

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: P392556

Luminaire Tested: **MWL-3-00-47-UNV-L830-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392556
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-L830-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4581.9 lumens
Efficiency: N/A
Efficacy: 83.9 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

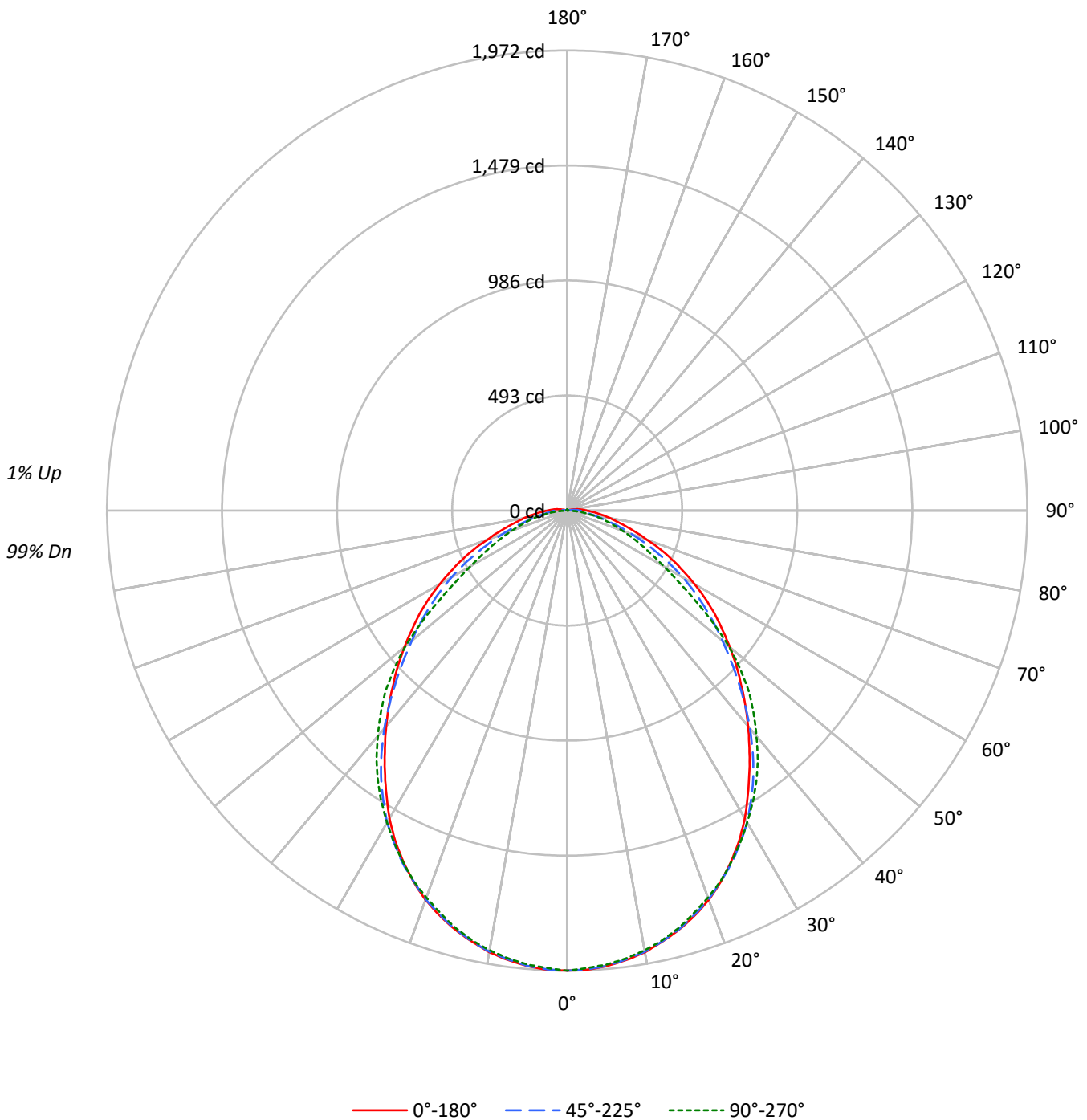
Input Watts (W): 54.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	16979	16979	16979
5°	16732	15813	15520
10°	16402	14700	14221
15°	15974	13613	13013
20°	15482	12565	11854
25°	14819	11517	10780
30°	14023	10477	9731
35°	13051	9350	8743
40°	12149	8178	7715
45°	11270	7000	6716
50°	10460	5945	5527
55°	9669	5013	4125
60°	8742	4121	3020
65°	7762	3170	2283
70°	6613	2317	1690
75°	5699	1555	1222
80°	5193	1017	771
85°	4910	753	320



