

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: P392625

Luminaire Tested: **MWL-4-00-25-UNV-L930-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392625
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-6)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-4-00-25-UNV-L930-EDD
Description: MWL 4FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

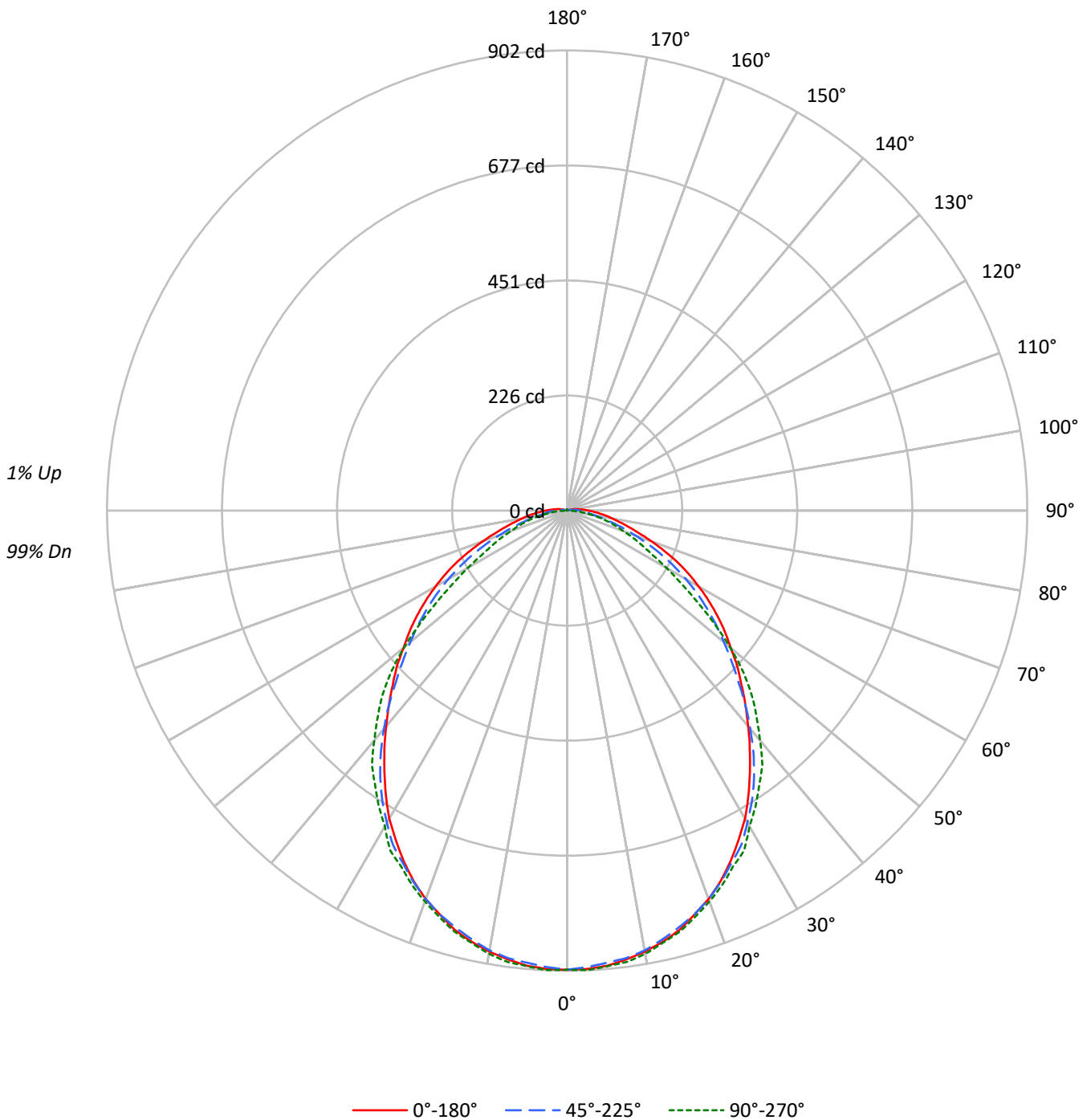
Lumens per Lamp: N/A
Luminaire Lumens: 2126.5 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.19 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.42')
CIE Type: Direct

Input Watts (W): 23.432
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	110	110	110	105	105	105	101	101	101	99
1	109	105	101	97	106	102	99	95	98	95	92	94	91	89	90	88	86	84
2	100	92	86	80	97	90	84	79	87	82	77	83	79	75	80	77	74	71
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	71	67	63	61
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	64	59	55	53
5	78	66	57	51	76	64	56	50	62	55	50	60	54	49	58	53	49	46
6	72	59	51	45	70	58	50	45	57	49	44	55	48	44	53	47	43	41
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37
8	63	50	41	36	61	49	41	36	47	40	35	46	40	35	45	39	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	55	42	35	30	54	42	34	29	41	34	29	40	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5813	5813	5813
5°	5754	5400	5345
10°	5654	5047	4919
15°	5535	4677	4505
20°	5366	4337	4109
25°	5151	3982	3741
30°	4904	3631	3380
35°	4589	3257	3045
40°	4278	2845	2696
45°	3999	2436	2339
50°	3739	2089	1913
55°	3521	1782	1438
60°	3264	1475	1063
65°	2967	1169	789
70°	2579	852	588
75°	2262	587	432
80°	2114	382	278
85°	2145	284	121



