

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: P547133

Luminaire Tested: **FMR-24-4-LD4-3LO-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: P547133
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-LD4-3LO-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

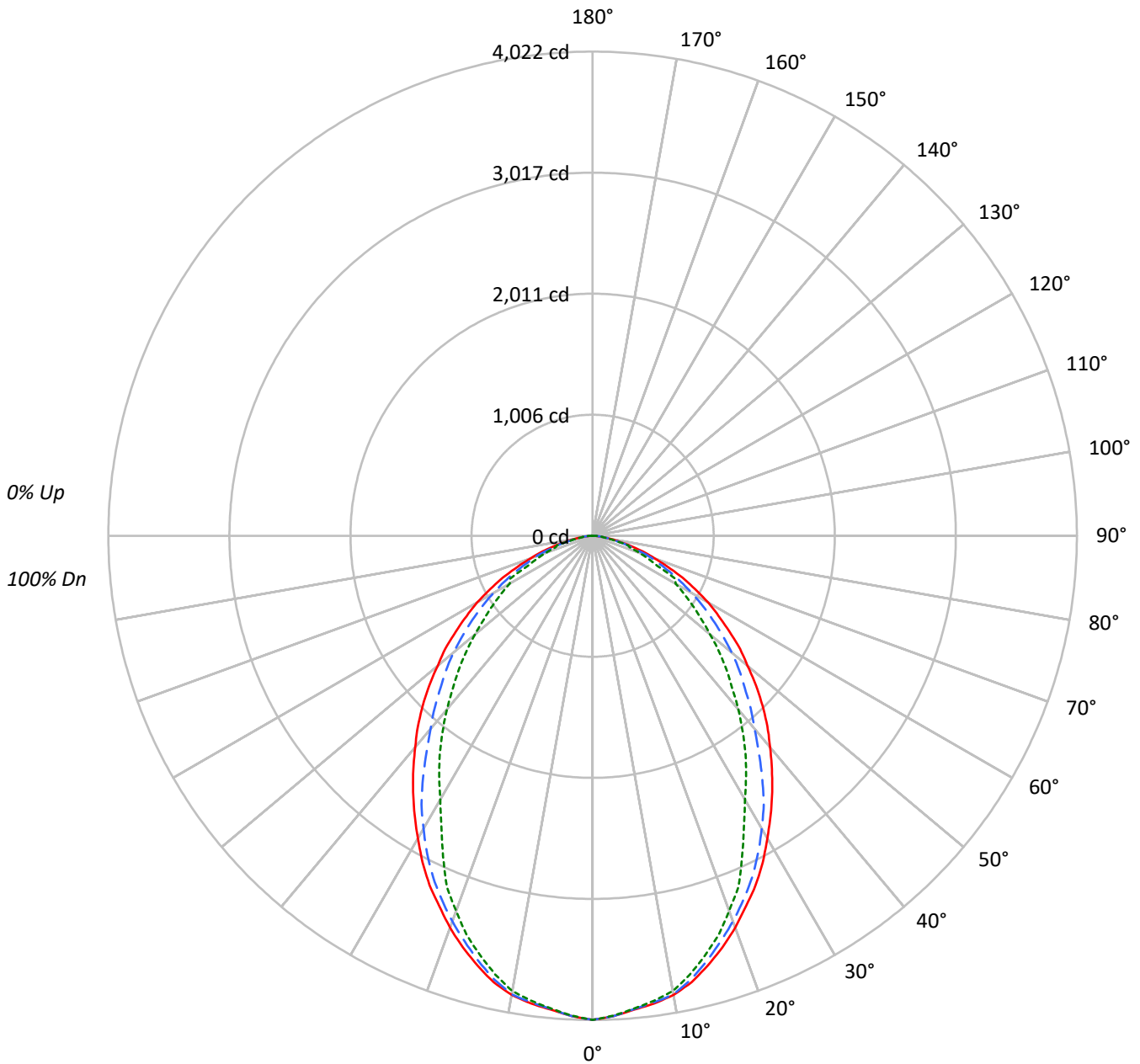
Lumens per Lamp: N/A
Luminaire Lumens: 7895.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	5411	5411	5411
5°	5338	5331	5325
10°	5291	5285	5247
15°	5149	5097	5025
20°	4959	4880	4746
25°	4756	4652	4362
30°	4507	4363	3929
35°	4269	4032	3635
40°	4026	3675	3307
45°	3795	3397	2990
50°	3513	3153	2667
55°	3250	2857	2388
60°	2978	2552	2139
65°	2620	2235	1895
70°	2158	1957	1609
75°	1716	1499	1571
80°	1153	1081	1009
85°	718	861	1005



