

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: P545339

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-80-88-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: P545339
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-80-88-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

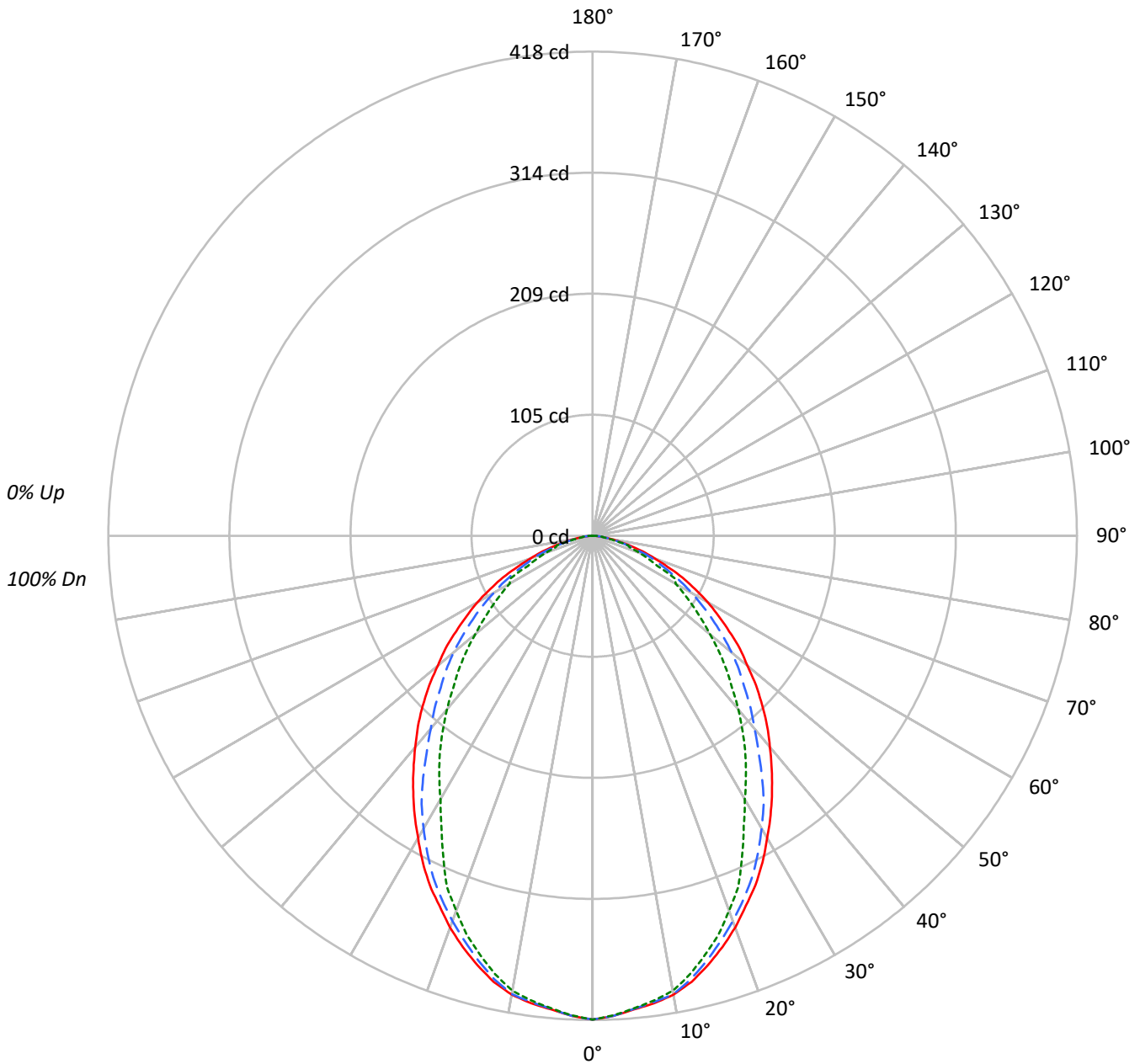
Lumens per Lamp: N/A
Luminaire Lumens: 820.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	2248	2248	2248
5°	2218	2215	2212
10°	2198	2196	2180
15°	2139	2117	2088
20°	2061	2027	1972
25°	1976	1933	1812
30°	1872	1813	1633
35°	1773	1675	1510
40°	1673	1527	1374
45°	1577	1411	1242
50°	1459	1310	1108
55°	1350	1187	993
60°	1237	1060	889
65°	1089	928	787
70°	897	814	669
75°	713	622	653
80°	480	449	418
85°	296	358	420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	4.7
10°-20°	106.7	13.0
20°-30°	147.7	18.0
30°-40°	157.5	19.2
40°-50°	143.7	17.5
50°-60°	112.6	13.7
60°-70°	73.4	8.9
70°-80°	32.5	4.0
80°-90°	7.0	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°	293.3	35.8
0°-40°	450.8	55.0
0°-60°	707.1	86.2
0°-90°	820.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	820.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	410	410	410	410	410	39
15°	384	384	380	376	375	108
25°	333	331	326	314	305	153
35°	270	268	255	236	230	169
45°	207	203	185	170	163	160
55°	144	140	126	112	106	129
65°	86	81	73	74	62	84
75°	34	32	30	28	31	37
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	417.7	417.7	417.7	417.7	417.7
2.5°	414.8	414.8	414.8	414.3	414.3
5°	410.5	410.0	410.0	409.5	409.5
7.5°	407.1	406.6	406.1	405.6	404.7
10°	402.2	402.2	401.8	399.3	398.9
12.5°	394.5	394.0	392.1	388.7	387.8
15°	383.9	383.9	380.0	376.2	374.7
17.5°	372.3	371.8	367.0	363.1	361.2
20°	359.8	358.8	354.0	347.7	344.3
22.5°	345.7	345.7	340.0	331.7	328.4
25°	332.7	330.8	325.5	313.9	305.2
27.5°	317.7	314.8	309.0	292.6	282.5
30°	301.3	299.9	291.7	270.4	262.7
32.5°	285.9	283.5	274.8	252.5	246.3
35°	269.9	268.0	255.0	235.6	229.9
37.5°	254.0	251.6	235.2	219.7	212.5
40°	238.1	235.2	217.3	203.3	195.6
42.5°	223.1	219.2	201.8	186.9	178.2
45°	207.2	202.8	185.4	170.0	163.2
47.5°	191.2	187.4	171.4	155.5	147.8
50°	174.3	170.9	156.5	140.5	132.3
52.5°	160.3	155.0	141.0	125.1	118.3
55°	143.9	139.6	126.5	111.5	105.8
57.5°	128.9	124.6	112.5	98.5	93.7
60°	114.9	108.6	98.5	86.4	82.6
62.5°	99.5	94.6	86.0	75.8	80.6
65°	85.5	80.6	72.9	74.4	61.8
67.5°	70.0	67.6	60.8	54.1	52.2
70°	57.0	54.1	51.7	44.4	42.5
72.5°	45.4	42.5	39.1	35.3	33.8
75°	34.3	31.9	29.9	28.5	31.4
77.5°	23.7	22.7	21.2	19.8	19.3
80°	15.5	15.0	14.5	14.0	13.5
82.5°	9.2	9.2	9.2	9.2	9.2
85°	4.8	5.3	5.8	6.3	6.8
87.5°	2.9	2.9	3.4	3.9	4.3
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)