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.9	4.0
10°-20°	239.5	11.3
20°-30°	351.7	16.5
30°-40°	399.3	18.8
40°-50°	375.6	17.7
50°-60°	301.0	14.2
60°-70°	199.7	9.4
70°-80°	103.6	4.9
80°-90°	43.9	2.1
90°-100°	16.9	0.8
100°-110°	3.7	0.2
110°-120°	1.4	0.1
120°-130°	1.5	0.1
130°-140°	1.3	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	676.0	31.8
0°-40°	1075.4	50.6
0°-60°	1752.0	82.4
0°-90°	2099.1	98.7
90°-120°	22.0	1.0
90°-150°	25.9	1.2
90°-180°	27.0	1.3
0°-180°	2126.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	900	900	900	900	900	
5°	896	894	890	897	897	85
15°	851	848	846	854	854	239
25°	758	759	762	769	770	349
35°	624	627	639	656	657	391
45°	483	477	475	499	512	374
55°	359	351	335	325	310	321
65°	238	231	204	167	162	234
75°	126	110	92	78	82	136
85°	63	51	38	25	20	57
90°	42	36	26	14	0	23
95°	27	26	16	3	1	20
105°	8	6	1	1	1	9
115°	2	2	2	1	1	2
125°	2	2	2	2	2	2
135°	2	2	2	2	2	1
145°	2	2	2	2	2	1
155°	2	2	2	2	2	1
165°	2	2	2	2	2	0
175°	1	2	2	2	3	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	900.0	900.0	900.0	900.0	900.0
2.5°	899.2	897.4	895.7	905.1	901.6
5°	895.7	894.1	889.8	897.4	896.6
7.5°	887.3	885.6	884.7	889.8	892.4
10°	878.0	877.2	875.5	880.5	882.3
12.5°	865.4	867.8	861.1	866.1	867.8
15°	851.0	847.6	845.9	853.5	854.3
17.5°	829.9	832.3	829.9	834.9	834.9
20°	810.4	810.4	810.4	815.4	815.4
22.5°	785.9	788.4	787.6	791.8	794.4
25°	758.0	758.8	762.2	769.0	769.8
27.5°	727.6	731.0	739.4	747.0	751.2
30°	697.2	697.2	706.4	714.1	714.9
32.5°	661.7	661.7	674.4	687.1	687.1
35°	624.5	627.0	638.9	655.8	656.6
37.5°	588.2	586.5	600.0	619.4	628.7
40°	551.8	548.5	558.6	581.4	588.2
42.5°	517.2	511.2	517.2	540.0	550.1
45°	483.4	476.6	474.9	499.4	512.1
47.5°	452.9	443.7	436.9	452.9	468.2
50°	418.3	410.7	401.4	409.0	417.4
52.5°	389.5	380.3	367.6	368.4	362.5
55°	359.2	350.7	334.7	325.3	310.1
57.5°	328.7	322.8	301.7	282.3	262.8
60°	298.3	292.4	268.7	237.5	224.8
62.5°	267.8	263.6	235.8	200.3	189.3
65°	237.5	230.7	204.5	167.3	162.3
67.5°	205.3	198.6	172.4	141.1	140.3
70°	175.7	165.6	141.9	116.6	116.6
72.5°	148.7	136.0	115.8	96.3	99.7
75°	125.9	109.9	92.1	77.7	82.0
77.5°	106.5	89.5	71.8	60.8	65.9
80°	90.4	73.5	55.7	45.6	49.8
82.5°	76.9	60.8	45.6	32.1	34.6
85°	63.4	50.7	38.0	25.4	20.3
87.5°	51.5	43.1	31.3	19.5	6.8
90°	42.3	36.4	26.2	14.4	0.0
92.5°	33.8	31.3	21.1	8.5	0.9
95°	27.0	26.2	16.0	3.3	0.9
97.5°	21.1	22.0	11.0	0.9	0.9
100°	16.9	16.0	5.9	0.9	0.9
102.5°	11.8	10.1	1.7	0.9	0.9
105°	7.6	5.9	0.9	0.9	0.9
107.5°	3.3	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	1.7	0.9
120°	1.7	1.7	1.7	1.7	1.7
122.5°	1.7	1.7	1.7	1.7	1.7
125°	1.7	1.7	1.7	1.7	1.7
127.5°	1.7	1.7	1.7	1.7	1.7
130°	1.7	1.7	1.7	1.7	1.7
132.5°	1.7	1.7	1.7	1.7	1.7
135°	1.7	1.7	1.7	1.7	1.7
137.5°	1.7	1.7	1.7	1.7	1.7
140°	1.7	1.7	1.7	1.7	1.7
142.5°	1.7	2.6	1.7	1.7	1.7
145°	1.7	1.7	1.7	1.7	1.7
147.5°	1.7	1.7	1.7	1.7	1.7
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	2.6
175°	0.9	1.7	1.7	1.7	2.6
177.5°	0.9	1.7	1.7	1.7	2.6
180°	1.7	1.7	1.7	1.7	1.7

(END OF REPORT)