

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: P392558

Luminaire Tested: **MWL-3-00-47-UNV-L840-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392558
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-14)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-00-47-UNV-L840-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

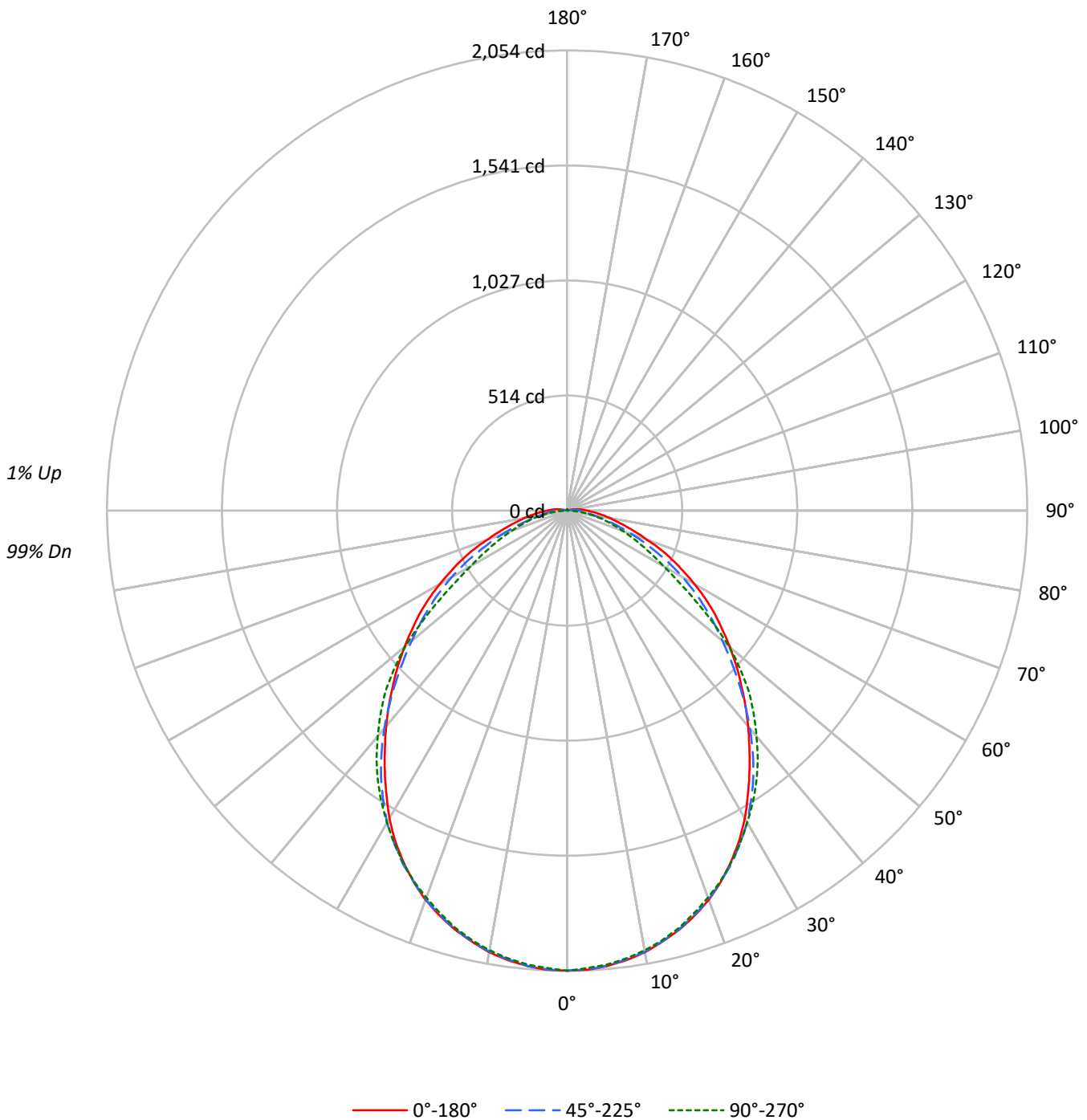
Lumens per Lamp: N/A
Luminaire Lumens: 4773.0 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.17 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 54.6
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°	17686	17686	17686
5°	17430	16472	16167
10°	17086	15313	14814
15°	16639	14181	13555
20°	16128	13088	12348
25°	15437	11997	11229
30°	14608	10914	10136
35°	13594	9739	9107
40°	12655	8519	8037
45°	11741	7292	6996
50°	10896	6193	5758
55°	10073	5223	4297
60°	9107	4293	3146
65°	8085	3303	2378
70°	6888	2414	1760
75°	5938	1620	1273
80°	5409	1060	803
85°	5117	784	334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.3	4.1
10°-20°	544.5	11.4
20°-30°	797.6	16.7
30°-40°	903.6	18.9
40°-50°	849.6	17.8
50°-60°	674.2	14.1
60°-70°	438.5	9.2
70°-80°	222.3	4.7
80°-90°	93.6	2.0
90°-100°	35.2	0.7
100°-110°	6.4	0.1
110°-120°	2.8	0.1
120°-130°	3.0	0.1
130°-140°	2.9	0.1
140°-150°	2.4	0.1
150°-160°	1.8	0.0
160°-170°	1.1	0.0
170°-180°	0.3	0.0
0°-30°	1535.4	32.2
0°-40°	2439.0	51.1
0°-60°	3962.8	83.0
0°-90°	4717.2	98.8
90°-120°	44.3	0.9
90°-150°	52.6	1.1
90°-180°	56.0	1.2
0°-180°	4773.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2054	2054	2054	2054	2054	
5°	2041	2042	2040	2036	2034	194
15°	1936	1935	1934	1931	1928	545
25°	1730	1732	1737	1737	1733	795
35°	1419	1426	1449	1471	1473	888
45°	1098	1083	1081	1119	1149	849
55°	804	787	748	731	695	717
65°	515	501	442	372	367	511
75°	271	233	195	166	181	292
85°	134	108	81	53	42	122
90°	88	80	56	29	1	49
95°	59	56	34	4	1	44
105°	11	7	3	2	2	15
