

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: P545151

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-81-84-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: P545151
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-35-UNV-81-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

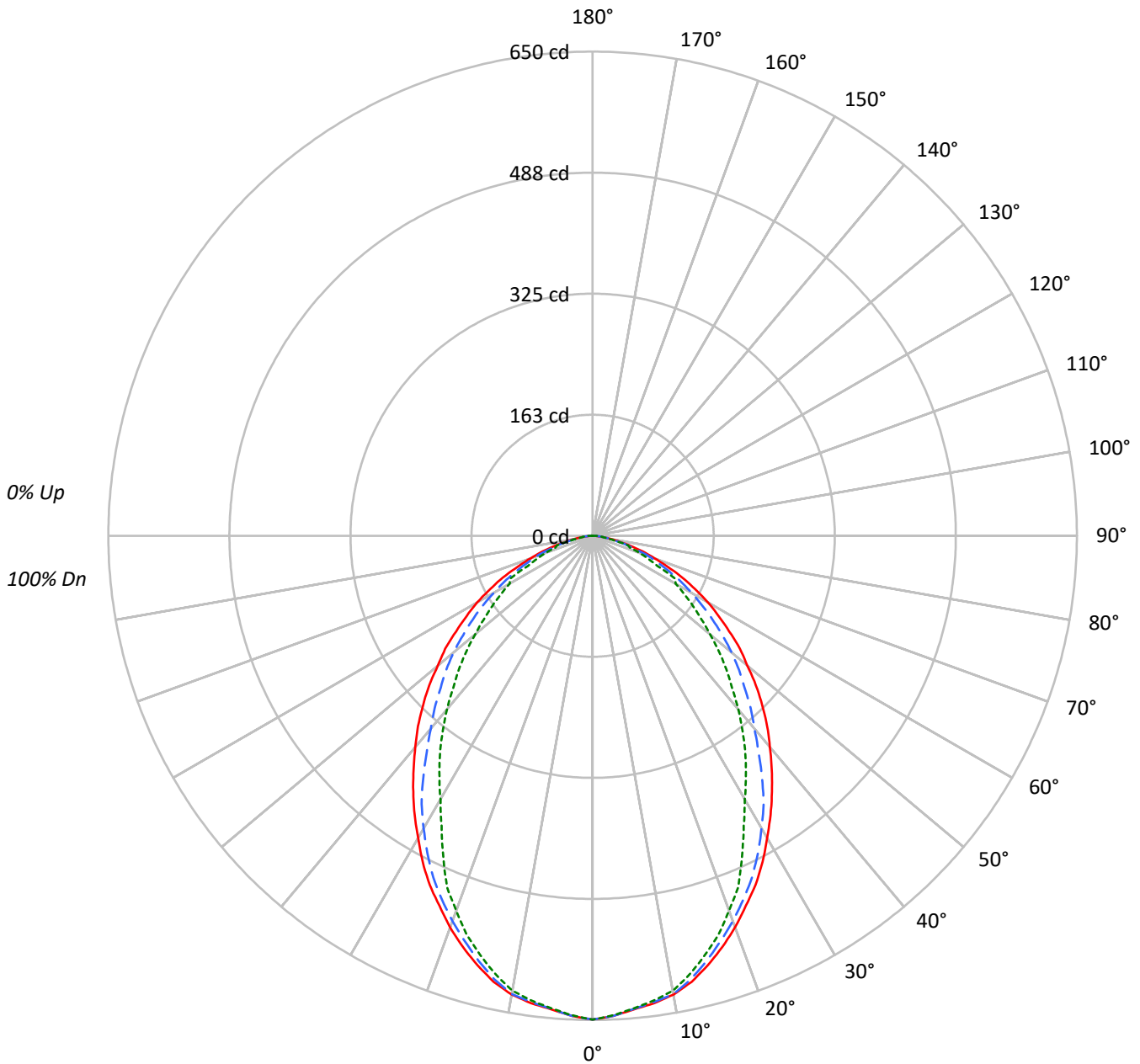
Lumens per Lamp: N/A
Luminaire Lumens: 1275.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	6991	6991	6991
5°	6896	6888	6880
10°	6836	6828	6779
15°	6652	6585	6492
20°	6408	6305	6132
25°	6144	6011	5635
30°	5823	5637	5077
35°	5515	5209	4696
40°	5202	4748	4273
45°	4903	4389	3863
50°	4538	4074	3445
55°	4198	3691	3085
60°	3847	3298	2764
65°	3385	2888	2448
70°	2788	2527	2080
75°	2217	1938	2030
80°	1488	1395	1302
85°	926	1112	1297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.5	4.7
10°-20°	165.9	13.0
20°-30°	229.7	18.0
30°-40°	244.9	19.2
40°-50°	223.4	17.5
50°-60°	175.0	13.7
60°-70°	114.1	8.9
70°-80°	50.6	4.0
80°-90°	10.9	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°	456.1	35.8
0°-40°	701.0	55.0
0°-60°	1099.5	86.2
0°-90°	1275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	638	638	638	637	637	61
15°	597	597	591	585	583	168
25°	517	514	506	488	474	237
35°	420	417	396	366	357	262
45°	322	315	288	264	254	248
55°	224	217	197	173	164	201
65°	133	125	113	116	96	131
75°	53	50	47	44	49	57
85°	8	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	649.5	649.5	649.5	649.5	649.5
2.5°	645.0	645.0	645.0	644.2	644.2
5°	638.2	637.5	637.5	636.7	636.7
7.5°	632.9	632.2	631.4	630.7	629.2
10°	625.4	625.4	624.7	620.9	620.2
12.5°	613.4	612.7	609.7	604.4	602.9
15°	596.9	596.9	590.9	584.9	582.6
17.5°	578.9	578.1	570.6	564.6	561.6
20°	559.4	557.9	550.4	540.6	535.3
22.5°	537.6	537.6	528.6	515.8	510.6
25°	517.3	514.3	506.1	488.0	474.5
27.5°	494.0	489.5	480.5	455.0	439.2
30°	468.5	466.3	453.5	420.5	408.5
32.5°	444.5	440.7	427.2	392.7	382.9
35°	419.7	416.7	396.4	366.4	357.4
37.5°	394.9	391.2	365.7	341.6	330.4
40°	370.2	365.7	337.9	316.1	304.1
42.5°	346.9	340.9	313.8	290.6	277.1
45°	322.1	315.3	288.3	264.3	253.8
47.5°	297.3	291.3	266.5	241.8	229.8
50°	271.0	265.8	243.3	218.5	205.7
52.5°	249.3	241.0	219.2	194.5	184.0
55°	223.7	217.0	196.7	173.4	164.4
57.5°	200.5	193.7	174.9	153.2	145.7
60°	178.7	168.9	153.2	134.4	128.4
62.5°	154.7	147.2	133.6	117.9	125.4
65°	132.9	125.4	113.4	115.6	96.1
67.5°	108.9	105.1	94.6	84.1	81.1
70°	88.6	84.1	80.3	69.1	66.1
72.5°	70.6	66.1	60.8	54.8	52.6
75°	53.3	49.6	46.6	44.3	48.8
77.5°	36.8	35.3	33.0	30.8	30.0
80°	24.0	23.3	22.5	21.8	21.0
82.5°	14.3	14.3	14.3	14.3	14.3
85°	7.5	8.3	9.0	9.8	10.5
87.5°	4.5	4.5	5.3	6.0	6.8
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)