

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: P545432

Luminaire Tested: **FMR-12-2-LD4-1STD-35-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: P545432
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-12-2-LD4-1STD-35-UNV-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

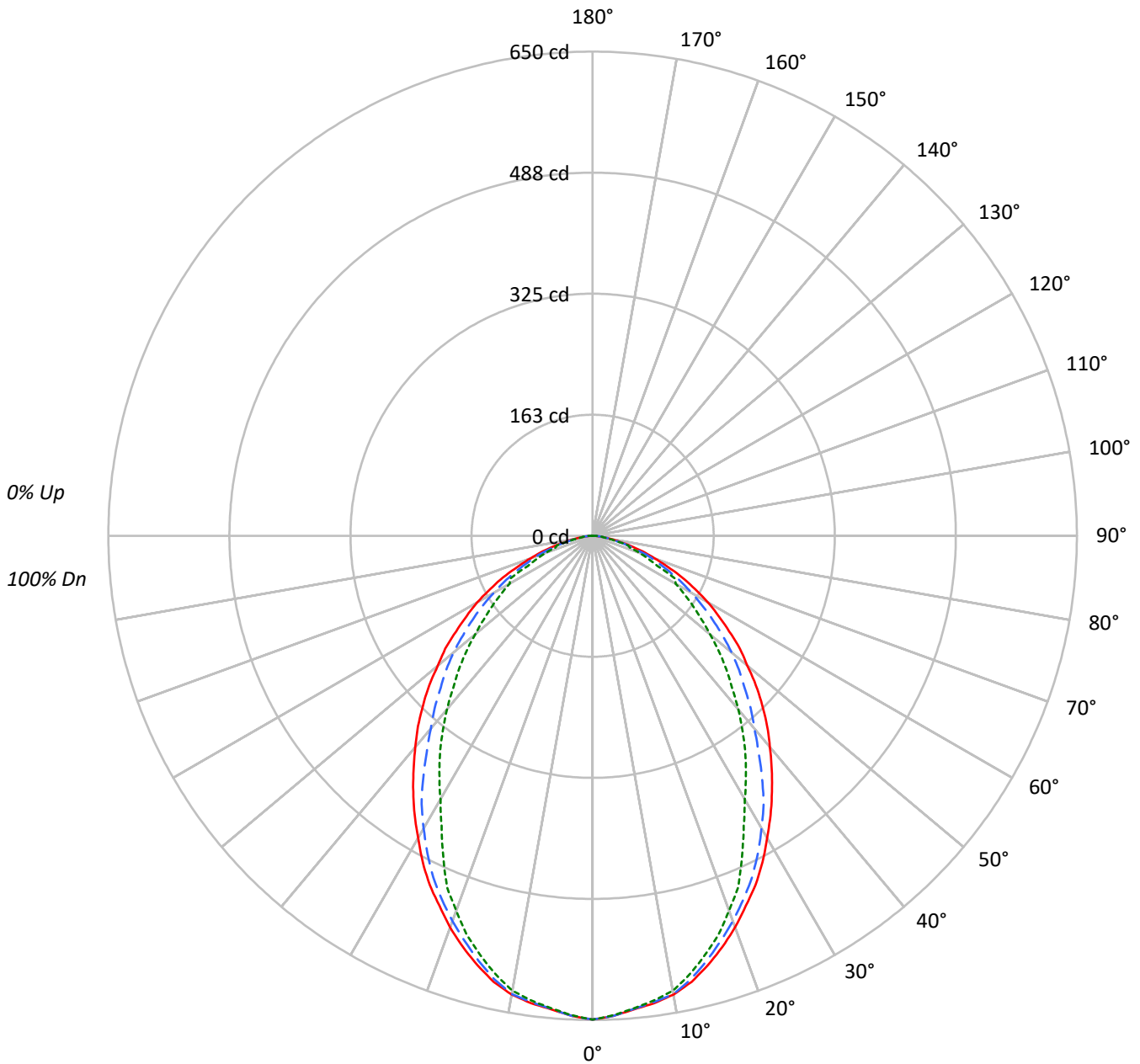
Lumens per Lamp: N/A
Luminaire Lumens: 1275.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	3496	3496	3496
5°	3448	3444	3440
10°	3418	3414	3389
15°	3326	3292	3246
20°	3204	3152	3066
25°	3072	3005	2818
30°	2912	2818	2539
35°	2757	2604	2348
40°	2601	2374	2136
45°	2452	2194	1932
50°	2269	2037	1722
55°	2099	1846	1543
60°	1924	1649	1382
65°	1692	1444	1224
70°	1394	1264	1040
75°	1108	969	1015
80°	744	697	651
85°	463	556	648



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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)