

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: P545204

Luminaire Tested: **FMR-12-1-LD4-2STD-40-UNV-93-94-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: P545204
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-40-UNV-93-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

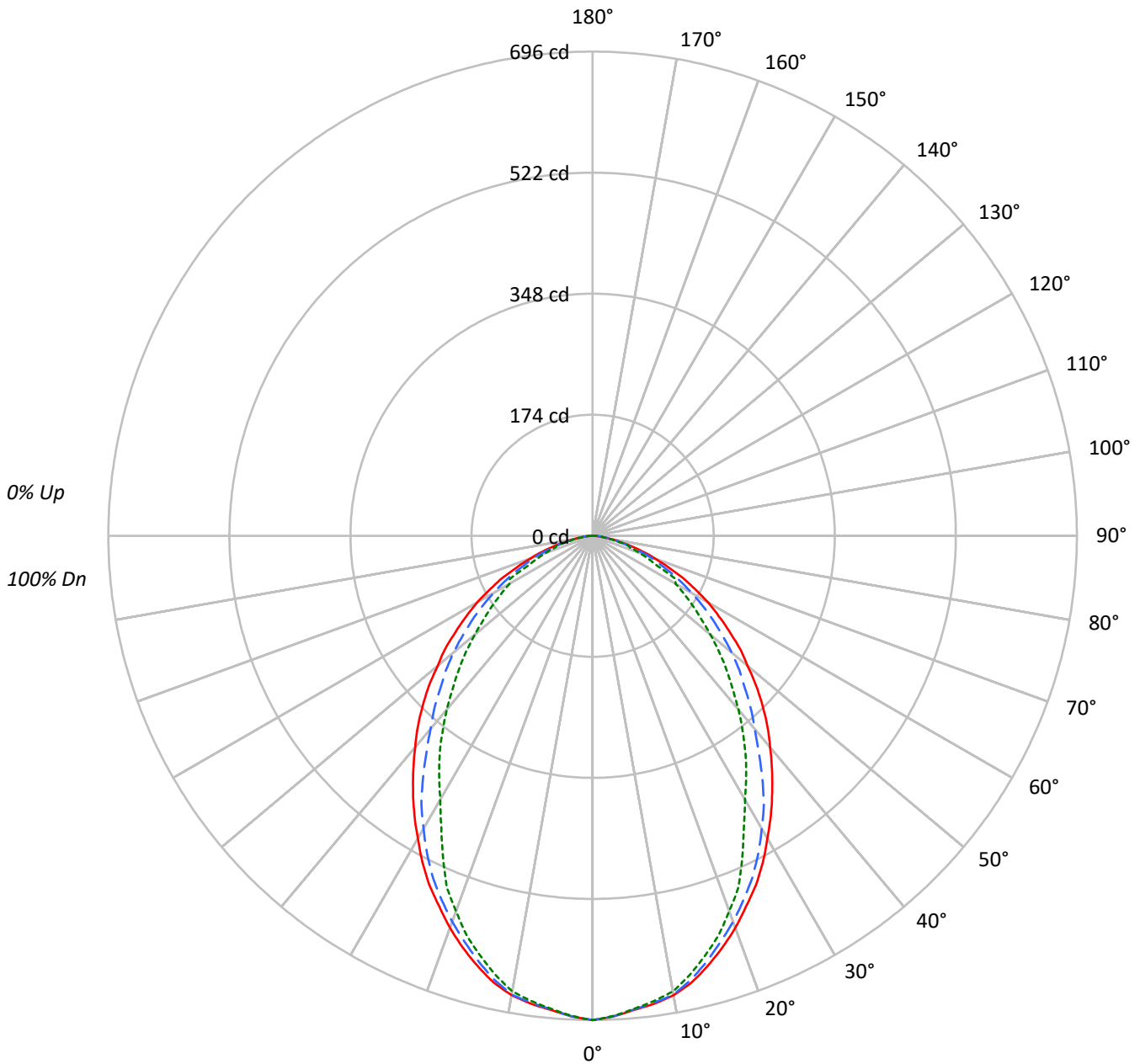
Lumens per Lamp: N/A
Luminaire Lumens: 1367.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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				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°	7495	7495	7495
5°	7394	7385	7376
10°	7330	7321	7267
15°	7132	7059	6961
20°	6869	6759	6575
25°	6588	6444	6043
30°	6243	6043	5443
35°	5913	5585	5035
40°	5577	5091	4581
45°	5256	4705	4142
50°	4866	4367	3694
55°	4502	3958	3309
60°	4125	3535	2964
65°	3629	3097	2623
70°	2990	2710	2228
75°	2379	2075	2175
80°	1599	1500	1395
85°	1000	1198	1396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	4.7
10°-20°	177.9	13.0
20°-30°	246.3	18.0
30°-40°	262.6	19.2
40°-50°	239.6	17.5
50°-60°	187.7	13.7
60°-70°	122.3	8.9
70°-80°	54.2	4.0
80°-90°	11.6	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°	489.0	35.8
0°-40°	751.6	55.0
0°-60°	1178.8	86.2
0°-90°	1367.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1367.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	684	684	684	683	683	65
15°	640	640	634	627	625	180
25°	555	551	543	523	509	255
35°	450	447	425	393	383	281
45°	345	338	309	283	272	266
55°	240	233	211	186	176	215
65°	142	134	122	124	103	140
75°	57	53	50	48	52	61
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°	696.3	696.3	696.3	696.3	696.3
2.5°	691.5	691.5	691.5	690.7	690.7
5°	684.3	683.5	683.5	682.6	682.6
7.5°	678.6	677.8	677.0	676.2	674.6
10°	670.6	670.6	669.8	665.7	664.9
12.5°	657.7	656.9	653.7	648.0	646.4
15°	640.0	640.0	633.5	627.1	624.7
17.5°	620.7	619.9	611.8	605.4	602.1
20°	599.7	598.1	590.1	579.6	574.0
22.5°	576.4	576.4	566.7	553.0	547.4
25°	554.7	551.4	542.6	523.3	508.8
27.5°	529.7	524.9	515.2	487.8	470.9
30°	502.3	499.9	486.2	450.8	437.9
32.5°	476.6	472.5	458.0	421.0	410.6
35°	450.0	446.8	425.0	392.8	383.2
37.5°	423.4	419.4	392.0	366.3	354.2
40°	396.9	392.0	362.3	338.9	326.0
42.5°	371.9	365.5	336.5	311.5	297.0
45°	345.3	338.1	309.1	283.4	272.1
47.5°	318.8	312.3	285.8	259.2	246.3
50°	290.6	285.0	260.8	234.3	220.6
52.5°	267.3	258.4	235.1	208.5	197.2
55°	239.9	232.6	210.9	186.0	176.3
57.5°	214.9	207.7	187.6	164.2	156.2
60°	191.6	181.1	164.2	144.1	137.7
62.5°	165.8	157.8	143.3	126.4	134.4
65°	142.5	134.4	121.6	124.0	103.0
67.5°	116.7	112.7	101.4	90.2	86.9
70°	95.0	90.2	86.1	74.1	70.8
72.5°	75.7	70.8	65.2	58.8	56.4
75°	57.2	53.1	49.9	47.5	52.3
77.5°	39.4	37.8	35.4	33.0	32.2
80°	25.8	25.0	24.2	23.3	22.5
82.5°	15.3	15.3	15.3	15.3	15.3
85°	8.1	8.9	9.7	10.5	11.3
87.5°	4.8	4.8	5.6	6.4	7.2
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)