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.4	4.7
10°-20°	1027.4	13.0
20°-30°	1422.4	18.0
30°-40°	1516.6	19.2
40°-50°	1383.6	17.5
50°-60°	1084.0	13.7
60°-70°	706.5	8.9
70°-80°	313.0	4.0
80°-90°	67.2	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°	2824.1	35.8
0°-40°	4340.7	55.0
0°-60°	6808.3	86.2
0°-90°	7895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7895.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4022	4022	4022	4022	4022	
5°	3952	3947	3947	3943	3943	375
15°	3696	3696	3659	3622	3608	1039
25°	3203	3185	3134	3022	2938	1471
35°	2599	2580	2455	2269	2213	1625
45°	1994	1953	1785	1636	1571	1536
55°	1386	1344	1218	1074	1018	1243
65°	823	776	702	716	595	811
75°	330	307	288	274	302	354
85°	46	51	56	60	65	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4021.6	4021.6	4021.6	4021.6	4021.6
2.5°	3993.7	3993.7	3993.7	3989.1	3989.1
5°	3951.9	3947.2	3947.2	3942.6	3942.6
7.5°	3919.3	3914.7	3910.0	3905.4	3896.1
10°	3872.8	3872.8	3868.2	3844.9	3840.3
12.5°	3798.4	3793.8	3775.2	3742.7	3733.4
15°	3696.2	3696.2	3659.0	3621.8	3607.8
17.5°	3584.6	3579.9	3533.4	3496.2	3477.6
20°	3463.7	3454.4	3407.9	3347.5	3314.9
22.5°	3328.9	3328.9	3273.1	3194.0	3161.5
25°	3203.3	3184.7	3133.6	3022.0	2938.3
27.5°	3059.2	3031.3	2975.5	2817.4	2719.8
30°	2901.1	2887.2	2808.2	2603.6	2529.2
32.5°	2752.4	2729.1	2645.4	2431.6	2371.1
35°	2598.9	2580.3	2454.8	2268.8	2213.0
37.5°	2445.5	2422.3	2264.2	2115.4	2045.7
40°	2292.1	2264.2	2092.2	1957.3	1882.9
42.5°	2148.0	2110.8	1943.4	1799.3	1715.6
45°	1994.5	1952.7	1785.3	1636.5	1571.4
47.5°	1841.1	1803.9	1650.5	1497.1	1422.7
50°	1678.4	1645.8	1506.4	1352.9	1273.9
52.5°	1543.6	1492.4	1357.6	1204.2	1139.1
55°	1385.5	1343.6	1218.1	1074.0	1018.2
57.5°	1241.4	1199.5	1083.3	948.4	902.0
60°	1106.5	1046.1	948.4	832.2	795.0
62.5°	957.7	911.3	827.6	729.9	776.4
65°	822.9	776.4	702.0	716.0	595.1
67.5°	674.1	650.9	585.8	520.7	502.1
70°	548.6	520.7	497.5	427.7	409.1
72.5°	437.0	409.1	376.6	339.4	325.4
75°	330.1	306.9	288.3	274.3	302.2
77.5°	227.8	218.5	204.6	190.6	186.0
80°	148.8	144.1	139.5	134.8	130.2
82.5°	88.3	88.3	88.3	88.3	88.3
85°	46.5	51.1	55.8	60.4	65.1
87.5°	27.9	27.9	32.5	37.2	41.8
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)