

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: P545015

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-80-84-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: P545015
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-LD4-2HI-50-UNV-80-84-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

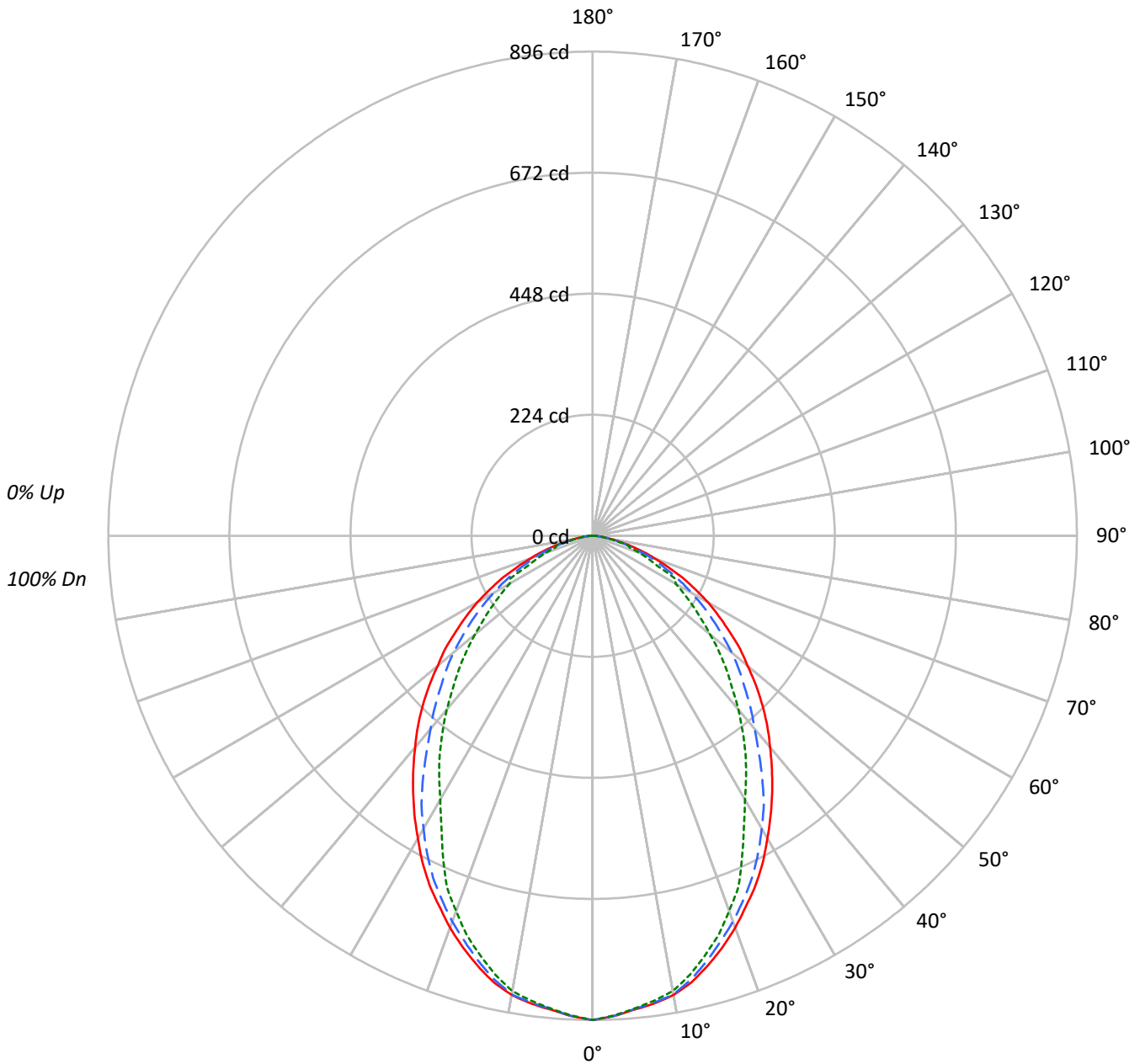
Lumens per Lamp: N/A
Luminaire Lumens: 1759.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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									
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°	9644	9644	9644
5°	9514	9502	9491
10°	9431	9419	9352
15°	9177	9084	8957
20°	8840	8698	8460
25°	8476	8292	7776
30°	8034	7777	7004
35°	7608	7186	6479
40°	7176	6549	5895
45°	6765	6056	5329
50°	6261	5620	4752
55°	5793	5093	4258
60°	5307	4549	3813
65°	4669	3983	3377
70°	3846	3487	2870
75°	3057	2670	2799
80°	2052	1928	1798
85°	1284	1531	1791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.4	4.7
10°-20°	228.9	13.0
20°-30°	316.9	18.0
30°-40°	337.9	19.2
40°-50°	308.3	17.5
50°-60°	241.5	13.7
60°-70°	157.4	8.9
70°-80°	69.7	4.0
80°-90°	15.0	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°	629.2	35.8
0°-40°	967.1	55.0
0°-60°	1516.9	86.2
0°-90°	1759.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1759.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	896	896	896	896	896	
5°	880	879	879	878	878	84
15°	824	824	815	807	804	232
25°	714	710	698	673	655	328
35°	579	575	547	506	493	362
45°	444	435	398	365	350	342
55°	309	299	271	239	227	277
65°	183	173	156	160	133	181
75°	74	68	64	61	67	79
85°	10	11	12	14	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	896.0	896.0	896.0	896.0	896.0
2.5°	889.8	889.8	889.8	888.8	888.8
5°	880.5	879.4	879.4	878.4	878.4
7.5°	873.2	872.2	871.2	870.1	868.0
10°	862.9	862.9	861.8	856.6	855.6
12.5°	846.3	845.3	841.1	833.9	831.8
15°	823.5	823.5	815.2	806.9	803.8
17.5°	798.6	797.6	787.2	779.0	774.8
20°	771.7	769.6	759.3	745.8	738.6
22.5°	741.7	741.7	729.2	711.6	704.4
25°	713.7	709.6	698.2	673.3	654.7
27.5°	681.6	675.4	662.9	627.7	606.0
30°	646.4	643.3	625.7	580.1	563.5
32.5°	613.2	608.0	589.4	541.8	528.3
35°	579.0	574.9	546.9	505.5	493.1
37.5°	544.9	539.7	504.5	471.3	455.8
40°	510.7	504.5	466.1	436.1	419.5
42.5°	478.6	470.3	433.0	400.9	382.2
45°	444.4	435.1	397.8	364.6	350.1
47.5°	410.2	401.9	367.7	333.5	317.0
50°	373.9	366.7	335.6	301.4	283.8
52.5°	343.9	332.5	302.5	268.3	253.8
55°	308.7	299.4	271.4	239.3	226.9
57.5°	276.6	267.2	241.4	211.3	201.0
60°	246.5	233.1	211.3	185.4	177.1
62.5°	213.4	203.0	184.4	162.6	173.0
65°	183.3	173.0	156.4	159.5	132.6
67.5°	150.2	145.0	130.5	116.0	111.9
70°	122.2	116.0	110.8	95.3	91.2
72.5°	97.4	91.2	83.9	75.6	72.5
75°	73.5	68.4	64.2	61.1	67.3
77.5°	50.8	48.7	45.6	42.5	41.4
80°	33.1	32.1	31.1	30.0	29.0
82.5°	19.7	19.7	19.7	19.7	19.7
85°	10.4	11.4	12.4	13.5	14.5
87.5°	6.2	6.2	7.3	8.3	9.3
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)