

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: P546652

Luminaire Tested: **FMR-24-4-LD4-1STD-50-UNV-80-94-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: P546652
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-LD4-1STD-50-UNV-80-94-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

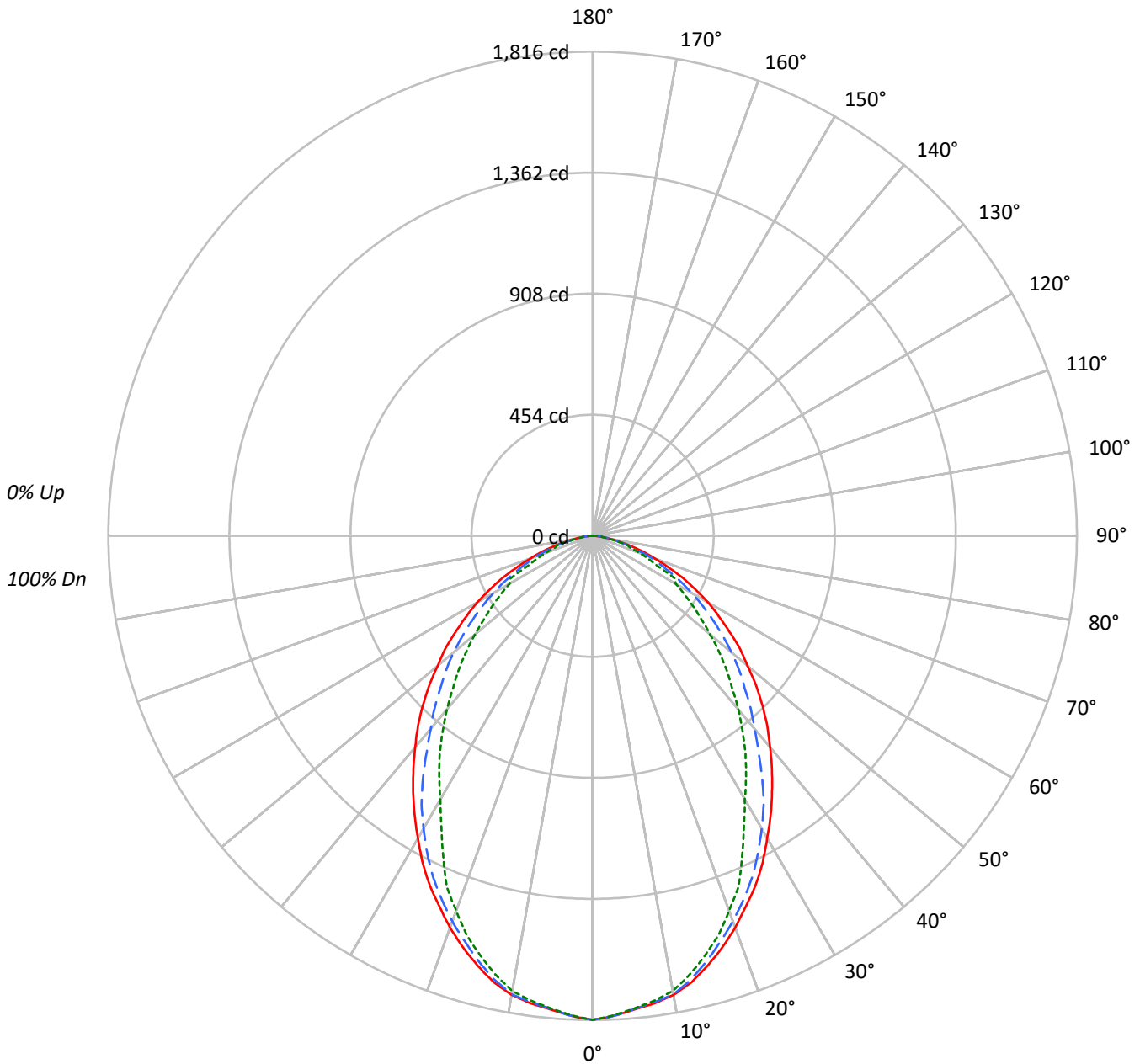
Lumens per Lamp: N/A
Luminaire Lumens: 3564.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2443	2443	2443
5°	2410	2407	2404
10°	2389	2386	2369
15°	2324	2301	2269
20°	2239	2203	2143
25°	2147	2100	1969
30°	2035	1970	1774
35°	1927	1820	1641
40°	1817	1659	1493
45°	1713	1533	1350
50°	1586	1423	1204
55°	1467	1290	1078
60°	1344	1152	966
65°	1183	1009	855
70°	974	884	727
75°	775	676	709
80°	521	488	456
85°	324	389	454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.0	4.7
10°-20°	463.8	13.0
20°-30°	642.1	18.0
30°-40°	684.7	19.2
40°-50°	624.6	17.5
50°-60°	489.3	13.7
60°-70°	318.9	8.9
70°-80°	141.3	4.0
80°-90°	30.4	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°	1274.9	35.8
0°-40°	1959.5	55.0
0°-60°	3073.5	86.2
0°-90°	3564.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3564.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1816	1816	1816	1816	1816	
5°	1784	1782	1782	1780	1780	169
15°	1668	1668	1652	1635	1629	469
25°	1446	1438	1415	1364	1326	664
35°	1173	1165	1108	1024	999	733
45°	900	882	806	739	709	694
55°	625	607	550	485	460	561
65°	372	350	317	323	269	366
