

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: P545740

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-82-94-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P545740
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-12-2-LD4-2STD-35-UNV-82-94-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

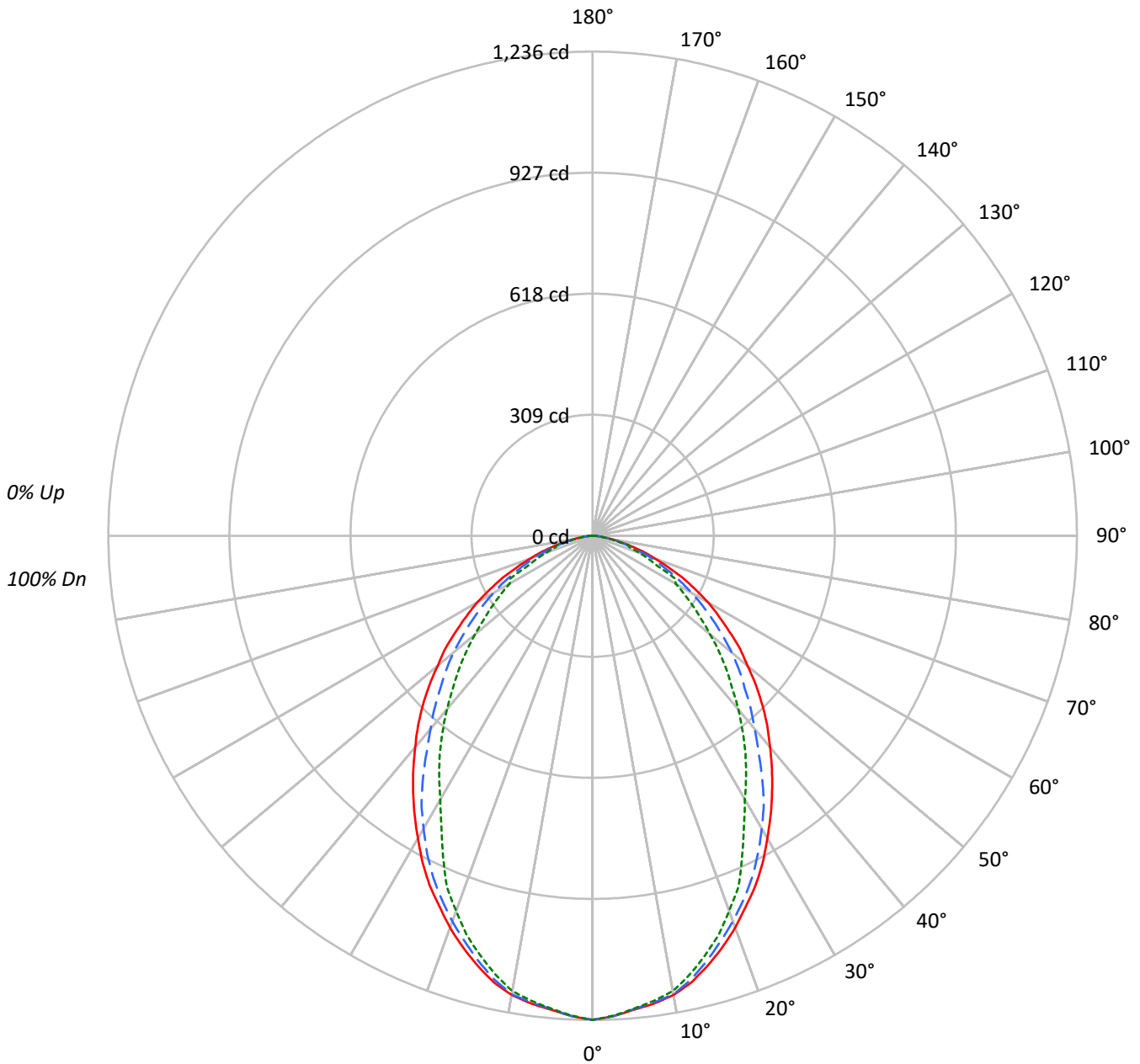
Lumens per Lamp: N/A
Luminaire Lumens: 2426.0 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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									
RC	80									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	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6651	6651	6651
5°	6560	6553	6545
10°	6504	6496	6449
15°	6328	6264	6177
20°	6096	5998	5834
25°	5845	5718	5362
30°	5540	5363	4830
35°	5247	4956	4468
40°	4948	4517	4065
45°	4665	4176	3675
50°	4318	3876	3277
55°	3994	3512	2936
60°	3660	3137	2630
65°	3221	2747	2329
70°	2653	2406	1978
75°	2109	1842	1932
80°	1416	1330	1240
85°	883	1056	1235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.0	4.7
10°-20°	315.7	13.0
20°-30°	437.1	18.0
30°-40°	466.0	19.2
40°-50°	425.2	17.5
50°-60°	333.1	13.7
60°-70°	217.1	8.9
70°-80°	96.2	4.0
80°-90°	20.6	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	867.8	35.8
0°-40°	1333.8	55.0
0°-60°	2092.1	86.2
0°-90°	2426.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2426.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1236	1236	1236	1236	1236	
5°	1214	1213	1213	1212	1212	115
15°	1136	1136	1124	1113	1109	319
25°	984	979	963	929	903	452
