

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: P545757

Luminaire Tested: **FMR-12-2-LD4-2STD-40-UNV-80-96-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: P545757
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-40-UNV-80-96-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

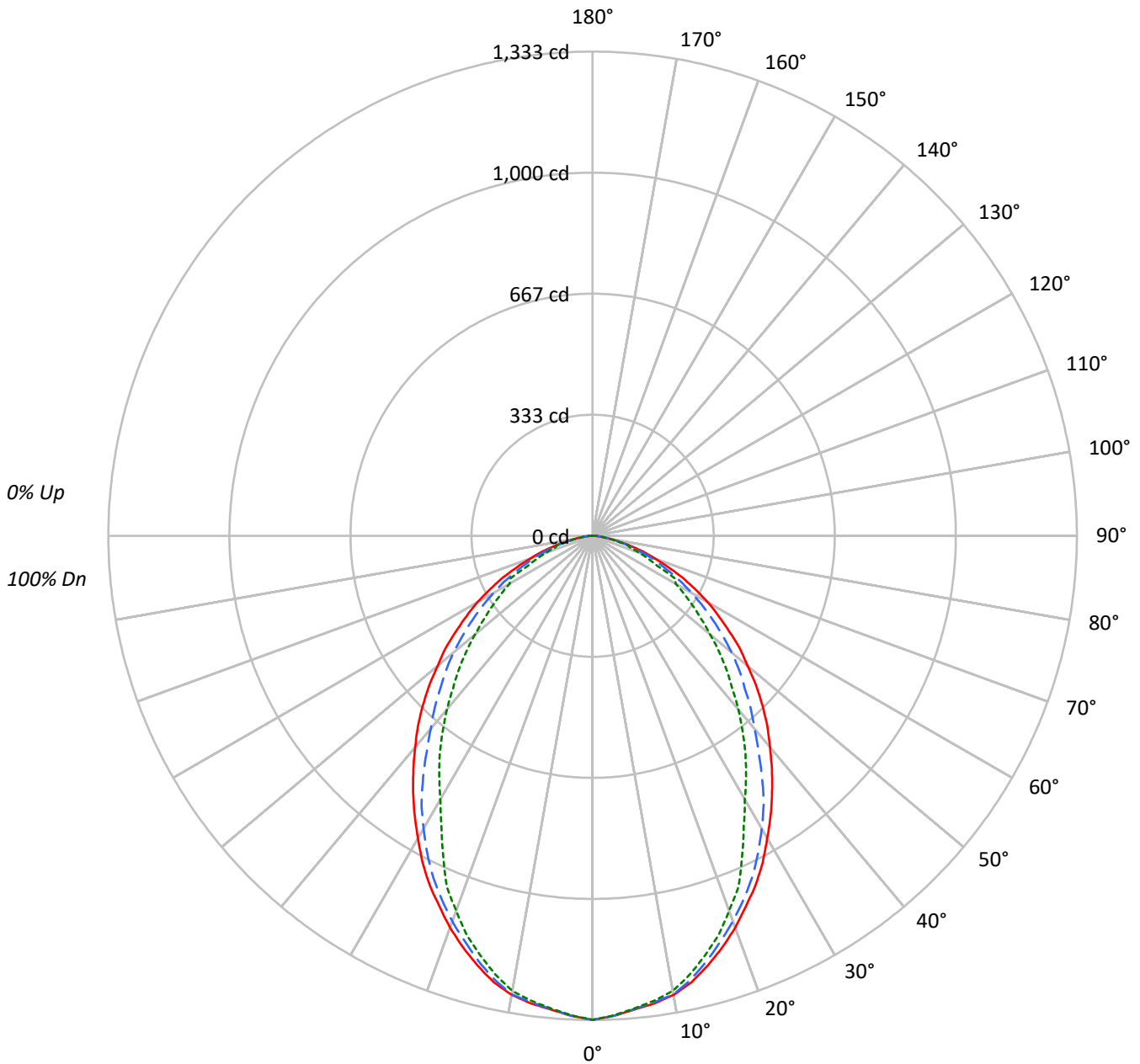
Lumens per Lamp: N/A
Luminaire Lumens: 2616.0 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	7172	7172	7172
5°	7074	7066	7058
10°	7013	7004	6954
15°	6824	6755	6661
20°	6573	6467	6291
25°	6303	6166	5782
30°	5974	5783	5208
35°	5658	5344	4818
40°	5336	4870	4383
45°	5030	4503	3963
50°	4656	4179	3534
55°	4308	3787	3166
60°	3946	3383	2835
65°	3473	2962	2511
70°	2861	2593	2134
75°	2275	1986	2082
80°	1528	1432	1336
85°	951	1142	1334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	4.7
10°-20°	340.4	13.0
20°-30°	471.3	18.0
30°-40°	502.5	19.2
40°-50°	458.5	17.5
50°-60°	359.2	13.7
60°-70°	234.1	8.9
70°-80°	103.7	4.0
80°-90°	22.3	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°	935.8	35.8
0°-40°	1438.3	55.0
0°-60°	2255.9	86.2
0°-90°	2616.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2616.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1333	1333	1333	1333	1333	
5°	1309	1308	1308	1306	1306	124
15°	1225	1225	1212	1200	1195	344
25°	1061	1055	1038	1001	974	487
35°	861	855	813	752	733	538
45°	661	647	592	542	521	509
55°	459	445	404	356	337	412
65°	273	257	233	237	197	269
75°	109	102	96	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°	1332.6	1332.6	1332.6	1332.6	1332.6
2.5°	1323.3	1323.3	1323.3	1321.8	1321.8
5°	1309.4	1307.9	1307.9	1306.4	1306.4
7.5°	1298.7	1297.1	1295.6	1294.0	1291.0
10°	1283.3	1283.3	1281.7	1274.0	1272.5
12.5°	1258.6	1257.1	1250.9	1240.1	1237.0
15°	1224.7	1224.7	1212.4	1200.1	1195.4
17.5°	1187.7	1186.2	1170.8	1158.5	1152.3
20°	1147.7	1144.6	1129.2	1109.2	1098.4
22.5°	1103.0	1103.0	1084.5	1058.3	1047.6
25°	1061.4	1055.3	1038.3	1001.3	973.6
27.5°	1013.7	1004.4	985.9	933.6	901.2
30°	961.3	956.7	930.5	862.7	838.0
32.5°	912.0	904.3	876.6	805.7	785.7
35°	861.2	855.0	813.4	751.8	733.3
37.5°	810.3	802.6	750.2	700.9	677.8
40°	759.5	750.2	693.2	648.6	623.9
42.5°	711.7	699.4	643.9	596.2	568.5
45°	660.9	647.0	591.6	542.3	520.7
47.5°	610.0	597.7	546.9	496.0	471.4
50°	556.1	545.3	499.1	448.3	422.1
52.5°	511.5	494.5	449.8	399.0	377.4
55°	459.1	445.2	403.6	355.9	337.4
57.5°	411.3	397.5	358.9	314.3	298.9
60°	366.6	346.6	314.3	275.8	263.4
62.5°	317.3	301.9	274.2	241.9	257.3
65°	272.7	257.3	232.6	237.2	197.2
67.5°	223.4	215.7	194.1	172.5	166.4
70°	181.8	172.5	164.8	141.7	135.6
72.5°	144.8	135.6	124.8	112.5	107.8
75°	109.4	101.7	95.5	90.9	100.1
77.5°	75.5	72.4	67.8	63.2	61.6
80°	49.3	47.8	46.2	44.7	43.1
82.5°	29.3	29.3	29.3	29.3	29.3
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)