

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: P392459

Luminaire Tested: **MWL-2-00-13-UNV-L840-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-30)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-2-00-13-UNV-L840-EDD
Description: MWL 2FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

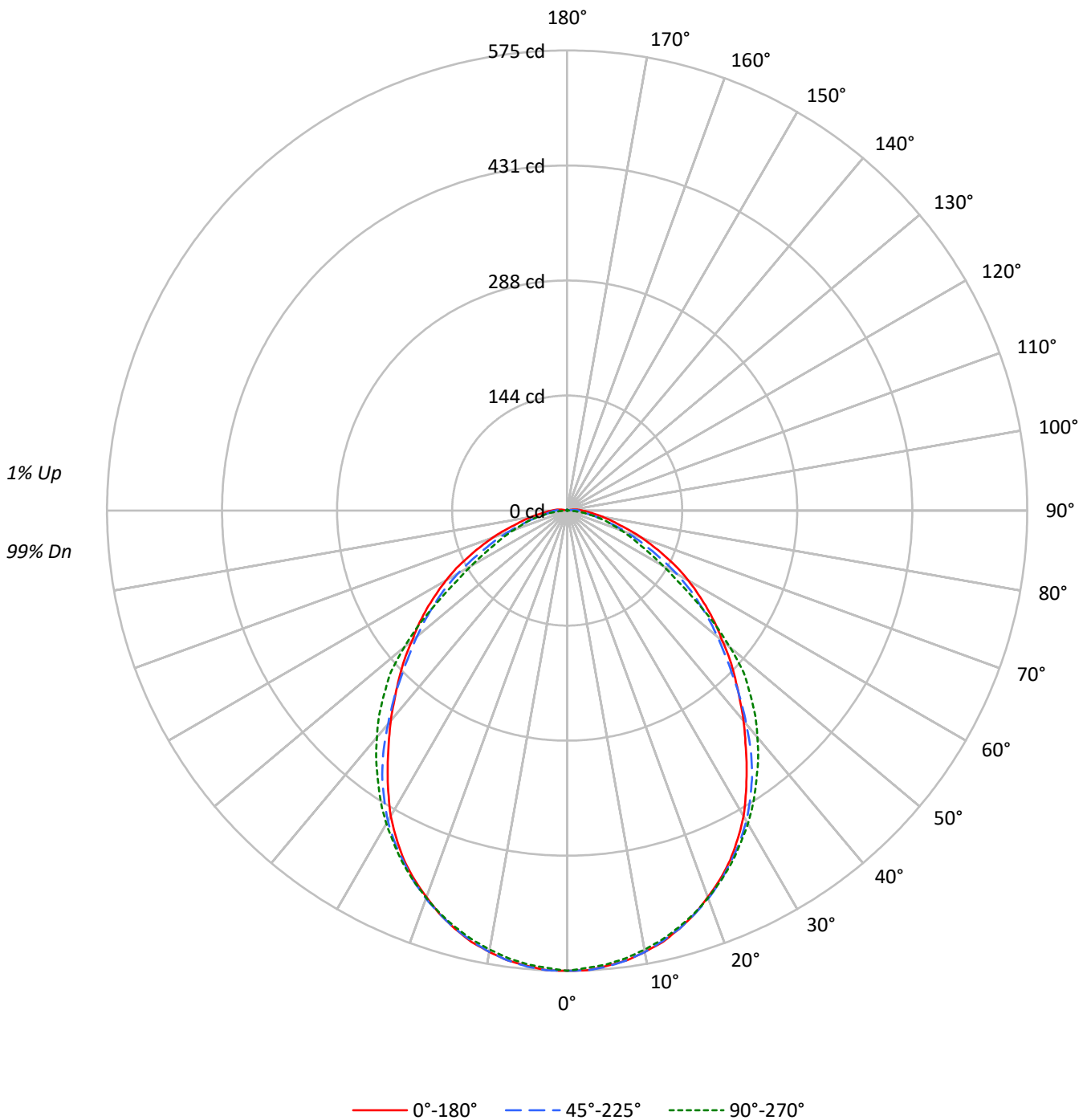
Lumens per Lamp: N/A
Luminaire Lumens: 1306.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.18 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')
CIE Type: Direct

