

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: P544717

Luminaire Tested: **FMR-12-1-LD4-1HI-40-UNV-82-96-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: P544717
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-LD4-1HI-40-UNV-82-96-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

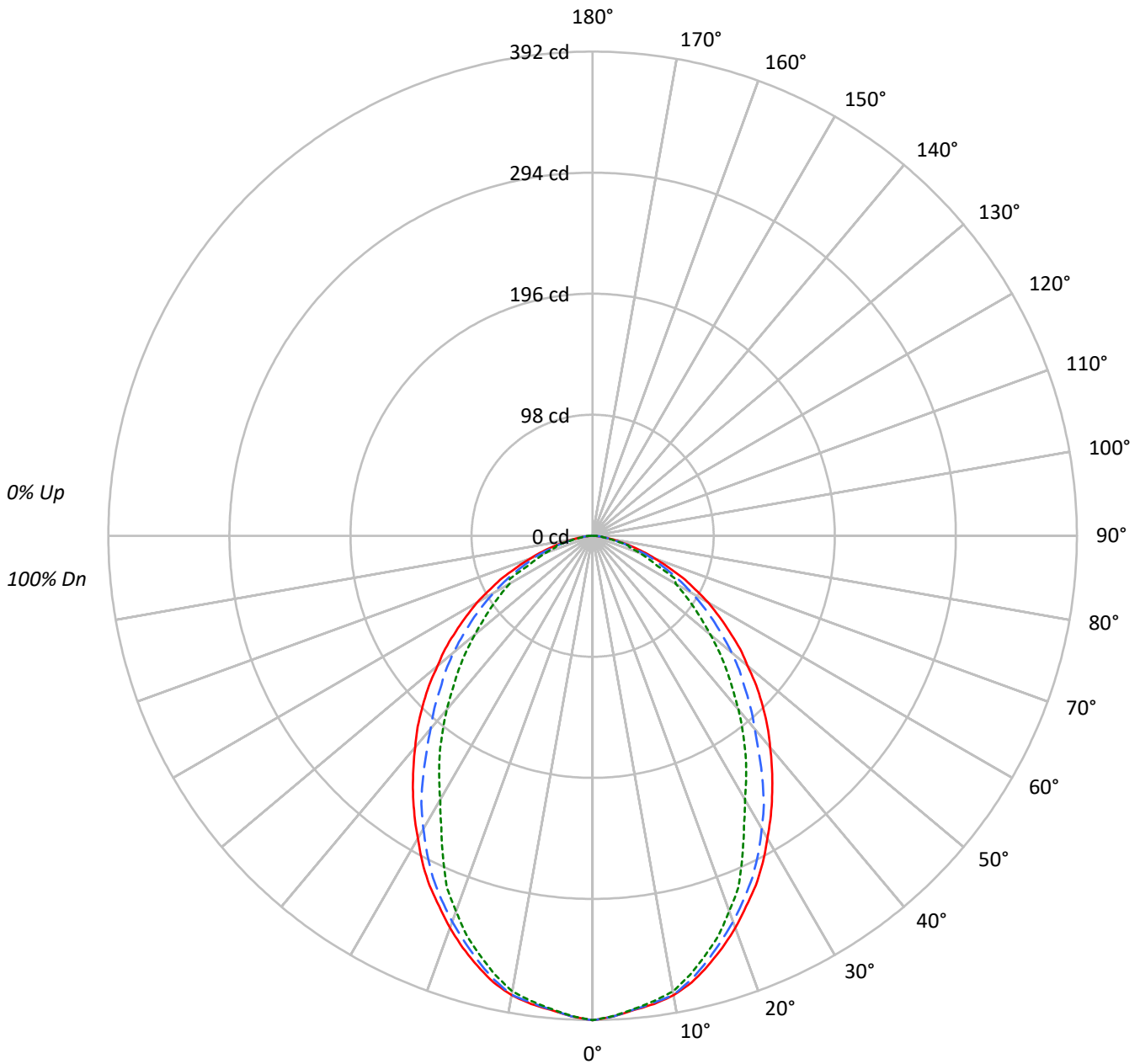
Lumens per Lamp: N/A
Luminaire Lumens: 770.0 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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°	4222	4222	4222
5°	4164	4160	4155
10°	4128	4124	4093
15°	4017	3977	3921
20°	3869	3808	3703
25°	3710	3630	3404
30°	3516	3404	3066
35°	3331	3146	2836
40°	3140	2866	2580
45°	2961	2650	2334
50°	2741	2460	2080
55°	2535	2229	1863
60°	2323	1991	1668
65°	2045	1745	1477
70°	1684	1526	1256
75°	1339	1169	1227
80°	899	843	787
85°	556	667	778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.5	4.7
10°-20°	100.2	13.0
20°-30°	138.7	18.0
30°-40°	147.9	19.2
40°-50°	134.9	17.5
50°-60°	105.7	13.7
60°-70°	68.9	8.9
70°-80°	30.5	4.0
80°-90°	6.5	0.8
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°	275.4	35.8
0°-40°	423.4	55.0
0°-60°	664.0	86.2
0°-90°	770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	770.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	392	392	392	392	392	
5°	385	385	385	384	384	37
15°	360	360	357	353	352	101
25°	312	311	306	295	287	143
35°	254	252	239	221	216	158
45°	194	190	174	160	153	150
55°	135	131	119	105	99	121
65°	80	76	68	70	58	79
75°	32	30	28	27	30	34
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°	392.2	392.2	392.2	392.2	392.2
2.5°	389.5	389.5	389.5	389.1	389.1
5°	385.4	385.0	385.0	384.5	384.5
7.5°	382.3	381.8	381.3	380.9	380.0
10°	377.7	377.7	377.3	375.0	374.5
12.5°	370.5	370.0	368.2	365.0	364.1
15°	360.5	360.5	356.9	353.2	351.9
17.5°	349.6	349.2	344.6	341.0	339.2
20°	337.8	336.9	332.4	326.5	323.3
22.5°	324.7	324.7	319.2	311.5	308.3
25°	312.4	310.6	305.6	294.7	286.6
27.5°	298.4	295.6	290.2	274.8	265.3
30°	282.9	281.6	273.9	253.9	246.7
32.5°	268.4	266.2	258.0	237.2	231.3
35°	253.5	251.7	239.4	221.3	215.8
37.5°	238.5	236.2	220.8	206.3	199.5
40°	223.5	220.8	204.0	190.9	183.6
42.5°	209.5	205.9	189.5	175.5	167.3
45°	194.5	190.4	174.1	159.6	153.3
47.5°	179.6	175.9	161.0	146.0	138.8
50°	163.7	160.5	146.9	132.0	124.2
52.5°	150.5	145.6	132.4	117.4	111.1
55°	135.1	131.0	118.8	104.7	99.3
57.5°	121.1	117.0	105.7	92.5	88.0
60°	107.9	102.0	92.5	81.2	77.5
62.5°	93.4	88.9	80.7	71.2	75.7
65°	80.3	75.7	68.5	69.8	58.0
67.5°	65.7	63.5	57.1	50.8	49.0
70°	53.5	50.8	48.5	41.7	39.9
72.5°	42.6	39.9	36.7	33.1	31.7
75°	32.2	29.9	28.1	26.8	29.5
77.5°	22.2	21.3	20.0	18.6	18.1
80°	14.5	14.1	13.6	13.1	12.7
82.5°	8.6	8.6	8.6	8.6	8.6
85°	4.5	5.0	5.4	5.9	6.3
87.5°	2.7	2.7	3.2	3.6	4.1
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)