

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: P392547

Luminaire Tested: **MWL-3-00-25-UNV-L930-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392547
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-18)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-00-25-UNV-L930-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

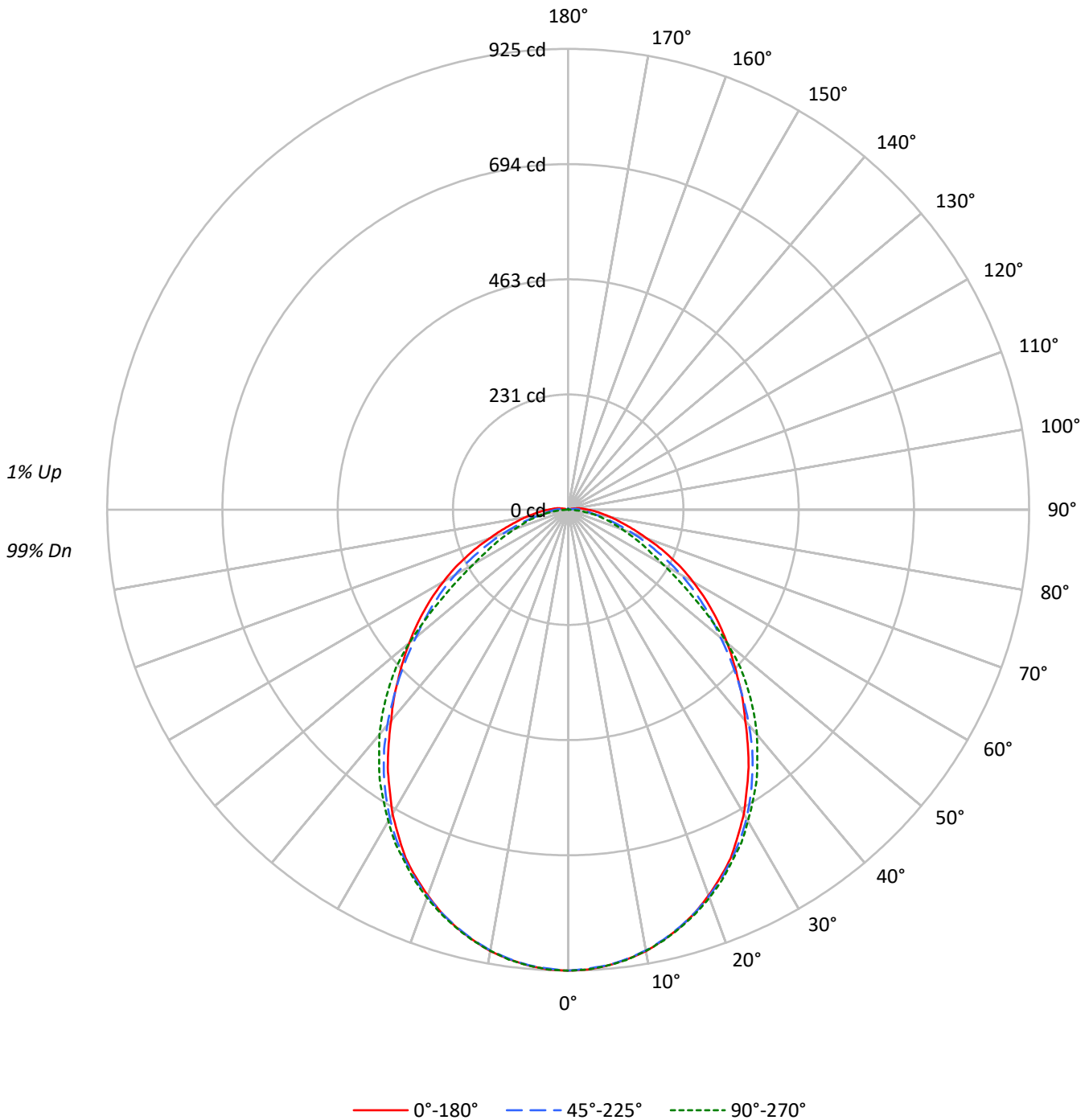
Lumens per Lamp: N/A
Luminaire Lumens: 2124.0 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: Direct