Input Watts (W): 11.9
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	111	111	111	106	106	106	101	101	101	99				
1	109	105	101	98	107	103	99	96	98	95	93	94	92	90	91	89	87	85				
2	100	93	87	81	98	91	85	80	87	82	78	84	80	76	81	77	75	72				
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	72	68	64	62				
4	85	74	66	59	83	72	65	59	70	63	58	67	62	57	65	60	56	54				
5	79	66	58	52	76	65	57	51	63	56	51	61	55	50	59	54	50	48				
6	73	60	52	46	71	59	51	45	57	50	45	56	49	45	54	48	44	42				
7	68	55	47	41	66	54	46	41	52	45	40	51	45	40	50	44	40	38				
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34				
9	59	46	38	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31				
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	39	34	30	28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7427	7427	7427
5°	7271	6901	6784
10°	7085	6383	6211
15°	6852	5887	5685
20°	6567	5410	5190
25°	6261	4933	4724
30°	5871	4475	4274
35°	5381	3976	3821
40°	4923	3418	3392
45°	4490	2886	2950
50°	4073	2439	2439
55°	3714	2039	1809
60°	3322	1646	1314
65°	2852	1230	962
70°	2378	880	716
75°	1853	584	517
80°	1534	369	323
85°	1271	289	131



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.1	4.1
10°-20°	152.3	11.7
20°-30°	222.6	17.0
30°-40°	251.0	19.2
40°-50°	233.2	17.9
50°-60°	183.0	14.0
60°-70°	115.8	8.9
70°-80°	57.0	4.4
80°-90°	23.7	1.8
90°-100°	8.2	0.6
100°-110°	0.9	0.1
110°-120°	1.0	0.1
120°-130°	0.9	0.1
130°-140°	0.8	0.1
140°-150°	0.6	0.0
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	429.0	32.9
0°-40°	680.1	52.1
0°-60°	1096.2	83.9
0°-90°	1292.8	99.0
90°-120°	10.1	0.8
90°-150°	12.4	0.9
90°-180°	13.0	1.0
0°-180°	1306.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	575	575	575	575	575	
5°	571	572	572	570	569	54
15°	541	541	541	541	539	152
25°	482	482	484	486	486	221
35°	391	394	403	411	412	245
45°	297	294	293	312	323	229
55°	214	212	201	201	195	191
65°	135	130	114	101	99	135
75°	66	58	49	45	49	73
85°	29	29	21	14	11	27
90°	19	21	15	8	0	11
95°	13	14	8	0	0	9
105°	1	1	0	0	0	2
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	1	1	1
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	575	575	575	575	575
2.5°	575	575	575	573	572
5°	571	572	572	570	569
7.5°	567	567	567	565	564
10°	560	560	560	559	557
12.5°	552	552	551	550	549
15°	541	541	541	541	539
17.5°	529	529	529	529	528
20°	514	515	516	515	515
22.5°	499	499	501	502	501
25°	482	482	484	486	486
27.5°	462	463	467	469	469
30°	441	443	448	451	452
32.5°	416	419	426	432	433
35°	391	394	403	411	412
37.5°	366	367	377	389	392
40°	343	341	348	366	370
42.5°	319	316	321	340	348
45°	297	294	293	312	323
47.5°	276	271	268	283	299
50°	253	251	245	254	266
52.5°	234	231	223	227	232
55°	214	212	201	201	195
57.5°	194	192	180	173	163
60°	175	173	158	147	139
62.5°	156	152	135	121	117
65°	135	130	114	101	99
67.5°	116	109	96	84	85
70°	99	90	78	69	71
72.5°	82	72	63	56	59
75°	66	58	49	45	49
77.5°	55	47	38	35	39
80°	45	39	29	27	29
82.5°	36	33	24	19	20
85°	29	29	21	14	11
87.5°	24	25	18	11	3
90°	19	21	15	8	0
92.5°	16	18	12	4	0
95°	13	14	8	0	0
97.5°	10	9	4	0	0
100°	6	5	1	0	0
102.5°	3	2	0	0	0
105°	1	1	0	0	0
107.5°	1	1	1	0	0
110°	1	1	1	1	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1	1	1	1	1
115°	1	1	1	1	1
117.5°	1	1	1	1	1
120°	1	1	1	1	1
122.5°	1	1	1	1	1
125°	1	1	1	1	1
127.5°	1	1	1	1	1
130°	1	1	1	1	1
132.5°	1	1	1	1	1
135°	1	1	1	1	1
137.5°	1	1	1	1	1
140°	1	1	1	1	1
142.5°	1	1	1	1	1
145°	1	1	1	1	1
147.5°	1	1	1	1	1
150°	1	1	1	1	1
152.5°	1	1	1	1	1
155°	1	1	1	1	1
157.5°	1	1	1	1	1
160°	1	1	1	1	1
162.5°	1	1	1	1	1
165°	1	1	1	1	1
167.5°	1	1	1	1	1
170°	1	1	1	1	1
172.5°	1	1	1	1	1
175°	1	1	1	1	1
177.5°	1	1	1	1	1
180°	1	1	1	1	1

(END OF REPORT)