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.6	4.1
10°-20°	522.7	11.4
20°-30°	765.7	16.7
30°-40°	867.5	18.9
40°-50°	815.6	17.8
50°-60°	647.2	14.1
60°-70°	420.9	9.2
70°-80°	213.4	4.7
80°-90°	89.9	2.0
90°-100°	33.7	0.7
100°-110°	6.1	0.1
110°-120°	2.7	0.1
120°-130°	2.9	0.1
130°-140°	2.7	0.1
140°-150°	2.3	0.1
150°-160°	1.7	0.0
160°-170°	1.1	0.0
170°-180°	0.3	0.0
0°-30°	1474.0	32.2
0°-40°	2341.5	51.1
0°-60°	3804.2	83.0
0°-90°	4528.4	98.8
90°-120°	42.6	0.9
90°-150°	50.5	1.1
90°-180°	54.0	1.2
0°-180°	4581.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1972	1972	1972	1972	1972	
5°	1959	1960	1958	1954	1952	186
15°	1858	1858	1856	1854	1851	524
25°	1661	1663	1667	1667	1664	763
35°	1362	1369	1391	1412	1414	852
45°	1054	1040	1038	1074	1103	815
55°	772	756	718	702	667	689
65°	494	481	424	357	352	490
75°	260	224	187	159	174	280
85°	129	104	78	51	40	117
90°	84	77	54	28	1	47
95°	57	54	33	4	1	42
105°	11	7	3	2	2	14
115°	4	3	3	2	2	4
125°	4	4	3	3	3	3
135°	4	4	4	3	3	3
145°	4	4	4	4	3	2
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°	1971.7	1971.7	1971.7	1971.7	1971.7
2.5°	1969.8	1970.8	1967.9	1964.0	1962.1
5°	1959.2	1960.2	1958.3	1954.4	1952.5
7.5°	1942.9	1944.9	1940.1	1938.1	1935.3
10°	1921.8	1922.8	1919.9	1915.1	1913.2
12.5°	1891.1	1892.1	1890.1	1886.3	1885.3
15°	1858.5	1857.5	1856.5	1853.7	1850.8
17.5°	1819.1	1819.1	1816.2	1814.3	1808.5
20°	1774.9	1773.0	1773.0	1769.2	1764.4
22.5°	1721.2	1721.2	1720.2	1720.2	1718.3
25°	1660.7	1662.6	1667.4	1667.4	1663.6
27.5°	1595.4	1598.3	1606.0	1610.8	1605.0
30°	1523.4	1528.2	1543.6	1550.3	1543.6
32.5°	1441.8	1449.5	1467.8	1482.2	1481.2
35°	1362.2	1368.9	1391.0	1412.1	1414.0
37.5°	1282.5	1283.4	1306.5	1335.3	1342.0
40°	1206.7	1203.8	1219.1	1253.7	1262.3
42.5°	1129.9	1119.3	1127.0	1168.3	1183.6
45°	1054.0	1039.6	1037.7	1074.2	1103.0
47.5°	983.0	964.7	951.3	979.1	1007.0
50°	910.0	889.9	869.7	887.0	904.3
52.5°	838.0	821.7	792.9	792.0	786.2
55°	771.8	755.5	718.0	701.7	667.2
57.5°	701.7	689.2	646.0	604.8	561.6
60°	629.7	623.0	573.1	507.8	479.0
62.5°	560.6	554.8	498.2	428.1	410.9
65°	494.4	480.9	424.3	357.1	352.3
67.5°	431.0	413.7	355.2	299.5	299.5
70°	362.9	341.7	295.7	247.7	251.5
72.5°	310.1	275.5	240.0	200.6	209.3
75°	260.1	223.7	187.2	159.4	173.8
77.5°	217.9	180.5	144.0	124.8	139.2
80°	187.2	149.8	114.2	93.1	103.7
82.5°	155.5	124.8	93.1	67.2	73.9
85°	128.6	103.7	77.8	50.9	40.3
87.5°	102.7	89.3	64.3	39.4	12.5
90°	84.5	76.8	53.8	27.8	1.0
92.5°	70.1	65.3	44.2	16.3	1.0
95°	56.6	53.8	32.6	3.8	1.0
97.5°	46.1	43.2	18.2	1.9	1.0
100°	31.7	26.9	7.7	1.9	1.0
102.5°	19.2	14.4	2.9	1.9	1.0
105°	10.6	6.7	2.9	1.9	1.9
107.5°	5.8	3.8	2.9	1.9	1.9
110°	4.8	3.8	2.9	1.9	1.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.8	2.9	2.9	1.9	1.9
115°	3.8	2.9	2.9	1.9	1.9
117.5°	3.8	2.9	2.9	1.9	1.9
120°	3.8	3.8	2.9	1.9	1.9
122.5°	3.8	3.8	2.9	2.9	2.9
125°	3.8	3.8	2.9	2.9	2.9
127.5°	3.8	3.8	2.9	2.9	2.9
130°	3.8	3.8	3.8	2.9	2.9
132.5°	3.8	3.8	3.8	2.9	2.9
135°	3.8	3.8	3.8	2.9	2.9
137.5°	3.8	3.8	3.8	3.8	2.9
140°	3.8	3.8	3.8	3.8	2.9
142.5°	3.8	3.8	3.8	3.8	2.9
145°	3.8	3.8	3.8	3.8	2.9
147.5°	3.8	3.8	3.8	3.8	2.9
150°	3.8	3.8	3.8	3.8	2.9
152.5°	3.8	3.8	3.8	3.8	2.9
155°	3.8	3.8	3.8	3.8	2.9
157.5°	3.8	3.8	3.8	2.9	2.9
160°	3.8	3.8	3.8	3.8	2.9
162.5°	3.8	3.8	3.8	3.8	3.8
165°	3.8	3.8	3.8	3.8	3.8
167.5°	3.8	3.8	3.8	3.8	3.8
170°	2.9	2.9	3.8	3.8	3.8
172.5°	1.9	2.9	3.8	3.8	3.8
175°	1.9	2.9	3.8	3.8	3.8
177.5°	1.9	2.9	3.8	3.8	3.8
180°	3.8	3.8	3.8	3.8	3.8

(END OF REPORT)