

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: P392559

Luminaire Tested: **MWL-3-00-57-UNV-L930-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392559
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-13)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-00-57-UNV-L930-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

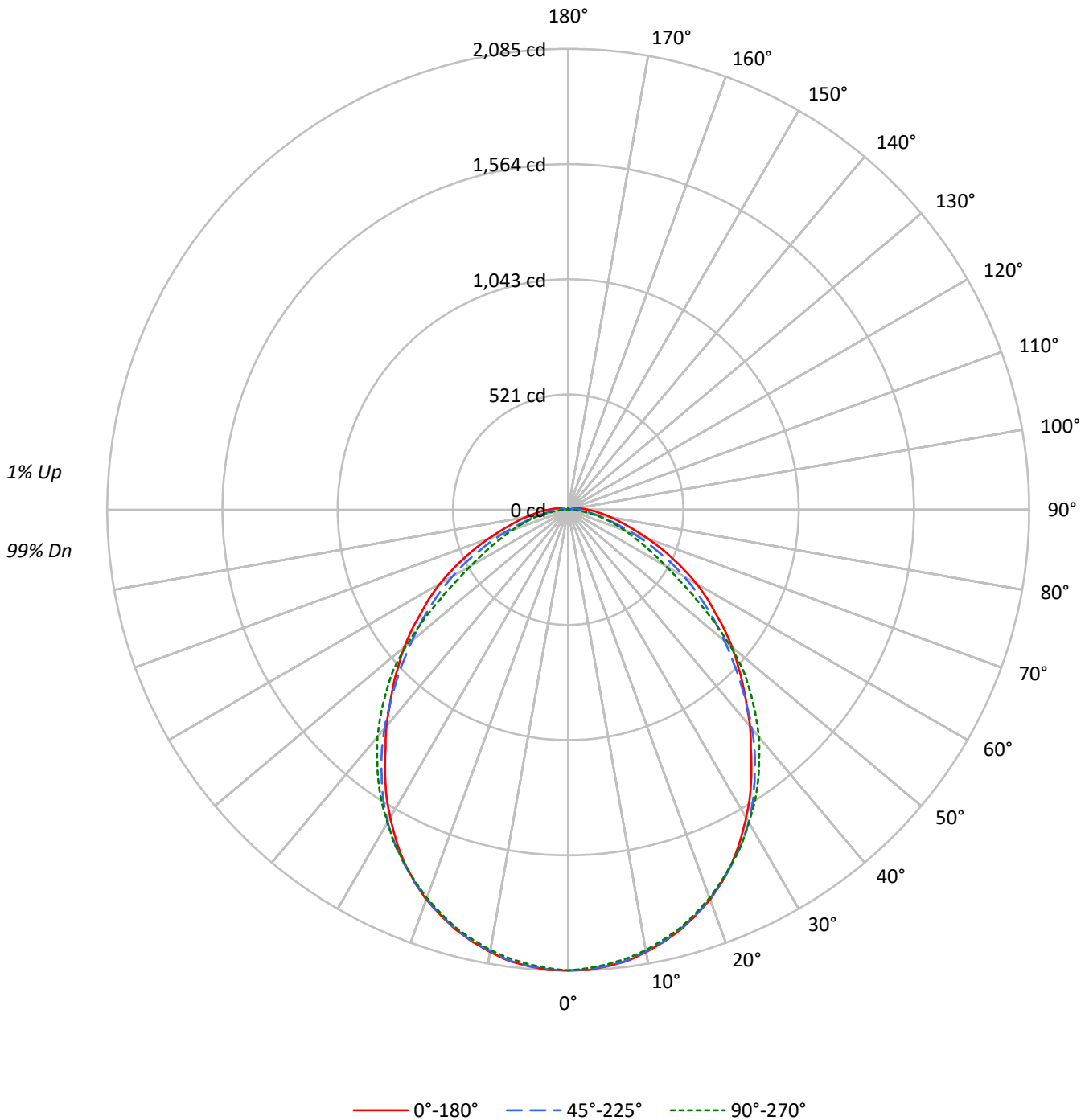
Lumens per Lamp: N/A
Luminaire Lumens: 4847.0 lumens
Efficiency: N/A
Efficacy: 69.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.17 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 70.094
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	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	74	69	65	72	67	64	62				
4	85	73	65	59	82	72	64	58	69	63	57	67	61	56	65	60	56	53				
5	78	66	57	51	76	65	57	51	63	56	50	61	54	50	59	53	49	47				
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	53	48	43	41				
7	67	54	46	40	66	54	46	40	52	45	40	50	44	39	49	43	39	37				
8	63	50	42	36	61	49	41	36	48	41	36	46	40	35	45	39	35	33				
9	59	46	38	33	57	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	27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17953	17953	17953
5°	17704	16727	16404
10°	17340	15530	15039
15°	16903	14401	13773
20°	16373	13271	12559
25°	15686	12172	11401
30°	14812	11083	10304
35°	13837	9890	9260
40°	12882	8674	8203
45°	11947	7423	7081
50°	11123	6303	5827
55°	10164	5305	4374
60°	9303	4358	3207
65°	8161	3353	2415
70°	7007	2431	1805
75°	5965	1643	1301
80°	5415	1077	830
85°	5132	794	336



