

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: P544722

Luminaire Tested: **FMR-12-1-LD4-1HI-40-UNV-93-87-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: P544722
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-93-87-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

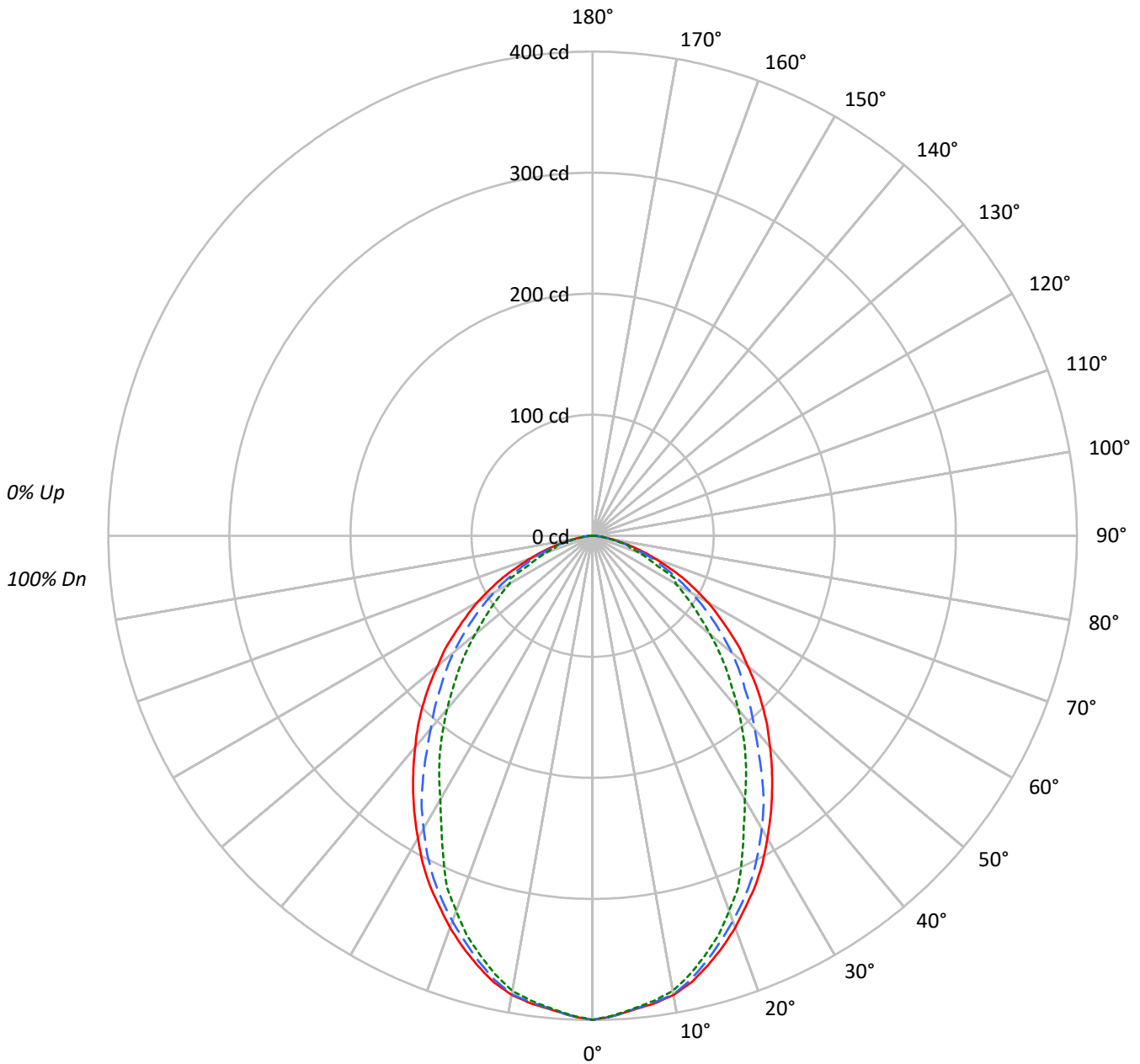
Lumens per Lamp: N/A
Luminaire Lumens: 785.0 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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									
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°	4304	4304	4304
5°	4245	4241	4236
10°	4209	4204	4173
15°	4095	4054	3997
20°	3945	3881	3775
25°	3783	3701	3470
30°	3586	3470	3126
35°	3395	3208	2891
40°	3202	2923	2630
45°	3019	2702	2378
50°	2795	2509	2122
55°	2586	2273	1899
60°	2368	2030	1701
65°	2083	1778	1508
70°	1715	1558	1281
75°	1364	1194	1248
80°	917	862	800
85°	568	679	803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	4.7
10°-20°	102.2	13.0
20°-30°	141.4	18.0
30°-40°	150.8	19.2
40°-50°	137.6	17.5
50°-60°	107.8	13.7
60°-70°	70.2	8.9
70°-80°	31.1	4.0
80°-90°	6.7	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°	280.8	35.8
0°-40°	431.6	55.0
0°-60°	677.0	86.2
0°-90°	785.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	785.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	400	400	400	400	400	
5°	393	392	392	392	392	37
15°	368	368	364	360	359	103
25°	318	317	312	300	292	146
35°	258	257	244	226	220	162
45°	198	194	178	163	156	153
55°	138	134	121	107	101	124
65°	82	77	70	71	59	81
75°	33	30	29	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	399.9	399.9	399.9	399.9	399.9
2.5°	397.1	397.1	397.1	396.6	396.6
5°	392.9	392.5	392.5	392.0	392.0
7.5°	389.7	389.2	388.8	388.3	387.4
10°	385.1	385.1	384.6	382.3	381.8
12.5°	377.7	377.2	375.4	372.1	371.2
15°	367.5	367.5	363.8	360.1	358.7
17.5°	356.4	356.0	351.3	347.6	345.8
20°	344.4	343.5	338.8	332.8	329.6
22.5°	331.0	331.0	325.4	317.6	314.3
25°	318.5	316.7	311.6	300.5	292.2
27.5°	304.2	301.4	295.9	280.1	270.4
30°	288.5	287.1	279.2	258.9	251.5
32.5°	273.7	271.4	263.0	241.8	235.8
35°	258.4	256.6	244.1	225.6	220.0
37.5°	243.2	240.8	225.1	210.3	203.4
40°	227.9	225.1	208.0	194.6	187.2
42.5°	213.6	209.9	193.2	178.9	170.6
45°	198.3	194.2	177.5	162.7	156.2
47.5°	183.1	179.4	164.1	148.9	141.5
50°	166.9	163.6	149.8	134.5	126.7
52.5°	153.5	148.4	135.0	119.7	113.3
55°	137.8	133.6	121.1	106.8	101.2
57.5°	123.4	119.3	107.7	94.3	89.7
60°	110.0	104.0	94.3	82.7	79.0
62.5°	95.2	90.6	82.3	72.6	77.2
65°	81.8	77.2	69.8	71.2	59.2
67.5°	67.0	64.7	58.2	51.8	49.9
70°	54.5	51.8	49.5	42.5	40.7
72.5°	43.5	40.7	37.4	33.7	32.4
75°	32.8	30.5	28.7	27.3	30.0
77.5°	22.7	21.7	20.3	19.0	18.5
80°	14.8	14.3	13.9	13.4	12.9
82.5°	8.8	8.8	8.8	8.8	8.8
85°	4.6	5.1	5.5	6.0	6.5
87.5°	2.8	2.8	3.2	3.7	4.2
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)