

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: P544949

Luminaire Tested: **FMR-12-1-LD4-1STD-50-UNV-93-96-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: P544949
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-LD4-1STD-50-UNV-93-96-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

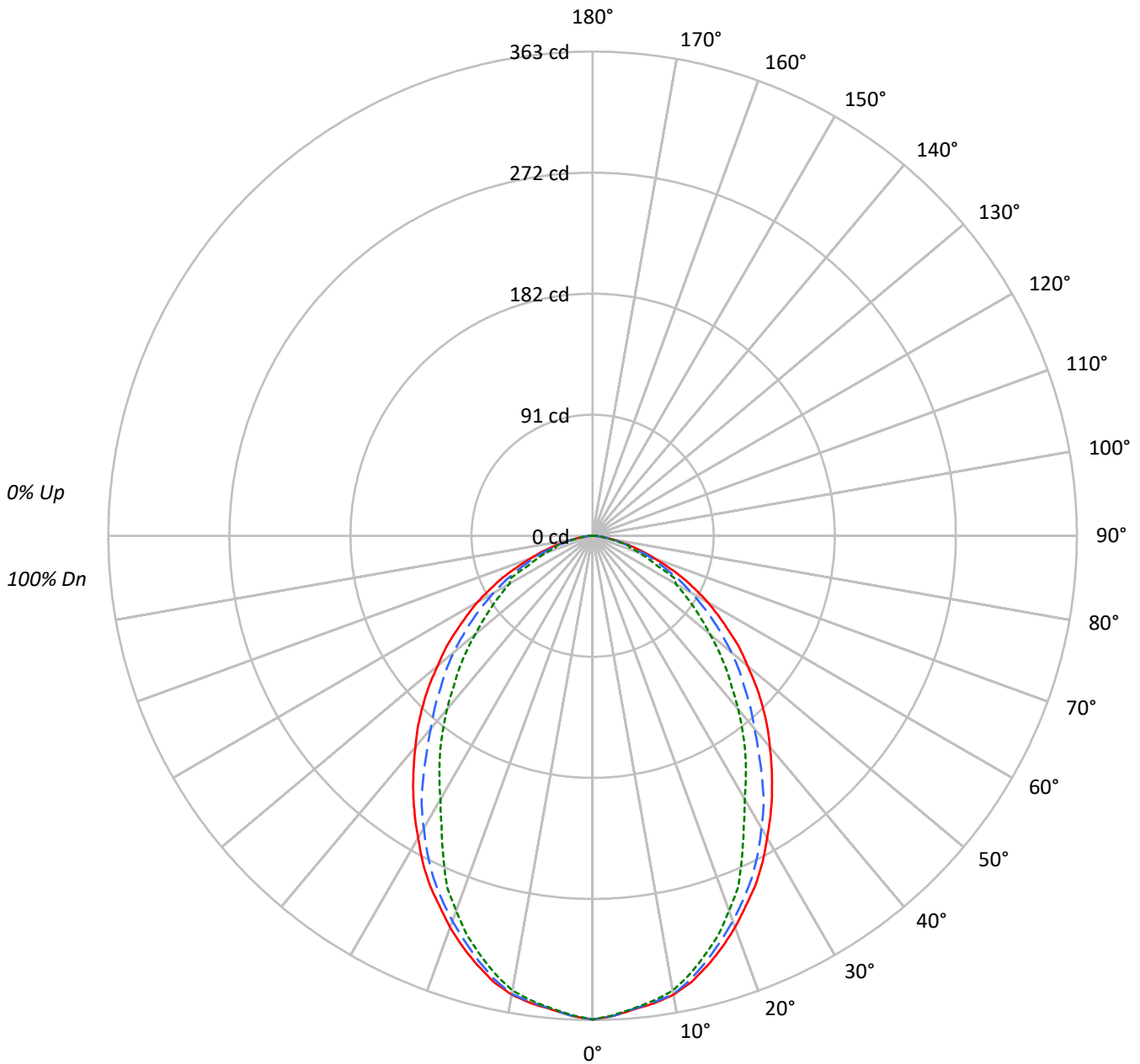
Lumens per Lamp: N/A
Luminaire Lumens: 712.0 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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				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°	3904	3904	3904
5°	3851	3847	3842
10°	3818	3812	3785
15°	3714	3677	3626
20°	3578	3520	3425
25°	3431	3356	3147
30°	3251	3147	2835
35°	3080	2909	2623
40°	2904	2651	2386
45°	2739	2451	2157
50°	2535	2274	1924
55°	2344	2062	1723
60°	2148	1841	1544
65°	1890	1612	1368
70°	1558	1413	1161
75°	1239	1081	1135
80°	831	781	725
85°	519	618	729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.8	4.7
10°-20°	92.7	13.0
20°-30°	128.3	18.0
30°-40°	136.8	19.2
40°-50°	124.8	17.5
50°-60°	97.8	13.7
60°-70°	63.7	8.9
70°-80°	28.2	4.0
80°-90°	6.1	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°	254.7	35.8
0°-40°	391.5	55.0
0°-60°	614.0	86.2
0°-90°	712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	712.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	363	363	363	363	363	
5°	356	356	356	356	356	34
15°	333	333	330	327	325	94
25°	289	287	283	272	265	133
35°	234	233	221	205	200	147
45°	180	176	161	148	142	139
55°	125	121	110	97	92	112
65°	74	70	63	65	54	73
75°	30	28	26	25	27	32
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	362.7	362.7	362.7	362.7	362.7
2.5°	360.2	360.2	360.2	359.7	359.7
5°	356.4	356.0	356.0	355.6	355.6
7.5°	353.5	353.0	352.6	352.2	351.4
10°	349.3	349.3	348.8	346.8	346.3
12.5°	342.6	342.1	340.5	337.5	336.7
15°	333.3	333.3	330.0	326.6	325.4
17.5°	323.3	322.9	318.7	315.3	313.6
20°	312.4	311.5	307.3	301.9	299.0
22.5°	300.2	300.2	295.2	288.1	285.1
25°	288.9	287.2	282.6	272.5	265.0
27.5°	275.9	273.4	268.3	254.1	245.3
30°	261.6	260.4	253.2	234.8	228.1
32.5°	248.2	246.1	238.6	219.3	213.8
35°	234.4	232.7	221.4	204.6	199.6
37.5°	220.5	218.4	204.2	190.8	184.5
40°	206.7	204.2	188.7	176.5	169.8
42.5°	193.7	190.4	175.3	162.3	154.7
45°	179.9	176.1	161.0	147.6	141.7
47.5°	166.0	162.7	148.8	135.0	128.3
50°	151.4	148.4	135.8	122.0	114.9
52.5°	139.2	134.6	122.4	108.6	102.7
55°	124.9	121.2	109.9	96.9	91.8
57.5°	111.9	108.2	97.7	85.5	81.3
60°	99.8	94.3	85.5	75.1	71.7
62.5°	86.4	82.2	74.6	65.8	70.0
65°	74.2	70.0	63.3	64.6	53.7
67.5°	60.8	58.7	52.8	47.0	45.3
70°	49.5	47.0	44.9	38.6	36.9
72.5°	39.4	36.9	34.0	30.6	29.4
75°	29.8	27.7	26.0	24.7	27.3
77.5°	20.5	19.7	18.4	17.2	16.8
80°	13.4	13.0	12.6	12.2	11.7
82.5°	8.0	8.0	8.0	8.0	8.0
85°	4.2	4.6	5.0	5.5	5.9
87.5°	2.5	2.5	2.9	3.4	3.8
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)