

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: P545016

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-80-85-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: P545016
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-80-85-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

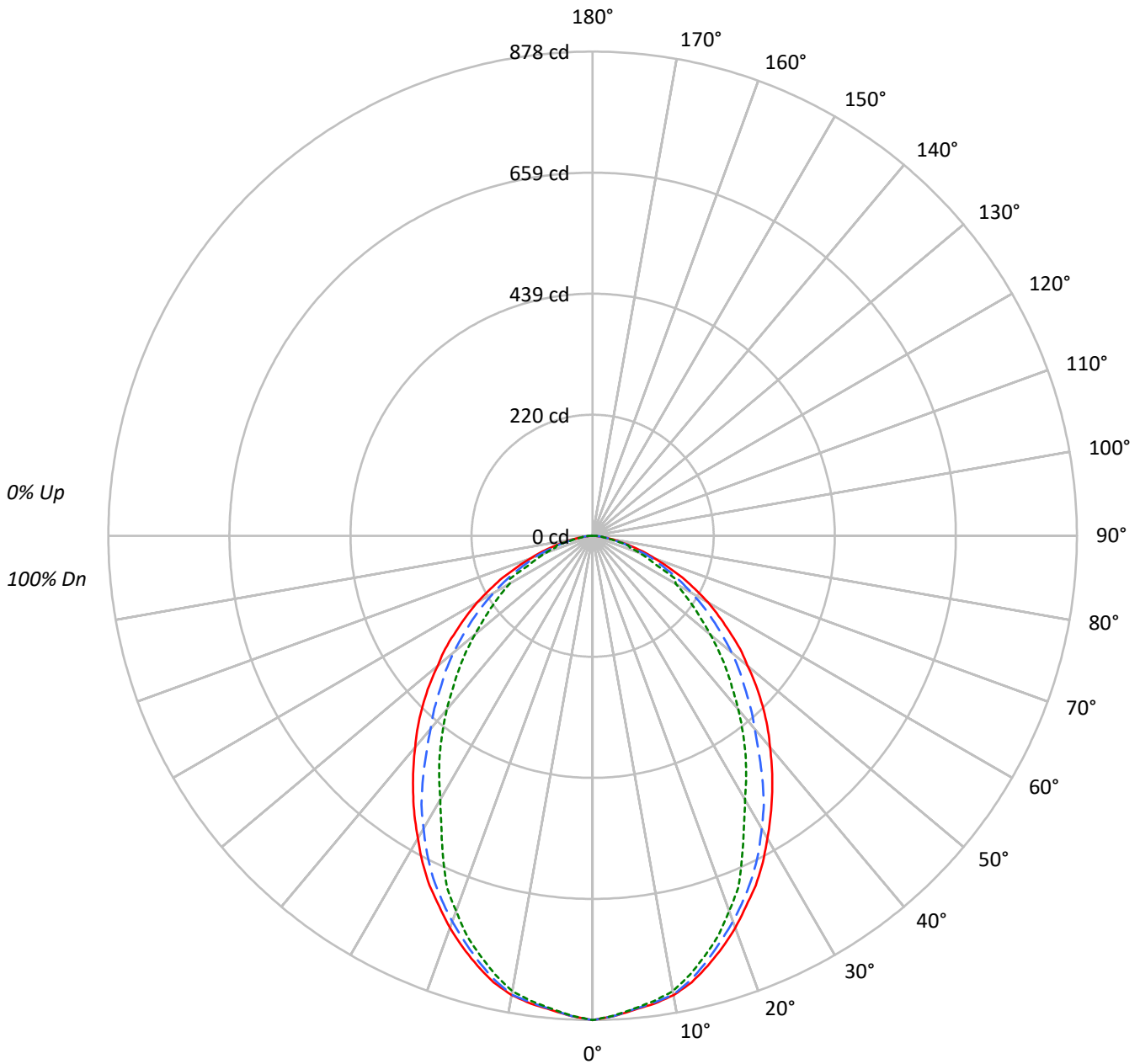
Lumens per Lamp: N/A
Luminaire Lumens: 1724.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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°	9453	9453	9453
5°	9325	9313	9302
10°	9243	9233	9166
15°	8994	8904	8779
20°	8664	8525	8292
25°	8308	8127	7620
30°	7874	7622	6865
35°	7457	7043	6351
40°	7033	6420	5778
45°	6629	5935	5224
50°	6137	5508	4659
55°	5677	4992	4172
60°	5201	4458	3737
65°	4577	3904	3311
70°	3770	3418	2810
75°	2999	2616	2745
80°	2015	1891	1760
85°	1260	1507	1754



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	4.7
10°-20°	224.3	13.0
20°-30°	310.6	18.0
30°-40°	331.2	19.2
40°-50°	302.1	17.5
50°-60°	236.7	13.7
60°-70°	154.3	8.9
70°-80°	68.3	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°	616.7	35.8
0°-40°	947.9	55.0
0°-60°	1486.7	86.2
0°-90°	1724.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1724.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	878	878	878	878	878	
5°	863	862	862	861	861	82
15°	807	807	799	791	788	227
25°	700	695	684	660	642	321
35°	568	564	536	495	483	355
45°	436	426	390	357	343	335
55°	302	293	266	234	222	271
65°	180	170	153	156	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°	878.2	878.2	878.2	878.2	878.2
2.5°	872.1	872.1	872.1	871.1	871.1
5°	863.0	861.9	861.9	860.9	860.9
7.5°	855.8	854.8	853.8	852.8	850.8
10°	845.7	845.7	844.7	839.6	838.6
12.5°	829.5	828.4	824.4	817.3	815.2
15°	807.1	807.1	799.0	790.9	787.8
17.5°	782.8	781.7	771.6	763.5	759.4
20°	756.4	754.3	744.2	731.0	723.9
22.5°	726.9	726.9	714.7	697.5	690.4
25°	699.5	695.4	684.3	659.9	641.6
27.5°	668.0	661.9	649.8	615.2	593.9
30°	633.5	630.5	613.2	568.5	552.3
32.5°	601.0	595.9	577.7	531.0	517.8
35°	567.5	563.5	536.0	495.4	483.3
37.5°	534.0	528.9	494.4	461.9	446.7
40°	500.5	494.4	456.9	427.4	411.2
42.5°	469.0	460.9	424.4	392.9	374.6
45°	435.5	426.4	389.9	357.4	343.2
47.5°	402.0	393.9	360.4	326.9	310.7
50°	366.5	359.4	328.9	295.4	278.2
52.5°	337.1	325.9	296.5	262.9	248.7
55°	302.5	293.4	266.0	234.5	222.3
57.5°	271.1	261.9	236.6	207.1	197.0
60°	241.6	228.4	207.1	181.7	173.6
62.5°	209.1	199.0	180.7	159.4	169.5
65°	179.7	169.5	153.3	156.3	130.0
67.5°	147.2	142.1	127.9	113.7	109.6
70°	119.8	113.7	108.6	93.4	89.3
72.5°	95.4	89.3	82.2	74.1	71.1
75°	72.1	67.0	62.9	59.9	66.0
77.5°	49.7	47.7	44.7	41.6	40.6
80°	32.5	31.5	30.5	29.4	28.4
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	9.1
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)