

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: P547357

Luminaire Tested: **FMR-24-4-LD4-4LO-35-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: P547357
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-LD4-4LO-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

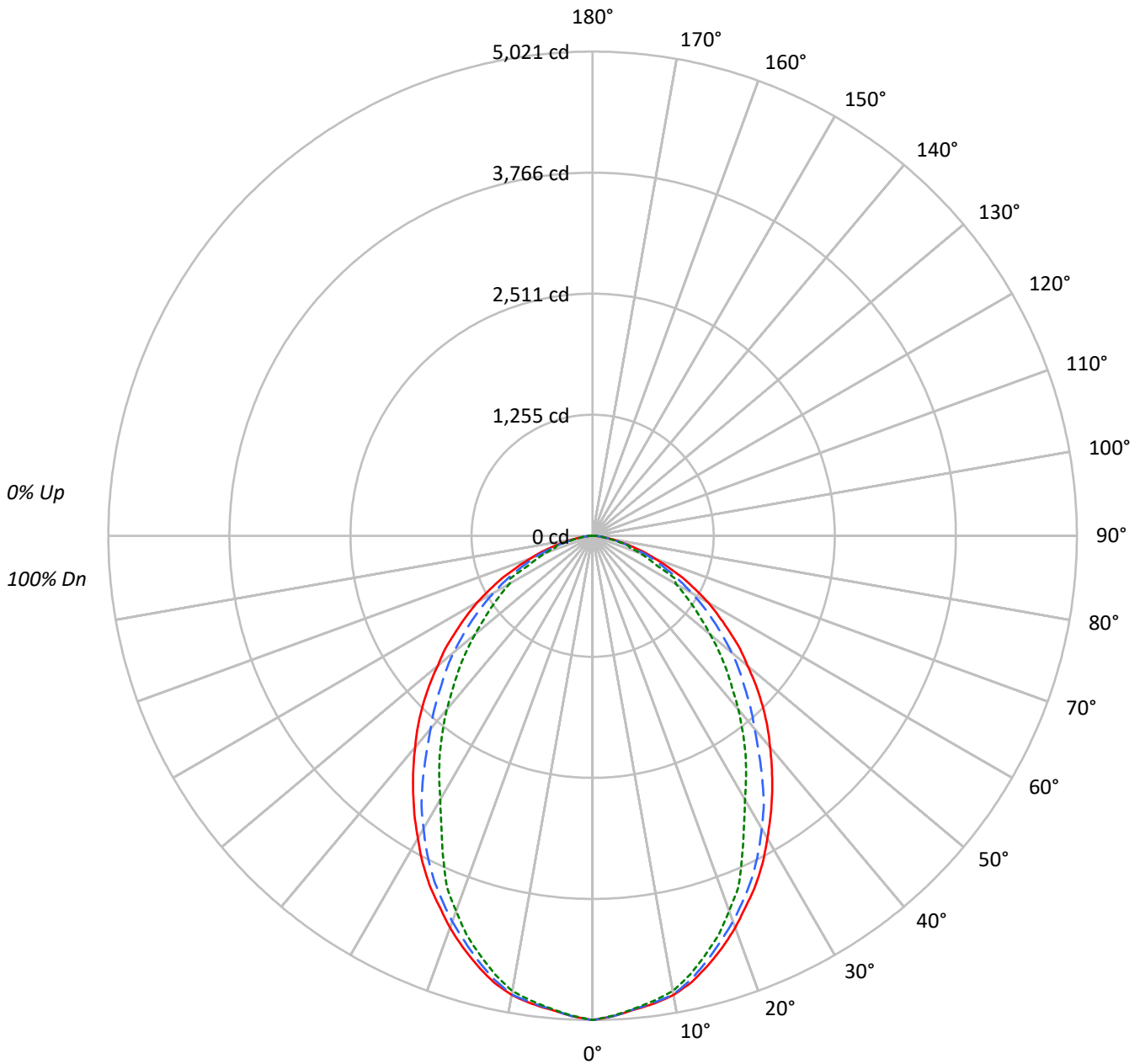
Lumens per Lamp: N/A
Luminaire Lumens: 9857.0 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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									
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°	6756	6756	6756
5°	6664	6656	6648
10°	6606	6598	6551
15°	6428	6363	6274
20°	6192	6092	5926
25°	5937	5808	5446
30°	5627	5447	4906
35°	5330	5034	4538
40°	5026	4588	4129
45°	4738	4241	3733
50°	4386	3937	3329
55°	4058	3567	2982
60°	3718	3186	2671
65°	3271	2791	2365
70°	2694	2443	2009
75°	2142	1871	1961
80°	1439	1349	1259
85°	895	1076	1255



