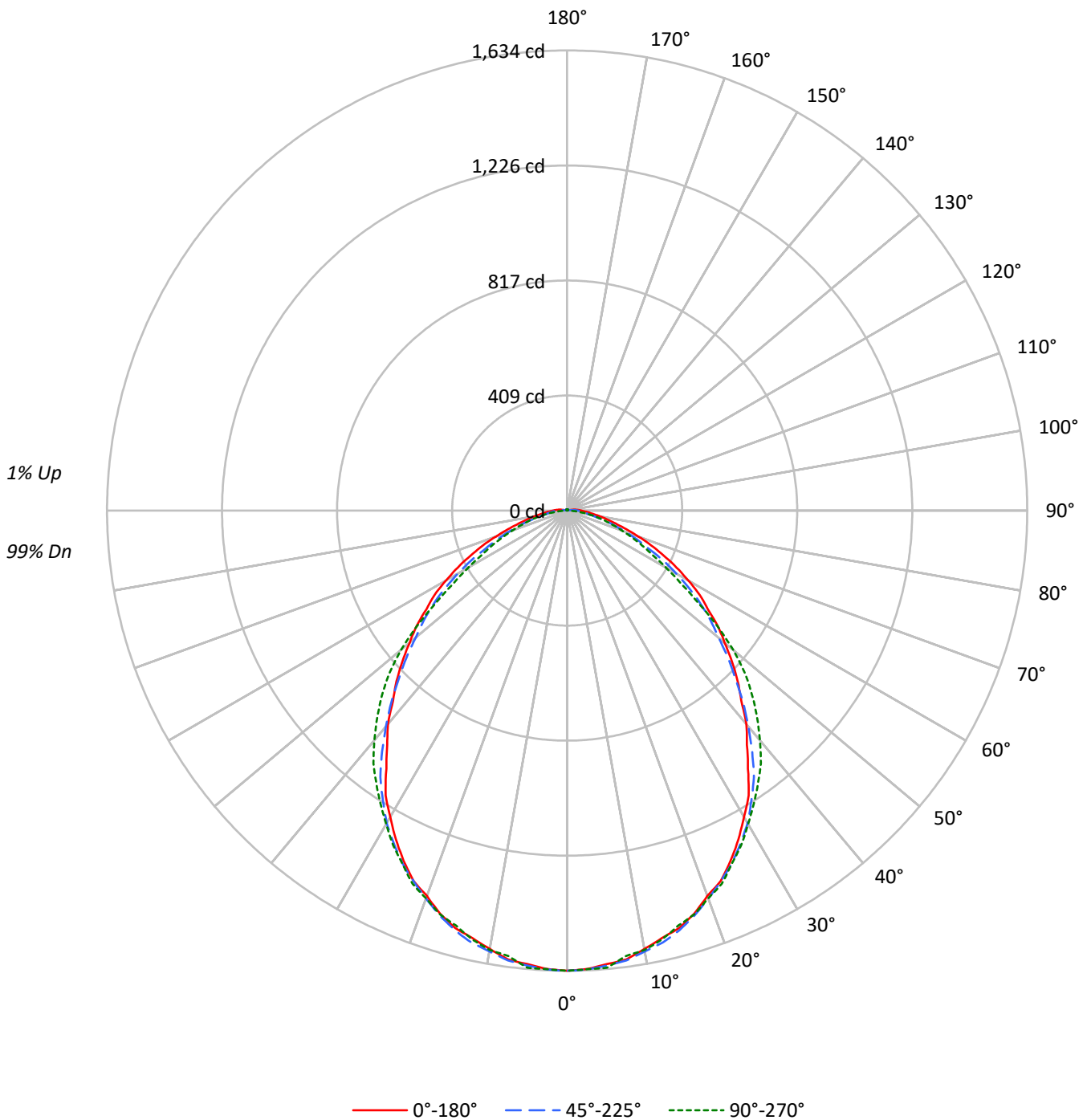
Input Watts (W): 42.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99								
1	110	105	101	98	107	103	99	96	98	96	93	94	92	90	91	89	87	85								
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73								
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	72	68	65	62								
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	65	60	56	54								
5	79	67	58	52	77	65	57	52	63	56	51	61	55	50	59	54	50	48								
6	73	60	52	46	71	59	51	46	57	50	45	56	49	45	54	49	44	42								
7	68	55	47	41	66	54	46	41	52	45	40	51	45	40	50	44	40	38								
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34								
9	59	46	39	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31								
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	39	34	30	28								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21107	21107	21107
5°	20587	19562	19426
10°	20000	18119	17659
15°	19435	16781	16092
20°	18606	15369	14763
25°	17835	14092	13449
30°	16722	12796	12151
35°	15408	11409	10959
40°	14210	9829	9761
45°	12951	8325	8496
50°	11752	6989	7057
55°	10589	5884	5237
60°	9435	4664	3840
65°	7987	3443	2857
70°	6456	2488	2085
75°	4995	1636	1468
80°	3989	1009	928
85°	3349	758	380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.7	4.1
10°-20°	432.4	11.6
20°-30°	634.2	17.0
30°-40°	718.8	19.3
40°-50°	670.6	18.0
50°-60°	526.5	14.1
60°-70°	327.4	8.8
70°-80°	157.3	4.2
80°-90°	63.1	1.7
90°-100°	21.0	0.6
100°-110°	2.5	0.1
110°-120°	2.2	0.1
120°-130°	2.6	0.1
130°-140°	2.9	0.1
140°-150°	2.5	0.1
150°-160°	2.0	0.1
160°-170°	1.1	0.0
170°-180°	0.3	0.0
0°-30°	1220.2	32.8
0°-40°	1939.0	52.1
0°-60°	3136.1	84.3
0°-90°	3684.0	99.0
90°-120°	25.7	0.7
90°-150°	33.6	0.9
90°-180°	37.0	1.0
0°-180°	3721.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1634	1634	1634	1634	1634	
5°	1617	1620	1622	1619	1629	153
15°	1534	1533	1542	1533	1526	431
25°	1373	1370	1383	1382	1384	630
35°	1120	1124	1156	1176	1182	702
45°	857	843	845	896	930	660
55°	610	605	580	582	565	549
65°	378	364	319	286	294	376
75°	178	154	137	127	139	194
85°	76	74	55	39	32	71
90°	49	55	39	20	1	28
95°	34	35	20	1	1	24
105°	2	2	2	1	1	5
115°	3	2	2	2	2	2
125°	3	3	3	3	3	3
135°	4	4	4	4	4	3
145°	4	4	4	4	4	3
155°	5	5	4	4	4	2
165°	5	4	4	4	3	1
175°	2	3	4	4	4	0
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1634.1	1634.1	1634.1	1634.1	1634.1
