

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: P545752

Luminaire Tested: **FMR-12-2-LD4-2STD-40-UNV-80-85-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: P545752
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-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

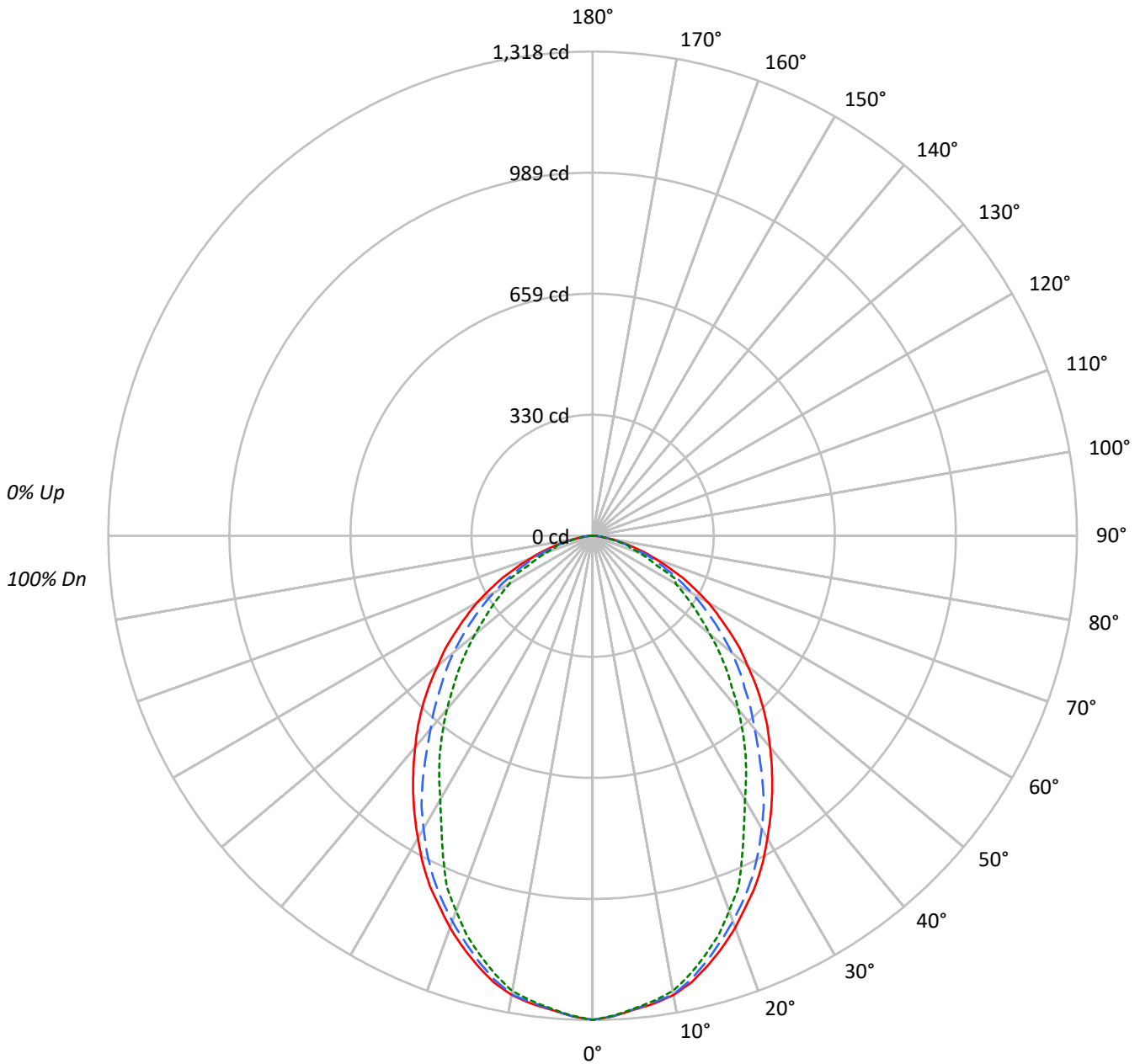
Lumens per Lamp: N/A
Luminaire Lumens: 2587.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	7092	7092	7092
5°	6996	6988	6980
10°	6935	6927	6877
15°	6748	6681	6587
20°	6501	6396	6221
25°	6233	6097	5717
30°	5908	5719	5151
35°	5595	5285	4765
40°	5277	4817	4335
45°	4975	4453	3919
50°	4605	4133	3495
55°	4260	3745	3130
60°	3903	3345	2804
65°	3435	2929	2483
70°	2829	2565	2110
75°	2250	1965	2059
80°	1512	1416	1323
85°	939	1130	1315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	4.7
10°-20°	336.7	13.0
20°-30°	466.1	18.0
30°-40°	497.0	19.2
40°-50°	453.4	17.5
50°-60°	355.2	13.7
60°-70°	231.5	8.9
70°-80°	102.6	4.0
80°-90°	22.0	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°	925.4	35.8
0°-40°	1422.4	55.0
0°-60°	2230.9	86.2
0°-90°	2587.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2587.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1318	1318	1318	1318	1318	
5°	1295	1293	1293	1292	1292	123
15°	1211	1211	1199	1187	1182	340
25°	1050	1044	1027	990	963	482
35°	852	846	804	743	725	532
45°	654	640	585	536	515	503
55°	454	440	399	352	334	407
65°	270	254	230	235	195	266
