

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: P392548

Luminaire Tested: **MWL-3-00-25-UNV-L835-EDD**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P392548  
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-L835-EDD  
Description: MWL 3FT MEDICAL LED FIXTURE  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

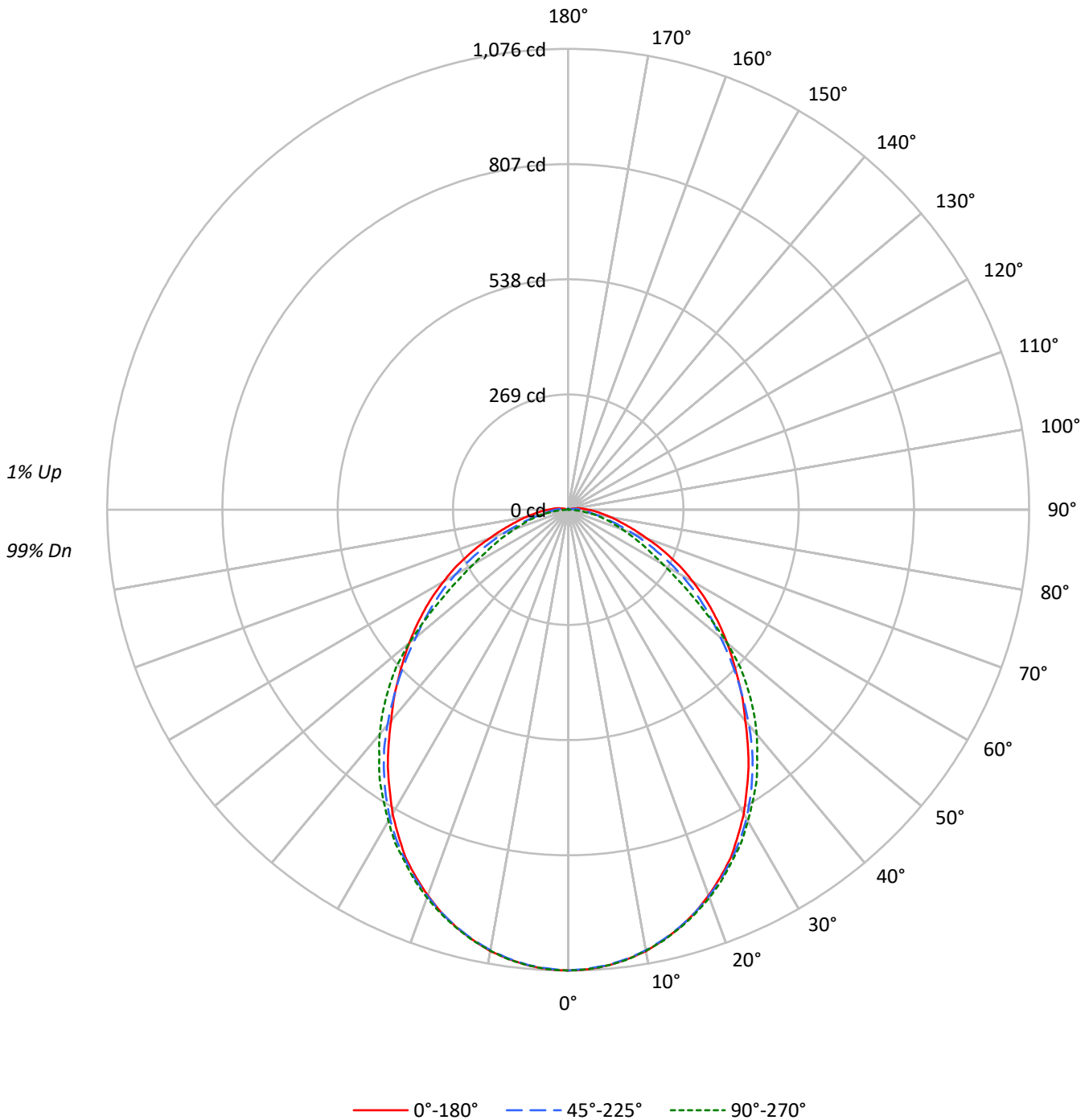
Lumens per Lamp: N/A  
Luminaire Lumens: 2470.1 lumens  
Efficiency: N/A  
Efficacy: 100.4 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')  
CIE Type: Direct

