

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: P545735

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-82-84-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: P545735
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-82-84-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

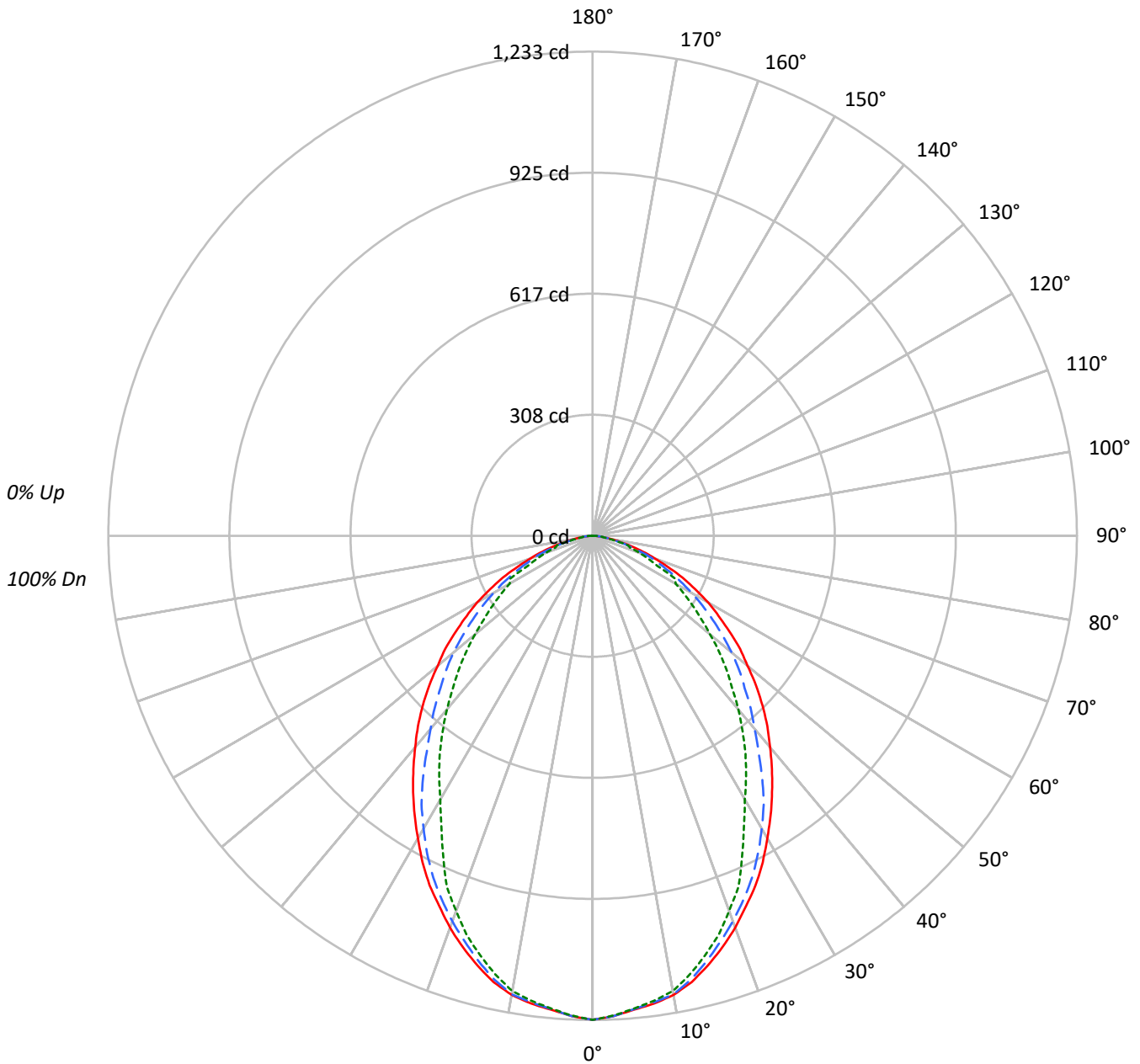
Lumens per Lamp: N/A
Luminaire Lumens: 2420.0 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	6634	6634	6634
5°	6544	6537	6529
10°	6487	6480	6433
15°	6313	6249	6162
20°	6081	5983	5820
25°	5831	5704	5349
30°	5527	5349	4818
35°	5234	4944	4457
40°	4936	4506	4055
45°	4654	4165	3666
50°	4308	3866	3270
55°	3985	3504	2928
60°	3651	3129	2623
65°	3212	2741	2323
70°	2647	2400	1973
75°	2104	1838	1926
80°	1413	1327	1237
85°	883	1056	1235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.7	4.7
10°-20°	314.9	13.0
20°-30°	436.0	18.0
30°-40°	464.9	19.2
40°-50°	424.1	17.5
50°-60°	332.3	13.7
60°-70°	216.5	8.9
70°-80°	95.9	4.0
80°-90°	20.6	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°	865.7	35.8
0°-40°	1330.6	55.0
0°-60°	2086.9	86.2
0°-90°	2420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1233	1233	1233	1233	1233	
5°	1211	1210	1210	1208	1208	115
15°	1133	1133	1122	1110	1106	319
25°	982	976	960	926	901	451
35°	797	791	752	696	678	498
45°	611	598	547	502	482	471
55°	425	412	373	329	312	381
65°	252	238	215	220	182	249
75°	101	94	88	84	93	108
85°	14	16	17	18	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1232.7	1232.7	1232.7	1232.7	1232.7
2.5°	1224.2	1224.2	1224.2	1222.7	1222.7
5°	1211.3	1209.9	1209.9	1208.5	1208.5
7.5°	1201.4	1199.9	1198.5	1197.1	1194.2
10°	1187.1	1187.1	1185.7	1178.6	1177.1
12.5°	1164.3	1162.9	1157.2	1147.2	1144.4
15°	1133.0	1133.0	1121.6	1110.2	1105.9
17.5°	1098.8	1097.3	1083.1	1071.7	1066.0
20°	1061.7	1058.9	1044.6	1026.1	1016.1
22.5°	1020.4	1020.4	1003.3	979.0	969.1
25°	981.9	976.2	960.5	926.3	900.7
27.5°	937.7	929.2	912.1	863.6	833.7
30°	889.3	885.0	860.8	798.1	775.3
32.5°	843.7	836.5	810.9	745.3	726.8
35°	796.6	790.9	752.5	695.5	678.3
37.5°	749.6	742.5	694.0	648.4	627.0
40°	702.6	694.0	641.3	600.0	577.2
42.5°	658.4	647.0	595.7	551.5	525.9
45°	611.4	598.5	547.2	501.6	481.7
47.5°	564.3	552.9	505.9	458.9	436.1
50°	514.5	504.5	461.7	414.7	390.5
52.5°	473.1	457.5	416.1	369.1	349.2
55°	424.7	411.9	373.4	329.2	312.1
57.5°	380.5	367.7	332.0	290.7	276.5
60°	339.2	320.6	290.7	255.1	243.7
62.5°	293.6	279.3	253.7	223.7	238.0
65°	252.2	238.0	215.2	219.5	182.4
67.5°	206.6	199.5	179.6	159.6	153.9
70°	168.2	159.6	152.5	131.1	125.4
72.5°	134.0	125.4	115.4	104.0	99.8
75°	101.2	94.1	88.4	84.1	92.6
77.5°	69.8	67.0	62.7	58.4	57.0
80°	45.6	44.2	42.8	41.3	39.9
82.5°	27.1	27.1	27.1	27.1	27.1
85°	14.3	15.7	17.1	18.5	20.0
87.5°	8.6	8.6	10.0	11.4	12.8
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)