

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: P545021

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-80-96-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: P545021
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-80-96-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

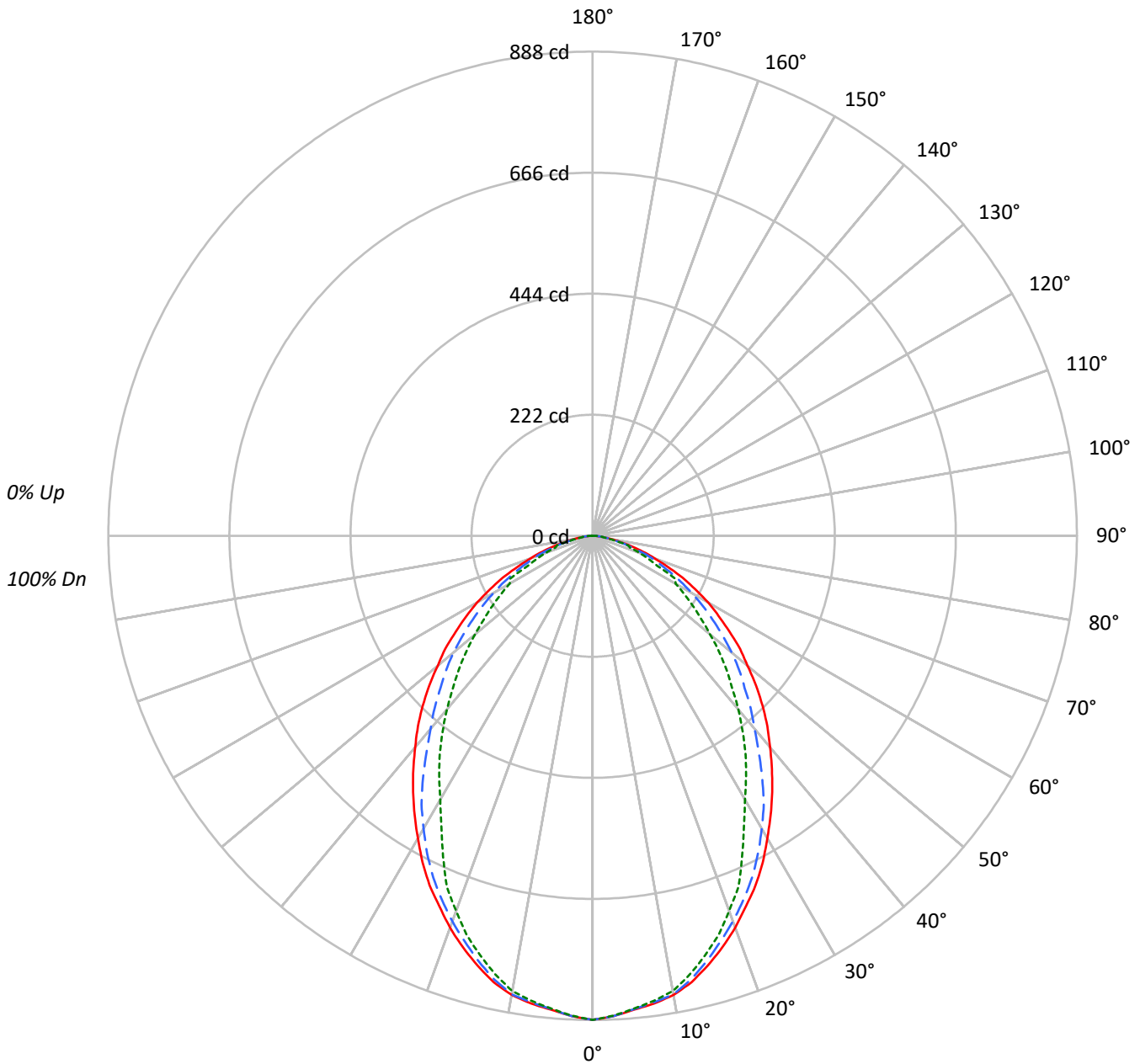
Lumens per Lamp: N/A
Luminaire Lumens: 1743.0 lumens
Efficiency: N/A
Efficacy: 80.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	9557	9557	9557
5°	9427	9416	9405
10°	9345	9334	9266
15°	9093	9002	8876
20°	8759	8619	8383
25°	8399	8216	7704
30°	7961	7706	6940
35°	7540	7122	6420
40°	7110	6490	5841
45°	6702	5999	5281
50°	6204	5570	4709
55°	5741	5046	4219
60°	5259	4508	3778
65°	4628	3948	3347
70°	3811	3456	2842
75°	3032	2645	2774
80°	2033	1909	1779
85°	1272	1519	1778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	4.7
10°-20°	226.8	13.0
20°-30°	314.0	18.0
30°-40°	334.8	19.2
40°-50°	305.5	17.5
50°-60°	239.3	13.7
60°-70°	156.0	8.9
70°-80°	69.1	4.0
80°-90°	14.8	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°	623.5	35.8
0°-40°	958.3	55.0
0°-60°	1503.1	86.2
0°-90°	1743.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1743.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	888	888	888	888	888	
5°	872	871	871	870	870	83
15°	816	816	808	800	796	229
25°	707	703	692	667	649	325
35°	574	570	542	501	489	359
45°	440	431	394	361	347	339
55°	306	297	269	237	225	274
65°	182	171	155	158	131	179
75°	73	68	64	61	67	78
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	887.9	887.9	887.9	887.9	887.9
2.5°	881.7	881.7	881.7	880.7	880.7
5°	872.5	871.4	871.4	870.4	870.4
7.5°	865.3	864.3	863.2	862.2	860.1
10°	855.0	855.0	854.0	848.9	847.8
12.5°	838.6	837.6	833.5	826.3	824.2
15°	816.0	816.0	807.8	799.6	796.5
17.5°	791.4	790.4	780.1	771.9	767.8
20°	764.7	762.6	752.4	739.0	731.8
22.5°	734.9	734.9	722.6	705.2	698.0
25°	707.2	703.1	691.8	667.2	648.7
27.5°	675.4	669.2	656.9	622.0	600.5
30°	640.5	637.4	620.0	574.8	558.4
32.5°	607.6	602.5	584.0	536.8	523.5
35°	573.8	569.7	542.0	500.9	488.6
37.5°	539.9	534.8	499.9	467.0	451.6
40°	506.0	499.9	461.9	432.1	415.7
42.5°	474.2	466.0	429.0	397.2	378.8
45°	440.3	431.1	394.1	361.3	346.9
47.5°	406.5	398.3	364.4	330.5	314.1
50°	370.5	363.4	332.6	298.7	281.2
52.5°	340.8	329.5	299.7	265.8	251.5
55°	305.9	296.6	268.9	237.1	224.8
57.5°	274.1	264.8	239.2	209.4	199.1
60°	244.3	230.9	209.4	183.7	175.5
62.5°	211.4	201.2	182.7	161.1	171.4
65°	181.7	171.4	155.0	158.1	131.4
67.5°	148.8	143.7	129.3	115.0	110.9
70°	121.1	115.0	109.8	94.4	90.3
72.5°	96.5	90.3	83.1	74.9	71.9
75°	72.9	67.7	63.6	60.6	66.7
77.5°	50.3	48.2	45.2	42.1	41.1
80°	32.8	31.8	30.8	29.8	28.7
82.5°	19.5	19.5	19.5	19.5	19.5
85°	10.3	11.3	12.3	13.3	14.4
87.5°	6.2	6.2	7.2	8.2	9.2
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)