

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: P545040

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-93-85-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: P545040
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-93-85-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

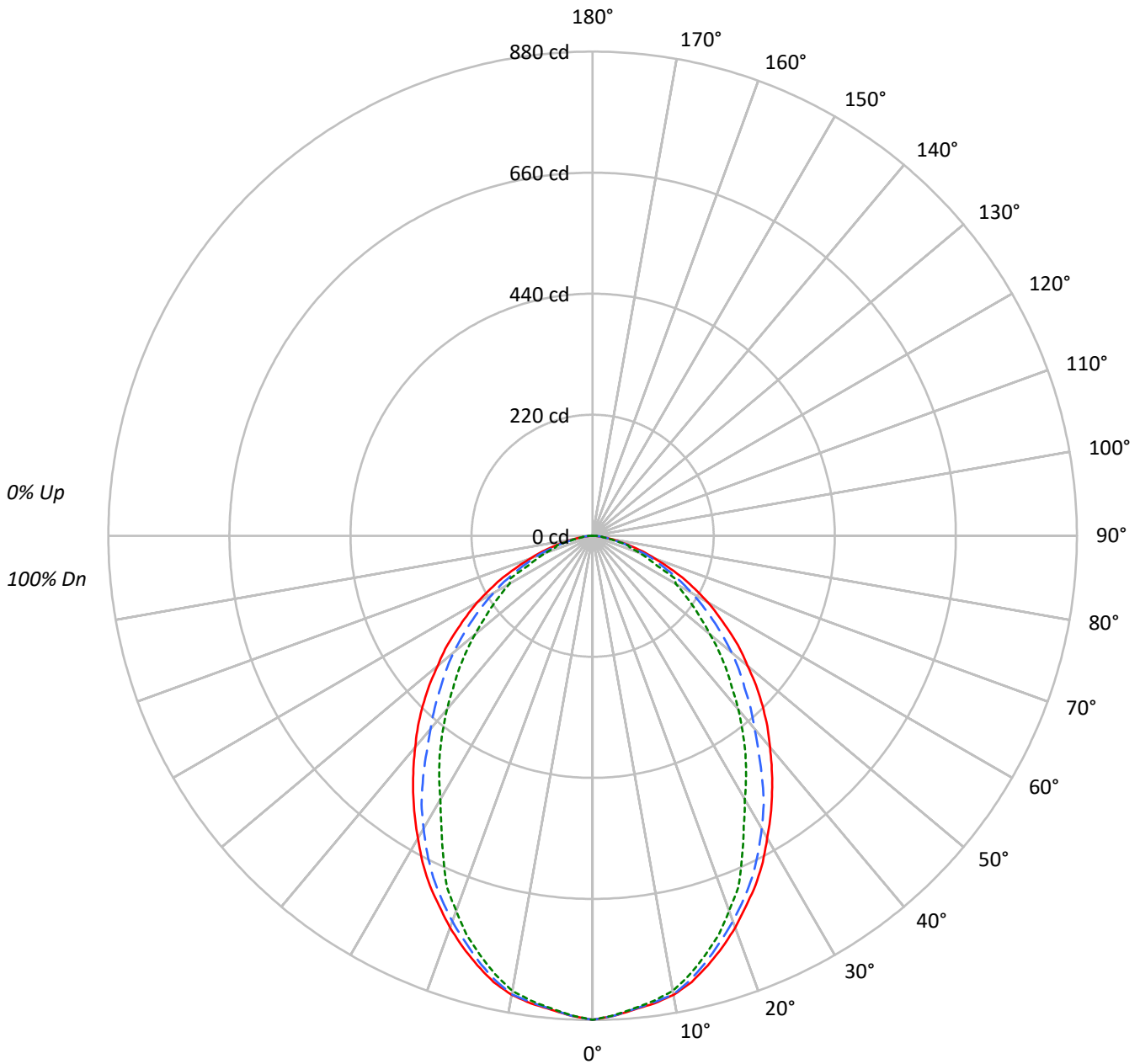
Lumens per Lamp: N/A
Luminaire Lumens: 1727.0 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	9469	9469	9469
5°	9341	9329	9318
10°	9260	9248	9181
15°	9010	8919	8795
20°	8679	8539	8306
25°	8322	8141	7633
30°	7888	7635	6877
35°	7470	7056	6361
40°	7045	6431	5788
45°	6642	5944	5232
50°	6147	5518	4667
55°	5688	5001	4179
60°	5210	4467	3744
65°	4585	3912	3316
70°	3777	3424	2817
75°	3003	2624	2749
80°	2015	1891	1767
85°	1260	1507	1754



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.9	4.7
10°-20°	224.7	13.0
20°-30°	311.1	18.0
30°-40°	331.8	19.2
40°-50°	302.7	17.5
50°-60°	237.1	13.7
60°-70°	154.5	8.9
70°-80°	68.5	4.0
80°-90°	14.7	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°	617.8	35.8
0°-40°	949.5	55.0
0°-60°	1489.3	86.2
0°-90°	1727.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1727.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	880	880	880	880	880	
5°	864	863	863	862	862	82
15°	808	808	800	792	789	227
25°	701	697	686	661	643	322
35°	568	564	537	496	484	355
45°	436	427	390	358	344	336
55°	303	294	266	235	223	272
65°	180	170	154	157	130	177
75°	72	67	63	60	66	77
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°	879.7	879.7	879.7	879.7	879.7
2.5°	873.6	873.6	873.6	872.6	872.6
5°	864.5	863.4	863.4	862.4	862.4
7.5°	857.3	856.3	855.3	854.3	852.3
10°	847.2	847.2	846.1	841.1	840.0
12.5°	830.9	829.9	825.8	818.7	816.7
15°	808.5	808.5	800.4	792.2	789.2
17.5°	784.1	783.1	772.9	764.8	760.7
20°	757.7	755.6	745.5	732.2	725.1
22.5°	728.2	728.2	716.0	698.7	691.6
25°	700.7	696.6	685.5	661.1	642.7
27.5°	669.2	663.1	650.9	616.3	594.9
30°	634.6	631.6	614.3	569.5	553.3
32.5°	602.1	597.0	578.7	531.9	518.7
35°	568.5	564.4	537.0	496.3	484.1
37.5°	534.9	529.9	495.3	462.7	447.5
40°	501.4	495.3	457.7	428.2	411.9
42.5°	469.9	461.7	425.1	393.6	375.3
45°	436.3	427.1	390.5	358.0	343.7
47.5°	402.7	394.6	361.0	327.5	311.2
50°	367.1	360.0	329.5	295.9	278.7
52.5°	337.6	326.5	297.0	263.4	249.2
55°	303.1	293.9	266.5	234.9	222.7
57.5°	271.5	262.4	237.0	207.5	197.3
60°	242.0	228.8	207.5	182.0	173.9
62.5°	209.5	199.3	181.0	159.7	169.8
65°	180.0	169.8	153.6	156.6	130.2
67.5°	147.5	142.4	128.1	113.9	109.8
70°	120.0	113.9	108.8	93.6	89.5
72.5°	95.6	89.5	82.4	74.2	71.2
75°	72.2	67.1	63.1	60.0	66.1
77.5°	49.8	47.8	44.7	41.7	40.7
80°	32.5	31.5	30.5	29.5	28.5
82.5°	19.3	19.3	19.3	19.3	19.3
85°	10.2	11.2	12.2	13.2	14.2
87.5°	6.1	6.1	7.1	8.1	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)