

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: P392549

Luminaire Tested: **MWL-3-00-25-UNV-L840-EDD**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P392549  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MWL-3-00-25-UNV-L840-EDD  
Description: MWL 3FT MEDICAL LED FIXTURE  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

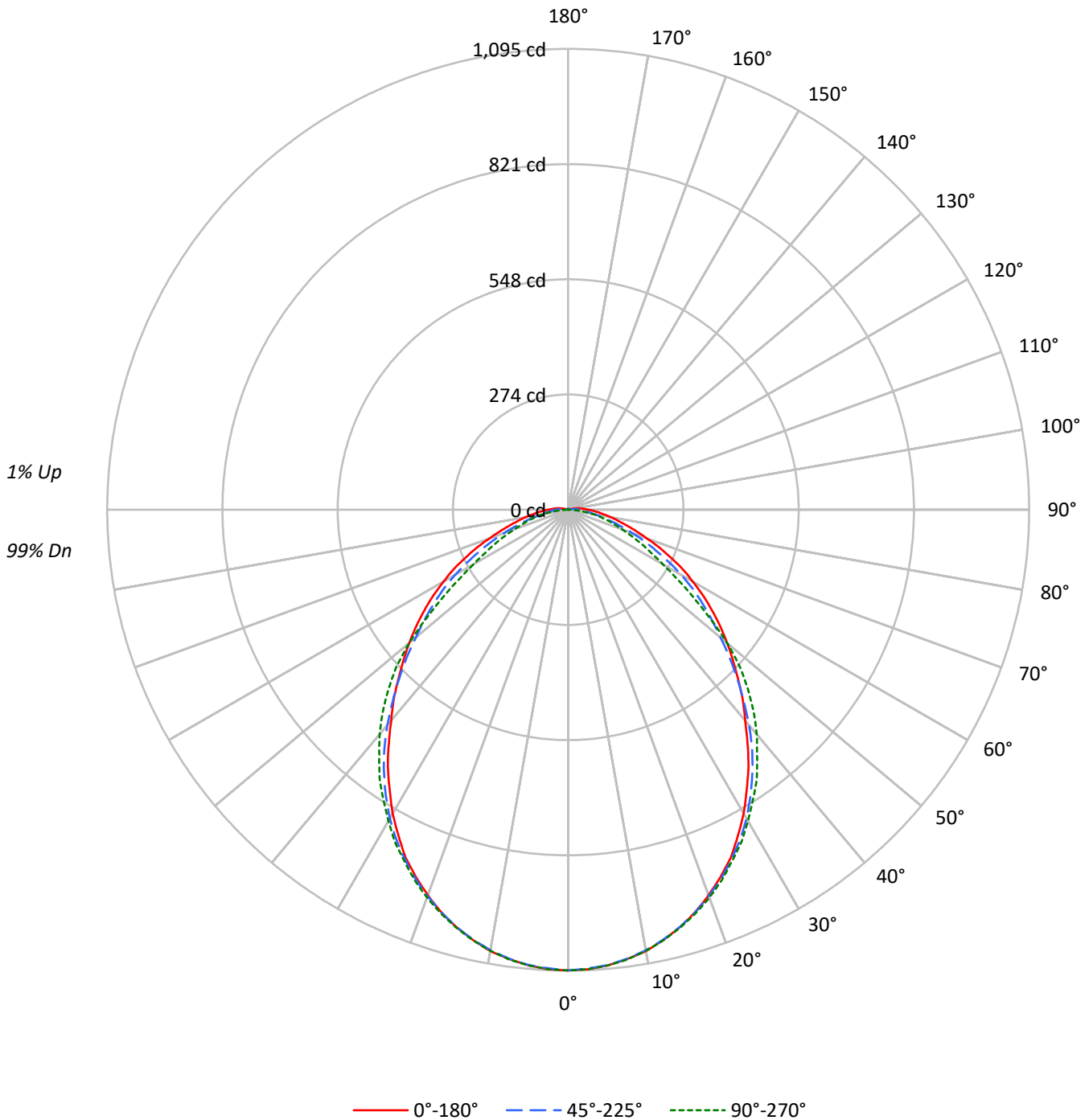
Lumens per Lamp: N/A  
Luminaire Lumens: 2513.0 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')  
CIE Type: Direct

Input Watts (W): 24.6  
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



TEST NUMBER: P392549  
CATALOG NUMBER: MWL-3-00-25-UNV-L840-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P392549

CATALOG NUMBER: MWL-3-00-25-UNV-L840-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	98	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°	9427	9427	9427
5°	9282	8768	8639
10°	9088	8138	7908
15°	8825	7522	7226
20°	8503	6922	6589
25°	8146	6333	5967
30°	7676	5748	5383
35°	7156	5128	4828
40°	6583	4480	4260
45°	6105	3831	3677
50°	5665	3226	3013
55°	5223	2722	2244
60°	4746	2229	1639
65°	4223	1719	1244
70°	3608	1270	914
75°	3134	872	668
80°	2885	570	431
85°	2749	416	183



