

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: P545238

Luminaire Tested: **FMR-12-1-LD4-2STD-50-UNV-93-97-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: P545238
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-12-1-LD4-2STD-50-UNV-93-97-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

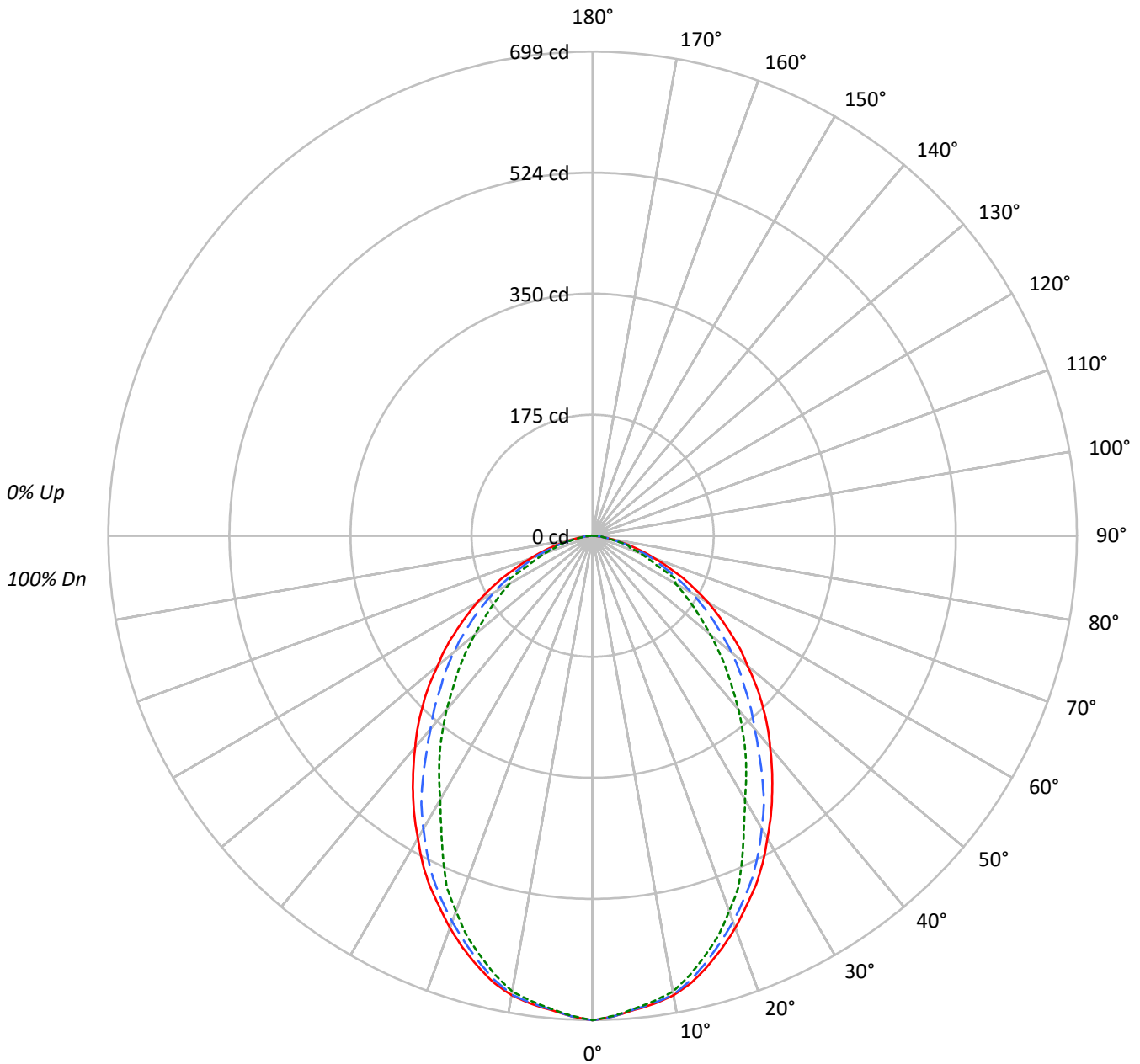
Lumens per Lamp: N/A
Luminaire Lumens: 1373.0 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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	111	111	111	106	106	106	102	102	102	100			100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87			87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75			75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65			65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56			56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44			44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40			40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33			33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30			30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7528	7528	7528
5°	7426	7418	7408
10°	7361	7353	7300
15°	7163	7091	6992
20°	6900	6789	6604
25°	6616	6473	6069
30°	6270	6070	5466
35°	5939	5610	5058
40°	5601	5112	4602
45°	5281	4727	4160
50°	4888	4387	3709
55°	4521	3975	3324
60°	4142	3550	2977
65°	3645	3110	2636
70°	3002	2722	2241
75°	2387	2084	2188
80°	1605	1506	1401
85°	1000	1198	1396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	4.7
10°-20°	178.7	13.0
20°-30°	247.4	18.0
30°-40°	263.8	19.2
40°-50°	240.6	17.5
50°-60°	188.5	13.7
60°-70°	122.9	8.9
70°-80°	54.4	4.0
80°-90°	11.7	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°	491.1	35.8
