

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: P392555

Luminaire Tested: **MWL-3-00-33-UNV-L940-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392555
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-00-33-UNV-L940-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

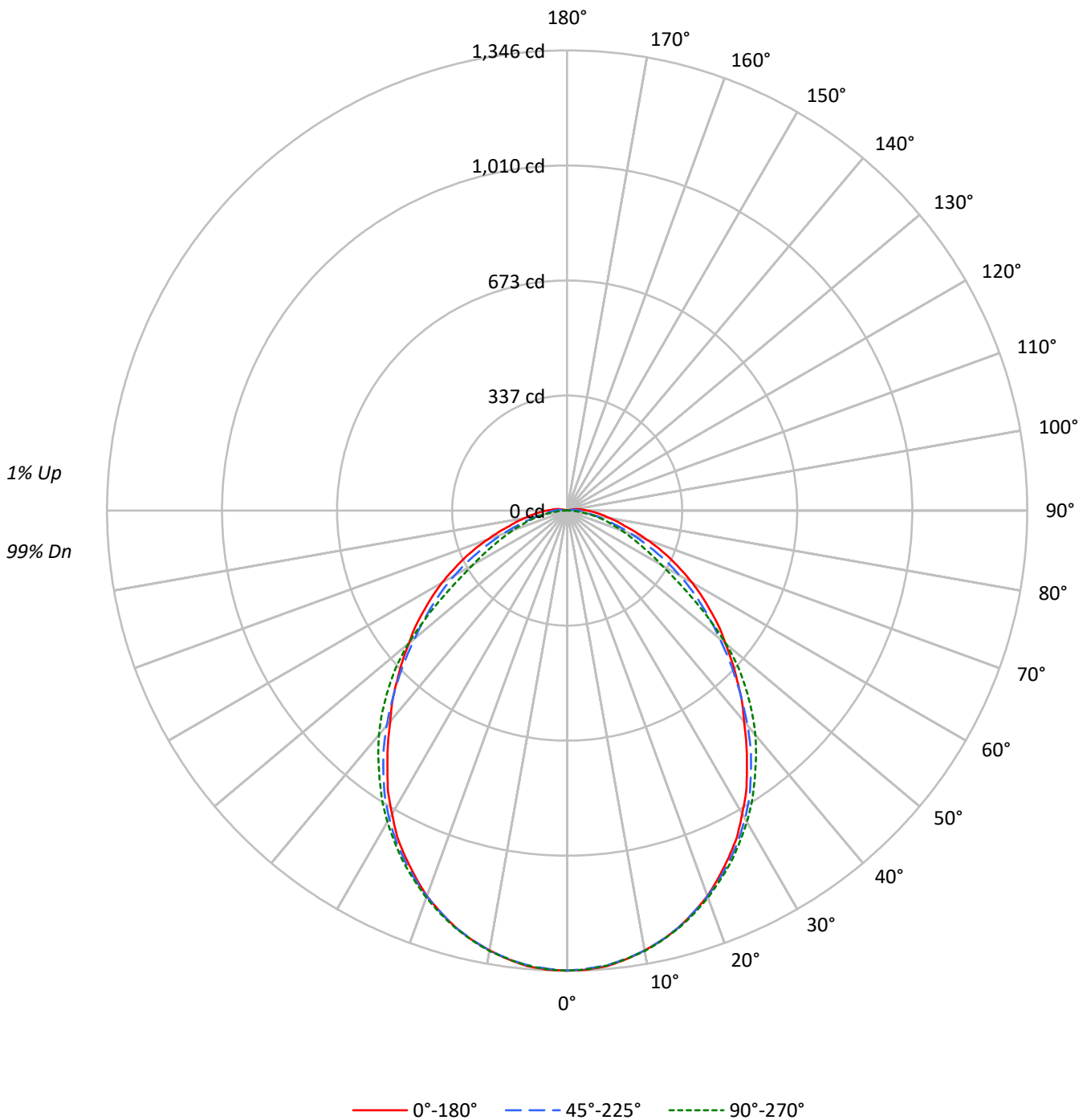
Lumens per Lamp: N/A
Luminaire Lumens: 3089.5 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 36.158
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	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	98	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°	11588	11588	11588
5°	11423	10779	10617
10°	11151	10004	9725
15°	10846	9253	8885
20°	10467	8510	8092
25°	9984	7785	7350
30°	9427	7062	6628
35°	8782	6302	5915
40°	8099	5507	5235
45°	7521	4714	4510
50°	6944	3980	3714
55°	6414	3346	2777
60°	5870	2738	2010
65°	5236	2131	1511
70°	4516	1563	1139
75°	3852	1082	826
80°	3512	698	529
85°	3410	511	224



