

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: P392468

Luminaire Tested: **MWL-2-00-31-UNV-L840-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392468
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-26)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-2-00-31-UNV-L840-EDD
Description: MWL 2FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

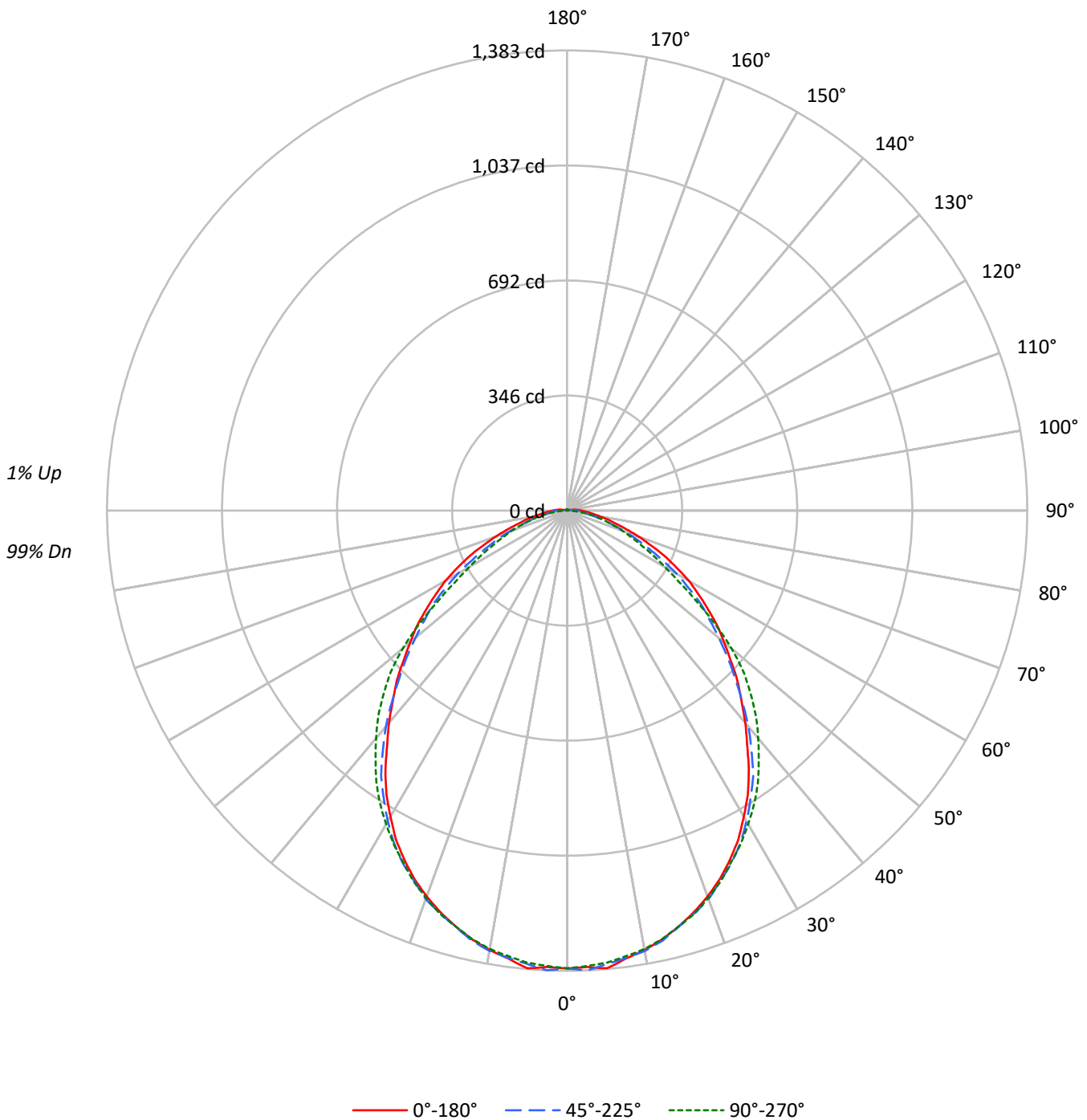
Lumens per Lamp: N/A
Luminaire Lumens: 3142.1 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.18 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')
CIE Type: Direct

Input Watts (W): 32.8
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	110	105	101	98	107	103	99	96	98	96	93	94	92	90	91	89	87	85				
2	101	93	87	81	98	91	85	80	87	83	78	84	80	76	81	78	75	73				
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	72	68	65	62				
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	65	60	56	54				
5	79	67	58	52	77	65	57	52	63	56	51	61	55	50	59	54	50	48				
6	73	60	52	46	71	59	51	46	57	50	45	56	49	45	54	49	44	42				
7	68	55	47	41	66	54	46	41	53	45	40	51	45	40	50	44	40	38				
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34				
9	59	46	39	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°	17772	17772	17772
5°	17584	16503	16262
10°	16964	15319	14917
15°	16388	14090	13646
20°	15765	13032	12485
25°	15041	11913	11332
30°	14139	10767	10288
35°	13100	9619	9265
40°	11956	8328	8187
45°	10945	7033	7124
50°	9900	5924	5923
55°	8956	4990	4396
60°	8011	3948	3205
65°	6823	2924	2381
70°	5476	2076	1764
75°	4211	1370	1234
80°	3376	853	780
85°	2849	633	322