0°-40°	754.9	55.0
0°-60°	1184.0	86.2
0°-90°	1373.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1373.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	699	699	699	699	699	
5°	687	686	686	686	686	65
15°	643	643	636	630	627	181
25°	557	554	545	526	511	256
35°	452	449	427	395	385	283
45°	347	340	310	285	273	267
55°	241	234	212	187	177	216
65°	143	135	122	124	104	141
75°	57	53	50	48	53	62
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	699.4	699.4	699.4	699.4	699.4
2.5°	694.5	694.5	694.5	693.7	693.7
5°	687.3	686.5	686.5	685.6	685.6
7.5°	681.6	680.8	680.0	679.2	677.6
10°	673.5	673.5	672.7	668.7	667.9
12.5°	660.6	659.8	656.5	650.9	649.3
15°	642.8	642.8	636.3	629.9	627.4
17.5°	623.4	622.6	614.5	608.0	604.8
20°	602.4	600.7	592.7	582.1	576.5
22.5°	578.9	578.9	569.2	555.5	549.8
25°	557.1	553.9	545.0	525.6	511.0
27.5°	532.0	527.2	517.5	490.0	473.0
30°	504.5	502.1	488.4	452.8	439.8
32.5°	478.7	474.6	460.1	422.9	412.4
35°	452.0	448.7	426.9	394.6	384.9
37.5°	425.3	421.2	393.8	367.9	355.8
40°	398.6	393.8	363.8	340.4	327.5
42.5°	373.5	367.1	338.0	312.9	298.4
45°	346.9	339.6	310.5	284.6	273.3
47.5°	320.2	313.7	287.0	260.4	247.4
50°	291.9	286.2	262.0	235.3	221.5
52.5°	268.4	259.5	236.1	209.4	198.1
55°	240.9	233.7	211.8	186.8	177.1
57.5°	215.9	208.6	188.4	164.9	156.9
60°	192.4	181.9	164.9	144.7	138.3
62.5°	166.6	158.5	143.9	126.9	135.0
65°	143.1	135.0	122.1	124.5	103.5
67.5°	117.2	113.2	101.9	90.6	87.3
70°	95.4	90.6	86.5	74.4	71.2
72.5°	76.0	71.2	65.5	59.0	56.6
75°	57.4	53.4	50.1	47.7	52.6
77.5°	39.6	38.0	35.6	33.2	32.3
80°	25.9	25.1	24.3	23.4	22.6
82.5°	15.4	15.4	15.4	15.4	15.4
85°	8.1	8.9	9.7	10.5	11.3
87.5°	4.9	4.9	5.7	6.5	7.3
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)