75°	149	138	130	124	136	160
85°	21	23	25	27	29	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1815.5	1815.5	1815.5	1815.5	1815.5
2.5°	1802.9	1802.9	1802.9	1800.8	1800.8
5°	1784.0	1781.9	1781.9	1779.8	1779.8
7.5°	1769.3	1767.2	1765.1	1763.0	1758.8
10°	1748.3	1748.3	1746.2	1735.7	1733.6
12.5°	1714.7	1712.6	1704.2	1689.5	1685.3
15°	1668.5	1668.5	1651.7	1635.0	1628.7
17.5°	1618.2	1616.1	1595.1	1578.3	1569.9
20°	1563.6	1559.4	1538.4	1511.1	1496.4
22.5°	1502.7	1502.7	1477.5	1441.9	1427.2
25°	1446.1	1437.7	1414.6	1364.2	1326.4
27.5°	1381.0	1368.4	1343.2	1271.9	1227.8
30°	1309.6	1303.3	1267.7	1175.3	1141.7
32.5°	1242.5	1232.0	1194.2	1097.7	1070.4
35°	1173.2	1164.8	1108.2	1024.2	999.0
37.5°	1104.0	1093.5	1022.1	954.9	923.5
40°	1034.7	1022.1	944.5	883.6	850.0
42.5°	969.6	952.9	877.3	812.2	774.5
45°	900.4	881.5	805.9	738.8	709.4
47.5°	831.1	814.3	745.1	675.8	642.2
50°	757.7	743.0	680.0	610.7	575.1
52.5°	696.8	673.7	612.8	543.6	514.2
55°	625.4	606.6	549.9	484.8	459.6
57.5°	560.4	541.5	489.0	428.2	407.2
60°	499.5	472.2	428.2	375.7	358.9
62.5°	432.4	411.4	373.6	329.5	350.5
65°	371.5	350.5	316.9	323.2	268.6
67.5°	304.3	293.8	264.4	235.1	226.7
70°	247.7	235.1	224.6	193.1	184.7
72.5°	197.3	184.7	170.0	153.2	146.9
75°	149.0	138.5	130.1	123.8	136.4
77.5°	102.8	98.6	92.3	86.1	84.0
80°	67.2	65.1	63.0	60.9	58.8
82.5°	39.9	39.9	39.9	39.9	39.9
85°	21.0	23.1	25.2	27.3	29.4
87.5°	12.6	12.6	14.7	16.8	18.9
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)