

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: P392554

Luminaire Tested: **MWL-3-00-33-UNV-L835-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392554
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-L835-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3333.1 lumens
Efficiency: N/A
Efficacy: 93.1 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

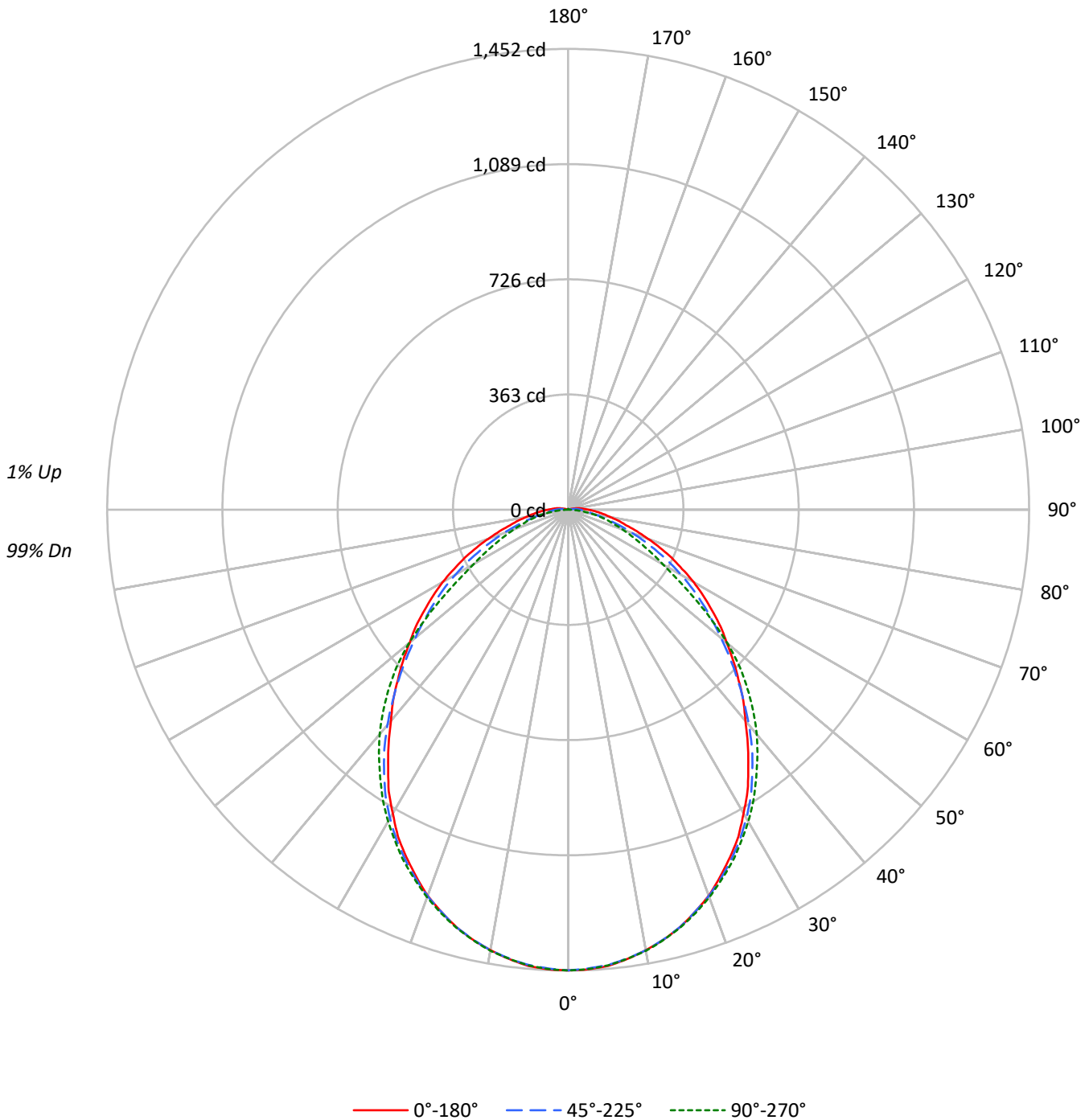
Input Watts (W): 35.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	12501	12501	12501
5°	12323	11627	11453
10°	12029	10791	10491
15°	11700	9982	9585
20°	11292	9180	8730
25°	10771	8398	7929
30°	10170	7618	7150
35°	9473	6798	6381
40°	8738	5941	5647
45°	8114	5086	4866
50°	7490	4294	4007
55°	6920	3610	2996
60°	6332	2954	2169
65°	5647	2298	1630
70°	4871	1687	1228
75°	4157	1168	892
80°	3789	753	570
85°	3677	552	242