75°	108	100	94	90	99	116
85°	15	17	18	20	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1317.8	1317.8	1317.8	1317.8	1317.8
2.5°	1308.6	1308.6	1308.6	1307.1	1307.1
5°	1294.9	1293.4	1293.4	1291.9	1291.9
7.5°	1284.3	1282.7	1281.2	1279.7	1276.7
10°	1269.0	1269.0	1267.5	1259.9	1258.4
12.5°	1244.7	1243.1	1237.0	1226.4	1223.3
15°	1211.1	1211.1	1199.0	1186.8	1182.2
17.5°	1174.6	1173.1	1157.8	1145.6	1139.5
20°	1135.0	1131.9	1116.7	1096.9	1086.2
22.5°	1090.8	1090.8	1072.5	1046.6	1035.9
25°	1049.7	1043.6	1026.8	990.2	962.8
27.5°	1002.4	993.3	975.0	923.2	891.2
30°	950.6	946.1	920.2	853.1	828.8
32.5°	901.9	894.3	866.8	796.8	777.0
35°	851.6	845.5	804.4	743.4	725.2
37.5°	801.3	793.7	741.9	693.2	670.3
40°	751.1	741.9	685.6	641.4	617.0
42.5°	703.8	691.6	636.8	589.6	562.2
45°	653.6	639.8	585.0	536.3	514.9
47.5°	603.3	591.1	540.8	490.6	466.2
50°	550.0	539.3	493.6	443.3	417.4
52.5°	505.8	489.0	444.8	394.6	373.2
55°	454.0	440.3	399.1	351.9	333.6
57.5°	406.8	393.0	355.0	310.8	295.5
60°	362.6	342.8	310.8	272.7	260.5
62.5°	313.8	298.6	271.2	239.2	254.4
65°	269.7	254.4	230.0	234.6	195.0
67.5°	220.9	213.3	192.0	170.6	164.5
70°	179.8	170.6	163.0	140.2	134.1
72.5°	143.2	134.1	123.4	111.2	106.6
75°	108.2	100.5	94.5	89.9	99.0
77.5°	74.6	71.6	67.0	62.5	60.9
80°	48.8	47.2	45.7	44.2	42.7
82.5°	28.9	28.9	28.9	28.9	28.9
85°	15.2	16.8	18.3	19.8	21.3
87.5°	9.1	9.1	10.7	12.2	13.7
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)