

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: P545734

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-81-97-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: P545734
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-81-97-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

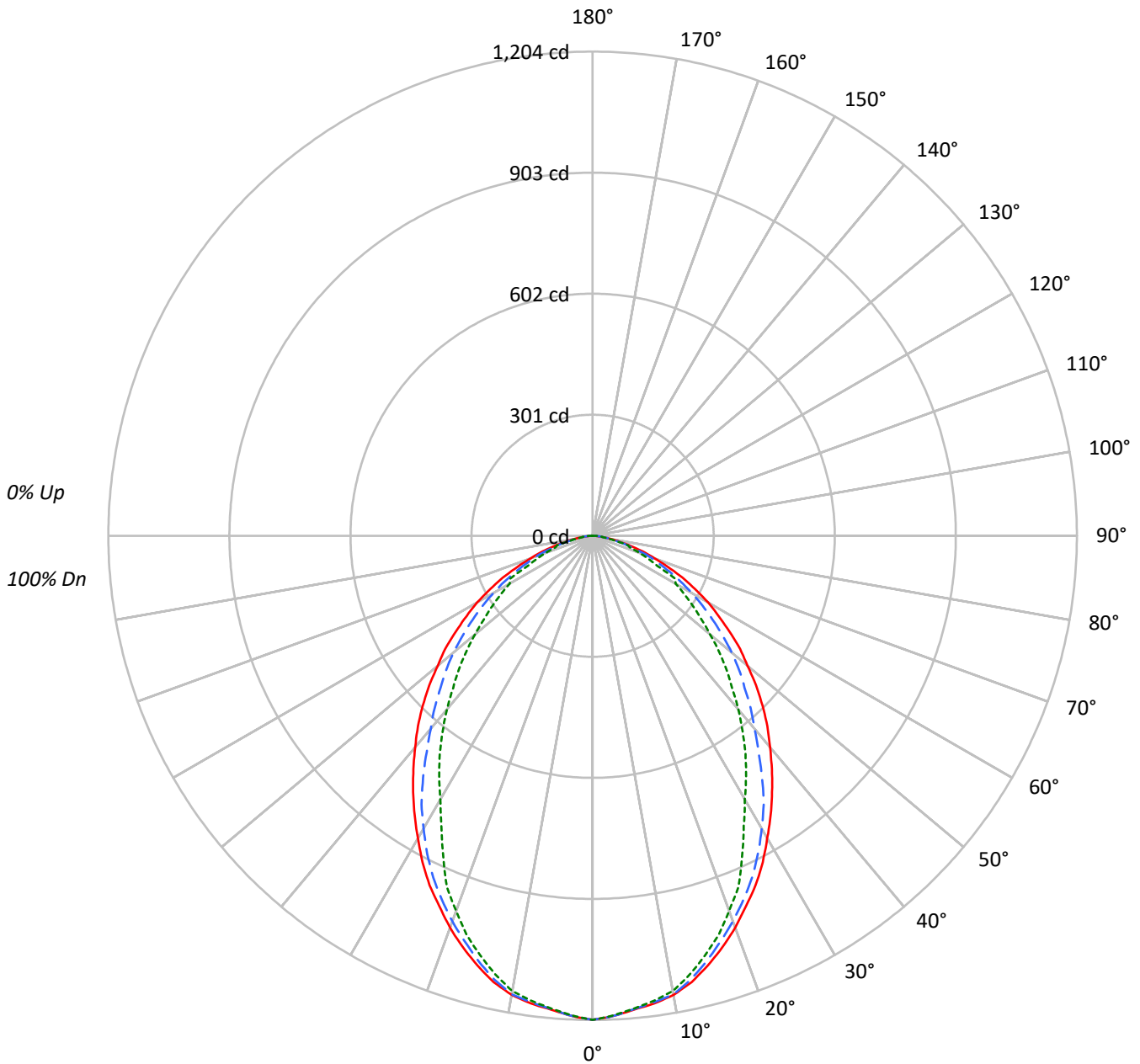
Lumens per Lamp: N/A
Luminaire Lumens: 2363.0 lumens
Efficiency: N/A
Efficacy: 71.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6478	6478	6478
5°	6390	6383	6375
10°	6335	6327	6281
15°	6164	6102	6016
20°	5938	5842	5683
25°	5694	5570	5223
30°	5396	5223	4704
35°	5111	4827	4352
40°	4820	4399	3960
45°	4544	4067	3580
50°	4206	3775	3193
55°	3891	3421	2859
60°	3565	3056	2562
65°	3137	2676	2268
70°	2584	2343	1928
75°	2054	1795	1880
80°	1379	1292	1209
85°	858	1031	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.0	4.7
10°-20°	307.5	13.0
20°-30°	425.7	18.0
30°-40°	453.9	19.2
40°-50°	414.1	17.5
50°-60°	324.4	13.7
60°-70°	211.5	8.9
70°-80°	93.7	4.0
80°-90°	20.1	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°	845.3	35.8
0°-40°	1299.2	55.0
0°-60°	2037.8	86.2
0°-90°	2363.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2363.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1204	1204	1204	1204	1204	
5°	1183	1181	1181	1180	1180	112
15°	1106	1106	1095	1084	1080	311
25°	959	953	938	904	880	440
35°	778	772	735	679	662	486
45°	597	584	534	490	470	460
55°	415	402	365	321	305	372