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	467.4	4.7
10°-20°	1282.7	13.0
20°-30°	1775.8	18.0
30°-40°	1893.5	19.2
40°-50°	1727.5	17.5
50°-60°	1353.3	13.7
60°-70°	882.0	8.9
70°-80°	390.8	4.0
80°-90°	83.9	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°	3525.9	35.8
0°-40°	5419.5	55.0
0°-60°	8500.3	86.2
0°-90°	9857.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9857.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5021	5021	5021	5021	5021	
5°	4934	4928	4928	4922	4922	468
15°	4615	4615	4568	4522	4504	1297
25°	3999	3976	3912	3773	3668	1836
35°	3245	3222	3065	2833	2763	2029
45°	2490	2438	2229	2043	1962	1918
55°	1730	1678	1521	1341	1271	1551
65°	1027	969	876	894	743	1013
75°	412	383	360	342	377	442
85°	58	64	70	76	81	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5021.0	5021.0	5021.0	5021.0	5021.0
2.5°	4986.2	4986.2	4986.2	4980.4	4980.4
5°	4934.0	4928.1	4928.1	4922.3	4922.3
7.5°	4893.3	4887.5	4881.7	4875.9	4864.3
10°	4835.3	4835.3	4829.5	4800.4	4794.6
12.5°	4742.4	4736.6	4713.4	4672.7	4661.1
15°	4614.7	4614.7	4568.3	4521.8	4504.4
17.5°	4475.4	4469.6	4411.5	4365.1	4341.9
20°	4324.5	4312.9	4254.8	4179.3	4138.7
22.5°	4156.1	4156.1	4086.5	3987.8	3947.2
25°	3999.4	3976.2	3912.3	3773.0	3668.5
27.5°	3819.5	3784.6	3715.0	3517.6	3395.7
30°	3622.1	3604.7	3506.0	3250.6	3157.7
32.5°	3436.4	3407.3	3302.8	3035.8	2960.4
35°	3244.8	3221.6	3064.9	2832.7	2763.0
37.5°	3053.2	3024.2	2826.9	2641.1	2554.0
40°	2861.7	2826.9	2612.1	2443.8	2350.9
42.5°	2681.7	2635.3	2426.3	2246.4	2141.9
45°	2490.2	2438.0	2229.0	2043.2	1962.0
47.5°	2298.6	2252.2	2060.7	1869.1	1776.2
50°	2095.5	2054.8	1880.7	1689.2	1590.5
52.5°	1927.1	1863.3	1695.0	1503.4	1422.1
55°	1729.8	1677.5	1520.8	1340.9	1271.2
57.5°	1549.8	1497.6	1352.5	1184.1	1126.1
60°	1381.5	1306.0	1184.1	1039.0	992.6
62.5°	1195.8	1137.7	1033.2	911.3	969.4
65°	1027.4	969.4	876.5	893.9	743.0
67.5°	841.7	812.7	731.4	650.1	626.9
70°	684.9	650.1	621.1	534.0	510.8
72.5°	545.6	510.8	470.2	423.7	406.3
75°	412.1	383.1	359.9	342.5	377.3
77.5°	284.4	272.8	255.4	238.0	232.2
80°	185.7	179.9	174.1	168.3	162.5
82.5°	110.3	110.3	110.3	110.3	110.3
85°	58.0	63.9	69.7	75.5	81.3
87.5°	34.8	34.8	40.6	46.4	52.2
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)