

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: P545237

Luminaire Tested: **FMR-12-1-LD4-2STD-50-UNV-93-96-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: P545237
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-93-96-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

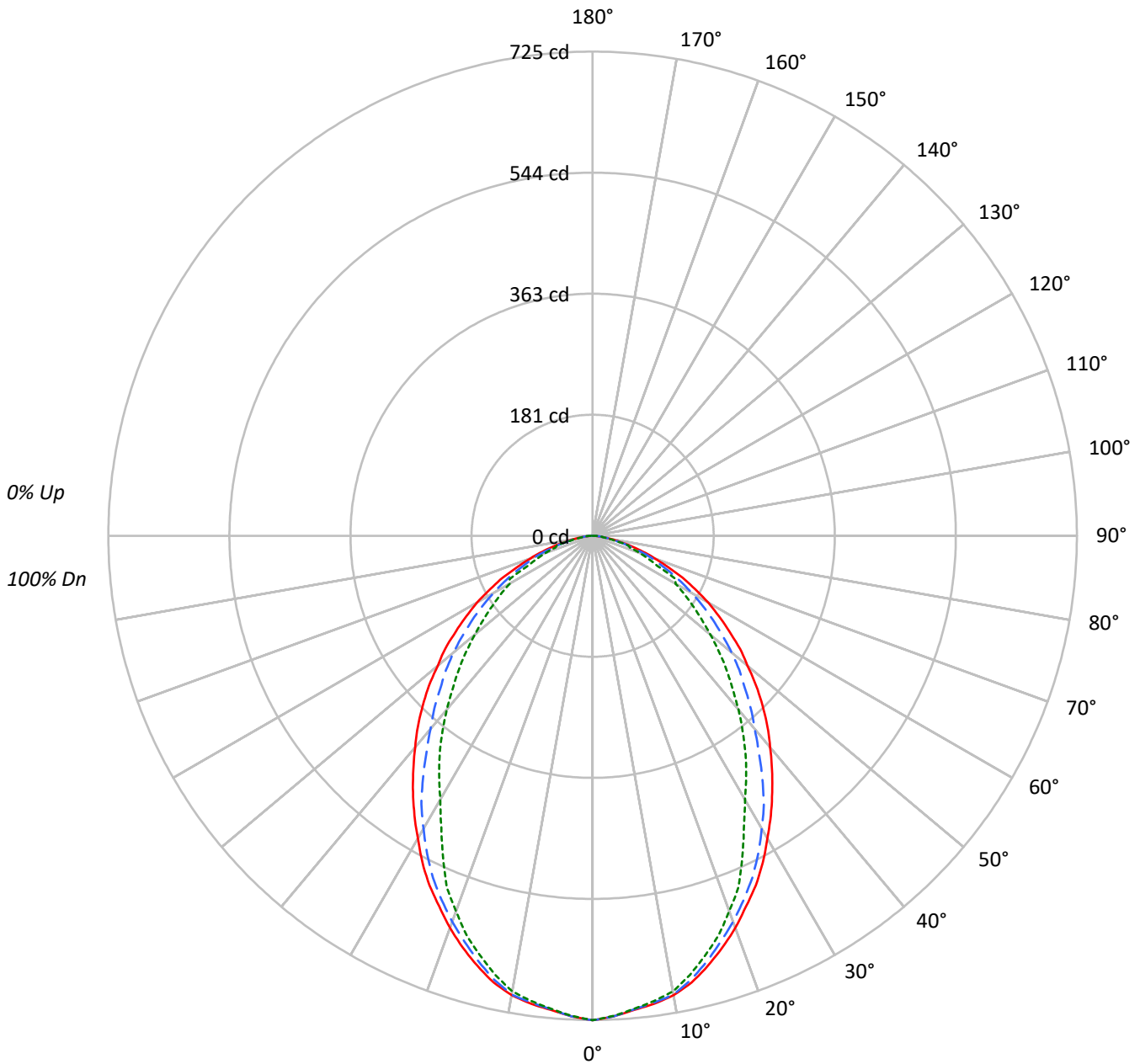
Lumens per Lamp: N/A
Luminaire Lumens: 1424.0 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (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				20				
RC	80				70				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			100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87			87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75			75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65			65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56			56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44			44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40			40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33			33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30			30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7808	7808	7808
5°	7702	7692	7683
10°	7635	7626	7571
15°	7429	7355	7251
20°	7156	7041	6849
25°	6862	6713	6295
30°	6504	6295	5670
35°	6160	5819	5246
40°	5809	5303	4772
45°	5476	4902	4314
50°	5069	4550	3848
55°	4690	4123	3445
60°	4297	3683	3087
65°	3780	3224	2733
70°	3116	2823	2323
75°	2475	2163	2267
80°	1661	1562	1457
85°	1037	1247	1445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.5	4.7
10°-20°	185.3	13.0
20°-30°	256.6	18.0
30°-40°	273.6	19.2
40°-50°	249.6	17.5
50°-60°	195.5	13.7
60°-70°	127.4	8.9
70°-80°	56.4	4.0
80°-90°	12.1	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°	509.4	35.8
0°-40°	782.9	55.0
0°-60°	1228.0	86.2
0°-90°	1424.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1424.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	713	712	712	711	711	68
15°	667	667	660	653	651	187
25°	578	574	565	545	530	265
35°	469	465	443	409	399	293
45°	360	352	322	295	283	277
55°	250	242	220	194	184	224
65°	148	140	127	129	107	146
75°	60	55	52	50	54	64
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	725.4	725.4	725.4	725.4	725.4
2.5°	720.3	720.3	720.3	719.5	719.5
5°	712.8	711.9	711.9	711.1	711.1
7.5°	706.9	706.1	705.2	704.4	702.7
10°	698.5	698.5	697.7	693.5	692.7
12.5°	685.1	684.3	680.9	675.1	673.4
15°	666.7	666.7	660.0	653.2	650.7
17.5°	646.5	645.7	637.3	630.6	627.3
20°	624.7	623.1	614.7	603.8	597.9
22.5°	600.4	600.4	590.4	576.1	570.2
25°	577.8	574.4	565.2	545.1	530.0
27.5°	551.8	546.8	536.7	508.2	490.6
30°	523.3	520.8	506.5	469.6	456.2
32.5°	496.4	492.2	477.1	438.6	427.7
35°	468.8	465.4	442.8	409.2	399.2
37.5°	441.1	436.9	408.4	381.6	369.0
40°	413.4	408.4	377.4	353.0	339.6
42.5°	387.4	380.7	350.5	324.5	309.4
45°	359.7	352.2	322.0	295.2	283.4
47.5°	332.1	325.4	297.7	270.0	256.6
50°	302.7	296.9	271.7	244.0	229.8
52.5°	278.4	269.2	244.9	217.2	205.5
55°	249.9	242.3	219.7	193.7	183.6
57.5°	223.9	216.4	195.4	171.1	162.7
60°	199.6	188.7	171.1	150.1	143.4
62.5°	172.7	164.4	149.3	131.7	140.0
65°	148.4	140.0	126.6	129.1	107.3
67.5°	121.6	117.4	105.7	93.9	90.6
70°	99.0	93.9	89.7	77.1	73.8
72.5°	78.8	73.8	67.9	61.2	58.7
75°	59.5	55.3	52.0	49.5	54.5
77.5°	41.1	39.4	36.9	34.4	33.5
80°	26.8	26.0	25.2	24.3	23.5
82.5°	15.9	15.9	15.9	15.9	15.9
85°	8.4	9.2	10.1	10.9	11.7
87.5°	5.0	5.0	5.9	6.7	7.5
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)