

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: P392561

Luminaire Tested: **MWL-3-00-57-UNV-L840-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392561
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-13)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-00-57-UNV-L840-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5735.0 lumens
Efficiency: N/A
Efficacy: 82.6 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

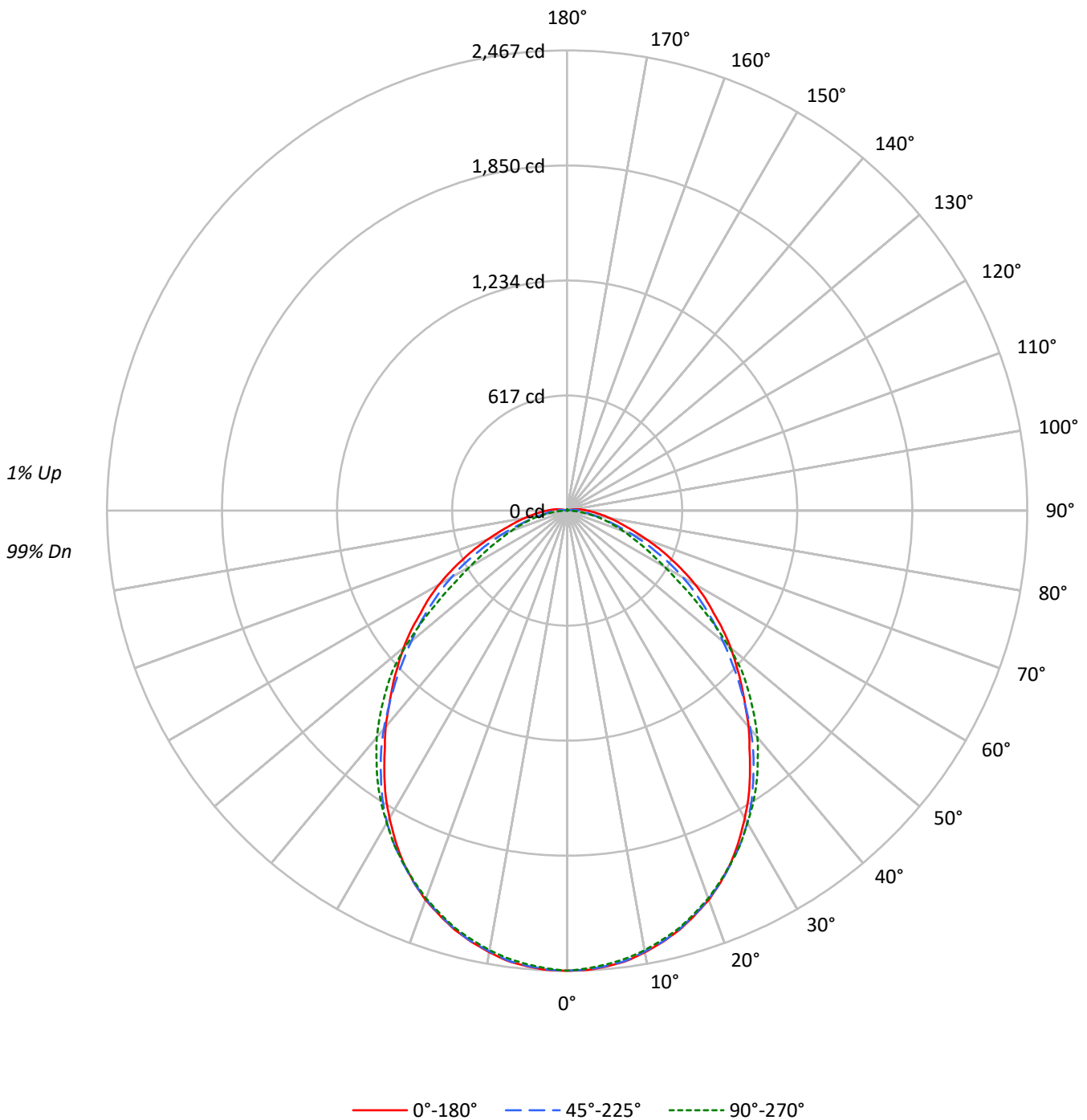
Input Watts (W): 69.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	21242	21242	21242
5°	20948	19790	19409
10°	20516	18375	17794
15°	19999	17040	16296
20°	19372	15703	14860
25°	18559	14401	13490
30°	17525	13112	12190
35°	16372	11702	10955
40°	15242	10263	9706
45°	14135	8782	8378
50°	13160	7457	6894
55°	12026	6277	5174
60°	11008	5155	3794
65°	9654	3968	2858
70°	8292	2876	2136
75°	7056	1944	1540
80°	6408	1274	981
85°	6071	939	397



