

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: P392551

Luminaire Tested: **MWL-3-00-28-UNV-L835-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392551
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-17)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-00-28-UNV-L835-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

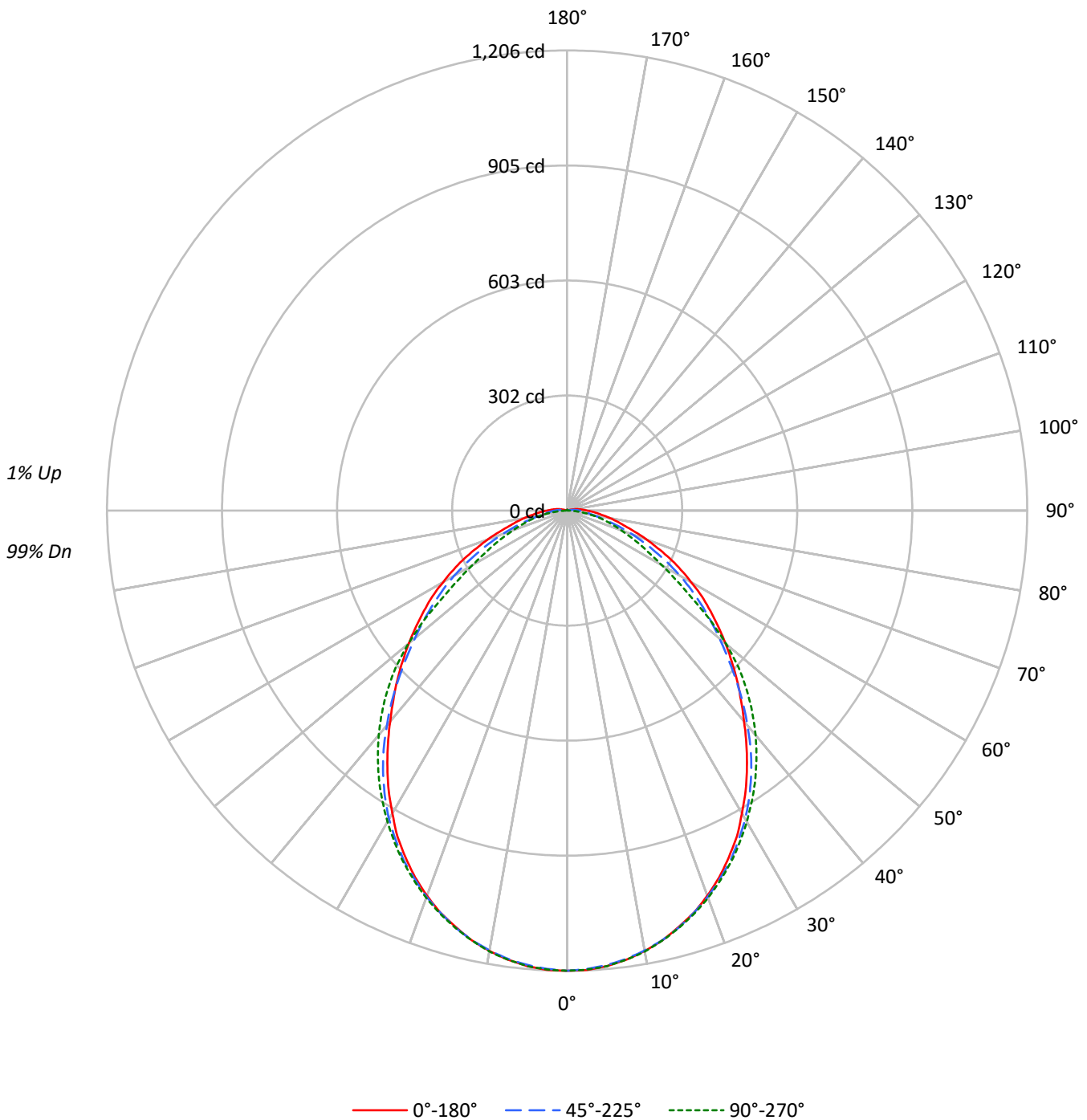
Lumens per Lamp: N/A
Luminaire Lumens: 2768.1 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 28.3
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	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°	10386	10386	10386
5°	10233	9652	9524
10°	10000	8964	8724
15°	9707	8296	7961
20°	9371	7634	7257
25°	8947	6993	6586
30°	8433	6338	5936
35°	7872	5656	5318
40°	7264	4932	4698
45°	6738	4217	4058
50°	6225	3561	3328
55°	5738	2993	2461
60°	5213	2460	1809
65°	4660	1902	1369
70°	4031	1410	1010
75°	3447	955	733
80°	3190	622	482
85°	3039	467	196



