

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: P545445

Luminaire Tested: **FMR-12-2-LD4-1STD-35-UNV-81-96-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: P545445
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-81-96-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

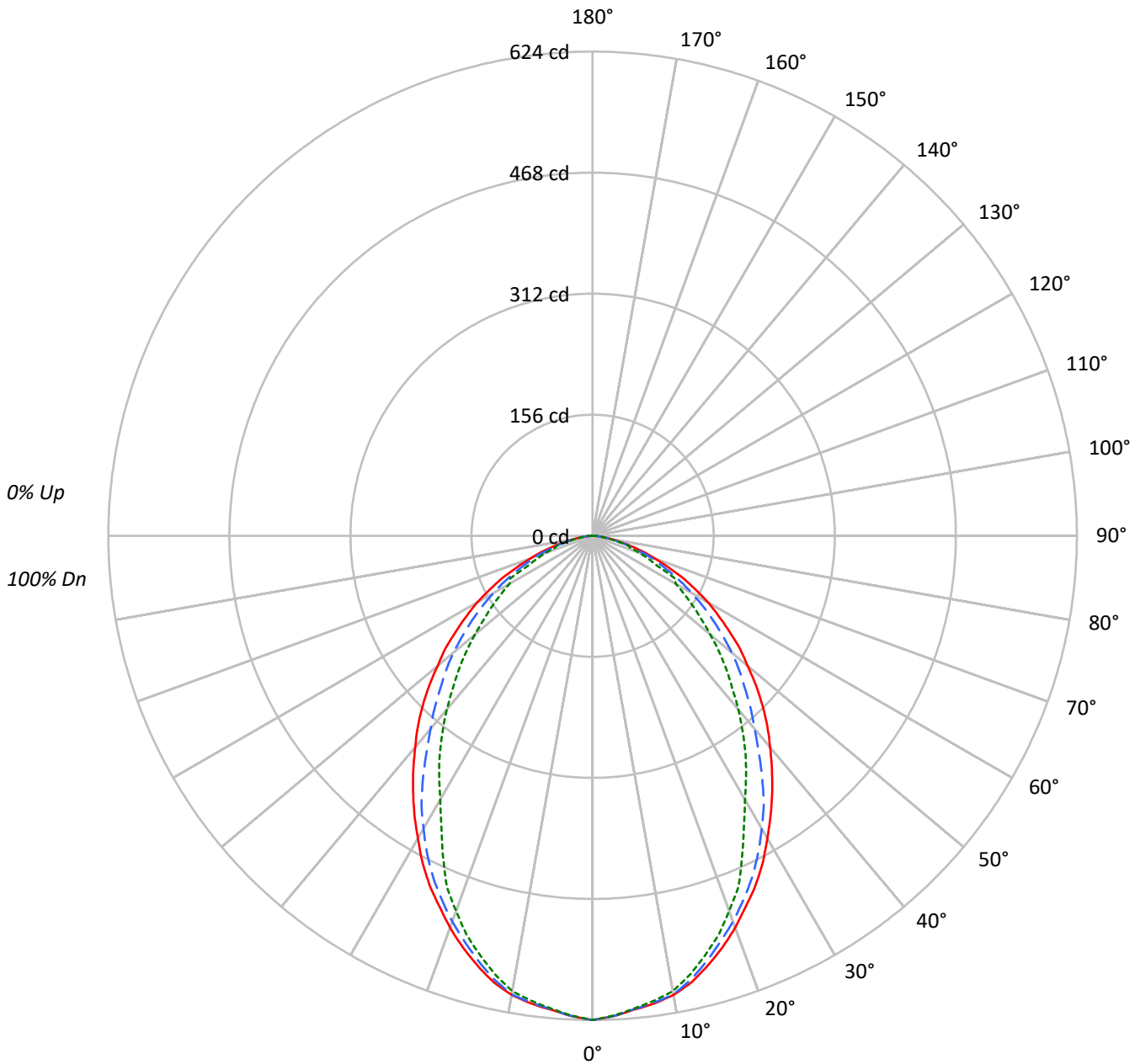
Lumens per Lamp: N/A
Luminaire Lumens: 1225.0 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	3358	3358	3358
5°	3313	3309	3305
10°	3284	3280	3257
15°	3195	3163	3119
20°	3078	3029	2946
25°	2951	2887	2707
30°	2797	2708	2439
35°	2650	2503	2256
40°	2498	2281	2053
45°	2356	2108	1856
50°	2180	1957	1655
55°	2017	1773	1483
60°	1848	1584	1328
65°	1626	1387	1175
70°	1339	1215	999
75°	1065	930	975
80°	716	669	626
85°	445	537	624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	4.7
10°-20°	159.4	13.0
20°-30°	220.7	18.0
30°-40°	235.3	19.2
40°-50°	214.7	17.5
50°-60°	168.2	13.7
60°-70°	109.6	8.9
70°-80°	48.6	4.0
80°-90°	10.4	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°	438.2	35.8
0°-40°	673.5	55.0
0°-60°	1056.4	86.2
0°-90°	1225.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1225.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	624	624	624	624	624	
5°	613	612	612	612	612	58
15°	574	574	568	562	560	161
25°	497	494	486	469	456	228
35°	403	400	381	352	343	252
45°	310	303	277	254	244	238
55°	215	208	189	167	158	193
65°	128	120	109	111	92	126
75°	51	48	45	43	47	55
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	624.0	624.0	624.0	624.0	624.0
2.5°	619.7	619.7	619.7	618.9	618.9
5°	613.2	612.5	612.5	611.7	611.7
7.5°	608.1	607.4	606.7	606.0	604.5
10°	600.9	600.9	600.2	596.6	595.9
12.5°	589.4	588.7	585.8	580.7	579.3
15°	573.5	573.5	567.7	562.0	559.8
17.5°	556.2	555.5	548.3	542.5	539.6
20°	537.4	536.0	528.8	519.4	514.3
22.5°	516.5	516.5	507.9	495.6	490.5
25°	497.0	494.1	486.2	468.9	455.9
27.5°	474.7	470.3	461.7	437.2	422.0
30°	450.1	448.0	435.7	404.0	392.4
32.5°	427.1	423.5	410.5	377.3	367.9
35°	403.3	400.4	380.9	352.0	343.4
37.5°	379.4	375.8	351.3	328.2	317.4
40°	355.6	351.3	324.6	303.7	292.2
42.5°	333.3	327.5	301.5	279.2	266.2
45°	309.5	303.0	277.0	253.9	243.8
47.5°	285.7	279.9	256.1	232.3	220.7
50°	260.4	255.4	233.7	209.9	197.7
52.5°	239.5	231.6	210.6	186.8	176.7
55°	215.0	208.5	189.0	166.6	158.0
57.5°	192.6	186.1	168.1	147.2	139.9
60°	171.7	162.3	147.2	129.1	123.4
62.5°	148.6	141.4	128.4	113.3	120.5
65°	127.7	120.5	108.9	111.1	92.3
67.5°	104.6	101.0	90.9	80.8	77.9
70°	85.1	80.8	77.2	66.4	63.5
72.5°	67.8	63.5	58.4	52.7	50.5
75°	51.2	47.6	44.7	42.6	46.9
77.5°	35.3	33.9	31.7	29.6	28.9
80°	23.1	22.4	21.6	20.9	20.2
82.5°	13.7	13.7	13.7	13.7	13.7
85°	7.2	7.9	8.7	9.4	10.1
87.5°	4.3	4.3	5.0	5.8	6.5
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)