

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: P545141

Luminaire Tested: **FMR-12-1-LD4-2LO-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: P545141
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-LD4-2LO-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

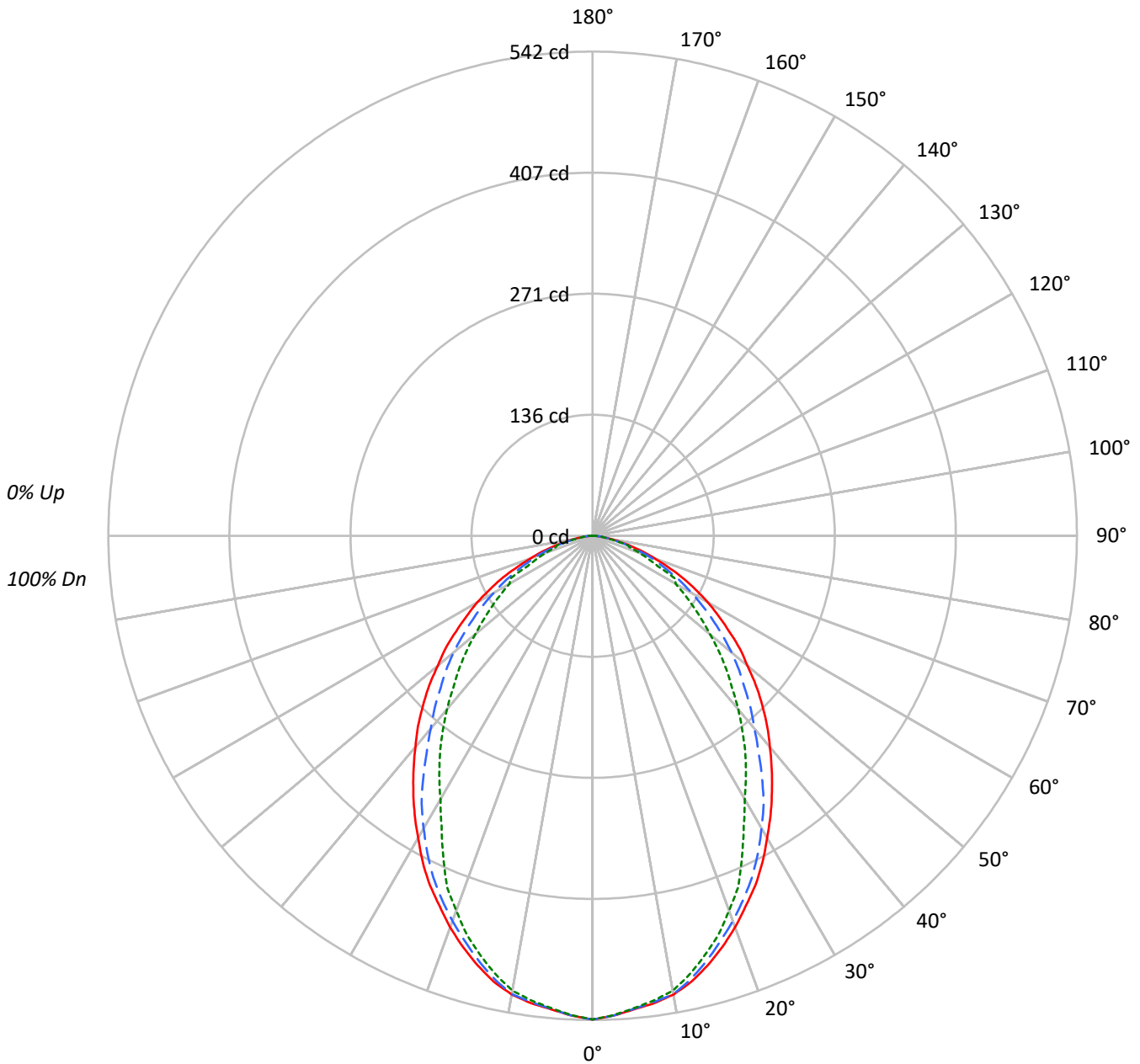
Lumens per Lamp: N/A
Luminaire Lumens: 1063.0 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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									
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°	5829	5829	5829
5°	5749	5743	5735
10°	5699	5692	5652
15°	5546	5490	5414
20°	5342	5255	5112
25°	5122	5011	4698
30°	4855	4699	4232
35°	4598	4343	3916
40°	4336	3958	3562
45°	4087	3659	3221
50°	3785	3396	2872
55°	3500	3078	2573
60°	3208	2749	2303
65°	2822	2407	2040
70°	2326	2109	1734
75°	1847	1614	1693
80°	1240	1165	1085
85°	778	926	1087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	4.7
10°-20°	138.3	13.0
20°-30°	191.5	18.0
30°-40°	204.2	19.2
40°-50°	186.3	17.5
50°-60°	145.9	13.7
60°-70°	95.1	8.9
70°-80°	42.1	4.0
80°-90°	9.1	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°	380.2	35.8
0°-40°	584.4	55.0
0°-60°	916.7	86.2
0°-90°	1063.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1063.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	532	532	532	531	531	51
15°	498	498	493	488	486	140
25°	431	429	422	407	396	198
35°	350	347	330	306	298	219
45°	268	263	240	220	212	207
55°	186	181	164	145	137	167
65°	111	104	94	96	80	109
75°	44	41	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	541.5	541.5	541.5	541.5	541.5
2.5°	537.7	537.7	537.7	537.1	537.1
5°	532.1	531.5	531.5	530.8	530.8
7.5°	527.7	527.1	526.5	525.8	524.6
10°	521.4	521.4	520.8	517.7	517.1
12.5°	511.4	510.8	508.3	503.9	502.7
15°	497.7	497.7	492.7	487.6	485.8
17.5°	482.6	482.0	475.7	470.7	468.2
20°	466.4	465.1	458.8	450.7	446.3
22.5°	448.2	448.2	440.7	430.1	425.7
25°	431.3	428.8	421.9	406.9	395.6
27.5°	411.9	408.1	400.6	379.3	366.2
30°	390.6	388.7	378.1	350.6	340.5
32.5°	370.6	367.5	356.2	327.4	319.3
35°	349.9	347.4	330.5	305.5	298.0
37.5°	329.3	326.1	304.9	284.8	275.4
40°	308.6	304.9	281.7	263.5	253.5
42.5°	289.2	284.2	261.7	242.3	231.0
45°	268.5	262.9	240.4	220.3	211.6
47.5°	247.9	242.9	222.2	201.6	191.6
50°	226.0	221.6	202.8	182.2	171.5
52.5°	207.8	200.9	182.8	162.1	153.4
55°	186.5	180.9	164.0	144.6	137.1
57.5°	167.1	161.5	145.9	127.7	121.4
60°	149.0	140.8	127.7	112.1	107.0
62.5°	129.0	122.7	111.4	98.3	104.5
65°	110.8	104.5	94.5	96.4	80.1
67.5°	90.8	87.6	78.9	70.1	67.6
70°	73.9	70.1	67.0	57.6	55.1
72.5°	58.8	55.1	50.7	45.7	43.8
75°	44.4	41.3	38.8	36.9	40.7
77.5°	30.7	29.4	27.5	25.7	25.0
80°	20.0	19.4	18.8	18.2	17.5
82.5°	11.9	11.9	11.9	11.9	11.9
85°	6.3	6.9	7.5	8.1	8.8
87.5°	3.8	3.8	4.4	5.0	5.6
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)