

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: P545746

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-93-87-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: P545746
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-35-UNV-93-87-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

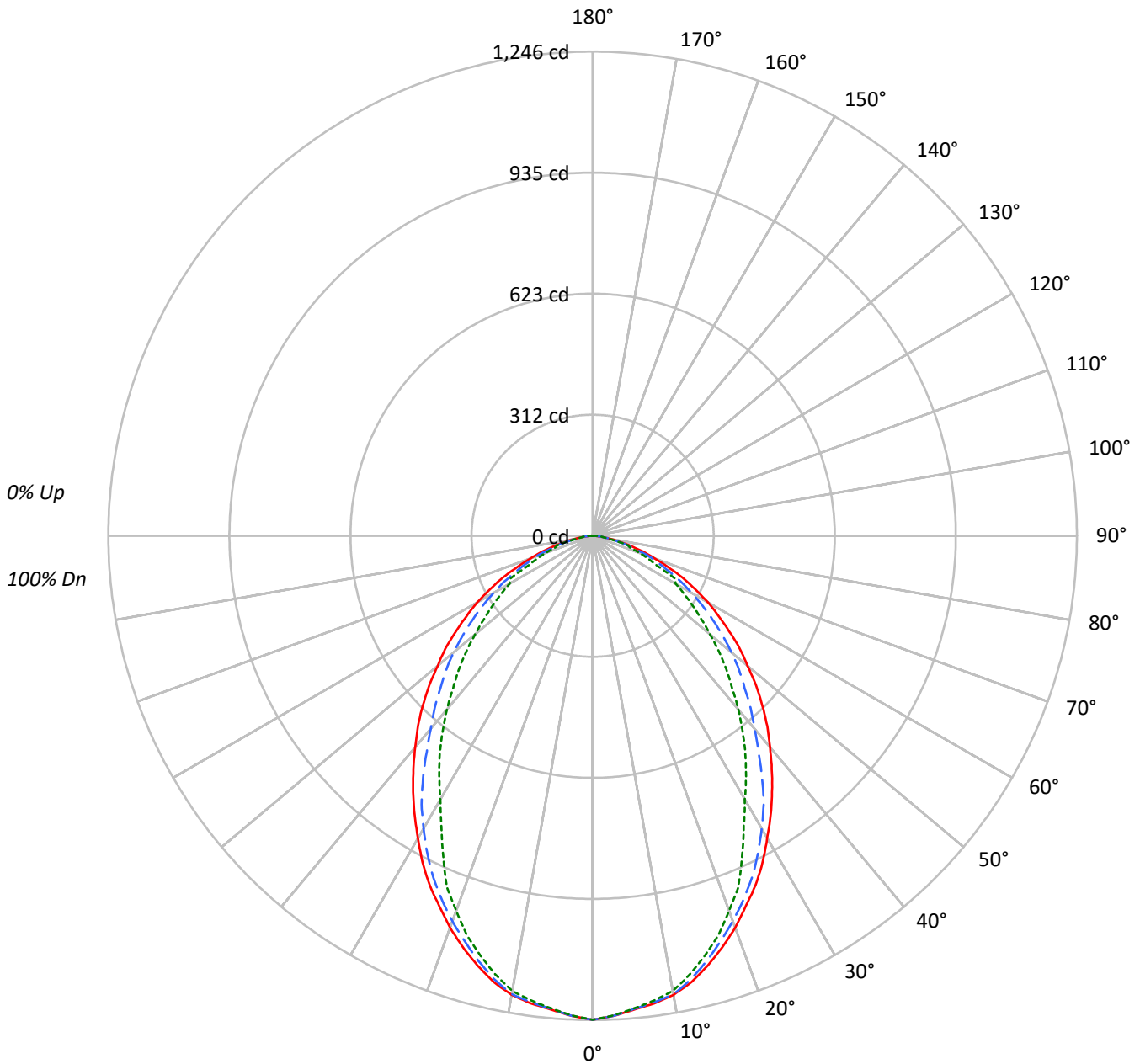
Lumens per Lamp: N/A
Luminaire Lumens: 2445.0 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	6703	6703	6703
5°	6612	6604	6596
10°	6555	6547	6500
15°	6378	6313	6225
20°	6144	6045	5880
25°	5891	5763	5404
30°	5584	5405	4868
35°	5288	4995	4503
40°	4987	4552	4097
45°	4701	4208	3704
50°	4352	3906	3303
55°	4026	3539	2959
60°	3689	3161	2650
65°	3245	2769	2347
70°	2674	2425	1994
75°	2125	1857	1946
80°	1429	1339	1249
85°	889	1068	1247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.9	4.7
10°-20°	318.2	13.0
20°-30°	440.5	18.0
30°-40°	469.7	19.2
40°-50°	428.5	17.5
50°-60°	335.7	13.7
60°-70°	218.8	8.9
70°-80°	96.9	4.0
80°-90°	20.8	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°	874.6	35.8
0°-40°	1344.3	55.0
0°-60°	2108.5	86.2
0°-90°	2445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1246	1246	1246	1246	1246	
5°	1224	1222	1222	1221	1221	116
15°	1145	1145	1133	1122	1117	322
25°	992	986	970	936	910	455
35°	805	799	760	703	685	503
45°	618	605	553	507	487	476
55°	429	416	377	333	315	385
65°	255	240	217	222	184	251
75°	102	95	89	85	94	110
