

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: P545363

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-93-88-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: P545363
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-93-88-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

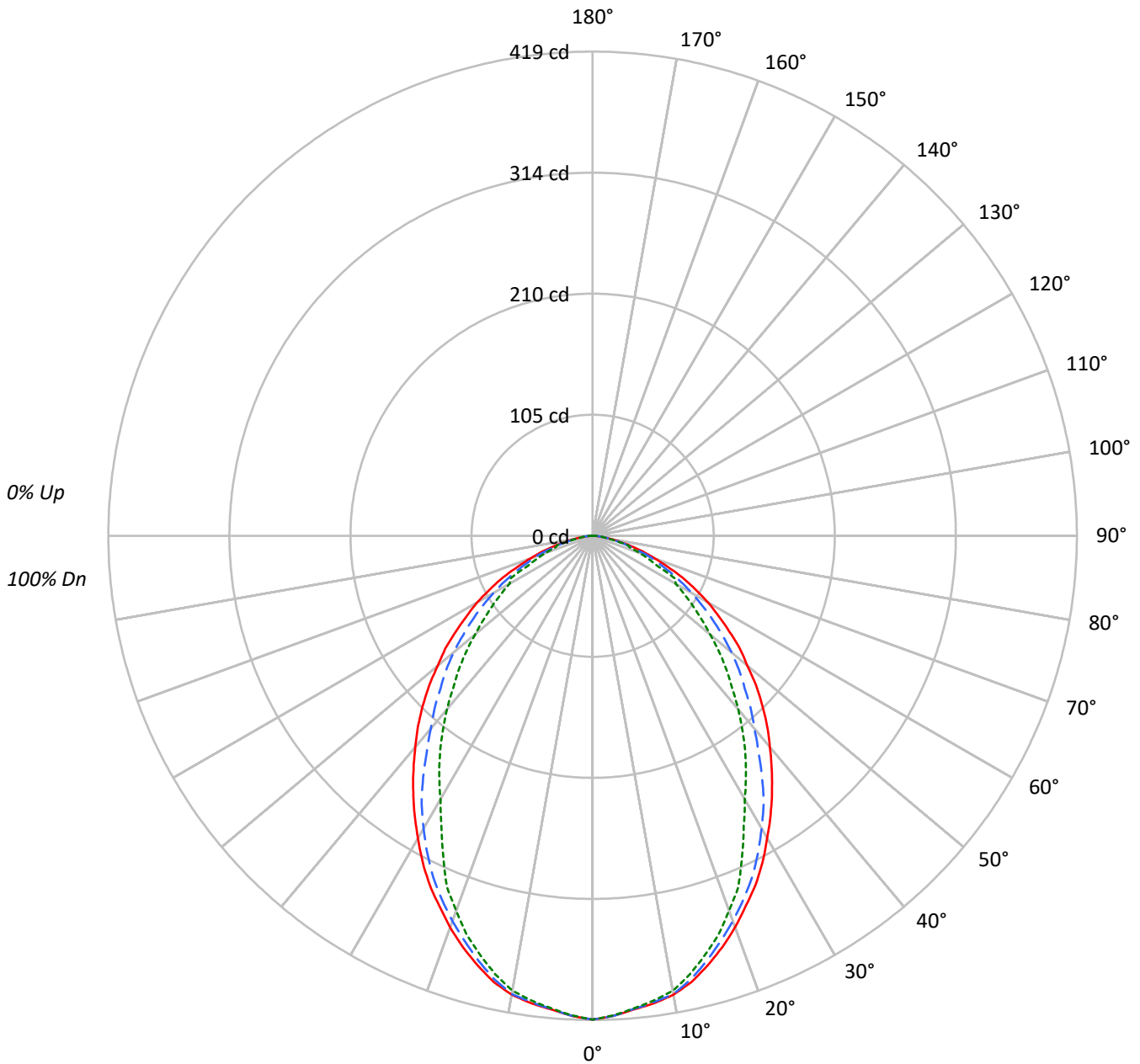
Lumens per Lamp: N/A
Luminaire Lumens: 822.0 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P545363

CATALOG NUMBER: FMR-12-2-LD4-1LO-35-UNV-93-88-EDD

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°	2253	2253	2253
5°	2223	2220	2218
10°	2203	2201	2185
15°	2144	2123	2093
20°	2065	2032	1977
25°	1980	1938	1817
30°	1877	1817	1636
35°	1778	1679	1514
40°	1676	1530	1377
45°	1581	1415	1245
50°	1463	1313	1110
55°	1354	1190	995
60°	1240	1062	891
65°	1091	931	790
70°	899	815	670
75°	715	624	655
80°	480	449	422
85°	296	358	420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.0	4.7
10°-20°	107.0	13.0
20°-30°	148.1	18.0
30°-40°	157.9	19.2
40°-50°	144.1	17.5
50°-60°	112.9	13.7
60°-70°	73.6	8.9
70°-80°	32.6	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°	294.0	35.8
0°-40°	451.9	55.0
0°-60°	708.8	86.2
0°-90°	822.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	822.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	419	419	419	419	419	
5°	412	411	411	410	410	39
15°	385	385	381	377	376	108
25°	334	332	326	315	306	153
35°	271	269	256	236	230	169
45°	208	203	186	170	164	160
55°	144	140	127	112	106	129
65°	86	81	73	74	62	84
75°	34	32	30	29	32	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°	418.7	418.7	418.7	418.7	418.7
2.5°	415.8	415.8	415.8	415.3	415.3
5°	411.5	411.0	411.0	410.5	410.5
7.5°	408.1	407.6	407.1	406.6	405.6
10°	403.2	403.2	402.7	400.3	399.8
12.5°	395.5	395.0	393.1	389.7	388.7
15°	384.8	384.8	381.0	377.1	375.6
17.5°	373.2	372.7	367.9	364.0	362.1
20°	360.6	359.7	354.8	348.5	345.1
22.5°	346.6	346.6	340.8	332.6	329.2
25°	333.5	331.6	326.3	314.6	305.9
27.5°	318.5	315.6	309.8	293.3	283.2
30°	302.1	300.6	292.4	271.1	263.3
32.5°	286.6	284.1	275.4	253.2	246.9
35°	270.6	268.7	255.6	236.2	230.4
37.5°	254.6	252.2	235.7	220.2	213.0
40°	238.6	235.7	217.8	203.8	196.0
42.5°	223.6	219.8	202.3	187.3	178.6
45°	207.7	203.3	185.9	170.4	163.6
47.5°	191.7	187.8	171.8	155.9	148.1
50°	174.7	171.4	156.8	140.9	132.6
52.5°	160.7	155.4	141.3	125.4	118.6
55°	144.3	139.9	126.8	111.8	106.0
57.5°	129.2	124.9	112.8	98.7	93.9
60°	115.2	108.9	98.7	86.6	82.8
62.5°	99.7	94.9	86.2	76.0	80.8
65°	85.7	80.8	73.1	74.5	62.0
67.5°	70.2	67.8	61.0	54.2	52.3
70°	57.1	54.2	51.8	44.5	42.6
72.5°	45.5	42.6	39.2	35.3	33.9
75°	34.4	31.9	30.0	28.6	31.5
77.5°	23.7	22.8	21.3	19.8	19.4
80°	15.5	15.0	14.5	14.0	13.6
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	4.4
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)