

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: P392457

Luminaire Tested: **MWL-2-00-13-UNV-L930-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392457
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-L930-EDD
Description: MWL 2FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

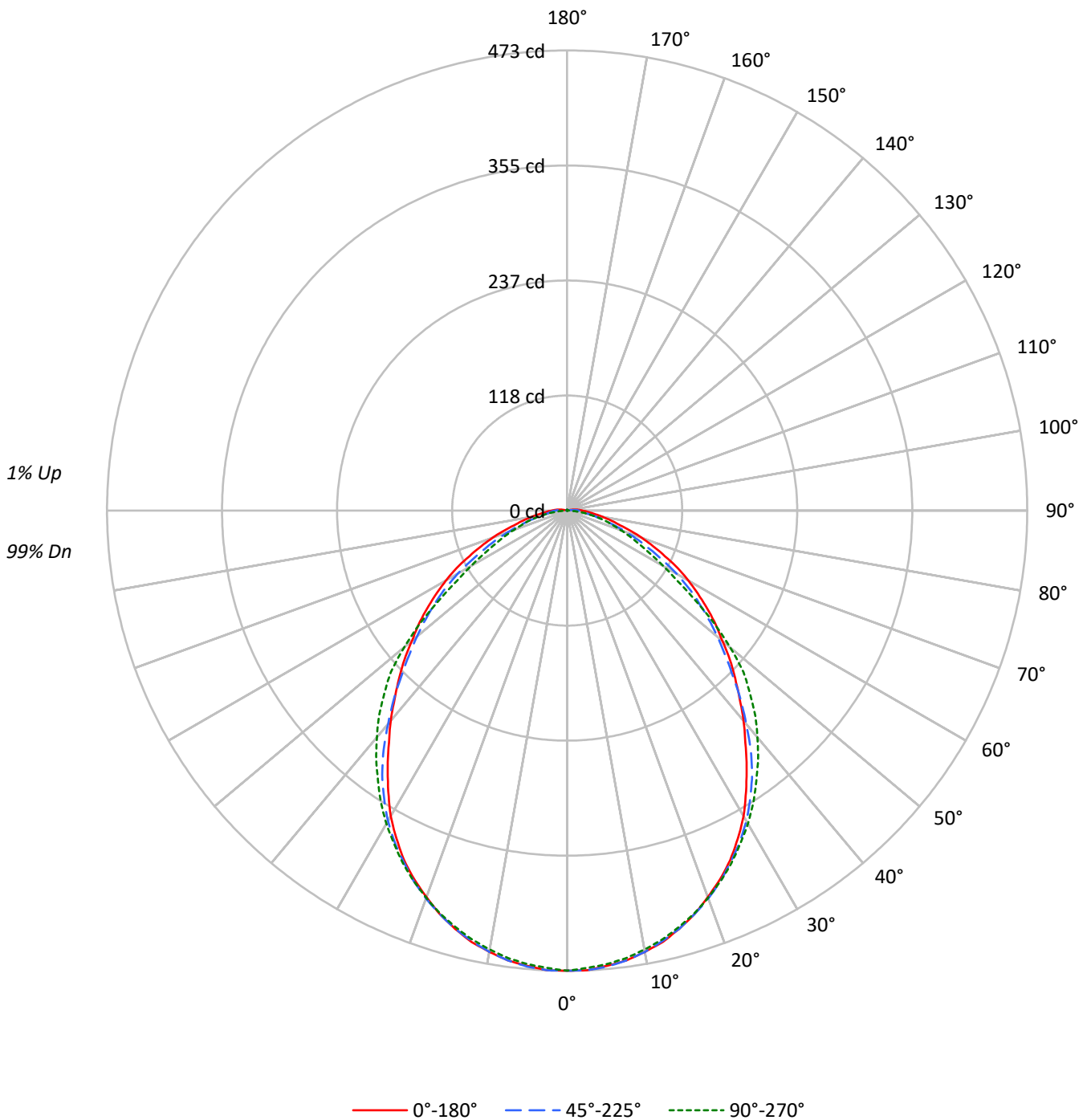
Lumens per Lamp: N/A
Luminaire Lumens: 1074.1 lumens
Efficiency: N/A
Efficacy: 89.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.18 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')
CIE Type: Direct

Input Watts (W): 12.019
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	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°	6108	6108	6108
5°	5981	5676	5580
10°	5827	5250	5108
15°	5636	4842	4675
20°	5402	4450	4269
25°	5151	4057	3885
30°	4830	3681	3515
35°	4426	3271	3143
40°	4049	2812	2790
45°	3693	2374	2426
50°	3350	2006	2006
55°	3055	1678	1488
60°	2734	1354	1081
65°	2345	1012	791
70°	1955	724	589
75°	1525	480	425
80°	1262	304	266
85°	1048	238	108



