

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: P545785

Luminaire Tested: **FMR-12-2-LD4-2STD-50-UNV-80-86-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: P545785
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-50-UNV-80-86-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

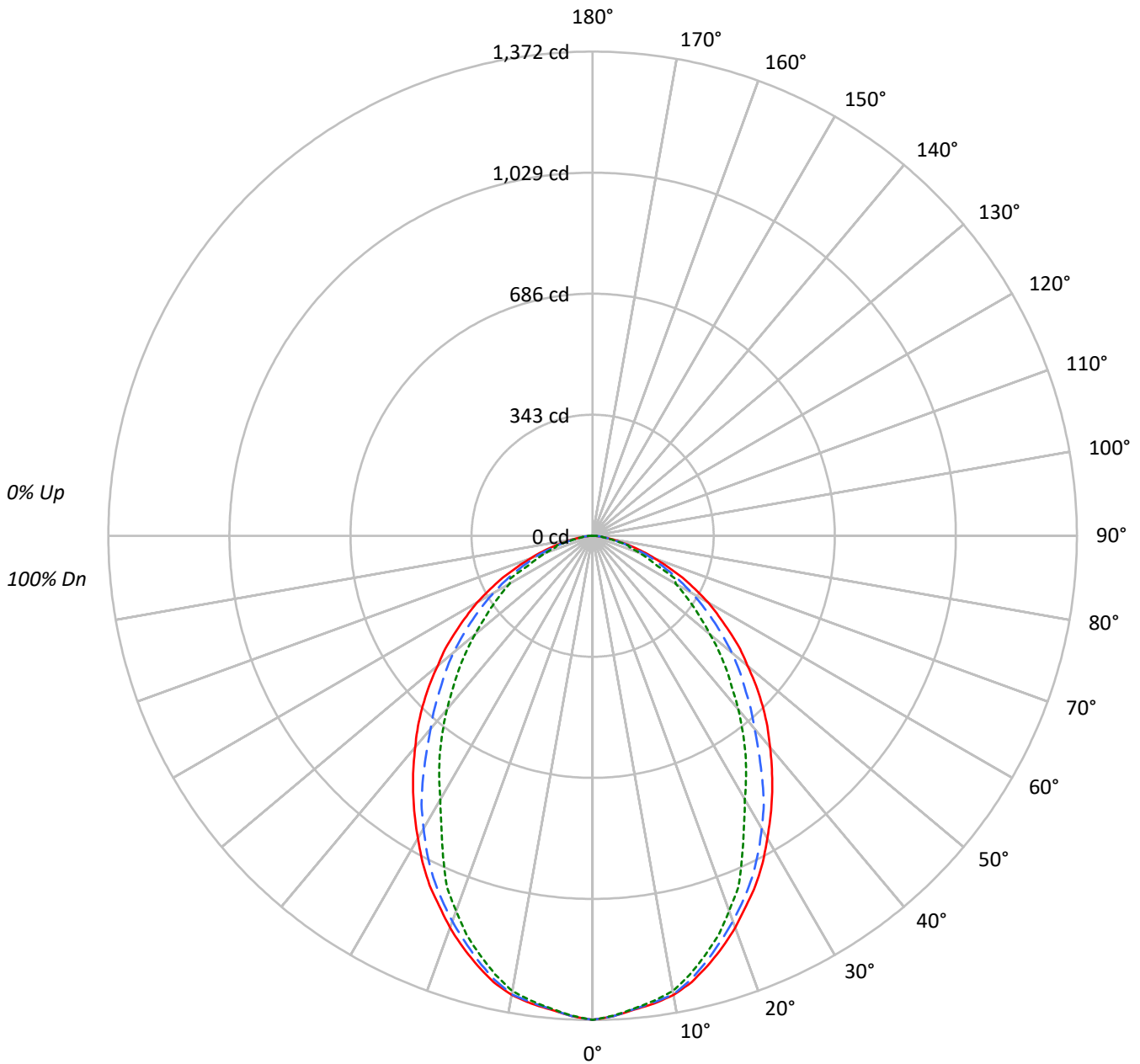
Lumens per Lamp: N/A
Luminaire Lumens: 2693.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	7383	7383	7383
5°	7283	7274	7265
10°	7219	7210	7159
15°	7025	6954	6857
20°	6767	6657	6476
25°	6489	6347	5952
30°	6150	5953	5361
35°	5824	5501	4960
40°	5493	5014	4513
45°	5178	4635	4080
50°	4793	4302	3638
55°	4434	3899	3259
60°	4062	3482	2919
65°	3575	3050	2585
70°	2944	2670	2197
75°	2341	2044	2144
80°	1571	1475	1376
85°	982	1173	1371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.7	4.7
10°-20°	350.4	13.0
20°-30°	485.2	18.0
30°-40°	517.3	19.2
40°-50°	472.0	17.5
50°-60°	369.7	13.7
60°-70°	241.0	8.9
70°-80°	106.8	4.0
80°-90°	22.9	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°	963.3	35.8
0°-40°	1480.6	55.0
0°-60°	2322.3	86.2
0°-90°	2693.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2693.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1348	1346	1346	1345	1345	128
15°	1261	1261	1248	1235	1231	354
25°	1093	1086	1069	1031	1002	502
35°	886	880	837	774	755	554
45°	680	666	609	558	536	524
55°	473	458	416	366	347	424
65°	281	265	240	244	203	277
