

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: P546557

Luminaire Tested: **FMR-24-4-LD4-1LO-50-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: P546557
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-24-4-LD4-1LO-50-UNV-80-96-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

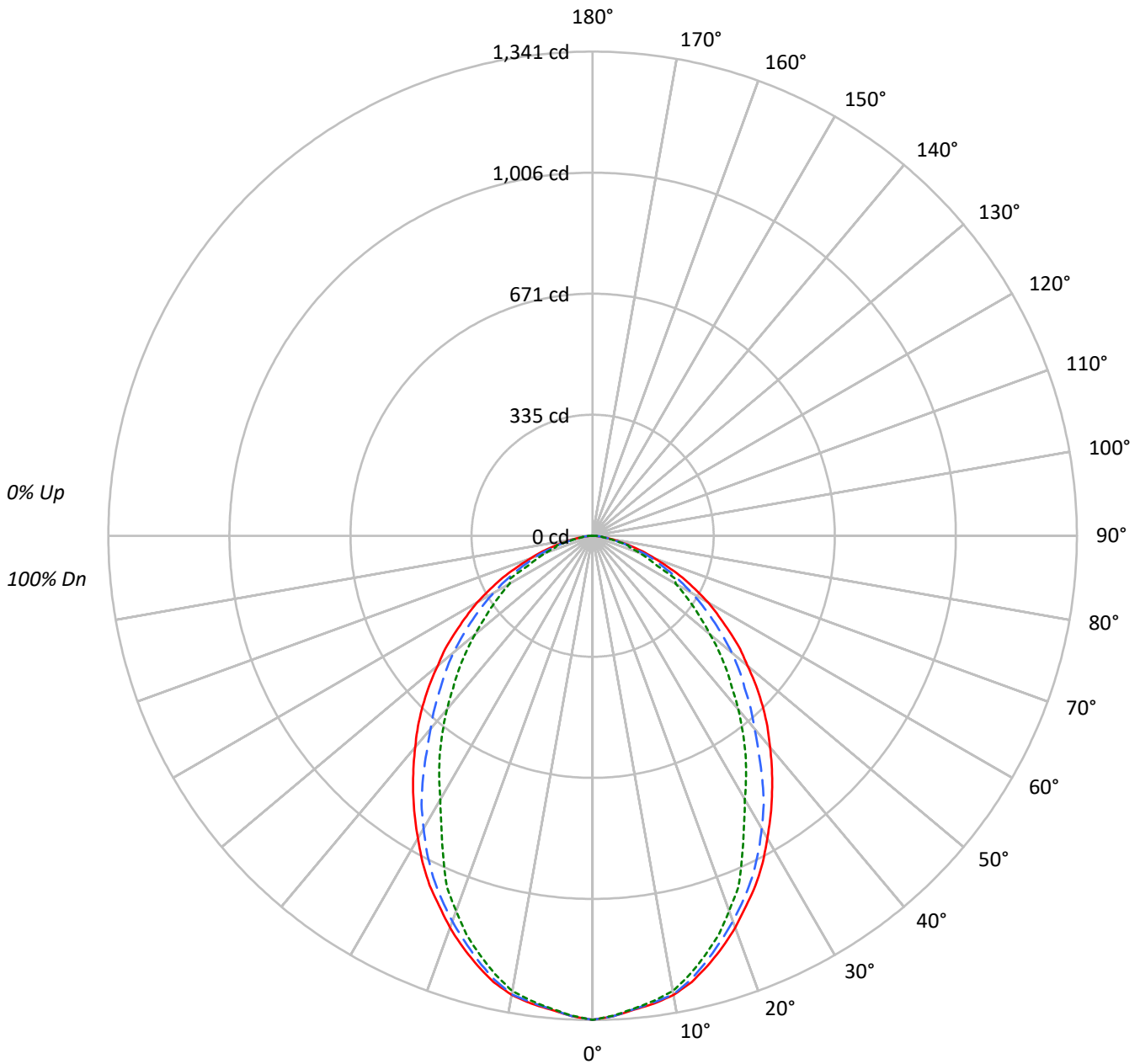
Lumens per Lamp: N/A
Luminaire Lumens: 2631.9 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	1804	1804	1804
5°	1779	1777	1775
10°	1764	1762	1749
15°	1716	1699	1675
20°	1653	1627	1582
25°	1585	1551	1454
30°	1503	1455	1310
35°	1423	1344	1212
40°	1342	1225	1102
45°	1265	1133	997
50°	1171	1051	889
55°	1084	953	796
60°	993	851	713
65°	873	745	632
70°	720	652	537
75°	572	500	523
80°	384	360	336
85°	239	287	335



