

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: P545754

Luminaire Tested: **FMR-12-2-LD4-2STD-40-UNV-80-87-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: P545754
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-LD4-2STD-40-UNV-80-87-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

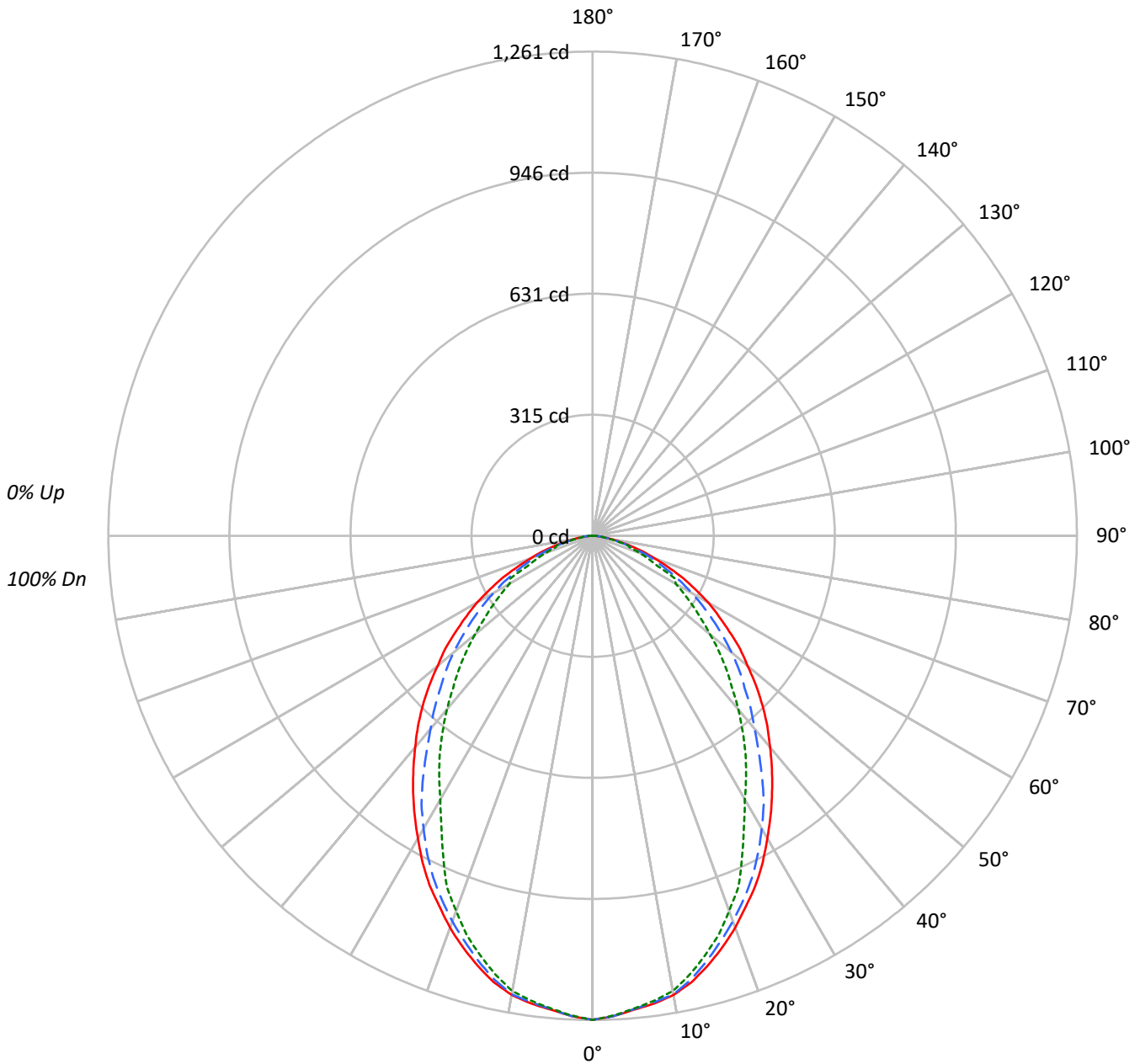
Lumens per Lamp: N/A
Luminaire Lumens: 2475.0 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	6785	6785	6785
5°	6693	6685	6678
10°	6635	6627	6579
15°	6456	6391	6302
20°	6219	6119	5952
25°	5963	5834	5470
30°	5652	5471	4928
35°	5353	5056	4558
40°	5048	4608	4147
45°	4759	4260	3749
50°	4406	3954	3344
55°	4075	3583	2995
60°	3734	3200	2682
65°	3286	2803	2376
70°	2707	2455	2019
75°	2152	1880	1969
80°	1444	1354	1265
85°	902	1081	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.4	4.7
10°-20°	322.1	13.0
20°-30°	445.9	18.0
30°-40°	475.5	19.2
40°-50°	433.8	17.5
50°-60°	339.8	13.7
60°-70°	221.5	8.9
70°-80°	98.1	4.0
80°-90°	21.1	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°	885.3	35.8
0°-40°	1360.8	55.0
0°-60°	2134.3	86.2
0°-90°	2475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1261	1261	1261	1261	1261	
5°	1239	1237	1237	1236	1236	118
15°	1159	1159	1147	1135	1131	326
25°	1004	998	982	947	921	461
35°	815	809	770	711	694	509
45°	625	612	560	513	493	482
55°	434	421	382	337	319	390
65°	258	243	220	224	187	254
75°	104	96	90	86	95	111