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.5	4.1
10°-20°	383.5	11.5
20°-30°	559.3	16.8
30°-40°	631.7	19.0
40°-50°	590.5	17.7
50°-60°	465.8	14.0
60°-70°	304.2	9.1
70°-80°	157.1	4.7
80°-90°	66.5	2.0
90°-100°	25.3	0.8
100°-110°	4.7	0.1
110°-120°	1.7	0.1
120°-130°	1.8	0.1
130°-140°	1.5	0.0
140°-150°	1.3	0.0
150°-160°	0.9	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	1079.4	32.4
0°-40°	1711.1	51.3
0°-60°	2767.4	83.0
0°-90°	3295.2	98.9
90°-120°	31.7	1.0
90°-150°	36.3	1.1
90°-180°	38.0	1.1
0°-180°	3333.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1452	1452	1452	1452	1452	
5°	1443	1443	1440	1440	1441	137
15°	1361	1361	1361	1362	1363	383
25°	1207	1212	1216	1224	1224	555
35°	989	994	1011	1032	1032	618
45°	759	747	754	783	799	586
55°	552	541	517	505	485	495
65°	360	348	308	260	252	356
75°	190	164	141	118	127	206
85°	96	78	57	37	30	87
90°	64	56	39	21	1	35
95°	43	41	25	3	1	32
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	2
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°	1451.7	1451.7	1451.7	1451.7	1451.7
2.5°	1449.7	1450.7	1446.8	1446.8	1448.8
5°	1442.9	1442.9	1439.9	1439.9	1440.9
7.5°	1428.1	1429.1	1426.2	1427.1	1427.1
10°	1409.4	1411.4	1409.4	1409.4	1411.4
12.5°	1387.8	1388.8	1386.8	1388.8	1388.8
15°	1361.3	1361.3	1361.3	1362.3	1363.3
17.5°	1328.9	1331.8	1328.9	1332.8	1332.8
20°	1294.5	1294.5	1295.4	1298.4	1299.4
22.5°	1251.2	1254.2	1257.1	1262.0	1262.0
25°	1207.0	1211.9	1215.8	1223.7	1223.7
27.5°	1160.8	1161.8	1171.6	1181.4	1179.5
30°	1104.8	1109.7	1122.4	1133.3	1134.2
32.5°	1051.7	1053.6	1070.4	1083.1	1086.1
35°	988.8	993.7	1011.4	1032.0	1032.0
37.5°	928.8	931.8	951.4	977.0	978.9
40°	867.9	866.9	885.6	915.1	923.9
42.5°	816.8	805.0	818.7	850.2	863.9
45°	758.8	747.0	753.9	783.4	799.1
47.5°	705.7	691.0	690.0	712.6	733.2
50°	651.6	637.9	628.1	643.8	655.6
52.5°	605.5	586.8	571.1	575.0	568.1
55°	552.4	540.6	517.0	505.2	484.6
57.5°	504.2	493.4	464.9	435.4	405.9
60°	456.1	445.2	410.8	367.6	344.0
62.5°	404.9	398.1	358.8	309.6	296.8
65°	359.7	347.9	307.6	259.5	251.6
67.5°	312.6	297.8	259.5	216.2	215.3
70°	267.3	250.6	215.3	178.9	182.8
72.5°	227.0	204.4	175.9	146.4	151.4
75°	189.7	164.1	140.6	117.9	126.8
77.5°	162.2	133.7	108.1	92.4	101.2
80°	136.6	110.1	84.5	70.8	76.7
82.5°	115.0	91.4	68.8	50.1	54.1
85°	96.3	77.6	57.0	37.3	30.5
87.5°	78.6	65.9	48.2	28.5	8.8
90°	63.9	56.0	39.3	20.6	1.0
92.5°	51.1	47.2	32.4	11.8	1.0
95°	43.2	41.3	24.6	2.9	1.0
97.5°	35.4	32.4	14.7	1.0	1.0
100°	26.5	22.6	6.9	1.0	1.0
102.5°	17.7	13.8	2.0	1.0	1.0
105°	8.8	3.9	2.0	1.0	1.0
107.5°	2.9	2.0	2.0	1.0	1.0
110°	2.9	2.0	2.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	2.0	2.0	1.0	1.0
115°	2.9	2.0	2.0	1.0	1.0
117.5°	2.0	2.0	2.0	1.0	1.0
120°	2.0	2.0	2.0	1.0	1.0
122.5°	2.0	2.0	2.0	2.0	2.0
125°	2.0	2.0	2.0	2.0	2.0
127.5°	2.0	2.0	2.0	2.0	2.0
130°	2.0	2.0	2.0	2.0	2.0
132.5°	2.0	2.0	2.0	2.0	2.0
135°	2.0	2.0	2.0	2.0	2.0
137.5°	2.0	2.0	2.0	2.0	2.0
140°	2.0	2.0	2.0	2.0	2.0
142.5°	2.0	2.0	2.0	2.0	2.0
145°	2.0	2.0	2.0	2.0	2.0
147.5°	2.0	2.0	2.0	2.0	2.0
150°	2.0	2.0	2.0	2.0	2.0
152.5°	2.0	2.0	2.0	2.0	2.0
155°	2.0	2.0	2.0	2.0	2.0
157.5°	2.0	2.0	2.0	2.0	2.0
160°	2.0	2.0	2.0	2.0	2.0
162.5°	2.0	2.0	2.0	2.0	2.0
165°	2.0	2.0	2.0	2.0	2.0
167.5°	2.0	2.0	2.0	2.0	2.0
170°	2.0	2.0	2.0	2.0	2.0
172.5°	1.0	2.0	2.0	2.0	2.0
175°	1.0	2.0	2.0	2.0	2.0
177.5°	1.0	2.0	2.0	2.0	2.0
180°	2.0	2.0	2.0	2.0	2.0

(END OF REPORT)