

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: P545749

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-93-96-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: P545749
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-93-96-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

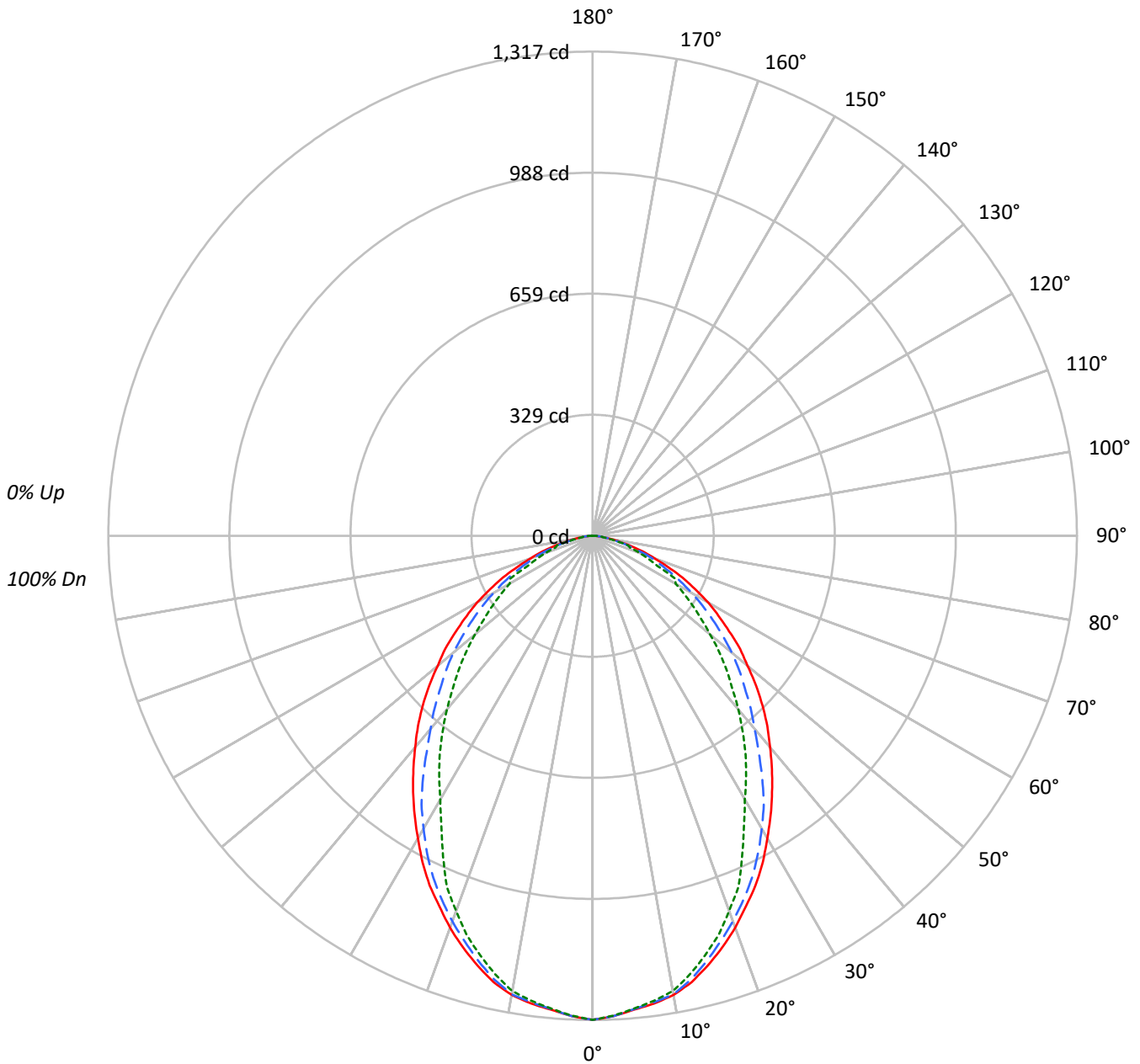
Lumens per Lamp: N/A
Luminaire Lumens: 2585.0 lumens
Efficiency: N/A
Efficacy: 77.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): 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°	7087	7087	7087
5°	6990	6982	6974
10°	6930	6921	6872
15°	6743	6675	6582
20°	6495	6391	6216
25°	6228	6093	5713
30°	5903	5714	5146
35°	5591	5281	4761
40°	5273	4813	4331
45°	4971	4450	3916
50°	4601	4129	3492
55°	4256	3742	3128
60°	3900	3342	2802
65°	3431	2928	2482
70°	2826	2563	2109
75°	2248	1963	2057
80°	1509	1416	1320
85°	939	1130	1315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.6	4.7
10°-20°	336.4	13.0
20°-30°	465.7	18.0
30°-40°	496.6	19.2
40°-50°	453.0	17.5
50°-60°	354.9	13.7
60°-70°	231.3	8.9
70°-80°	102.5	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°	924.7	35.8
0°-40°	1421.3	55.0
0°-60°	2229.2	86.2
0°-90°	2585.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2585.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1317	1317	1317	1317	1317	
5°	1294	1292	1292	1291	1291	123
15°	1210	1210	1198	1186	1181	340
25°	1049	1043	1026	990	962	482
35°	851	845	804	743	725	532
45°	653	639	585	536	514	503
55°	454	440	399	352	333	407
65°	269	254	230	234	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°	1316.8	1316.8	1316.8	1316.8	1316.8
2.5°	1307.6	1307.6	1307.6	1306.1	1306.1
5°	1293.9	1292.4	1292.4	1290.9	1290.9
7.5°	1283.3	1281.8	1280.2	1278.7	1275.7
10°	1268.1	1268.1	1266.5	1258.9	1257.4
12.5°	1243.7	1242.2	1236.1	1225.4	1222.4
15°	1210.2	1210.2	1198.0	1185.8	1181.3
17.5°	1173.7	1172.1	1156.9	1144.7	1138.7
20°	1134.1	1131.0	1115.8	1096.0	1085.4
22.5°	1089.9	1089.9	1071.7	1045.8	1035.1
25°	1048.8	1042.8	1026.0	989.5	962.1
27.5°	1001.7	992.5	974.3	922.5	890.5
30°	949.9	945.3	919.5	852.5	828.1
32.5°	901.2	893.6	866.2	796.1	776.4
35°	850.9	844.9	803.8	742.9	724.6
37.5°	800.7	793.1	741.3	692.6	669.8
40°	750.5	741.3	685.0	640.9	616.5
42.5°	703.3	691.1	636.3	589.1	561.7
45°	653.1	639.4	584.6	535.8	514.5
47.5°	602.8	590.6	540.4	490.2	465.8
50°	549.5	538.9	493.2	443.0	417.1
52.5°	505.4	488.6	444.5	394.3	373.0
55°	453.6	439.9	398.8	351.6	333.4
57.5°	406.4	392.7	354.7	310.5	295.3
60°	362.3	342.5	310.5	272.5	260.3
62.5°	313.6	298.4	271.0	239.0	254.2
65°	269.4	254.2	229.9	234.4	194.9
67.5°	220.7	213.1	191.8	170.5	164.4
70°	179.6	170.5	162.9	140.0	134.0
72.5°	143.1	134.0	123.3	111.1	106.6
75°	108.1	100.5	94.4	89.8	98.9
77.5°	74.6	71.5	67.0	62.4	60.9
80°	48.7	47.2	45.7	44.1	42.6
82.5°	28.9	28.9	28.9	28.9	28.9
85°	15.2	16.7	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)