

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: P545227

Luminaire Tested: **FMR-12-1-LD4-2STD-50-UNV-82-88-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: P545227
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-LD4-2STD-50-UNV-82-88-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

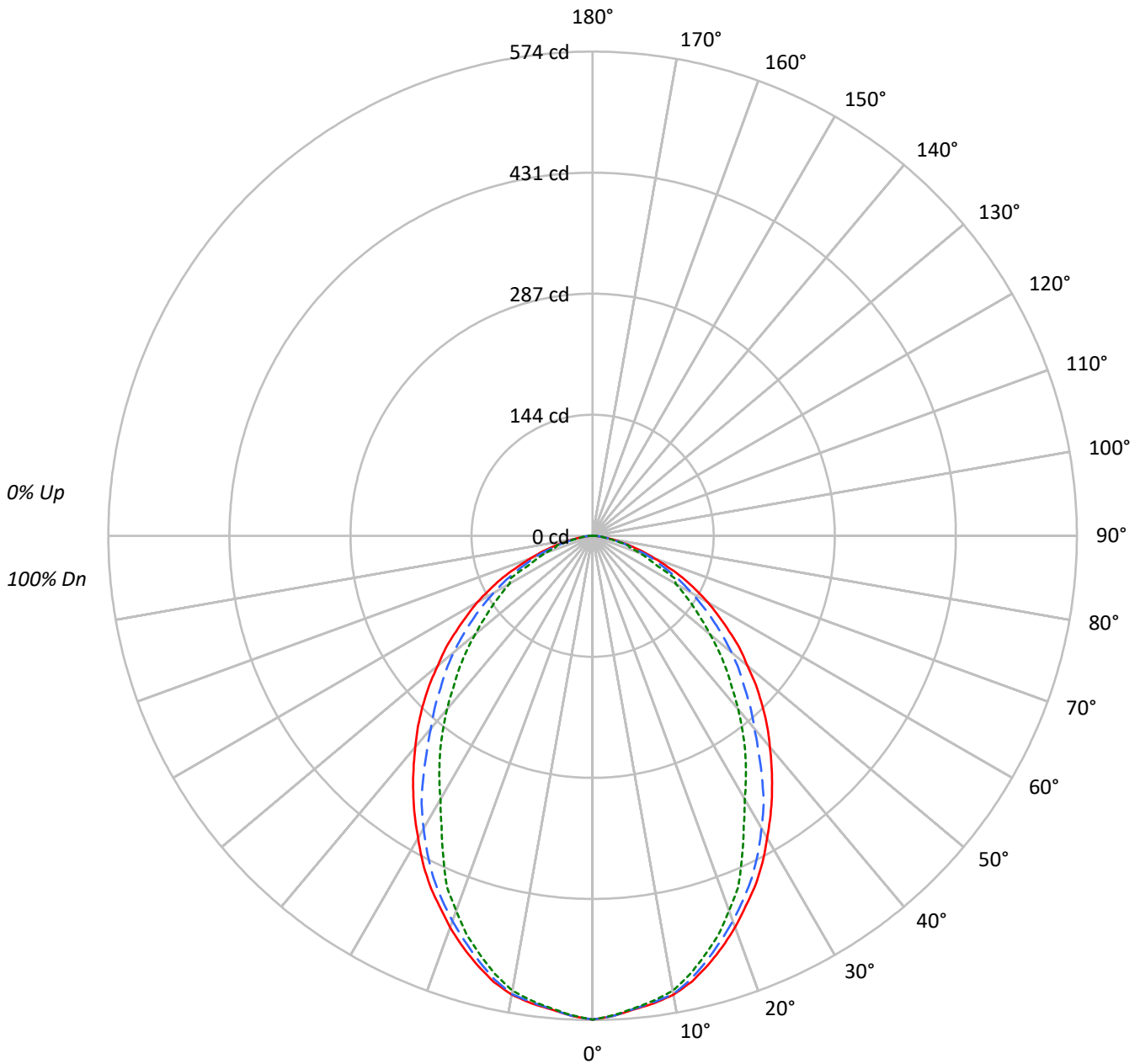
Lumens per Lamp: N/A
Luminaire Lumens: 1126.0 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	6174	6174	6174
5°	6090	6083	6076
10°	6038	6030	5986
15°	5875	5815	5735
20°	5659	5567	5416
25°	5426	5308	4978
30°	5143	4978	4483
35°	4871	4600	4147
40°	4593	4193	3773
45°	4331	3876	3411
50°	4009	3597	3043
55°	3708	3260	2725
60°	3397	2913	2441
65°	2990	2550	2162
70°	2461	2234	1838
75°	1959	1709	1792
80°	1314	1234	1153
85°	815	988	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.4	4.7
10°-20°	146.5	13.0
20°-30°	202.9	18.0
30°-40°	216.3	19.2
40°-50°	197.3	17.5
50°-60°	154.6	13.7
60°-70°	100.8	8.9
70°-80°	44.6	4.0
80°-90°	9.6	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°	402.8	35.8
0°-40°	619.1	55.0
0°-60°	971.0	86.2
0°-90°	1126.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1126.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	564	563	563	562	562	54
15°	527	527	522	516	515	148
25°	457	454	447	431	419	210
35°	371	368	350	324	316	232
45°	284	278	255	233	224	219
55°	198	192	174	153	145	177
65°	117	111	100	102	85	116
75°	47	44	41	39	43	50
85°	7	7	8	9	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	573.6	573.6	573.6	573.6	573.6
2.5°	569.6	569.6	569.6	568.9	568.9
5°	563.6	563.0	563.0	562.3	562.3
7.5°	559.0	558.3	557.7	557.0	555.7
10°	552.4	552.4	551.7	548.4	547.7
12.5°	541.7	541.1	538.4	533.8	532.5
15°	527.2	527.2	521.8	516.5	514.6
17.5°	511.2	510.6	503.9	498.6	496.0
20°	494.0	492.7	486.0	477.4	472.8
22.5°	474.8	474.8	466.8	455.5	450.9
25°	456.9	454.2	446.9	431.0	419.1
27.5°	436.3	432.3	424.4	401.8	387.9
30°	413.8	411.8	400.5	371.3	360.7
32.5°	392.5	389.2	377.3	346.8	338.2
35°	370.7	368.0	350.1	323.6	315.6
37.5°	348.8	345.5	322.9	301.7	291.8
40°	326.9	322.9	298.4	279.2	268.5
42.5°	306.3	301.0	277.2	256.6	244.7
45°	284.5	278.5	254.6	233.4	224.1
47.5°	262.6	257.3	235.4	213.5	202.9
50°	239.4	234.7	214.8	193.0	181.7
52.5°	220.1	212.9	193.6	171.7	162.5
55°	197.6	191.6	173.7	153.2	145.2
57.5°	177.0	171.1	154.5	135.3	128.6
60°	157.8	149.2	135.3	118.7	113.4
62.5°	136.6	130.0	118.0	104.1	110.7
65°	117.4	110.7	100.1	102.1	84.9
67.5°	96.1	92.8	83.5	74.3	71.6
70°	78.2	74.3	71.0	61.0	58.4
72.5°	62.3	58.4	53.7	48.4	46.4
75°	47.1	43.8	41.1	39.1	43.1
77.5°	32.5	31.2	29.2	27.2	26.5
80°	21.2	20.6	19.9	19.2	18.6
82.5°	12.6	12.6	12.6	12.6	12.6
85°	6.6	7.3	8.0	8.6	9.3
87.5°	4.0	4.0	4.6	5.3	6.0
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)