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.3	4.1
10°-20°	654.1	11.4
20°-30°	958.5	16.7
30°-40°	1086.5	18.9
40°-50°	1021.3	17.8
50°-60°	810.3	14.1
60°-70°	526.6	9.2
70°-80°	267.2	4.7
80°-90°	112.2	2.0
90°-100°	41.9	0.7
100°-110°	7.4	0.1
110°-120°	3.5	0.1
120°-130°	3.5	0.1
130°-140°	3.4	0.1
140°-150°	2.8	0.0
150°-160°	2.0	0.0
160°-170°	1.3	0.0
170°-180°	0.4	0.0
0°-30°	1844.8	32.2
0°-40°	2931.4	51.1
0°-60°	4762.9	83.0
0°-90°	5668.9	98.8
90°-120°	52.7	0.9
90°-150°	62.4	1.1
90°-180°	66.0	1.2
0°-180°	5735.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2467	2467	2467	2467	2467	
5°	2453	2454	2451	2446	2442	233
15°	2327	2322	2324	2321	2318	655
25°	2080	2081	2085	2088	2082	955
35°	1709	1711	1741	1769	1772	1069
45°	1322	1298	1302	1345	1376	1021
55°	960	945	899	876	837	863
65°	615	602	531	448	441	612
75°	322	277	234	203	219	349
85°	159	131	97	63	50	146
90°	106	95	67	35	1	59
95°	71	67	41	5	1	52
105°	13	8	3	2	2	18
115°	5	4	4	3	2	5
125°	5	4	4	3	3	4
135°	5	5	4	4	4	4
145°	5	5	5	4	4	3
155°	5	5	4	4	4	2
165°	5	4	5	5	5	1
175°	3	4	5	5	5	0
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2466.8	2466.8	2466.8	2466.8	2466.8
2.5°	2465.8	2464.8	2462.8	2458.8	2456.8
5°	2452.8	2453.8	2450.8	2445.8	2441.8
7.5°	2435.8	2432.8	2432.8	2424.8	2421.8
10°	2403.8	2403.8	2399.8	2396.8	2393.8
12.5°	2368.8	2367.8	2366.8	2361.8	2356.8
15°	2326.8	2321.8	2323.8	2320.8	2317.8
17.5°	2274.8	2273.8	2272.8	2271.8	2265.8
20°	2220.8	2217.8	2215.8	2216.8	2211.8
22.5°	2153.8	2153.8	2154.8	2153.8	2148.8
25°	2079.8	2080.8	2084.8	2087.8	2081.8
27.5°	1994.8	2001.8	2012.8	2015.8	2013.8
30°	1903.8	1909.8	1931.8	1942.8	1933.8
32.5°	1811.8	1813.8	1840.8	1856.8	1856.8
35°	1708.9	1710.9	1740.9	1768.8	1771.8
37.5°	1605.9	1607.9	1639.9	1670.9	1678.9
40°	1513.9	1502.9	1529.9	1567.9	1587.9
42.5°	1411.9	1397.9	1411.9	1459.9	1483.9
45°	1321.9	1297.9	1301.9	1344.9	1375.9
47.5°	1229.9	1204.9	1192.9	1231.9	1269.9
50°	1144.9	1114.9	1090.9	1107.9	1127.9
52.5°	1053.9	1028.9	993.9	995.9	982.9
55°	959.9	944.9	898.9	875.9	836.9
57.5°	878.9	861.9	806.9	755.9	705.9
60°	792.9	778.9	716.9	637.9	601.9
62.5°	702.9	692.9	624.9	535.0	516.0
65°	614.9	601.9	531.0	448.0	441.0
67.5°	534.0	514.0	448.0	374.0	373.0
70°	455.0	427.0	367.0	311.0	318.0
72.5°	382.0	349.0	296.0	253.0	263.0
75°	322.0	277.0	234.0	203.0	219.0
77.5°	274.0	227.0	181.0	156.0	175.0
80°	231.0	186.0	143.0	118.0	132.0
82.5°	196.0	154.0	116.0	85.0	91.0
85°	159.0	131.0	97.0	63.0	50.0
87.5°	131.0	111.0	81.0	49.0	15.0
90°	106.0	95.0	67.0	35.0	1.0
92.5°	86.0	81.0	55.0	20.0	1.0
95°	71.0	67.0	41.0	5.0	1.0
97.5°	57.0	53.0	23.0	2.0	1.0
100°	39.0	32.0	10.0	2.0	2.0
102.5°	24.0	19.0	3.0	2.0	2.0
105°	13.0	8.0	3.0	2.0	2.0
107.5°	7.0	5.0	3.0	2.0	2.0
110°	6.0	4.0	3.0	2.0	2.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.0	4.0	3.0	2.0	2.0
115°	5.0	4.0	4.0	3.0	2.0
117.5°	5.0	4.0	4.0	3.0	3.0
120°	5.0	4.0	4.0	3.0	3.0
122.5°	5.0	4.0	4.0	3.0	3.0
125°	5.0	4.0	4.0	3.0	3.0
127.5°	5.0	5.0	4.0	3.0	3.0
130°	5.0	5.0	4.0	4.0	3.0
132.5°	5.0	5.0	4.0	4.0	4.0
135°	5.0	5.0	4.0	4.0	4.0
137.5°	5.0	5.0	4.0	4.0	4.0
140°	5.0	5.0	4.0	4.0	4.0
142.5°	5.0	5.0	5.0	4.0	4.0
145°	5.0	5.0	5.0	4.0	4.0
147.5°	5.0	5.0	4.0	4.0	4.0
150°	5.0	5.0	4.0	5.0	4.0
152.5°	5.0	5.0	4.0	4.0	4.0
155°	5.0	5.0	4.0	4.0	4.0
157.5°	5.0	5.0	4.0	4.0	4.0
160°	5.0	4.0	4.0	4.0	4.0
162.5°	5.0	4.0	4.0	5.0	5.0
165°	5.0	4.0	5.0	5.0	5.0
167.5°	4.0	4.0	5.0	5.0	5.0
170°	3.0	4.0	5.0	5.0	5.0
172.5°	3.0	4.0	5.0	5.0	5.0
175°	3.0	4.0	5.0	5.0	5.0
177.5°	3.0	4.0	5.0	5.0	5.0
180°	4.0	4.0	4.0	4.0	4.0

(END OF REPORT)