

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: P392550

Luminaire Tested: **MWL-3-00-28-UNV-L930-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392550
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-L930-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

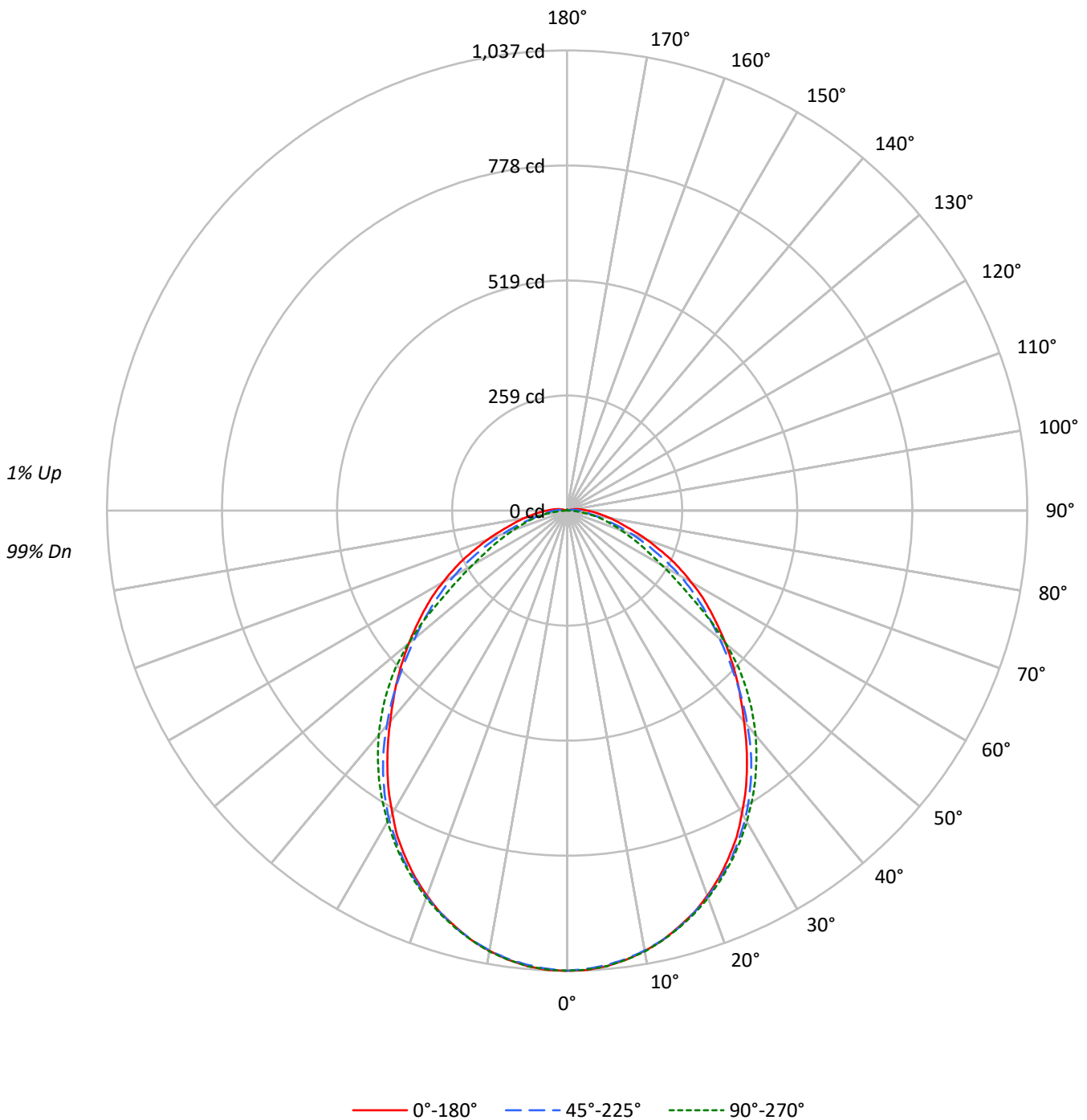
Lumens per Lamp: N/A
Luminaire Lumens: 2380.1 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 28.583
Input Voltage (V): NR
Input Current (A_{in}): 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°	8930	8930	8930
5°	8799	8299	8189
10°	8598	7707	7501
15°	8347	7133	6846
20°	8057	6564	6240
25°	7693	6014	5663
30°	7251	5450	5104
35°	6769	4863	4572
40°	6245	4241	4040
45°	5793	3626	3489
50°	5353	3062	2862
55°	4934	2573	2116
60°	4483	2115	1556
65°	4008	1636	1177
70°	3466	1212	869
75°	2963	821	629
80°	2743	534	415
85°	2612	401	168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.6	4.1
10°-20°	274.0	11.5
20°-30°	399.6	16.8
30°-40°	451.1	19.0
40°-50°	421.5	17.7
50°-60°	332.3	14.0
60°-70°	217.0	9.1
70°-80°	112.0	4.7
80°-90°	47.5	2.0
90°-100°	18.1	0.8
100°-110°	3.2	0.1
110°-120°	1.3	0.1
120°-130°	1.3	0.1
130°-140°	1.2	0.0
140°-150°	1.0	0.0
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	771.2	32.4
0°-40°	1222.4	51.4
0°-60°	1976.1	83.0
0°-90°	2352.6	98.8
90°-120°	22.6	1.0
90°-150°	26.1	1.1
90°-180°	28.0	1.2
0°-180°	2380.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1037	1037	1037	1037	1037	
5°	1030	1030	1028	1028	1030	98
15°	971	973	973	974	974	274
25°	862	865	871	874	874	396
35°	706	709	723	736	740	441
45°	542	532	538	559	573	418
55°	394	385	368	361	342	352
65°	255	248	219	184	182	253
75°	135	117	99	84	90	147
85°	68	55	41	27	21	62
90°	45	41	28	14	1	25
95°	31	30	17	3	1	23
105°	6	3	1	1	1	8
115°	2	2	2	1	1	2
125°	2	2	2	1	1	2
135°	2	2	2	2	1	1
145°	2	2	2	2	1	1
155°	2	2	2	2	2	1
165°	2	2	2	2	2	0
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°	1037.0	1037.0	1037.0	1037.0	1037.0
2.5°	1036.2	1036.2	1033.6	1034.5	1035.3
5°	1030.3	1030.3	1027.7	1028.5	1030.3
7.5°	1020.9	1020.9	1019.3	1020.1	1020.9
10°	1007.4	1007.4	1006.6	1007.4	1009.1