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.8	4.7
10°-20°	342.5	13.0
20°-30°	474.2	18.0
30°-40°	505.6	19.2
40°-50°	461.3	17.5
50°-60°	361.4	13.7
60°-70°	235.5	8.9
70°-80°	104.3	4.0
80°-90°	22.4	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°	941.5	35.8
0°-40°	1447.1	55.0
0°-60°	2269.7	86.2
0°-90°	2631.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2631.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1341	1341	1341	1341	1341	
5°	1318	1316	1316	1314	1314	125
15°	1232	1232	1220	1207	1203	346
25°	1068	1062	1045	1008	980	490
35°	866	860	818	756	738	542
45°	665	651	595	546	524	512
55°	462	448	406	358	339	414
65°	274	259	234	239	198	270
75°	110	102	96	91	101	118
85°	16	17	19	20	22	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1340.7	1340.7	1340.7	1340.7	1340.7
2.5°	1331.4	1331.4	1331.4	1329.9	1329.9
5°	1317.5	1315.9	1315.9	1314.4	1314.4
7.5°	1306.6	1305.1	1303.5	1302.0	1298.9
10°	1291.1	1291.1	1289.6	1281.8	1280.3
12.5°	1266.3	1264.8	1258.6	1247.7	1244.6
15°	1232.2	1232.2	1219.8	1207.4	1202.8
17.5°	1195.0	1193.5	1178.0	1165.6	1159.4
20°	1154.7	1151.6	1136.1	1116.0	1105.1
22.5°	1109.8	1109.8	1091.2	1064.8	1054.0
25°	1067.9	1061.7	1044.7	1007.5	979.6
27.5°	1019.9	1010.6	992.0	939.3	906.7
30°	967.2	962.5	936.2	868.0	843.2
32.5°	917.6	909.8	881.9	810.6	790.5
35°	866.4	860.2	818.4	756.4	737.8
37.5°	815.3	807.5	754.8	705.2	682.0
40°	764.1	754.8	697.5	652.5	627.7
42.5°	716.1	703.7	647.9	599.8	571.9
45°	664.9	651.0	595.2	545.6	523.9
47.5°	613.8	601.4	550.2	499.1	474.3
50°	559.5	548.7	502.2	451.0	424.7
52.5°	514.6	497.5	452.6	401.4	379.7
55°	461.9	447.9	406.1	358.0	339.4
57.5°	413.8	399.9	361.1	316.2	300.7
60°	368.9	348.7	316.2	277.4	265.0
62.5°	319.3	303.8	275.9	243.3	258.8
65°	274.3	258.8	234.0	238.7	198.4
67.5°	224.7	217.0	195.3	173.6	167.4
70°	182.9	173.6	165.8	142.6	136.4
72.5°	145.7	136.4	125.5	113.1	108.5
75°	110.0	102.3	96.1	91.4	100.7
77.5°	75.9	72.8	68.2	63.5	62.0
80°	49.6	48.0	46.5	44.9	43.4
82.5°	29.4	29.4	29.4	29.4	29.4
85°	15.5	17.0	18.6	20.1	21.7
87.5°	9.3	9.3	10.8	12.4	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)