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.3	4.1
10°-20°	552.8	11.4
20°-30°	810.1	16.7
30°-40°	918.3	18.9
40°-50°	863.2	17.8
50°-60°	684.9	14.1
60°-70°	445.0	9.2
70°-80°	225.8	4.7
80°-90°	94.8	2.0
90°-100°	35.4	0.7
100°-110°	6.2	0.1
110°-120°	2.9	0.1
120°-130°	2.9	0.1
130°-140°	2.8	0.1
140°-150°	2.4	0.0
150°-160°	1.7	0.0
160°-170°	1.1	0.0
170°-180°	0.4	0.0
0°-30°	1559.2	32.2
0°-40°	2477.6	51.1
0°-60°	4025.6	83.1
0°-90°	4791.3	98.8
90°-120°	44.5	0.9
90°-150°	52.6	1.1
90°-180°	56.0	1.2
0°-180°	4847.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2085	2085	2085	2085	2085	
5°	2073	2074	2071	2067	2064	197
15°	1967	1962	1964	1962	1959	554
25°	1758	1759	1762	1765	1760	807
35°	1444	1446	1471	1495	1498	903
45°	1117	1097	1100	1137	1163	863
55°	811	799	760	740	707	729
65°	520	509	449	379	373	517
75°	272	234	198	172	185	295
85°	134	111	82	53	42	123
90°	90	80	57	30	1	50
95°	60	57	35	4	1	44
105°	11	7	3	2	2	15
115°	4	3	3	3	2	4
125°	4	3	3	3	3	4
135°	4	4	3	3	3	3
145°	4	4	4	3	3	3
155°	4	4	3	3	3	2
165°	4	3	4	4	4	1
175°	3	3	4	4	4	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2084.9	2084.9	2084.9	2084.9	2084.9
2.5°	2084.1	2083.2	2081.5	2078.2	2076.5
5°	2073.0	2073.9	2071.4	2067.1	2063.8
7.5°	2058.7	2056.1	2056.1	2049.4	2046.9
10°	2031.7	2031.7	2028.3	2025.8	2023.2
12.5°	2002.1	2001.2	2000.4	1996.2	1992.0
15°	1966.6	1962.4	1964.0	1961.5	1958.9
17.5°	1922.7	1921.8	1921.0	1920.1	1915.0
20°	1877.0	1874.5	1872.7	1873.6	1869.4
22.5°	1820.3	1820.3	1821.2	1820.3	1816.1
25°	1757.8	1758.7	1762.1	1764.6	1759.5
27.5°	1686.0	1691.9	1701.2	1703.8	1702.1
30°	1609.1	1614.1	1632.8	1642.0	1634.5
32.5°	1531.4	1533.0	1555.8	1569.4	1569.4
35°	1444.3	1446.0	1471.3	1495.0	1497.6
37.5°	1357.3	1359.0	1386.0	1412.1	1418.9
