

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: P545794

Luminaire Tested: **FMR-12-2-LD4-2STD-50-UNV-81-87-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: P545794
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-50-UNV-81-87-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

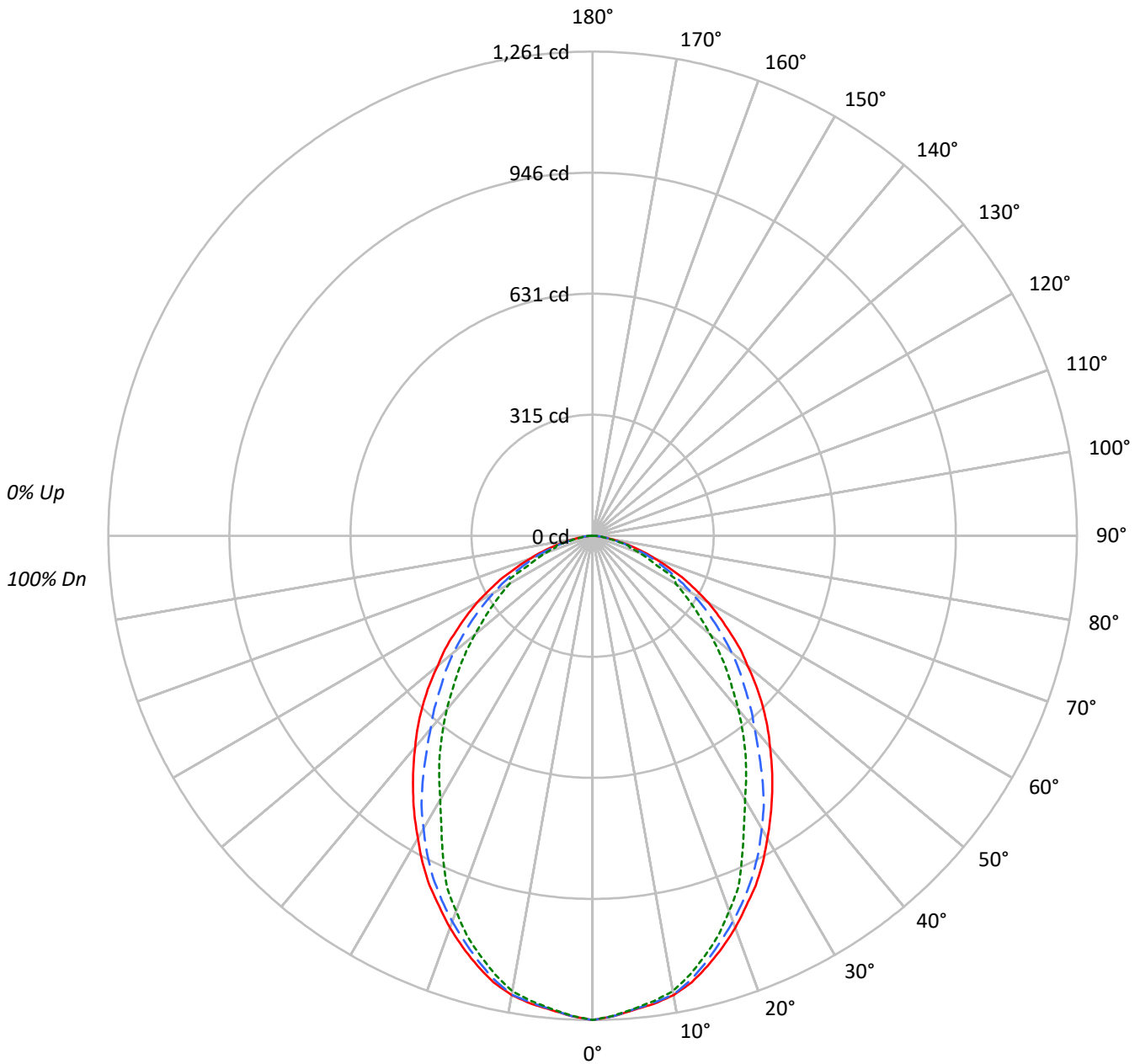
Lumens per Lamp: N/A
Luminaire Lumens: 2476.0 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	6788	6788	6788
5°	6696	6688	6680
10°	6638	6630	6582
15°	6459	6394	6305
20°	6222	6121	5954
25°	5966	5836	5472
30°	5654	5473	4929
35°	5355	5058	4560
40°	5050	4610	4149
45°	4761	4262	3751
50°	4407	3955	3345
55°	4077	3584	2996
60°	3735	3201	2683
65°	3287	2804	2376
70°	2708	2455	2019
75°	2152	1880	1971
80°	1447	1354	1265
85°	902	1081	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.4	4.7
10°-20°	322.2	13.0
20°-30°	446.1	18.0
30°-40°	475.6	19.2
40°-50°	433.9	17.5
50°-60°	339.9	13.7
60°-70°	221.6	8.9
70°-80°	98.2	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°	885.7	35.8
0°-40°	1361.3	55.0
0°-60°	2135.2	86.2
0°-90°	2476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1261	1261	1261	1261	1261	
5°	1239	1238	1238	1236	1236	118
15°	1159	1159	1148	1136	1132	326
25°	1005	999	983	948	922	461
35°	815	809	770	712	694	510
45°	626	612	560	513	493	482
55°	434	421	382	337	319	390
65°	258	244	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°	1261.2	1261.2	1261.2	1261.2	1261.2
2.5°	1252.5	1252.5	1252.5	1251.0	1251.0
5°	1239.4	1237.9	1237.9	1236.5	1236.5
7.5°	1229.2	1227.7	1226.2	1224.8	1221.9
10°	1214.6	1214.6	1213.1	1205.8	1204.4
12.5°	1191.3	1189.8	1184.0	1173.8	1170.8
15°	1159.2	1159.2	1147.5	1135.8	1131.5
17.5°	1124.2	1122.7	1108.1	1096.5	1090.6
20°	1086.3	1083.4	1068.8	1049.8	1039.6
22.5°	1044.0	1044.0	1026.5	1001.7	991.5
25°	1004.6	998.8	982.7	947.8	921.5
27.5°	959.4	950.7	933.2	883.6	853.0
30°	909.8	905.5	880.7	816.5	793.2
32.5°	863.2	855.9	829.6	762.6	743.6
35°	815.1	809.2	769.9	711.5	694.0
37.5°	767.0	759.7	710.1	663.4	641.6
40°	718.8	710.1	656.1	613.9	590.5
42.5°	673.6	662.0	609.5	564.3	538.0
45°	625.5	612.4	559.9	513.2	492.8
47.5°	577.4	565.7	517.6	469.5	446.2
50°	526.4	516.2	472.4	424.3	399.5
52.5°	484.1	468.0	425.8	377.6	357.2
55°	434.5	421.4	382.0	336.8	319.3
57.5°	389.3	376.2	339.7	297.4	282.9
60°	347.0	328.1	297.4	261.0	249.3
62.5°	300.4	285.8	259.5	228.9	243.5
65°	258.1	243.5	220.2	224.5	186.6
67.5°	211.4	204.1	183.7	163.3	157.5
70°	172.1	163.3	156.0	134.1	128.3
72.5°	137.1	128.3	118.1	106.4	102.1
75°	103.5	96.2	90.4	86.0	94.8
77.5°	71.4	68.5	64.2	59.8	58.3
80°	46.7	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	19.0	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)