2.5°	1629.3	1624.4	1631.2	1625.4	1630.2
5°	1616.7	1619.6	1621.5	1618.6	1629.3
7.5°	1608.0	1609.9	1610.9	1606.0	1595.4
10°	1580.9	1592.5	1589.6	1585.7	1583.8
12.5°	1554.8	1558.7	1571.2	1562.5	1559.6
15°	1534.5	1532.6	1542.2	1532.6	1525.8
17.5°	1500.7	1496.8	1506.5	1506.5	1502.6
20°	1456.2	1465.8	1465.8	1468.7	1464.9
22.5°	1424.3	1422.3	1425.2	1429.1	1434.9
25°	1373.0	1370.1	1382.7	1381.7	1383.7
27.5°	1316.9	1315.0	1333.4	1337.2	1339.2
30°	1256.0	1260.9	1281.2	1284.1	1285.0
32.5°	1199.9	1196.1	1218.3	1234.8	1233.8
35°	1119.7	1124.5	1156.4	1175.8	1181.6
37.5°	1049.1	1053.0	1079.1	1117.8	1130.3
40°	990.1	978.5	1000.8	1047.2	1064.6
42.5°	914.7	909.9	924.4	974.7	998.8
45°	856.7	843.1	845.1	896.3	930.2
47.5°	793.8	776.4	774.5	817.0	858.6
50°	730.0	721.3	702.0	732.9	769.7
52.5°	674.9	663.3	642.0	660.4	671.0
55°	610.1	605.3	580.1	582.1	564.7
57.5°	558.9	552.1	514.4	498.0	475.7
60°	497.0	489.3	447.7	417.7	406.1
62.5°	438.0	429.3	384.8	346.2	342.3
65°	378.1	363.6	319.1	286.2	293.9
67.5°	323.9	301.7	267.8	237.9	248.5
70°	268.8	244.6	220.5	195.3	206.9
72.5°	219.5	197.3	176.9	159.5	170.2
75°	177.9	153.7	137.3	126.7	139.2
77.5°	146.0	125.7	102.5	98.6	110.2
80°	117.0	104.4	79.3	73.5	83.2
82.5°	93.8	88.0	65.8	51.2	55.1
85°	76.4	74.5	55.1	38.7	31.9
87.5°	60.9	64.8	46.4	30.0	9.7
90°	49.3	55.1	38.7	20.3	1.0
92.5°	42.5	45.4	30.9	8.7	1.0
95°	33.8	34.8	20.3	1.0	1.0
97.5°	26.1	23.2	8.7	1.0	1.0
100°	15.5	10.6	1.9	1.0	1.0
102.5°	5.8	3.9	1.0	1.0	1.0
105°	1.9	1.9	1.9	1.0	1.0
107.5°	1.9	1.9	1.9	1.9	1.0
110°	1.9	1.9	1.9	1.9	1.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.9	1.9	1.9	1.9	1.9
115°	2.9	1.9	1.9	1.9	1.9
117.5°	2.9	2.9	2.9	1.9	1.9
120°	2.9	2.9	2.9	2.9	2.9
122.5°	2.9	2.9	2.9	2.9	2.9
125°	2.9	2.9	2.9	2.9	2.9
127.5°	2.9	2.9	2.9	2.9	2.9
130°	3.9	2.9	2.9	2.9	2.9
132.5°	3.9	3.9	2.9	3.9	3.9
135°	3.9	3.9	3.9	3.9	3.9
137.5°	3.9	3.9	3.9	3.9	3.9
140°	3.9	3.9	3.9	3.9	3.9
142.5°	3.9	3.9	3.9	3.9	3.9
145°	3.9	3.9	3.9	3.9	3.9
147.5°	3.9	3.9	3.9	3.9	3.9
150°	4.8	4.8	4.8	3.9	3.9
152.5°	4.8	4.8	4.8	3.9	3.9
155°	4.8	4.8	3.9	3.9	3.9
157.5°	4.8	4.8	3.9	3.9	3.9
160°	4.8	4.8	3.9	3.9	2.9
162.5°	4.8	3.9	3.9	3.9	2.9
165°	4.8	3.9	3.9	3.9	2.9
167.5°	3.9	3.9	3.9	2.9	2.9
170°	3.9	3.9	2.9	3.9	3.9
172.5°	2.9	3.9	2.9	3.9	3.9
175°	1.9	2.9	3.9	3.9	3.9
177.5°	2.9	2.9	3.9	4.8	4.8
180°	3.9	3.9	3.9	3.9	3.9

(END OF REPORT)