40°	1279.5	1270.2	1293.0	1325.2	1342.1
42.5°	1193.3	1181.5	1193.3	1233.8	1254.2
45°	1117.3	1096.9	1100.4	1136.6	1162.9
47.5°	1039.5	1018.4	1008.3	1041.2	1073.3
50°	967.7	942.3	922.1	936.4	953.3
52.5°	890.7	869.6	840.1	841.8	830.8
55°	811.3	798.6	759.8	740.3	707.4
57.5°	742.9	728.5	682.0	638.9	596.6
60°	670.1	658.3	606.0	539.2	508.8
62.5°	594.1	585.7	528.2	452.1	436.1
65°	519.8	508.8	448.8	378.6	372.7
67.5°	451.3	434.4	378.6	316.1	315.2
70°	384.5	360.8	310.2	262.8	268.7
72.5°	322.8	295.0	250.2	213.8	222.2
75°	272.2	234.1	197.8	171.5	185.1
77.5°	231.6	191.9	152.9	131.8	147.9
80°	195.2	157.2	120.9	99.8	111.6
82.5°	165.6	130.1	98.0	71.8	76.9
85°	134.4	110.7	82.0	53.3	42.3
87.5°	110.7	93.8	68.4	41.4	12.7
90°	89.5	80.3	56.6	29.6	0.9
92.5°	72.6	68.4	46.5	16.9	0.9
95°	60.0	56.6	34.7	4.2	0.9
97.5°	48.2	44.8	19.5	1.7	0.9
100°	32.9	27.0	8.5	1.7	1.7
102.5°	20.3	16.0	2.6	1.7	1.7
105°	11.0	6.8	2.6	1.7	1.7
107.5°	5.9	4.2	2.6	1.7	1.7
110°	5.1	3.3	2.6	1.7	1.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.2	3.3	2.6	1.7	1.7
115°	4.2	3.3	3.3	2.6	1.7
117.5°	4.2	3.3	3.3	2.6	2.6
120°	4.2	3.3	3.3	2.6	2.6
122.5°	4.2	3.3	3.3	2.6	2.6
125°	4.2	3.3	3.3	2.6	2.6
127.5°	4.2	4.2	3.3	2.6	2.6
130°	4.2	4.2	3.3	3.3	2.6
132.5°	4.2	4.2	3.3	3.3	3.3
135°	4.2	4.2	3.3	3.3	3.3
137.5°	4.2	4.2	3.3	3.3	3.3
140°	4.2	4.2	3.3	3.3	3.3
142.5°	4.2	4.2	4.2	3.3	3.3
145°	4.2	4.2	4.2	3.3	3.3
147.5°	4.2	4.2	3.3	3.3	3.3
150°	4.2	4.2	3.3	4.2	3.3
152.5°	4.2	4.2	3.3	3.3	3.3
155°	4.2	4.2	3.3	3.3	3.3
157.5°	4.2	4.2	3.3	3.3	3.3
160°	4.2	3.3	3.3	3.3	3.3
162.5°	4.2	3.3	3.3	4.2	4.2
165°	4.2	3.3	4.2	4.2	4.2
167.5°	3.3	3.3	4.2	4.2	4.2
170°	2.6	3.3	4.2	4.2	4.2
172.5°	2.6	3.3	4.2	4.2	4.2
175°	2.6	3.3	4.2	4.2	4.2
177.5°	2.6	3.3	4.2	4.2	4.2
180°	3.3	3.3	3.3	3.3	3.3

(END OF REPORT)