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.6	4.1
10°-20°	355.5	11.5
20°-30°	518.5	16.8
30°-40°	585.6	19.0
40°-50°	547.3	17.7
50°-60°	431.8	14.0
60°-70°	282.0	9.1
70°-80°	145.6	4.7
80°-90°	61.7	2.0
90°-100°	23.5	0.8
100°-110°	4.3	0.1
110°-120°	1.5	0.0
120°-130°	1.6	0.1
130°-140°	1.4	0.0
140°-150°	1.1	0.0
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1000.5	32.4
0°-40°	1586.1	51.3
0°-60°	2565.3	83.0
0°-90°	3054.5	98.9
90°-120°	29.3	0.9
90°-150°	33.4	1.1
90°-180°	35.0	1.1
0°-180°	3089.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1338	1338	1335	1335	1336	127
15°	1262	1262	1262	1263	1264	355
25°	1119	1123	1127	1134	1134	515
35°	917	921	938	957	957	573
45°	703	692	699	726	741	544
55°	512	501	479	468	449	459
65°	334	322	285	240	233	330
75°	176	152	130	109	118	191
85°	89	72	53	35	28	80
90°	59	52	36	19	1	33
95°	40	38	23	3	1	30
105°	8	4	2	1	1	11
115°	3	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	1
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°	1345.7	1345.7	1345.7	1345.7	1345.7
2.5°	1343.9	1344.8	1341.1	1341.1	1343.0
5°	1337.5	1337.5	1334.8	1334.8	1335.7
7.5°	1323.8	1324.7	1322.0	1322.9	1322.9
10°	1306.5	1308.3	1306.5	1306.5	1308.3
12.5°	1286.5	1287.4	1285.6	1287.4	1287.4
15°	1261.9	1261.9	1261.9	1262.8	1263.7
17.5°	1231.8	1234.5	1231.8	1235.5	1235.5
20°	1199.9	1199.9	1200.8	1203.6	1204.5
22.5°	1159.8	1162.6	1165.3	1169.9	1169.9
25°	1118.8	1123.4	1127.0	1134.3	1134.3
27.5°	1076.0	1076.9	1086.0	1095.1	1093.3
30°	1024.1	1028.6	1040.5	1050.5	1051.4
32.5°	974.9	976.7	992.2	1004.0	1006.8
35°	916.6	921.1	937.5	956.7	956.7
37.5°	861.0	863.7	881.9	905.6	907.5
40°	804.5	803.6	820.9	848.2	856.4
42.5°	757.1	746.2	758.9	788.1	800.9
45°	703.4	692.4	698.8	726.1	740.7
47.5°	654.2	640.5	639.6	660.5	679.7
50°	604.1	591.3	582.2	596.8	607.7
52.5°	561.2	543.9	529.3	533.0	526.6
55°	512.0	501.1	479.2	468.3	449.2
57.5°	467.4	457.4	431.0	403.6	376.3
60°	422.8	412.7	380.8	340.8	318.9
62.5°	375.4	369.0	332.6	287.0	275.2
65°	333.5	322.5	285.2	240.5	233.2
67.5°	289.7	276.1	240.5	200.4	199.5
70°	247.8	232.3	199.5	165.8	169.5
72.5°	210.5	189.5	163.1	135.8	140.3
75°	175.8	152.2	130.3	109.3	117.5
77.5°	150.3	123.9	100.2	85.6	93.8
80°	126.6	102.0	78.4	65.6	71.1
82.5°	106.6	84.7	63.8	46.5	50.1
85°	89.3	72.0	52.8	34.6	28.2
87.5°	72.9	61.0	44.6	26.4	8.2
90°	59.2	51.9	36.4	19.1	0.9
92.5°	47.4	43.7	30.1	10.9	0.9
95°	40.1	38.3	22.8	2.7	0.9
97.5°	32.8	30.1	13.7	0.9	0.9
100°	24.6	21.0	6.4	0.9	0.9
102.5°	16.4	12.8	1.8	0.9	0.9
105°	8.2	3.6	1.8	0.9	0.9
107.5°	2.7	1.8	1.8	0.9	0.9
110°	2.7	1.8	1.8	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.7	1.8	1.8	0.9	0.9
115°	2.7	1.8	1.8	0.9	0.9
117.5°	1.8	1.8	1.8	0.9	0.9
120°	1.8	1.8	1.8	0.9	0.9
122.5°	1.8	1.8	1.8	1.8	1.8
125°	1.8	1.8	1.8	1.8	1.8
127.5°	1.8	1.8	1.8	1.8	1.8
130°	1.8	1.8	1.8	1.8	1.8
132.5°	1.8	1.8	1.8	1.8	1.8
135°	1.8	1.8	1.8	1.8	1.8
137.5°	1.8	1.8	1.8	1.8	1.8
140°	1.8	1.8	1.8	1.8	1.8
142.5°	1.8	1.8	1.8	1.8	1.8
145°	1.8	1.8	1.8	1.8	1.8
147.5°	1.8	1.8	1.8	1.8	1.8
150°	1.8	1.8	1.8	1.8	1.8
152.5°	1.8	1.8	1.8	1.8	1.8
155°	1.8	1.8	1.8	1.8	1.8
157.5°	1.8	1.8	1.8	1.8	1.8
160°	1.8	1.8	1.8	1.8	1.8
162.5°	1.8	1.8	1.8	1.8	1.8
165°	1.8	1.8	1.8	1.8	1.8
167.5°	1.8	1.8	1.8	1.8	1.8
170°	1.8	1.8	1.8	1.8	1.8
172.5°	0.9	1.8	1.8	1.8	1.8
175°	0.9	1.8	1.8	1.8	1.8
177.5°	0.9	1.8	1.8	1.8	1.8
180°	1.8	1.8	1.8	1.8	1.8

(END OF REPORT)