65°	246	232	210	214	178	243
75°	99	92	86	82	90	106
85°	14	15	17	18	20	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1203.7	1203.7	1203.7	1203.7	1203.7
2.5°	1195.3	1195.3	1195.3	1193.9	1193.9
5°	1182.8	1181.4	1181.4	1180.0	1180.0
7.5°	1173.1	1171.7	1170.3	1168.9	1166.1
10°	1159.2	1159.2	1157.8	1150.8	1149.4
12.5°	1136.9	1135.5	1129.9	1120.2	1117.4
15°	1106.3	1106.3	1095.1	1084.0	1079.8
17.5°	1072.9	1071.5	1057.6	1046.4	1040.9
20°	1036.7	1033.9	1020.0	1001.9	992.2
22.5°	996.3	996.3	979.6	956.0	946.2
25°	958.8	953.2	937.9	904.5	879.5
27.5°	915.6	907.3	890.6	843.3	814.0
30°	868.3	864.1	840.5	779.3	757.0
32.5°	823.8	816.8	791.8	727.8	709.7
35°	777.9	772.3	734.7	679.1	662.4
37.5°	731.9	725.0	677.7	633.1	612.3
40°	686.0	677.7	626.2	585.8	563.6
42.5°	642.9	631.8	581.7	538.5	513.5
45°	597.0	584.4	534.4	489.8	470.3
47.5°	551.0	539.9	494.0	448.1	425.8
50°	502.3	492.6	450.9	404.9	381.3
52.5°	462.0	446.7	406.3	360.4	340.9
55°	414.7	402.2	364.6	321.4	304.7
57.5°	371.5	359.0	324.2	283.9	270.0
60°	331.2	313.1	283.9	249.1	238.0
62.5°	286.7	272.7	247.7	218.5	232.4
65°	246.3	232.4	210.1	214.3	178.1
67.5°	201.8	194.8	175.3	155.9	150.3
70°	164.2	155.9	148.9	128.0	122.5
72.5°	130.8	122.5	112.7	101.6	97.4
75°	98.8	91.8	86.3	82.1	90.4
77.5°	68.2	65.4	61.2	57.1	55.7
80°	44.5	43.1	41.7	40.4	39.0
82.5°	26.4	26.4	26.4	26.4	26.4
85°	13.9	15.3	16.7	18.1	19.5
87.5°	8.3	8.3	9.7	11.1	12.5
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)