

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: P545732

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-81-94-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: P545732
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-81-94-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

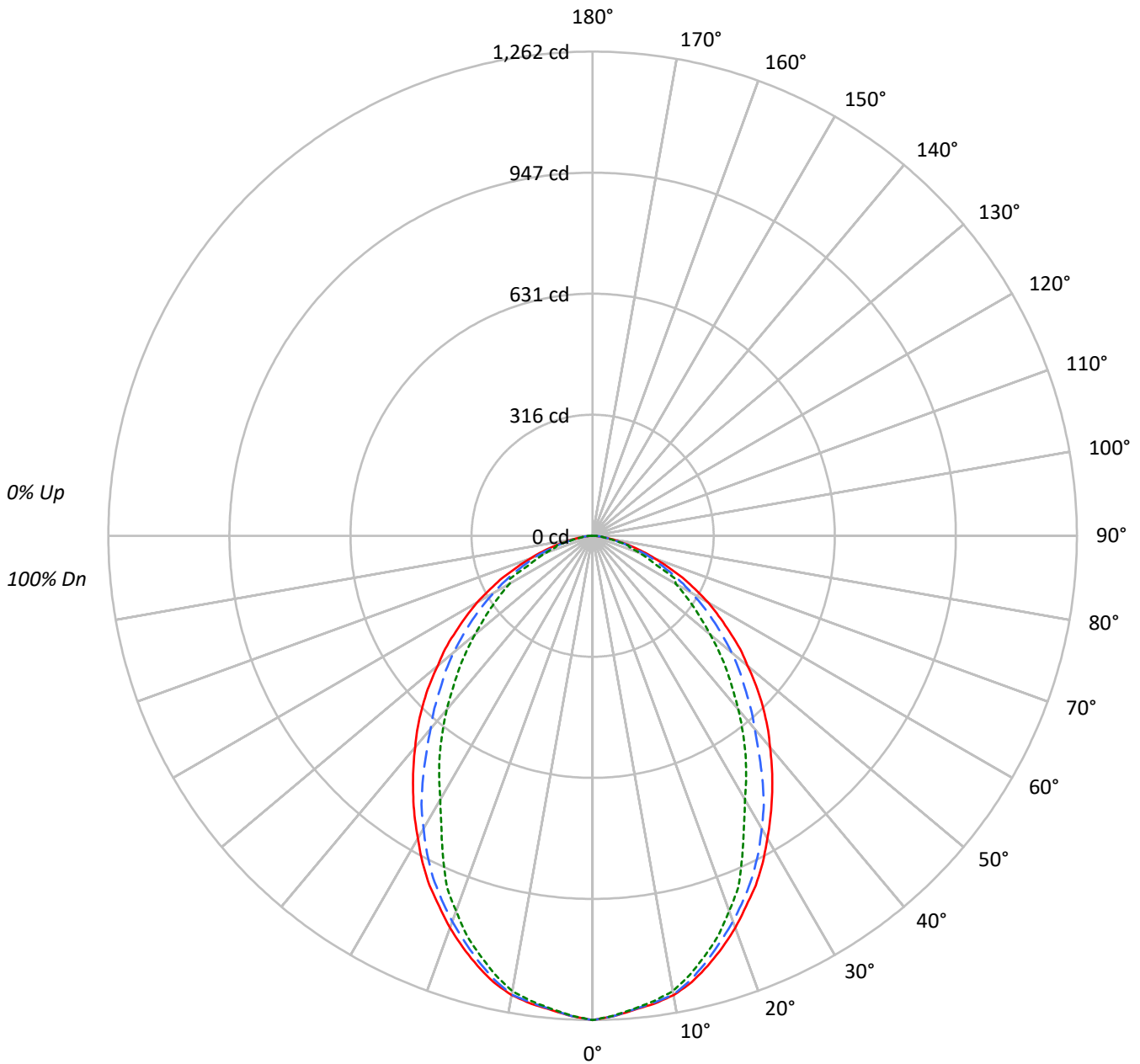
Lumens per Lamp: N/A
Luminaire Lumens: 2478.0 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	6794	6794	6794
5°	6701	6693	6686
10°	6643	6635	6587
15°	6464	6399	6310
20°	6226	6126	5959
25°	5970	5840	5477
30°	5659	5478	4933
35°	5359	5062	4564
40°	5054	4614	4152
45°	4765	4265	3754
50°	4411	3959	3347
55°	4081	3587	2999
60°	3738	3204	2686
65°	3289	2805	2379
70°	2710	2456	2020
75°	2154	1882	1973
80°	1447	1358	1268
85°	902	1081	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.5	4.7
10°-20°	322.5	13.0
20°-30°	446.4	18.0
30°-40°	476.0	19.2
40°-50°	434.3	17.5
50°-60°	340.2	13.7
60°-70°	221.7	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°	886.4	35.8
0°-40°	1362.4	55.0
0°-60°	2136.9	86.2
0°-90°	2478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2478.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1262	1262	1262	1262	1262	
5°	1240	1239	1239	1238	1238	118
15°	1160	1160	1148	1137	1132	326
25°	1005	1000	984	948	922	462
35°	816	810	770	712	695	510
45°	626	613	560	514	493	482
55°	435	422	382	337	320	390
65°	258	244	220	225	187	255
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°	1262.3	1262.3	1262.3	1262.3	1262.3
2.5°	1253.5	1253.5	1253.5	1252.0	1252.0
5°	1240.4	1238.9	1238.9	1237.5	1237.5
7.5°	1230.2	1228.7	1227.2	1225.8	1222.9
10°	1215.6	1215.6	1214.1	1206.8	1205.3
12.5°	1192.2	1190.8	1184.9	1174.7	1171.8
15°	1160.1	1160.1	1148.4	1136.8	1132.4
17.5°	1125.1	1123.6	1109.0	1097.4	1091.5
20°	1087.1	1084.2	1069.6	1050.7	1040.5
22.5°	1044.8	1044.8	1027.3	1002.5	992.3
25°	1005.4	999.6	983.5	948.5	922.3
27.5°	960.2	951.4	933.9	884.3	853.7
30°	910.6	906.2	881.4	817.2	793.8
32.5°	863.9	856.6	830.3	763.2	744.2
35°	815.7	809.9	770.5	712.1	694.6
37.5°	767.6	760.3	710.7	664.0	642.1
40°	719.4	710.7	656.7	614.3	591.0
42.5°	674.2	662.5	610.0	564.7	538.5
45°	626.0	612.9	560.4	513.7	493.2
47.5°	577.9	566.2	518.0	469.9	446.5
50°	526.8	516.6	472.8	424.6	399.8
52.5°	484.5	468.4	426.1	377.9	357.5
55°	434.9	421.7	382.3	337.1	319.6
57.5°	389.6	376.5	340.0	297.7	283.1
60°	347.3	328.3	297.7	261.2	249.5
62.5°	300.6	286.0	259.7	229.1	243.7
65°	258.3	243.7	220.3	224.7	186.8
67.5°	211.6	204.3	183.9	163.4	157.6
70°	172.2	163.4	156.1	134.3	128.4
72.5°	137.2	128.4	118.2	106.5	102.1
75°	103.6	96.3	90.5	86.1	94.9
77.5°	71.5	68.6	64.2	59.8	58.4
80°	46.7	45.2	43.8	42.3	40.9
82.5°	27.7	27.7	27.7	27.7	27.7
85°	14.6	16.1	17.5	19.0	20.4
87.5°	8.8	8.8	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)