

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: P545748

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-93-94-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: P545748
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-93-94-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

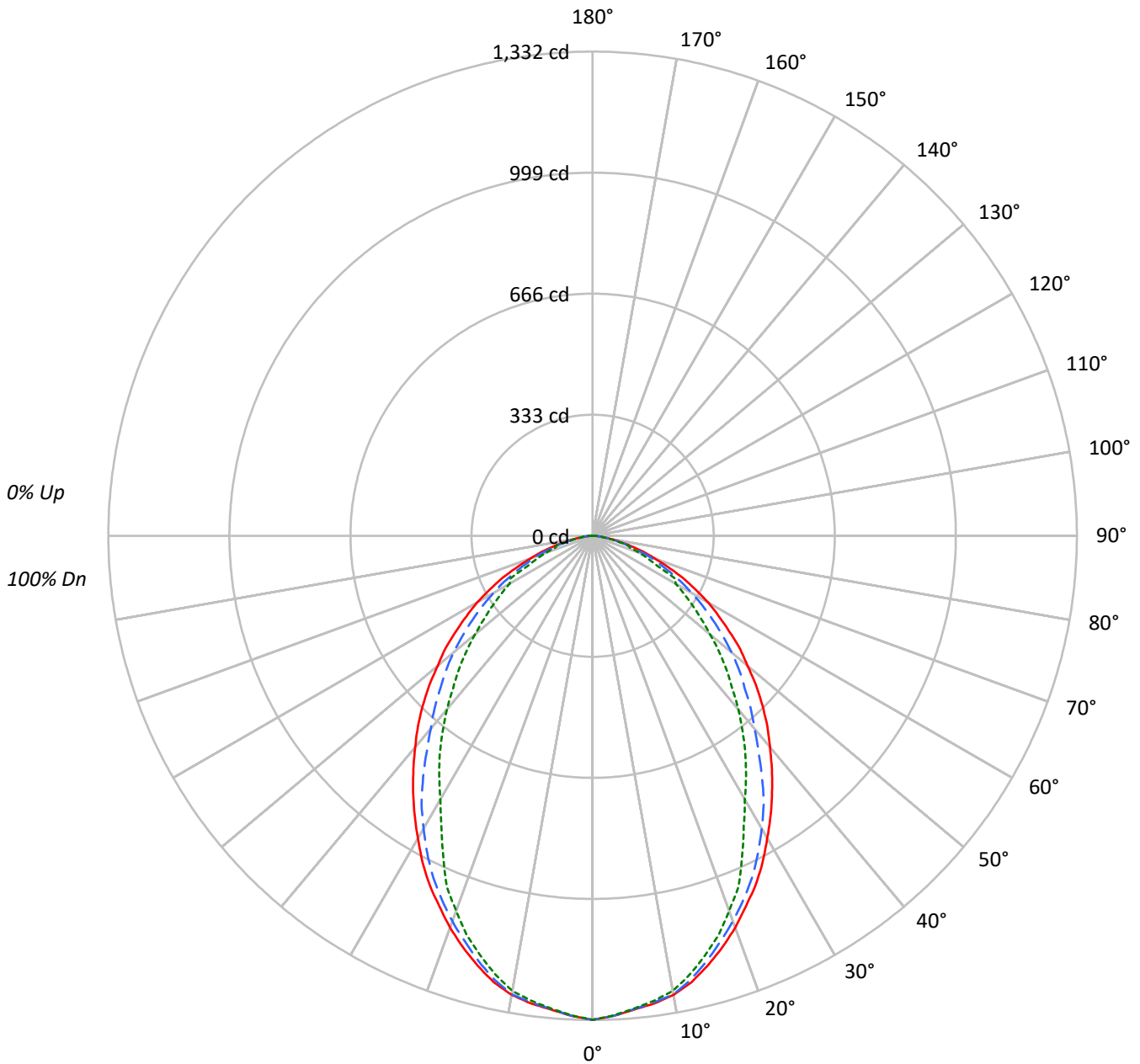
Lumens per Lamp: N/A
Luminaire Lumens: 2614.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	7166	7166	7166
5°	7069	7061	7052
10°	7008	6999	6949
15°	6819	6750	6656
20°	6568	6462	6286
25°	6298	6161	5777
30°	5970	5778	5204
35°	5654	5340	4814
40°	5332	4867	4380
45°	5026	4499	3960
50°	4653	4176	3532
55°	4304	3784	3163
60°	3944	3380	2833
65°	3470	2960	2509
70°	2858	2592	2132
75°	2273	1984	2082
80°	1528	1432	1336
85°	951	1142	1334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.9	4.7
10°-20°	340.2	13.0
20°-30°	470.9	18.0
30°-40°	502.2	19.2
40°-50°	458.1	17.5
50°-60°	358.9	13.7
60°-70°	233.9	8.9
70°-80°	103.6	4.0
80°-90°	22.2	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°	935.1	35.8
0°-40°	1437.2	55.0
0°-60°	2254.2	86.2
0°-90°	2614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2614.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1332	1332	1332	1332	1332	
5°	1308	1307	1307	1305	1305	124
15°	1224	1224	1212	1199	1194	344
25°	1061	1054	1038	1001	973	487
35°	860	854	813	751	733	538
45°	660	646	591	542	520	509
55°	459	445	403	356	337	411
65°	272	257	232	237	197	269
