

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-L940-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-L940-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

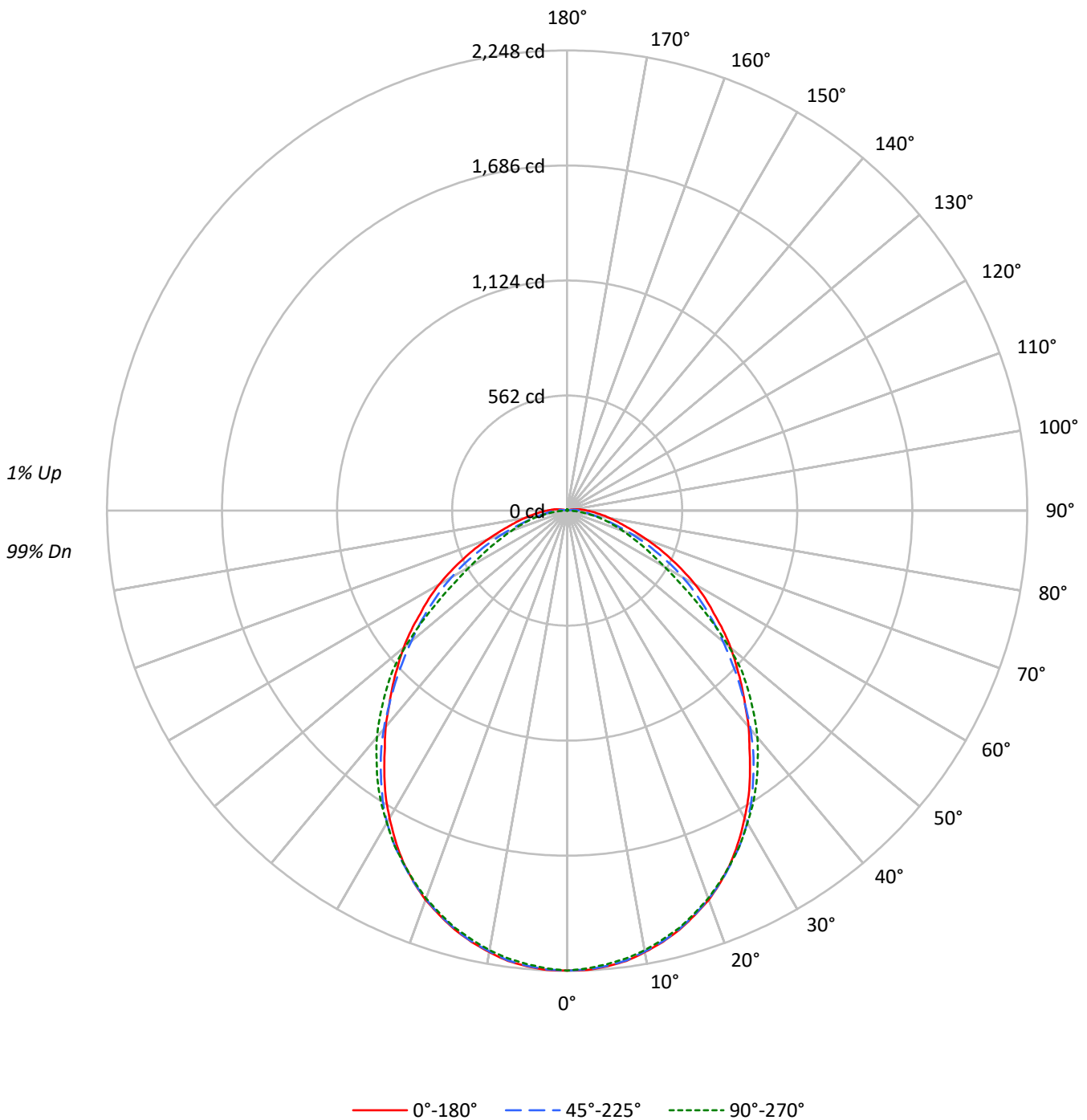
Lumens per Lamp: N/A
Luminaire Lumens: 5225.1 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.17 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 70.094
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	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°	19354	19354	19354
5°	19085	18031	17683
10°	18692	16741	16212
15°	18221	15525	14847
20°	17650	14306	13539
25°	16909	13121	12290
30°	15967	11947	11107
35°	14917	10662	9981
40°	13886	9350	8843
45°	12878	8002	7633
50°	11989	6794	6281
55°	10957	5719	4714
60°	10029	4697	3457
65°	8795	3615	2604
70°	7555	2621	1946
75°	6429	1771	1403
80°	5839	1161	894
85°	5533	856	362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.6	4.1
10°-20°	595.9	11.4
20°-30°	873.3	16.7
30°-40°	989.9	18.9
40°-50°	930.5	17.8
50°-60°	738.3	14.1
60°-70°	479.8	9.2
70°-80°	243.4	4.7
80°-90°	102.3	2.0
90°-100°	38.1	0.7
100°-110°	6.7	0.1
110°-120°	3.1	0.1
120°-130°	3.1	0.1
130°-140°	3.1	0.1
140°-150°	2.6	0.0
150°-160°	1.8	0.0
160°-170°	1.2	0.0
170°-180°	0.4	0.0
0°-30°	1680.8	32.2
0°-40°	2670.8	51.1
0°-60°	4339.5	83.1
0°-90°	5164.9	98.8
90°-120°	48.0	0.9
90°-150°	56.8	1.1
90°-180°	60.0	1.1
0°-180°	5225.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2248	2248	2248	2248	2248	
5°	2235	2236	2233	2228	2225	212
15°	2120	2115	2117	2114	2112	597
25°	1895	1896	1900	1902	1897	870
35°	1557	1559	1586	1612	1614	974
45°	1204	1182	1186	1225	1254	930
55°	875	861	819	798	762	786
65°	560	548	484	408	402	558
75°	293	252	213	185	200	318
85°	145	119	88	57	46	133
90°	97	87	61	32	1	54
95°	65	61	37	5	1	47
105°	12	7	3	2	2	16
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°	2247.5	2247.5	2247.5	2247.5	2247.5
2.5°	2246.6	2245.7	2243.9	2240.2	2238.4
5°	2234.7	2235.7	2232.9	2228.4	2224.7
7.5°	2219.3	2216.5	2216.5	2209.2	2206.5
10°	2190.1	2190.1	2186.5	2183.7	2181.0
12.5°	2158.2	2157.3	2156.4	2151.8	2147.3
15°	2119.9	2115.4	2117.2	2114.5	2111.7