85°	14	16	17	19	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1245.5	1245.5	1245.5	1245.5	1245.5
2.5°	1236.8	1236.8	1236.8	1235.4	1235.4
5°	1223.9	1222.4	1222.4	1221.0	1221.0
7.5°	1213.8	1212.3	1210.9	1209.5	1206.6
10°	1199.4	1199.4	1197.9	1190.7	1189.3
12.5°	1176.3	1174.9	1169.1	1159.1	1156.2
15°	1144.7	1144.7	1133.1	1121.6	1117.3
17.5°	1110.1	1108.7	1094.3	1082.7	1077.0
20°	1072.7	1069.8	1055.4	1036.7	1026.6
22.5°	1030.9	1030.9	1013.6	989.2	979.1
25°	992.0	986.3	970.4	935.9	910.0
27.5°	947.4	938.8	921.5	872.5	842.3
30°	898.5	894.1	869.7	806.3	783.3
32.5°	852.4	845.2	819.3	753.0	734.3
35°	804.9	799.1	760.2	702.6	685.4
37.5°	757.3	750.1	701.2	655.1	633.5
40°	709.8	701.2	647.9	606.2	583.1
42.5°	665.2	653.7	601.8	557.2	531.3
45°	617.7	604.7	552.9	506.8	486.7
47.5°	570.2	558.7	511.1	463.6	440.6
50°	519.8	509.7	466.5	419.0	394.5
52.5°	478.0	462.2	420.4	372.9	352.8
55°	429.1	416.1	377.2	332.6	315.3
57.5°	384.4	371.5	335.5	293.7	279.3
60°	342.7	324.0	293.7	257.7	246.2
62.5°	296.6	282.2	256.3	226.1	240.5
65°	254.8	240.5	217.4	221.7	184.3
67.5°	208.8	201.6	181.4	161.3	155.5
70°	169.9	161.3	154.1	132.5	126.7
72.5°	135.3	126.7	116.6	105.1	100.8
75°	102.2	95.0	89.3	84.9	93.6
77.5°	70.6	67.7	63.4	59.0	57.6
80°	46.1	44.6	43.2	41.8	40.3
82.5°	27.4	27.4	27.4	27.4	27.4
85°	14.4	15.8	17.3	18.7	20.2
87.5°	8.6	8.6	10.1	11.5	13.0
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)