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.5	4.1
10°-20°	318.7	11.5
20°-30°	464.8	16.8
30°-40°	524.7	19.0
40°-50°	490.2	17.7
50°-60°	386.4	14.0
60°-70°	252.4	9.1
70°-80°	130.3	4.7
80°-90°	55.2	2.0
90°-100°	21.0	0.8
100°-110°	3.7	0.1
110°-120°	1.5	0.1
120°-130°	1.5	0.1
130°-140°	1.4	0.0
140°-150°	1.2	0.0
150°-160°	0.9	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	896.9	32.4
0°-40°	1421.7	51.4
0°-60°	2298.3	83.0
0°-90°	2736.2	98.8
90°-120°	26.2	0.9
90°-150°	30.3	1.1
90°-180°	32.0	1.2
0°-180°	2768.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1206	1206	1206	1206	1206	
5°	1198	1198	1195	1196	1198	114
15°	1129	1131	1131	1133	1132	318
25°	1003	1006	1012	1016	1016	461
35°	822	825	841	856	860	513
45°	630	618	625	650	666	486
55°	458	448	429	420	398	410
65°	297	288	255	214	211	294
75°	157	136	115	98	104	171
85°	80	64	48	32	25	72
90°	52	47	32	17	1	29
95°	36	34	20	3	1	27
105°	7	3	1	1	1	9
115°	2	2	2	1	1	2
125°	2	2	2	1	1	2
135°	2	2	2	2	1	2
145°	2	2	2	2	1	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°	1206.1	1206.1	1206.1	1206.1	1206.1
2.5°	1205.1	1205.1	1202.1	1203.1	1204.1
5°	1198.2	1198.2	1195.3	1196.2	1198.2
7.5°	1187.4	1187.4	1185.4	1186.4	1187.4
10°	1171.7	1171.7	1170.7	1171.7	1173.6
12.5°	1154.0	1154.0	1153.0	1154.0	1154.0
15°	1129.4	1131.4	1131.4	1133.3	1132.3
17.5°	1104.8	1105.8	1104.8	1107.8	1107.8
20°	1074.3	1076.3	1077.3	1080.2	1080.2
22.5°	1040.9	1042.9	1044.9	1049.8	1048.8
25°	1002.6	1005.5	1012.4	1016.4	1016.4
27.5°	963.3	966.2	973.1	979.0	980.0
30°	916.1	922.0	933.8	940.7	941.7
32.5°	870.9	875.8	888.6	900.4	901.4
35°	821.7	824.7	841.4	856.1	860.1
37.5°	771.6	772.6	790.3	810.9	814.9
40°	721.5	719.5	735.2	760.8	768.7
42.5°	674.3	667.4	681.2	708.7	718.5
45°	630.1	618.3	625.1	649.7	666.4
47.5°	584.8	574.0	571.1	591.7	609.4
50°	541.6	529.8	521.0	533.7	544.5
52.5°	498.3	487.5	473.8	475.7	472.8
55°	458.0	448.2	428.6	419.7	398.1
57.5°	418.7	409.9	385.3	361.7	338.1
60°	375.5	370.6	342.1	305.7	287.0
62.5°	336.2	330.3	297.8	257.5	243.8
65°	296.8	288.0	254.6	214.3	211.3
67.5°	256.5	247.7	216.2	180.9	177.9
70°	221.2	207.4	179.9	148.4	150.4
72.5°	187.7	168.1	147.4	121.9	126.8
75°	157.3	135.6	115.0	98.3	104.2
77.5°	134.7	110.1	89.4	77.7	85.5
80°	115.0	90.4	69.8	59.0	64.9
82.5°	94.4	75.7	58.0	41.3	44.2
85°	79.6	63.9	48.2	31.5	24.6
87.5°	64.9	55.0	40.3	23.6	6.9
90°	52.1	47.2	32.4	16.7	1.0
92.5°	43.2	39.3	26.5	9.8	1.0
95°	36.4	34.4	19.7	2.9	1.0
97.5°	28.5	26.5	12.8	1.0	1.0
100°	21.6	18.7	4.9	1.0	1.0
102.5°	14.7	10.8	1.0	1.0	1.0
105°	6.9	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	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	1.0	1.0
125°	2.0	2.0	2.0	1.0	1.0
127.5°	2.0	2.0	2.0	1.0	1.0
130°	2.0	2.0	2.0	1.0	1.0
132.5°	2.0	2.0	2.0	1.0	1.0
135°	2.0	2.0	2.0	2.0	1.0
137.5°	2.0	2.0	2.0	2.0	1.0
140°	2.0	2.0	2.0	2.0	1.0
142.5°	2.0	2.0	2.0	2.0	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	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)