

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: P545168

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-93-85-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: P545168
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-35-UNV-93-85-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

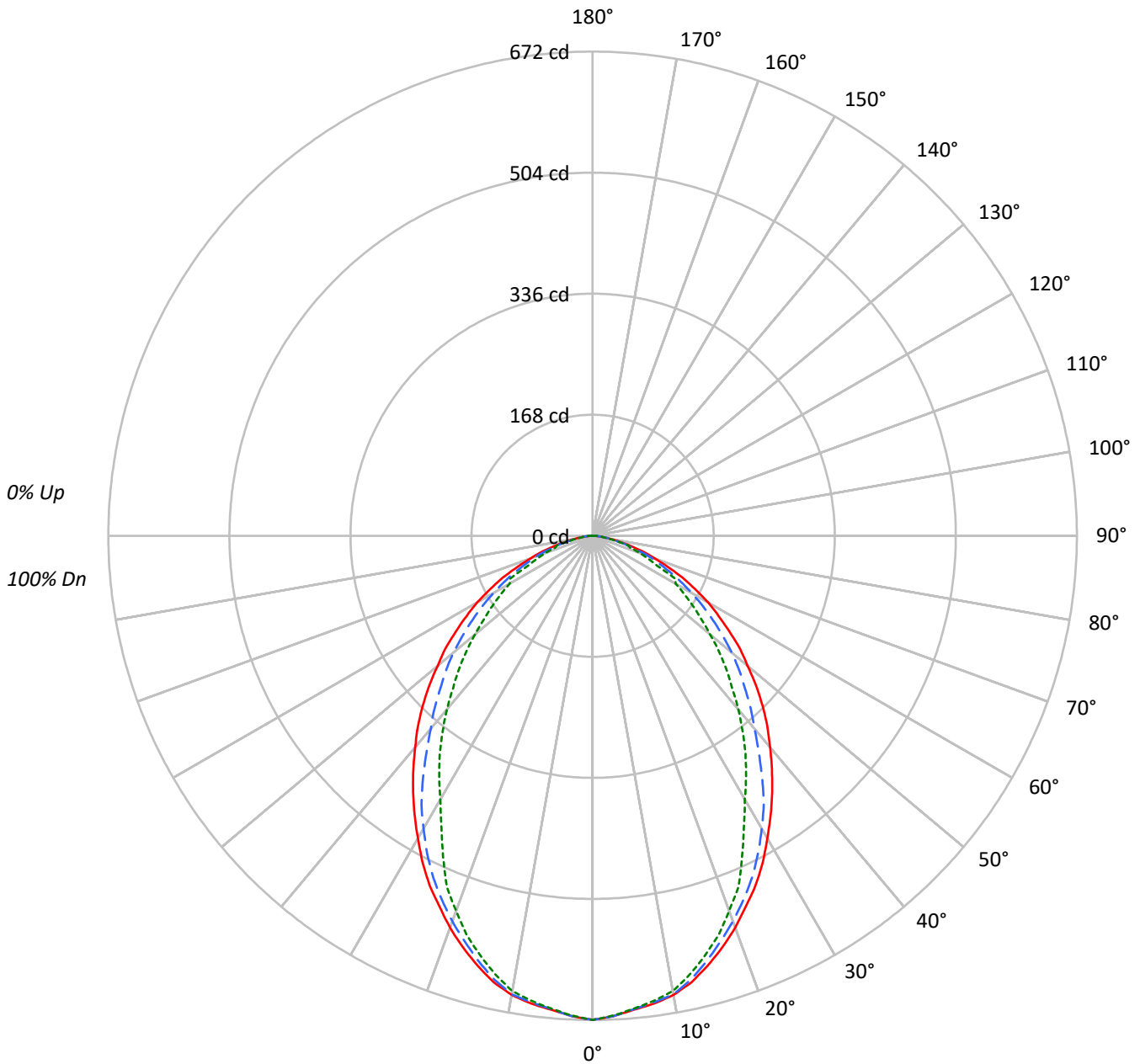
Lumens per Lamp: N/A
Luminaire Lumens: 1319.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (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				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°	7232	7232	7232
5°	7133	7126	7117
10°	7072	7063	7013
15°	6881	6812	6717
20°	6629	6522	6344
25°	6356	6217	5830
30°	6024	5832	5251
35°	5706	5389	4858
40°	5380	4911	4421
45°	5072	4541	3996
50°	4695	4215	3563
55°	4344	3819	3192
60°	3980	3412	2859
65°	3502	2988	2532
70°	2886	2615	2153
75°	2292	2005	2100
80°	1543	1444	1345
85°	963	1149	1346



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.5	4.7
10°-20°	171.6	13.0
20°-30°	237.6	18.0
30°-40°	253.4	19.2
40°-50°	231.2	17.5
50°-60°	181.1	13.7
60°-70°	118.0	8.9
70°-80°	52.3	4.0
80°-90°	11.2	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°	471.8	35.8
0°-40°	725.2	55.0
0°-60°	1137.5	86.2
0°-90°	1319.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1319.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	660	660	660	659	659	63
15°	618	618	611	605	603	174
25°	535	532	524	505	491	246
35°	434	431	410	379	370	271
45°	333	326	298	273	262	257
55°	232	224	204	179	170	208
65°	138	130	117	120	99	135
75°	55	51	48	46	50	59
85°	8	8	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	671.9	671.9	671.9	671.9	671.9
2.5°	667.2	667.2	667.2	666.4	666.4
5°	660.2	659.5	659.5	658.7	658.7
7.5°	654.8	654.0	653.2	652.5	650.9
10°	647.0	647.0	646.2	642.4	641.6
12.5°	634.6	633.8	630.7	625.3	623.7
15°	617.5	617.5	611.3	605.1	602.8
17.5°	598.9	598.1	590.3	584.1	581.0
20°	578.7	577.1	569.4	559.3	553.8
22.5°	556.1	556.1	546.8	533.6	528.2
25°	535.2	532.1	523.5	504.9	490.9
27.5°	511.1	506.4	497.1	470.7	454.4
30°	484.7	482.4	469.2	435.0	422.5
32.5°	459.8	455.9	442.0	406.2	396.1
35°	434.2	431.1	410.1	379.0	369.7
37.5°	408.6	404.7	378.3	353.4	341.8
40°	382.9	378.3	349.5	327.0	314.6
42.5°	358.9	352.6	324.7	300.6	286.6
45°	333.2	326.2	298.3	273.4	262.5
47.5°	307.6	301.4	275.7	250.1	237.7
50°	280.4	275.0	251.7	226.0	212.8
52.5°	257.9	249.3	226.8	201.2	190.3
55°	231.5	224.5	203.5	179.4	170.1
57.5°	207.4	200.4	181.0	158.5	150.7
60°	184.9	174.8	158.5	139.0	132.8
62.5°	160.0	152.2	138.3	121.9	129.7
65°	137.5	129.7	117.3	119.6	99.4
67.5°	112.6	108.7	97.9	87.0	83.9
70°	91.7	87.0	83.1	71.5	68.4
72.5°	73.0	68.4	62.9	56.7	54.4
75°	55.1	51.3	48.2	45.8	50.5
77.5°	38.1	36.5	34.2	31.8	31.1
80°	24.9	24.1	23.3	22.5	21.7
82.5°	14.8	14.8	14.8	14.8	14.8
85°	7.8	8.5	9.3	10.1	10.9
87.5°	4.7	4.7	5.4	6.2	7.0
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)