12.5°	992.2	992.2	991.4	992.2	992.2
15°	971.1	972.8	972.8	974.4	973.7
17.5°	950.0	950.8	950.0	952.5	952.5
20°	923.7	925.4	926.3	928.8	928.8
22.5°	895.0	896.7	898.4	902.6	901.8
25°	862.1	864.6	870.6	873.9	873.9
27.5°	828.3	830.8	836.7	841.8	842.6
30°	787.7	792.7	802.9	808.8	809.6
32.5°	748.8	753.0	764.0	774.1	775.0
35°	706.5	709.1	723.4	736.1	739.5
37.5°	663.5	664.2	679.5	697.3	700.6
40°	620.3	618.6	632.2	654.1	660.9
42.5°	579.8	573.8	585.7	609.4	617.8
45°	541.8	531.6	537.5	558.7	573.0
47.5°	502.9	493.6	491.1	508.8	524.0
50°	465.7	455.6	447.9	458.9	468.2
52.5°	428.5	419.2	407.3	409.1	406.5
55°	393.8	385.4	368.5	360.9	342.3
57.5°	360.0	352.5	331.3	311.0	290.7
60°	322.9	318.7	294.1	262.8	246.8
62.5°	289.1	284.0	256.0	221.4	209.6
65°	255.3	247.6	218.9	184.2	181.7
67.5°	220.6	213.0	186.0	155.5	152.9
70°	190.2	178.3	154.7	127.6	129.3
72.5°	161.4	144.5	126.8	104.8	109.0
75°	135.2	116.7	98.9	84.5	89.5
77.5°	115.8	94.7	76.9	66.7	73.5
80°	98.9	77.7	60.0	50.7	55.8
82.5°	81.1	65.1	49.8	35.5	38.0
85°	68.4	54.9	41.4	27.0	21.1
87.5°	55.8	47.4	34.7	20.3	5.9
90°	44.8	40.6	27.9	14.4	0.9
92.5°	37.2	33.8	22.8	8.5	0.9
95°	31.3	29.6	16.9	2.6	0.9
97.5°	24.5	22.8	11.0	0.9	0.9
100°	18.6	16.0	4.2	0.9	0.9
102.5°	12.7	9.3	0.9	0.9	0.9
105°	5.9	2.6	0.9	0.9	0.9
107.5°	1.7	1.7	0.9	0.9	0.9
110°	1.7	1.7	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.7	1.7	0.9	0.9	0.9
115°	1.7	1.7	1.7	0.9	0.9
117.5°	1.7	1.7	1.7	0.9	0.9
120°	1.7	1.7	1.7	0.9	0.9
122.5°	1.7	1.7	1.7	0.9	0.9
125°	1.7	1.7	1.7	0.9	0.9
127.5°	1.7	1.7	1.7	0.9	0.9
130°	1.7	1.7	1.7	0.9	0.9
132.5°	1.7	1.7	1.7	0.9	0.9
135°	1.7	1.7	1.7	1.7	0.9
137.5°	1.7	1.7	1.7	1.7	0.9
140°	1.7	1.7	1.7	1.7	0.9
142.5°	1.7	1.7	1.7	1.7	0.9
145°	1.7	1.7	1.7	1.7	0.9
147.5°	1.7	1.7	1.7	1.7	0.9
150°	1.7	1.7	1.7	1.7	1.7
152.5°	1.7	1.7	1.7	1.7	1.7
155°	1.7	1.7	1.7	1.7	1.7
157.5°	1.7	1.7	1.7	1.7	1.7
160°	1.7	1.7	1.7	1.7	1.7
162.5°	1.7	1.7	1.7	1.7	1.7
165°	1.7	1.7	1.7	1.7	1.7
167.5°	1.7	1.7	1.7	1.7	1.7
170°	1.7	1.7	1.7	1.7	1.7
172.5°	0.9	1.7	1.7	1.7	1.7
175°	0.9	1.7	1.7	1.7	1.7
177.5°	0.9	1.7	1.7	1.7	1.7
180°	1.7	1.7	1.7	1.7	1.7

(END OF REPORT)