85°	15	16	18	19	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1260.7	1260.7	1260.7	1260.7	1260.7
2.5°	1252.0	1252.0	1252.0	1250.5	1250.5
5°	1238.9	1237.4	1237.4	1236.0	1236.0
7.5°	1228.7	1227.2	1225.8	1224.3	1221.4
10°	1214.1	1214.1	1212.6	1205.3	1203.9
12.5°	1190.8	1189.3	1183.5	1173.3	1170.4
15°	1158.7	1158.7	1147.0	1135.4	1131.0
17.5°	1123.7	1122.3	1107.7	1096.0	1090.2
20°	1085.8	1082.9	1068.3	1049.4	1039.2
22.5°	1043.6	1043.6	1026.1	1001.3	991.1
25°	1004.2	998.4	982.4	947.4	921.1
27.5°	959.0	950.3	932.8	883.2	852.6
30°	909.5	905.1	880.3	816.2	792.9
32.5°	862.8	855.5	829.3	762.3	743.3
35°	814.7	808.9	769.6	711.3	693.8
37.5°	766.6	759.4	709.8	663.2	641.3
40°	718.5	709.8	655.9	613.6	590.3
42.5°	673.4	661.7	609.2	564.1	537.8
45°	625.3	612.1	559.7	513.0	492.6
47.5°	577.2	565.5	517.4	469.3	446.0
50°	526.2	516.0	472.2	424.1	399.4
52.5°	483.9	467.9	425.6	377.5	357.1
55°	434.3	421.2	381.9	336.7	319.2
57.5°	389.2	376.0	339.6	297.3	282.8
60°	346.9	327.9	297.3	260.9	249.2
62.5°	300.2	285.7	259.4	228.8	243.4
65°	258.0	243.4	220.1	224.5	186.6
67.5°	211.3	204.0	183.6	163.2	157.4
70°	172.0	163.2	156.0	134.1	128.3
72.5°	137.0	128.3	118.1	106.4	102.0
75°	103.5	96.2	90.4	86.0	94.7
77.5°	71.4	68.5	64.1	59.8	58.3
80°	46.6	45.2	43.7	42.3	40.8
82.5°	27.7	27.7	27.7	27.7	27.7
85°	14.6	16.0	17.5	18.9	20.4
87.5°	8.7	8.7	10.2	11.7	13.1
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)