17.5°	2072.6	2071.7	2070.7	2069.8	2064.4
20°	2023.4	2020.6	2018.8	2019.7	2015.2
22.5°	1962.3	1962.3	1963.2	1962.3	1957.8
25°	1894.9	1895.8	1899.5	1902.2	1896.7
27.5°	1817.5	1823.8	1833.9	1836.6	1834.8
30°	1734.6	1740.0	1760.1	1770.1	1761.9
32.5°	1650.7	1652.6	1677.2	1691.7	1691.7
35°	1557.0	1558.8	1586.1	1611.6	1614.3
37.5°	1463.1	1465.0	1494.1	1522.4	1529.6
40°	1379.3	1369.3	1393.9	1428.5	1446.7
42.5°	1286.4	1273.6	1286.4	1330.1	1352.0
45°	1204.4	1182.5	1186.2	1225.3	1253.6
47.5°	1120.6	1097.8	1086.9	1122.4	1157.0
50°	1043.1	1015.8	993.9	1009.4	1027.6
52.5°	960.2	937.4	905.5	907.4	895.5
55°	874.6	860.9	819.0	798.0	762.5
57.5°	800.8	785.3	735.2	688.7	643.1
60°	722.4	709.7	653.2	581.2	548.4
62.5°	640.4	631.3	569.3	487.4	470.1
65°	560.2	548.4	483.8	408.2	401.8
67.5°	486.5	468.3	408.2	340.8	339.8
70°	414.6	389.0	334.4	283.4	289.7
72.5°	348.0	318.0	269.7	230.5	239.6
75°	293.4	252.4	213.2	185.0	199.5
77.5°	249.6	206.8	164.9	142.1	159.4
80°	210.5	169.5	130.3	107.5	120.3
82.5°	178.6	140.3	105.7	77.4	82.9
85°	144.9	119.4	88.4	57.4	45.6
87.5°	119.4	101.1	73.8	44.6	13.7
90°	96.6	86.6	61.0	31.9	0.9
92.5°	78.4	73.8	50.1	18.2	0.9
95°	64.7	61.0	37.4	4.6	0.9
97.5°	51.9	48.3	21.0	1.8	0.9
100°	35.5	29.2	9.1	1.8	1.8
102.5°	21.9	17.3	2.7	1.8	1.8
105°	11.8	7.3	2.7	1.8	1.8
107.5°	6.4	4.6	2.7	1.8	1.8
110°	5.5	3.6	2.7	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.6	3.6	2.7	1.8	1.8
115°	4.6	3.6	3.6	2.7	1.8
117.5°	4.6	3.6	3.6	2.7	2.7
120°	4.6	3.6	3.6	2.7	2.7
122.5°	4.6	3.6	3.6	2.7	2.7
125°	4.6	3.6	3.6	2.7	2.7
127.5°	4.6	4.6	3.6	2.7	2.7
130°	4.6	4.6	3.6	3.6	2.7
132.5°	4.6	4.6	3.6	3.6	3.6
135°	4.6	4.6	3.6	3.6	3.6
137.5°	4.6	4.6	3.6	3.6	3.6
140°	4.6	4.6	3.6	3.6	3.6
142.5°	4.6	4.6	4.6	3.6	3.6
145°	4.6	4.6	4.6	3.6	3.6
147.5°	4.6	4.6	3.6	3.6	3.6
150°	4.6	4.6	3.6	4.6	3.6
152.5°	4.6	4.6	3.6	3.6	3.6
155°	4.6	4.6	3.6	3.6	3.6
157.5°	4.6	4.6	3.6	3.6	3.6
160°	4.6	3.6	3.6	3.6	3.6
162.5°	4.6	3.6	3.6	4.6	4.6
165°	4.6	3.6	4.6	4.6	4.6
167.5°	3.6	3.6	4.6	4.6	4.6
170°	2.7	3.6	4.6	4.6	4.6
172.5°	2.7	3.6	4.6	4.6	4.6
175°	2.7	3.6	4.6	4.6	4.6
177.5°	2.7	3.6	4.6	4.6	4.6
180°	3.6	3.6	3.6	3.6	3.6

(END OF REPORT)