TEST NUMBER: P392549

CATALOG NUMBER: MWL-3-00-25-UNV-L840-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.0	4.1
10°-20°	289.2	11.5
20°-30°	421.9	16.8
30°-40°	476.2	18.9
40°-50°	445.3	17.7
50°-60°	351.2	14.0
60°-70°	229.2	9.1
70°-80°	118.2	4.7
80°-90°	50.0	2.0
90°-100°	19.0	0.8
100°-110°	3.5	0.1
110°-120°	1.4	0.1
120°-130°	1.2	0.0
130°-140°	1.2	0.0
140°-150°	1.1	0.0
150°-160°	0.7	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	814.1	32.4
0°-40°	1290.3	51.3
0°-60°	2086.7	83.0
0°-90°	2484.2	98.9
90°-120°	23.8	0.9
90°-150°	27.4	1.1
90°-180°	29.0	1.2
0°-180°	2513.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1087	1089	1086	1086	1087	103
15°	1027	1027	1026	1028	1028	289
25°	913	912	917	923	921	419
35°	747	749	763	777	781	466
45°	571	563	568	592	604	441
55°	417	407	390	381	363	373
65°	269	264	230	197	192	267
75°	143	125	105	90	95	154
85°	72	58	43	28	23	65
90°	47	43	30	15	0	26
95°	33	31	18	2	1	24
105°	6	3	1	1	1	8
115°	2	2	1	1	1	2
125°	2	2	1	1	1	2
135°	2	2	2	1	1	2
145°	2	2	2	2	1	1
155°	2	2	2	1	1	1
165°	2	1	2	2	2	1
175°	1	1	2	2	2	0
180°	2	2	2	2	2	



TEST NUMBER: P392549

CATALOG NUMBER: MWL-3-00-25-UNV-L840-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1094.8	1094.8	1094.8	1094.8	1094.8
2.5°	1092.8	1094.8	1090.8	1091.8	1092.8
5°	1086.8	1088.8	1085.8	1085.8	1086.8
7.5°	1076.8	1077.8	1075.8	1076.8	1077.8
10°	1064.8	1063.8	1062.8	1063.8	1063.8
12.5°	1046.8	1045.8	1045.8	1047.8	1047.8
15°	1026.8	1026.8	1025.8	1027.8	1027.8
17.5°	1002.8	1002.8	1002.8	1005.8	1005.8
20°	974.8	976.8	976.8	980.8	980.8
22.5°	944.9	946.9	948.8	951.8	952.8
25°	912.9	911.9	916.9	922.9	920.9
27.5°	872.9	878.9	883.9	889.9	890.9
30°	833.9	836.9	846.9	853.9	853.9
32.5°	788.9	794.9	805.9	816.9	816.9
35°	746.9	748.9	762.9	776.9	780.9
37.5°	699.9	701.9	717.9	734.9	736.9
40°	653.9	654.9	667.9	690.9	696.9
42.5°	613.9	606.9	616.9	642.9	651.9
45°	570.9	562.9	567.9	591.9	603.9
47.5°	530.9	520.9	519.9	537.9	553.9
50°	492.9	480.9	471.9	484.9	492.9
52.5°	454.9	442.9	429.9	432.9	425.9
55°	416.9	406.9	389.9	380.9	362.9
57.5°	379.9	371.9	350.9	329.9	308.0
60°	341.9	337.9	310.0	279.0	260.0
62.5°	307.0	300.0	270.0	234.0	222.0
65°	269.0	264.0	230.0	197.0	192.0
67.5°	234.0	224.0	196.0	162.0	162.0
70°	198.0	188.0	162.0	135.0	136.0
72.5°	169.0	154.0	132.0	110.0	114.0
75°	143.0	125.0	105.0	90.0	95.0
77.5°	121.0	100.0	82.0	70.0	76.0
80°	104.0	82.0	64.0	53.0	58.0
82.5°	85.0	69.0	52.0	38.0	40.0
85°	72.0	58.0	43.0	28.0	23.0
87.5°	59.0	50.0	36.0	22.0	7.0
90°	47.0	43.0	30.0	15.0	0.0
92.5°	38.0	36.0	24.0	9.0	1.0
95°	33.0	31.0	18.0	2.0	1.0
97.5°	26.0	24.0	11.0	1.0	1.0
100°	19.0	17.0	5.0	1.0	1.0
102.5°	13.0	10.0	1.0	1.0	1.0
105°	6.0	3.0	1.0	1.0	1.0
107.5°	2.0	2.0	1.0	1.0	1.0
110°	2.0	2.0	1.0	1.0	1.0



TEST NUMBER: P392549

CATALOG NUMBER: MWL-3-00-25-UNV-L840-EDD

**CANDELA DISTRIBUTION (continued):**

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

(END OF REPORT)