Input Watts (W): 24.846
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	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°	7967	7967	7967
5°	7843	7411	7300
10°	7681	6877	6683
15°	7459	6357	6107
20°	7187	5851	5569
25°	6884	5352	5043
30°	6488	4858	4549
35°	6047	4334	4080
40°	5563	3787	3600
45°	5159	3238	3107
50°	4788	2727	2546
55°	4415	2301	1897
60°	4012	1883	1385
65°	3569	1452	1052
70°	3049	1073	772
75°	2647	738	565
80°	2438	482	364
85°	2322	352	155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	4.1
10°-20°	244.4	11.5
20°-30°	356.6	16.8
30°-40°	402.4	18.9
40°-50°	376.3	17.7
50°-60°	296.8	14.0
60°-70°	193.7	9.1
70°-80°	99.9	4.7
80°-90°	42.3	2.0
90°-100°	16.1	0.8
100°-110°	3.0	0.1
110°-120°	1.2	0.1
120°-130°	1.1	0.1
130°-140°	1.0	0.0
140°-150°	1.0	0.0
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	688.0	32.4
0°-40°	1090.4	51.3
0°-60°	1763.5	83.0
0°-90°	2099.4	98.8
90°-120°	20.3	1.0
90°-150°	23.3	1.1
90°-180°	25.0	1.2
0°-180°	2124.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	925	925	925	925	925	
5°	918	920	918	918	918	87
15°	868	868	867	869	869	244
25°	772	771	775	780	778	354
35°	631	633	645	657	660	394
45°	482	476	480	500	510	373
55°	352	344	330	322	307	315
65°	227	223	194	166	162	226
75°	121	106	89	76	80	130
85°	61	49	36	24	20	55
90°	40	36	25	13	0	22
95°	28	26	15	2	1	20
105°	5	3	1	1	1	7
115°	2	2	1	1	1	2
125°	2	2	1	1	1	2
135°	2	2	2	1	1	1
145°	2	2	2	2	1	1
155°	2	2	2	1	1	1
165°	2	1	2	2	2	0
175°	1	1	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°	925.2	925.2	925.2	925.2	925.2
2.5°	923.6	925.2	921.9	922.7	923.6
5°	918.4	920.2	917.7	917.7	918.4
7.5°	910.1	910.9	909.2	910.1	910.9
10°	899.9	899.1	898.2	899.1	899.1
12.5°	884.7	883.8	883.8	885.5	885.5
15°	867.8	867.8	866.9	868.6	868.6
17.5°	847.5	847.5	847.5	850.0	850.0
20°	823.9	825.6	825.6	828.9	828.9
22.5°	798.5	800.2	801.9	804.4	805.3
25°	771.5	770.6	774.8	779.9	778.2
27.5°	737.7	742.7	746.9	752.0	752.9
30°	704.8	707.2	715.7	721.6	721.6
32.5°	666.7	671.7	681.1	690.3	690.3
35°	631.2	632.9	644.7	656.6	659.9
37.5°	591.5	593.2	606.7	621.0	622.8
40°	552.6	553.5	564.5	583.9	589.0
42.5°	518.8	512.9	521.3	543.4	550.9
45°	482.5	475.7	480.0	500.2	510.3
47.5°	448.7	440.2	439.4	454.6	468.2
50°	416.6	406.4	398.9	409.8	416.6
52.5°	384.4	374.3	363.4	365.8	359.9
55°	352.4	343.9	329.6	321.9	306.8
57.5°	321.1	314.3	296.6	278.9	260.3
60°	289.0	285.6	261.9	235.7	219.7
62.5°	259.4	253.5	228.1	197.8	187.5
65°	227.3	223.0	194.3	166.5	162.3
67.5°	197.8	189.3	165.6	136.9	136.9
70°	167.3	158.8	136.9	114.1	114.9
72.5°	142.8	130.1	111.6	93.0	96.3
75°	120.8	105.7	88.8	76.1	80.3
77.5°	102.2	84.5	69.3	59.2	64.2
80°	87.9	69.3	54.1	44.8	49.0
82.5°	71.8	58.3	43.9	32.1	33.8
85°	60.8	49.0	36.4	23.7	19.5
87.5°	49.8	42.3	30.4	18.6	5.9
90°	39.7	36.4	25.4	12.7	0.0
92.5°	32.1	30.4	20.3	7.6	0.9
95°	27.9	26.2	15.2	1.7	0.9
97.5°	22.0	20.3	9.3	0.9	0.9
100°	16.0	14.4	4.2	0.9	0.9
102.5°	11.0	8.5	0.9	0.9	0.9
105°	5.1	2.6	0.9	0.9	0.9
107.5°	1.7	1.7	0.9	0.9	0.9
110°	1.7	1.7	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.7	1.7	0.9	0.9	0.9
115°	1.7	1.7	0.9	0.9	0.9
117.5°	1.7	1.7	0.9	0.9	0.9
120°	1.7	1.7	0.9	0.9	0.9
122.5°	1.7	1.7	0.9	0.9	0.9
125°	1.7	1.7	0.9	0.9	0.9
127.5°	1.7	1.7	0.9	0.9	0.9
130°	1.7	1.7	0.9	0.9	0.9
132.5°	1.7	1.7	1.7	0.9	0.9
135°	1.7	1.7	1.7	0.9	0.9
137.5°	1.7	1.7	0.9	0.9	0.9
140°	1.7	1.7	1.7	1.7	0.9
142.5°	1.7	1.7	1.7	0.9	0.9
145°	1.7	1.7	1.7	1.7	0.9
147.5°	1.7	1.7	1.7	1.7	0.9
150°	1.7	1.7	1.7	1.7	0.9
152.5°	1.7	1.7	0.9	0.9	0.9
155°	1.7	1.7	1.7	0.9	0.9
157.5°	1.7	1.7	1.7	0.9	0.9
160°	1.7	1.7	1.7	1.7	0.9
162.5°	1.7	0.9	1.7	1.7	1.7
165°	1.7	0.9	1.7	1.7	1.7
167.5°	1.7	0.9	1.7	1.7	1.7
170°	0.9	0.9	1.7	1.7	1.7
172.5°	0.9	0.9	1.7	1.7	1.7
175°	0.9	0.9	1.7	1.7	1.7
177.5°	0.9	0.9	1.7	1.7	1.7
180°	1.7	1.7	1.7	1.7	1.7

(END OF REPORT)