35°	799	793	754	697	680	499
45°	613	600	549	503	483	472
55°	426	413	374	330	313	382
65°	253	239	216	220	183	249
75°	101	94	89	84	93	109
85°	14	16	17	19	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1235.8	1235.8	1235.8	1235.8	1235.8
2.5°	1227.2	1227.2	1227.2	1225.8	1225.8
5°	1214.3	1212.9	1212.9	1211.5	1211.5
7.5°	1204.3	1202.9	1201.5	1200.1	1197.2
10°	1190.1	1190.1	1188.6	1181.5	1180.1
12.5°	1167.2	1165.8	1160.1	1150.1	1147.2
15°	1135.8	1135.8	1124.3	1112.9	1108.6
17.5°	1101.5	1100.1	1085.8	1074.3	1068.6
20°	1064.3	1061.5	1047.2	1028.6	1018.6
22.5°	1022.9	1022.9	1005.8	981.5	971.5
25°	984.3	978.6	962.9	928.6	902.9
27.5°	940.0	931.5	914.3	865.8	835.8
30°	891.5	887.2	862.9	800.0	777.2
32.5°	845.8	838.6	812.9	747.2	728.6
35°	798.6	792.9	754.3	697.2	680.0
37.5°	751.5	744.3	695.7	650.0	628.6
40°	704.3	695.7	642.9	601.5	578.6
42.5°	660.0	648.6	597.2	552.9	527.2
45°	612.9	600.0	548.6	502.9	482.9
47.5°	565.7	554.3	507.2	460.0	437.2
50°	515.7	505.7	462.9	415.7	391.4
52.5°	474.3	458.6	417.2	370.0	350.0
55°	425.7	412.9	374.3	330.0	312.9
57.5°	381.4	368.6	332.9	291.4	277.2
60°	340.0	321.4	291.4	255.7	244.3
62.5°	294.3	280.0	254.3	224.3	238.6
65°	252.9	238.6	215.7	220.0	182.9
67.5°	207.2	200.0	180.0	160.0	154.3
70°	168.6	160.0	152.9	131.4	125.7
72.5°	134.3	125.7	115.7	104.3	100.0
75°	101.4	94.3	88.6	84.3	92.9
77.5°	70.0	67.1	62.9	58.6	57.1
80°	45.7	44.3	42.9	41.4	40.0
82.5°	27.1	27.1	27.1	27.1	27.1
85°	14.3	15.7	17.1	18.6	20.0
87.5°	8.6	8.6	10.0	11.4	12.9
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)