115°	4	3	3	2	2	4
125°	4	4	3	3	3	4
135°	4	4	4	3	3	3
145°	4	4	4	4	3	3
155°	4	4	4	4	3	2
165°	4	4	4	4	4	1
175°	2	3	4	4	4	0
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2053.9	2053.9	2053.9	2053.9	2053.9
2.5°	2051.9	2052.9	2049.9	2045.9	2043.9
5°	2040.9	2041.9	2039.9	2035.9	2033.9
7.5°	2023.9	2025.9	2020.9	2018.9	2015.9
10°	2001.9	2002.9	1999.9	1994.9	1992.9
12.5°	1969.9	1970.9	1968.9	1964.9	1963.9
15°	1935.9	1934.9	1933.9	1930.9	1927.9
17.5°	1894.9	1894.9	1891.9	1889.9	1883.9
20°	1848.9	1846.9	1846.9	1842.9	1837.9
22.5°	1792.9	1792.9	1791.9	1791.9	1789.9
25°	1729.9	1731.9	1736.9	1736.9	1732.9
27.5°	1661.9	1664.9	1672.9	1677.9	1671.9
30°	1586.9	1591.9	1607.9	1614.9	1607.9
32.5°	1501.9	1509.9	1528.9	1543.9	1542.9
35°	1418.9	1425.9	1448.9	1470.9	1472.9
37.5°	1335.9	1336.9	1360.9	1390.9	1397.9
40°	1257.0	1254.0	1270.0	1305.9	1314.9
42.5°	1177.0	1166.0	1174.0	1217.0	1233.0
45°	1098.0	1083.0	1081.0	1119.0	1149.0
47.5°	1024.0	1005.0	991.0	1020.0	1049.0
50°	948.0	927.0	906.0	924.0	942.0
52.5°	873.0	856.0	826.0	825.0	819.0
55°	804.0	787.0	748.0	731.0	695.0
57.5°	731.0	718.0	673.0	630.0	585.0
60°	656.0	649.0	597.0	529.0	499.0
62.5°	584.0	578.0	519.0	446.0	428.0
65°	515.0	501.0	442.0	372.0	367.0
67.5°	449.0	431.0	370.0	312.0	312.0
70°	378.0	356.0	308.0	258.0	262.0
72.5°	323.0	287.0	250.0	209.0	218.0
75°	271.0	233.0	195.0	166.0	181.0
77.5°	227.0	188.0	150.0	130.0	145.0
80°	195.0	156.0	119.0	97.0	108.0
82.5°	162.0	130.0	97.0	70.0	77.0
85°	134.0	108.0	81.0	53.0	42.0
87.5°	107.0	93.0	67.0	41.0	13.0
90°	88.0	80.0	56.0	29.0	1.0
92.5°	73.0	68.0	46.0	17.0	1.0
95°	59.0	56.0	34.0	4.0	1.0
97.5°	48.0	45.0	19.0	2.0	1.0
100°	33.0	28.0	8.0	2.0	1.0
102.5°	20.0	15.0	3.0	2.0	1.0
105°	11.0	7.0	3.0	2.0	2.0
107.5°	6.0	4.0	3.0	2.0	2.0
110°	5.0	4.0	3.0	2.0	2.0



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CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)