Input Watts (W): 24.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	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°	9266	9266	9266
5°	9123	8618	8491
10°	8933	7998	7772
15°	8675	7393	7103
20°	8358	6804	6477
25°	8006	6225	5865
30°	7545	5650	5291
35°	7033	5040	4745
40°	6471	4404	4187
45°	6000	3765	3614
50°	5569	3171	2961
55°	5134	2676	2205
60°	4666	2190	1611
65°	4151	1689	1223
70°	3546	1248	898
75°	3079	857	657
80°	2835	560	424
85°	2703	410	180



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.2	4.1
10°-20°	284.3	11.5
20°-30°	414.7	16.8
30°-40°	468.0	18.9
40°-50°	437.7	17.7
50°-60°	345.2	14.0
60°-70°	225.3	9.1
70°-80°	116.1	4.7
80°-90°	49.2	2.0
90°-100°	18.7	0.8
100°-110°	3.4	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°	800.2	32.4
0°-40°	1268.2	51.3
0°-60°	2051.0	83.0
0°-90°	2441.7	98.8
90°-120°	23.5	1.0
90°-150°	27.1	1.1
90°-180°	28.0	1.1
0°-180°	2470.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1076	1076	1076	1076	1076	
5°	1068	1070	1067	1067	1068	101
15°	1009	1009	1008	1010	1010	284
25°	897	896	901	907	905	412
35°	734	736	750	764	768	458
45°	561	553	558	582	594	434
55°	410	400	383	374	357	367
65°	264	259	226	194	189	263
75°	140	123	103	88	93	151
85°	71	57	42	28	23	64
90°	46	42	30	15	0	26
95°	32	30	18	2	1	23
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1076.1	1076.1	1076.1	1076.1	1076.1
2.5°	1074.1	1076.1	1072.2	1073.1	1074.1
5°	1068.2	1070.2	1067.2	1067.2	1068.2
7.5°	1058.4	1059.4	1057.4	1058.4	1059.4
10°	1046.6	1045.6	1044.6	1045.6	1045.6
12.5°	1028.9	1027.9	1027.9	1029.9	1029.9
15°	1009.3	1009.3	1008.3	1010.3	1010.3
17.5°	985.7	985.7	985.7	988.6	988.6
20°	958.2	960.1	960.1	964.1	964.1
22.5°	928.7	930.6	932.6	935.6	936.5
25°	897.2	896.3	901.2	907.1	905.1
27.5°	857.9	863.8	868.7	874.6	875.6
30°	819.6	822.5	832.4	839.3	839.3
32.5°	775.4	781.3	792.1	802.9	802.9
35°	734.1	736.1	749.8	763.6	767.5
37.5°	687.9	689.9	705.6	722.3	724.3
40°	642.7	643.7	656.5	679.1	685.0
42.5°	603.4	596.5	606.3	631.9	640.7
45°	561.1	553.3	558.2	581.8	593.6
47.5°	521.8	512.0	511.0	528.7	544.4
50°	484.5	472.7	463.9	476.6	484.5
52.5°	447.1	435.4	422.6	425.5	418.6
55°	409.8	400.0	383.3	374.4	356.7
57.5°	373.4	365.6	344.9	324.3	302.7
60°	336.1	332.2	304.6	274.2	255.5
62.5°	301.7	294.8	265.3	230.0	218.2
65°	264.4	259.4	226.0	193.6	188.7
67.5°	230.0	220.1	192.6	159.2	159.2
70°	194.6	184.8	159.2	132.7	133.7
72.5°	166.1	151.3	129.7	108.1	112.0
75°	140.5	122.8	103.2	88.4	93.4
77.5°	118.9	98.3	80.6	68.8	74.7
80°	102.2	80.6	62.9	52.1	57.0
82.5°	83.5	67.8	51.1	37.3	39.3
85°	70.8	57.0	42.3	27.5	22.6
87.5°	58.0	49.1	35.4	21.6	6.9
90°	46.2	42.3	29.5	14.7	0.0
92.5°	37.3	35.4	23.6	8.8	1.0
95°	32.4	30.5	17.7	2.0	1.0
97.5°	25.6	23.6	10.8	1.0	1.0
100°	18.7	16.7	4.9	1.0	1.0
102.5°	12.8	9.8	1.0	1.0	1.0
105°	5.9	2.9	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



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**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)