75°	109	102	95	91	100	117
85°	15	17	18	20	22	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1331.5	1331.5	1331.5	1331.5	1331.5
2.5°	1322.3	1322.3	1322.3	1320.8	1320.8
5°	1308.4	1306.9	1306.9	1305.4	1305.4
7.5°	1297.7	1296.1	1294.6	1293.1	1290.0
10°	1282.3	1282.3	1280.7	1273.0	1271.5
12.5°	1257.6	1256.1	1250.0	1239.2	1236.1
15°	1223.8	1223.8	1211.5	1199.2	1194.5
17.5°	1186.8	1185.3	1169.9	1157.6	1151.4
20°	1146.8	1143.7	1128.3	1108.3	1097.6
22.5°	1102.2	1102.2	1083.7	1057.5	1046.8
25°	1060.6	1054.5	1037.5	1000.6	972.9
27.5°	1012.9	1003.7	985.2	932.8	900.5
30°	960.6	955.9	929.8	862.0	837.4
32.5°	911.3	903.6	875.9	805.1	785.1
35°	860.5	854.3	812.8	751.2	732.7
37.5°	809.7	802.0	749.7	700.4	677.3
40°	758.9	749.7	692.7	648.1	623.4
42.5°	711.2	698.9	643.4	595.7	568.0
45°	660.4	646.5	591.1	541.9	520.3
47.5°	609.6	597.3	546.5	495.7	471.0
50°	555.7	544.9	498.7	448.0	421.8
52.5°	511.1	494.1	449.5	398.7	377.1
55°	458.7	444.9	403.3	355.6	337.1
57.5°	411.0	397.2	358.7	314.0	298.6
60°	366.4	346.4	314.0	275.5	263.2
62.5°	317.1	301.7	274.0	241.7	257.1
65°	272.5	257.1	232.4	237.1	197.0
67.5°	223.2	215.5	194.0	172.4	166.2
70°	181.6	172.4	164.7	141.6	135.5
72.5°	144.7	135.5	124.7	112.4	107.8
75°	109.3	101.6	95.4	90.8	100.1
77.5°	75.4	72.3	67.7	63.1	61.6
80°	49.3	47.7	46.2	44.6	43.1
82.5°	29.2	29.2	29.2	29.2	29.2
85°	15.4	16.9	18.5	20.0	21.6
87.5°	9.2	9.2	10.8	12.3	13.9
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)