

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: P545341

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-80-96-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: P545341
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-LD4-1LO-35-UNV-80-96-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

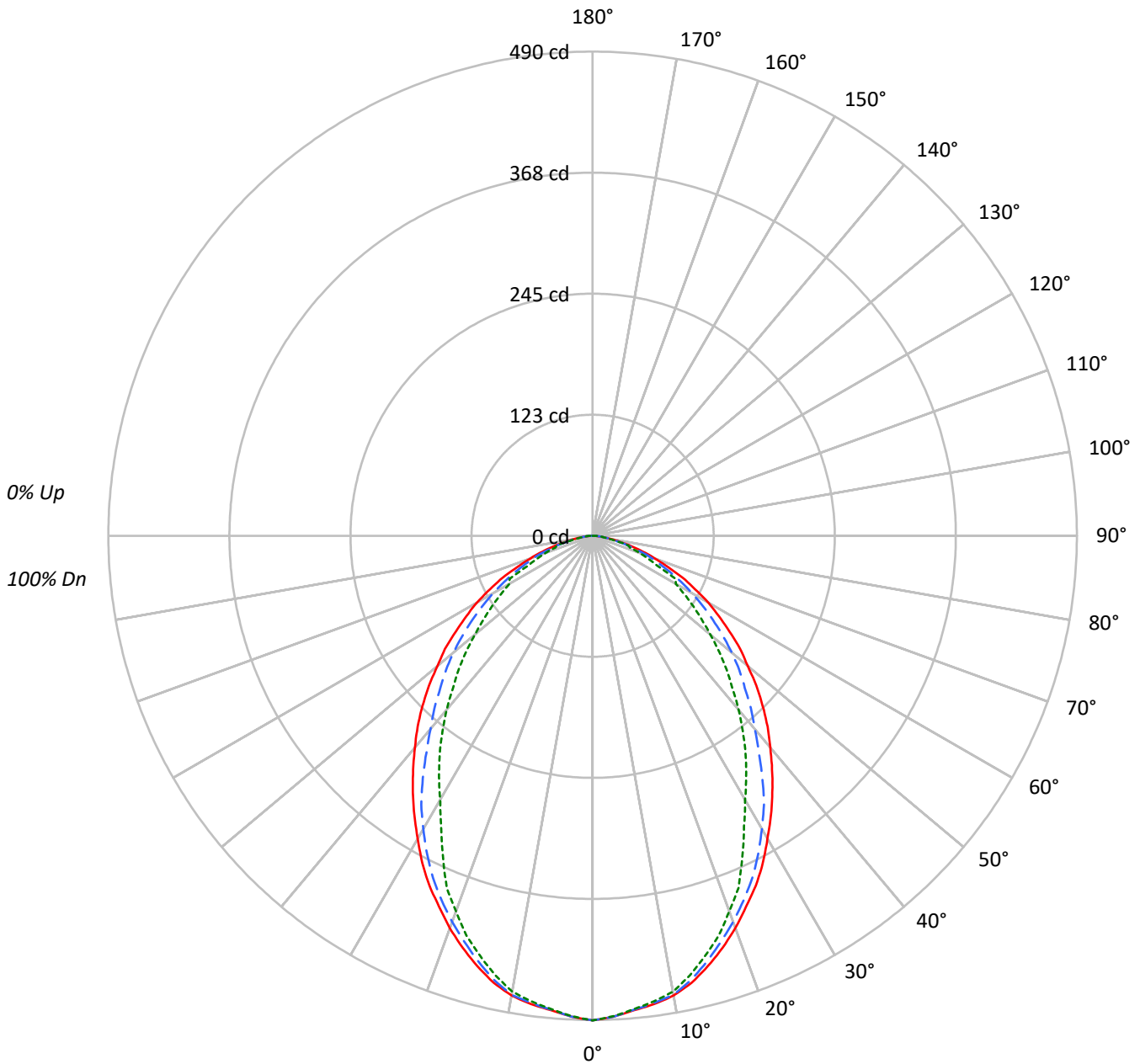
Lumens per Lamp: N/A
Luminaire Lumens: 963.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (A_{in}): 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°	2640	2640	2640
5°	2604	2601	2598
10°	2582	2578	2560
15°	2512	2487	2452
20°	2420	2381	2316
25°	2320	2270	2128
30°	2199	2128	1917
35°	2083	1967	1773
40°	1964	1793	1614
45°	1852	1658	1459
50°	1714	1538	1301
55°	1586	1394	1165
60°	1453	1245	1044
65°	1279	1090	925
70°	1053	955	785
75°	838	732	767
80°	561	527	493
85°	352	420	488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.7	4.7
10°-20°	125.3	13.0
20°-30°	173.5	18.0
30°-40°	185.0	19.2
40°-50°	168.8	17.5
50°-60°	132.2	13.7
60°-70°	86.2	8.9
70°-80°	38.2	4.0
80°-90°	8.2	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°	344.5	35.8
0°-40°	529.5	55.0
0°-60°	830.5	86.2
0°-90°	963.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	963.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	490	490	490	490	490	
5°	482	482	482	481	481	46
15°	451	451	446	442	440	127
25°	391	388	382	369	358	179
35°	317	315	299	277	270	198
45°	243	238	218	200	192	187
55°	169	164	149	131	124	152
65°	100	95	86	87	73	99
75°	40	37	35	34	37	43
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	490.5	490.5	490.5	490.5	490.5
2.5°	487.1	487.1	487.1	486.6	486.6
5°	482.0	481.5	481.5	480.9	480.9
7.5°	478.1	477.5	476.9	476.4	475.2
10°	472.4	472.4	471.8	469.0	468.4
12.5°	463.3	462.8	460.5	456.5	455.4
15°	450.8	450.8	446.3	441.8	440.1
17.5°	437.2	436.7	431.0	426.5	424.2
20°	422.5	421.4	415.7	408.3	404.3
22.5°	406.0	406.0	399.2	389.6	385.6
25°	390.7	388.5	382.2	368.6	358.4
27.5°	373.2	369.7	362.9	343.7	331.8
30°	353.9	352.2	342.5	317.6	308.5
32.5°	335.7	332.9	322.7	296.6	289.2
35°	317.0	314.7	299.4	276.7	269.9
37.5°	298.3	295.5	276.2	258.0	249.5
40°	279.6	276.2	255.2	238.7	229.7
42.5°	262.0	257.5	237.0	219.5	209.3
45°	243.3	238.2	217.8	199.6	191.7
47.5°	224.6	220.0	201.3	182.6	173.5
50°	204.7	200.8	183.7	165.0	155.4
52.5°	188.3	182.0	165.6	146.9	138.9
55°	169.0	163.9	148.6	131.0	124.2
57.5°	151.4	146.3	132.1	115.7	110.0
60°	135.0	127.6	115.7	101.5	97.0
62.5°	116.8	111.2	100.9	89.0	94.7
65°	100.4	94.7	85.6	87.3	72.6
67.5°	82.2	79.4	71.5	63.5	61.2
70°	66.9	63.5	60.7	52.2	49.9
72.5°	53.3	49.9	45.9	41.4	39.7
75°	40.3	37.4	35.2	33.5	36.9
77.5°	27.8	26.7	25.0	23.3	22.7
80°	18.1	17.6	17.0	16.4	15.9
82.5°	10.8	10.8	10.8	10.8	10.8
85°	5.7	6.2	6.8	7.4	7.9
87.5°	3.4	3.4	4.0	4.5	5.1
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)