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.8	4.1
10°-20°	365.2	11.6
20°-30°	535.4	17.0
30°-40°	607.1	19.3
40°-50°	566.2	18.0
50°-60°	443.9	14.1
60°-70°	276.7	8.8
70°-80°	132.8	4.2
80°-90°	53.6	1.7
90°-100°	17.9	0.6
100°-110°	2.2	0.1
110°-120°	1.9	0.1
120°-130°	2.3	0.1
130°-140°	2.3	0.1
140°-150°	2.1	0.1
150°-160°	1.6	0.1
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	1030.4	32.8
0°-40°	1637.5	52.1
0°-60°	2647.6	84.3
0°-90°	3110.5	99.0
90°-120°	22.0	0.7
90°-150°	28.7	0.9
90°-180°	32.0	1.0
0°-180°	3142.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1376	1376	1376	1376	1376	
5°	1381	1370	1368	1367	1364	130
15°	1294	1295	1295	1292	1294	365
25°	1158	1159	1169	1166	1166	532
35°	952	952	975	994	999	594
45°	724	712	714	757	780	557
55°	516	515	492	486	474	463
65°	323	308	271	243	245	319
75°	150	131	115	107	117	165
85°	65	64	46	33	27	60
90°	42	47	32	17	1	24
95°	29	29	18	1	1	21
105°	2	2	1	1	1	5
115°	2	2	2	2	2	2
125°	3	3	3	2	2	3
135°	3	3	3	3	3	2
145°	3	4	3	3	3	2
155°	4	4	4	3	3	2
165°	4	3	3	3	3	1
175°	2	3	3	4	4	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1375.9	1375.9	1375.9	1375.9	1375.9
2.5°	1372.9	1379.9	1382.9	1368.9	1369.9
5°	1380.9	1369.9	1367.9	1366.9	1363.9
7.5°	1357.9	1362.9	1355.9	1353.9	1350.9
10°	1340.9	1344.9	1343.9	1336.9	1337.9
12.5°	1319.9	1323.9	1323.9	1315.9	1318.9
15°	1293.9	1294.9	1294.9	1291.9	1293.9
17.5°	1265.9	1269.9	1269.9	1270.9	1270.9
20°	1233.9	1239.9	1242.9	1237.9	1238.9
22.5°	1198.9	1199.9	1203.9	1196.9	1205.9
25°	1157.9	1158.9	1168.9	1165.9	1165.9
27.5°	1114.0	1114.0	1127.0	1124.0	1130.0
30°	1062.0	1071.0	1078.0	1093.0	1088.0
32.5°	1011.0	1016.0	1026.0	1037.0	1046.0
35°	952.0	952.0	975.0	994.0	999.0
37.5°	888.0	890.0	910.0	939.0	946.0
40°	833.0	829.0	848.0	886.0	893.0
42.5°	775.0	769.0	779.0	825.0	841.0
45°	724.0	712.0	714.0	757.0	780.0
47.5°	667.0	663.0	655.0	684.0	720.0
50°	615.0	607.0	595.0	619.0	646.0
52.5°	569.0	562.0	540.0	554.0	560.0
55°	516.0	515.0	492.0	486.0	474.0
57.5°	468.0	466.0	433.0	422.0	399.0
60°	422.0	415.0	379.0	351.0	339.0
62.5°	370.0	366.0	322.0	292.0	290.0
65°	323.0	308.0	271.0	243.0	245.0
67.5°	272.0	257.0	225.0	200.0	208.0
70°	228.0	208.0	184.0	163.0	175.0
72.5°	187.0	166.0	148.0	133.0	144.0
75°	150.0	131.0	115.0	107.0	117.0
77.5°	126.0	106.0	87.0	83.0	95.0
80°	99.0	88.0	67.0	62.0	70.0
82.5°	80.0	75.0	56.0	44.0	48.0
85°	65.0	64.0	46.0	33.0	27.0
87.5°	52.0	55.0	39.0	25.0	8.0
90°	42.0	47.0	32.0	17.0	1.0
92.5°	36.0	39.0	26.0	8.0	1.0
95°	29.0	29.0	18.0	1.0	1.0
97.5°	22.0	20.0	7.0	1.0	1.0
100°	13.0	10.0	1.0	1.0	1.0
102.5°	6.0	3.0	1.0	1.0	1.0
105°	2.0	2.0	1.0	1.0	1.0
107.5°	2.0	2.0	2.0	1.0	1.0
110°	2.0	2.0	2.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.0	2.0	2.0	2.0	1.0
115°	2.0	2.0	2.0	2.0	2.0
117.5°	2.0	2.0	2.0	2.0	2.0
120°	2.0	2.0	2.0	2.0	2.0
122.5°	3.0	2.0	2.0	2.0	2.0
125°	3.0	3.0	3.0	2.0	2.0
127.5°	3.0	3.0	3.0	3.0	3.0
130°	3.0	3.0	3.0	3.0	3.0
132.5°	3.0	3.0	3.0	3.0	3.0
135°	3.0	3.0	3.0	3.0	3.0
137.5°	3.0	3.0	3.0	3.0	3.0
140°	3.0	3.0	3.0	3.0	3.0
142.5°	3.0	3.0	3.0	3.0	3.0
145°	3.0	4.0	3.0	3.0	3.0
147.5°	4.0	4.0	4.0	3.0	3.0
150°	4.0	4.0	4.0	3.0	3.0
152.5°	4.0	4.0	4.0	3.0	3.0
155°	4.0	4.0	4.0	3.0	3.0
157.5°	4.0	4.0	3.0	3.0	3.0
160°	4.0	4.0	3.0	3.0	3.0
162.5°	4.0	4.0	3.0	3.0	3.0
165°	4.0	3.0	3.0	3.0	3.0
167.5°	4.0	3.0	3.0	3.0	3.0
170°	3.0	3.0	3.0	3.0	3.0
172.5°	2.0	3.0	3.0	3.0	3.0
175°	2.0	3.0	3.0	4.0	4.0
177.5°	2.0	2.0	3.0	4.0	4.0
180°	3.0	3.0	3.0	3.0	3.0

(END OF REPORT)