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.5	4.1
10°-20°	125.3	11.7
20°-30°	183.1	17.0
30°-40°	206.5	19.2
40°-50°	191.8	17.9
50°-60°	150.5	14.0
60°-70°	95.2	8.9
70°-80°	46.9	4.4
80°-90°	19.5	1.8
90°-100°	6.7	0.6
100°-110°	0.7	0.1
110°-120°	0.8	0.1
120°-130°	0.7	0.1
130°-140°	0.6	0.1
140°-150°	0.5	0.0
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	352.9	32.9
0°-40°	559.4	52.1
0°-60°	901.7	83.9
0°-90°	1063.4	99.0
90°-120°	8.3	0.8
90°-150°	10.1	0.9
90°-180°	11.0	1.0
0°-180°	1074.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	473	473	473	473	473	
5°	470	470	470	469	468	45
15°	445	445	445	445	443	125
25°	396	396	398	400	400	182
35°	322	324	332	338	339	201
45°	244	242	241	257	266	189
55°	176	174	165	165	160	157
65°	111	107	94	83	81	111
75°	54	48	40	37	40	60
85°	24	24	17	12	9	22
90°	16	17	12	7	0	9
95°	11	12	7	0	0	8
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°	472.9	472.9	472.9	472.9	472.9
2.5°	472.9	472.9	472.9	471.3	470.5
5°	469.7	470.5	470.5	468.9	468.0
7.5°	466.4	466.4	466.4	464.7	463.9
10°	460.6	460.6	460.6	459.8	458.1
12.5°	454.1	454.1	453.2	452.4	451.6
15°	445.0	445.0	445.0	445.0	443.3
17.5°	435.1	435.1	435.1	435.1	434.3
20°	422.8	423.6	424.4	423.6	423.6
22.5°	410.4	410.4	412.1	412.9	412.1
25°	396.5	396.5	398.1	399.7	399.7
27.5°	380.0	380.8	384.2	385.7	385.7
30°	362.8	364.4	368.5	371.0	371.7
32.5°	342.2	344.6	350.4	355.4	356.2
35°	321.6	324.1	331.5	338.0	338.9
37.5°	301.0	301.8	310.1	320.0	322.4
40°	282.1	280.4	286.3	301.0	304.3
42.5°	262.4	259.9	264.1	279.6	286.3
45°	244.3	241.8	241.0	256.7	265.6
47.5°	227.0	222.9	220.5	232.8	245.9
50°	208.1	206.5	201.5	208.9	218.8
52.5°	192.5	190.0	183.4	186.8	190.8
55°	176.0	174.3	165.4	165.4	160.4
57.5°	159.5	158.0	148.0	142.3	134.1
60°	144.0	142.3	130.0	120.9	114.3
62.5°	128.3	125.0	111.0	99.5	96.2
65°	111.0	106.9	93.8	83.1	81.4
67.5°	95.4	89.6	79.0	69.1	69.9
70°	81.4	74.1	64.2	56.8	58.4
72.5°	67.4	59.3	51.9	46.1	48.5
75°	54.3	47.7	40.3	37.0	40.3
77.5°	45.3	38.7	31.3	28.8	32.1
80°	37.0	32.1	23.9	22.2	23.9
82.5°	29.6	27.1	19.7	15.6	16.5
85°	23.9	23.9	17.3	11.5	9.1
87.5°	19.7	20.6	14.8	9.1	2.5
90°	15.6	17.3	12.3	6.6	0.0
92.5°	13.1	14.8	9.9	3.3	0.0
95°	10.7	11.5	6.6	0.0	0.0
97.5°	8.2	7.4	3.3	0.0	0.0
100°	4.9	4.1	0.8	0.0	0.0
102.5°	2.5	1.7	0.0	0.0	0.0
105°	0.8	0.8	0.0	0.0	0.0
107.5°	0.8	0.8	0.8	0.0	0.0
110°	0.8	0.8	0.8	0.8	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	0.8	0.8	0.8	0.8
115°	0.8	0.8	0.8	0.8	0.8
117.5°	0.8	0.8	0.8	0.8	0.8
120°	0.8	0.8	0.8	0.8	0.8
122.5°	0.8	0.8	0.8	0.8	0.8
125°	0.8	0.8	0.8	0.8	0.8
127.5°	0.8	0.8	0.8	0.8	0.8
130°	0.8	0.8	0.8	0.8	0.8
132.5°	0.8	0.8	0.8	0.8	0.8
135°	0.8	0.8	0.8	0.8	0.8
137.5°	0.8	0.8	0.8	0.8	0.8
140°	0.8	0.8	0.8	0.8	0.8
142.5°	0.8	0.8	0.8	0.8	0.8
145°	0.8	0.8	0.8	0.8	0.8
147.5°	0.8	0.8	0.8	0.8	0.8
150°	0.8	0.8	0.8	0.8	0.8
152.5°	0.8	0.8	0.8	0.8	0.8
155°	0.8	0.8	0.8	0.8	0.8
157.5°	0.8	0.8	0.8	0.8	0.8
160°	0.8	0.8	0.8	0.8	0.8
162.5°	0.8	0.8	0.8	0.8	0.8
165°	0.8	0.8	0.8	0.8	0.8
167.5°	0.8	0.8	0.8	0.8	0.8
170°	0.8	0.8	0.8	0.8	0.8
172.5°	0.8	0.8	0.8	0.8	0.8
175°	0.8	0.8	0.8	0.8	0.8
177.5°	0.8	0.8	0.8	0.8	0.8
180°	0.8	0.8	0.8	0.8	0.8

(END OF REPORT)