

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: P545325

Luminaire Tested: **FMR-12-2-LD4-1HI-50-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: P545325
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-12-2-LD4-1HI-50-UNV-82-96-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC 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

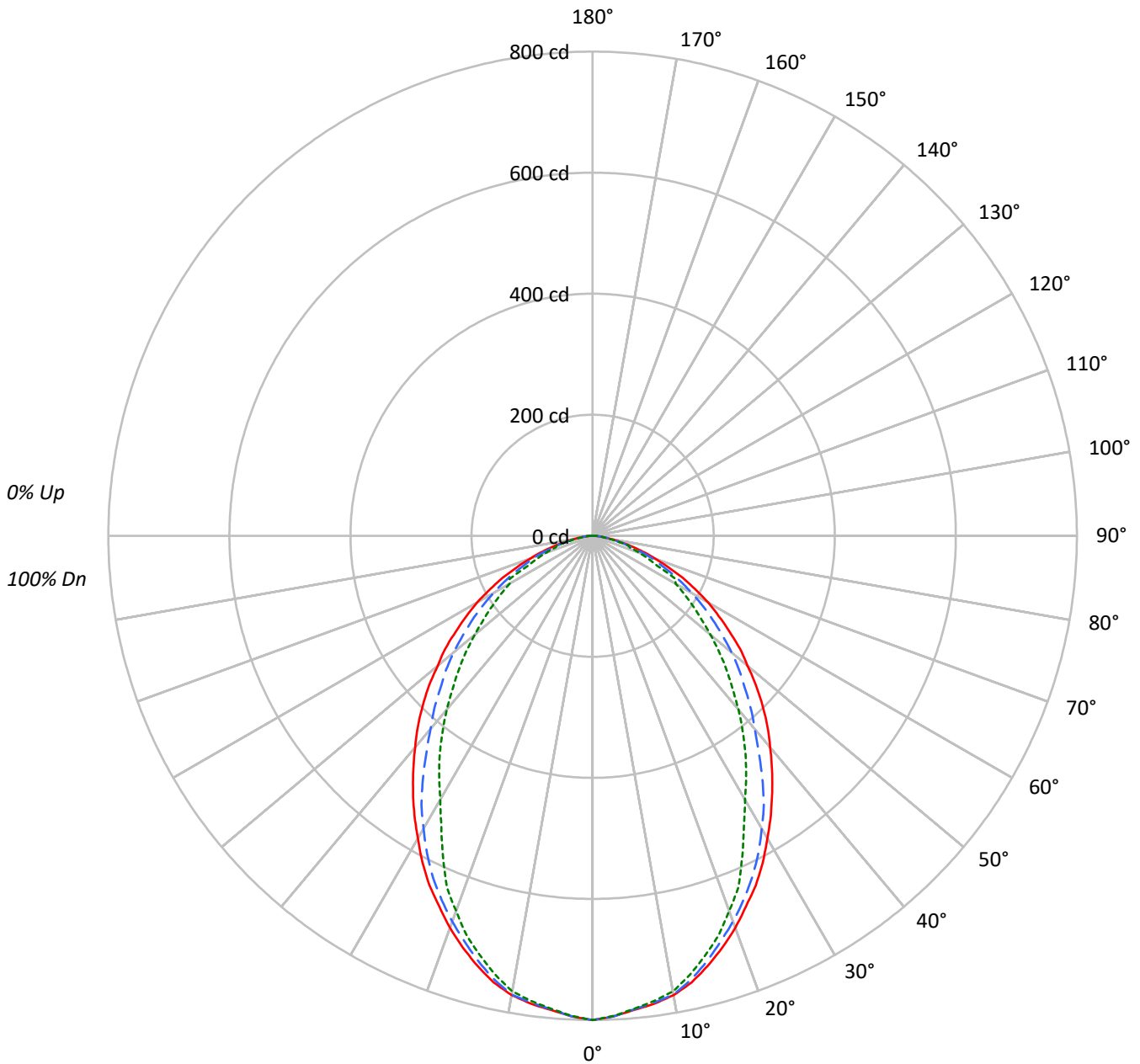
Lumens per Lamp: N/A
Luminaire Lumens: 1571.0 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	4307	4307	4307
5°	4249	4243	4238
10°	4211	4206	4176
15°	4098	4057	4000
20°	3947	3884	3778
25°	3785	3703	3472
30°	3588	3473	3128
35°	3398	3210	2893
40°	3204	2925	2633
45°	3021	2704	2380
50°	2797	2509	2123
55°	2587	2274	1901
60°	2370	2031	1703
65°	2085	1779	1508
70°	1718	1558	1281
75°	1366	1194	1250
80°	917	862	803
85°	574	685	803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	4.7
10°-20°	204.4	13.0
20°-30°	283.0	18.0
30°-40°	301.8	19.2
40°-50°	275.3	17.5
50°-60°	215.7	13.7
60°-70°	140.6	8.9
70°-80°	62.3	4.0
80°-90°	13.4	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°	562.0	35.8
0°-40°	863.7	55.0
0°-60°	1354.8	86.2
0°-90°	1571.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1571.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	800	800	800	800	800	
5°	786	785	785	784	784	75
15°	736	736	728	721	718	207
25°	637	634	624	601	585	293
35°	517	514	488	452	440	323
45°	397	389	355	326	313	306
55°	276	267	242	214	203	247
65°	164	154	140	142	118	161
75°	66	61	57	55	60	70
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	800.2	800.2	800.2	800.2	800.2
2.5°	794.7	794.7	794.7	793.8	793.8
5°	786.4	785.4	785.4	784.5	784.5
7.5°	779.9	779.0	778.0	777.1	775.3
10°	770.6	770.6	769.7	765.1	764.2
12.5°	755.8	754.9	751.2	744.7	742.9
15°	735.5	735.5	728.1	720.7	717.9
17.5°	713.3	712.4	703.1	695.7	692.0
20°	689.2	687.4	678.1	666.1	659.6
22.5°	662.4	662.4	651.3	635.6	629.1
25°	637.4	633.7	623.5	601.3	584.7
27.5°	608.7	603.2	592.1	560.6	541.2
30°	577.3	574.5	558.8	518.1	503.3
32.5°	547.7	543.1	526.4	483.8	471.8
35°	517.2	513.5	488.5	451.5	440.4
37.5°	486.6	482.0	450.5	420.9	407.1
40°	456.1	450.5	416.3	389.5	374.7
42.5°	427.4	420.0	386.7	358.0	341.4
45°	396.9	388.6	355.3	325.6	312.7
47.5°	366.4	359.0	328.4	297.9	283.1
50°	334.0	327.5	299.7	269.2	253.5
52.5°	307.1	297.0	270.1	239.6	226.7
55°	275.7	267.4	242.4	213.7	202.6
57.5°	247.0	238.7	215.6	188.7	179.5
60°	220.2	208.2	188.7	165.6	158.2
62.5°	190.6	181.3	164.7	145.2	154.5
65°	163.7	154.5	139.7	142.5	118.4
67.5°	134.1	129.5	116.6	103.6	99.9
70°	109.2	103.6	99.0	85.1	81.4
72.5°	87.0	81.4	74.9	67.5	64.8
75°	65.7	61.1	57.4	54.6	60.1
77.5°	45.3	43.5	40.7	37.9	37.0
80°	29.6	28.7	27.8	26.8	25.9
82.5°	17.6	17.6	17.6	17.6	17.6
85°	9.3	10.2	11.1	12.0	13.0
87.5°	5.6	5.6	6.5	7.4	8.3
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)