75°	113	105	98	94	103	121
85°	16	17	19	21	22	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1371.8	1371.8	1371.8	1371.8	1371.8
2.5°	1362.3	1362.3	1362.3	1360.7	1360.7
5°	1348.0	1346.4	1346.4	1344.8	1344.8
7.5°	1336.9	1335.3	1333.7	1332.1	1329.0
10°	1321.0	1321.0	1319.4	1311.5	1309.9
12.5°	1295.7	1294.1	1287.7	1276.6	1273.5
15°	1260.8	1260.8	1248.1	1235.4	1230.6
17.5°	1222.7	1221.1	1205.3	1192.6	1186.2
20°	1181.5	1178.3	1162.4	1141.8	1130.7
22.5°	1135.5	1135.5	1116.5	1089.5	1078.4
25°	1092.7	1086.3	1068.9	1030.8	1002.3
27.5°	1043.5	1034.0	1015.0	961.0	927.7
30°	989.6	984.8	957.9	888.1	862.7
32.5°	938.8	930.9	902.4	829.4	808.8
35°	886.5	880.2	837.3	773.9	754.9
37.5°	834.2	826.2	772.3	721.6	697.8
40°	781.8	772.3	713.6	667.7	642.3
42.5°	732.7	720.0	662.9	613.7	585.2
45°	680.3	666.1	609.0	558.2	536.0
47.5°	628.0	615.3	563.0	510.7	485.3
50°	572.5	561.4	513.8	461.5	434.5
52.5°	526.5	509.1	463.1	410.7	388.5
55°	472.6	458.3	415.5	366.3	347.3
57.5°	423.4	409.2	369.5	323.5	307.7
60°	377.4	356.8	323.5	283.9	271.2
62.5°	326.7	310.8	282.3	249.0	264.8
65°	280.7	264.8	239.5	244.2	203.0
67.5°	230.0	222.0	199.8	177.6	171.3
70°	187.1	177.6	169.7	145.9	139.6
72.5°	149.1	139.6	128.5	115.8	111.0
75°	112.6	104.7	98.3	93.6	103.1
77.5°	77.7	74.5	69.8	65.0	63.4
80°	50.7	49.2	47.6	46.0	44.4
82.5°	30.1	30.1	30.1	30.1	30.1
85°	15.9	17.4	19.0	20.6	22.2
87.5°	9.5	9.5	11.1	12.7	14.3
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)