

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: P547066

Luminaire Tested: **FMR-24-4-LD4-3LO-35-UNV-80-87-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: P547066
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-35-UNV-80-87-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

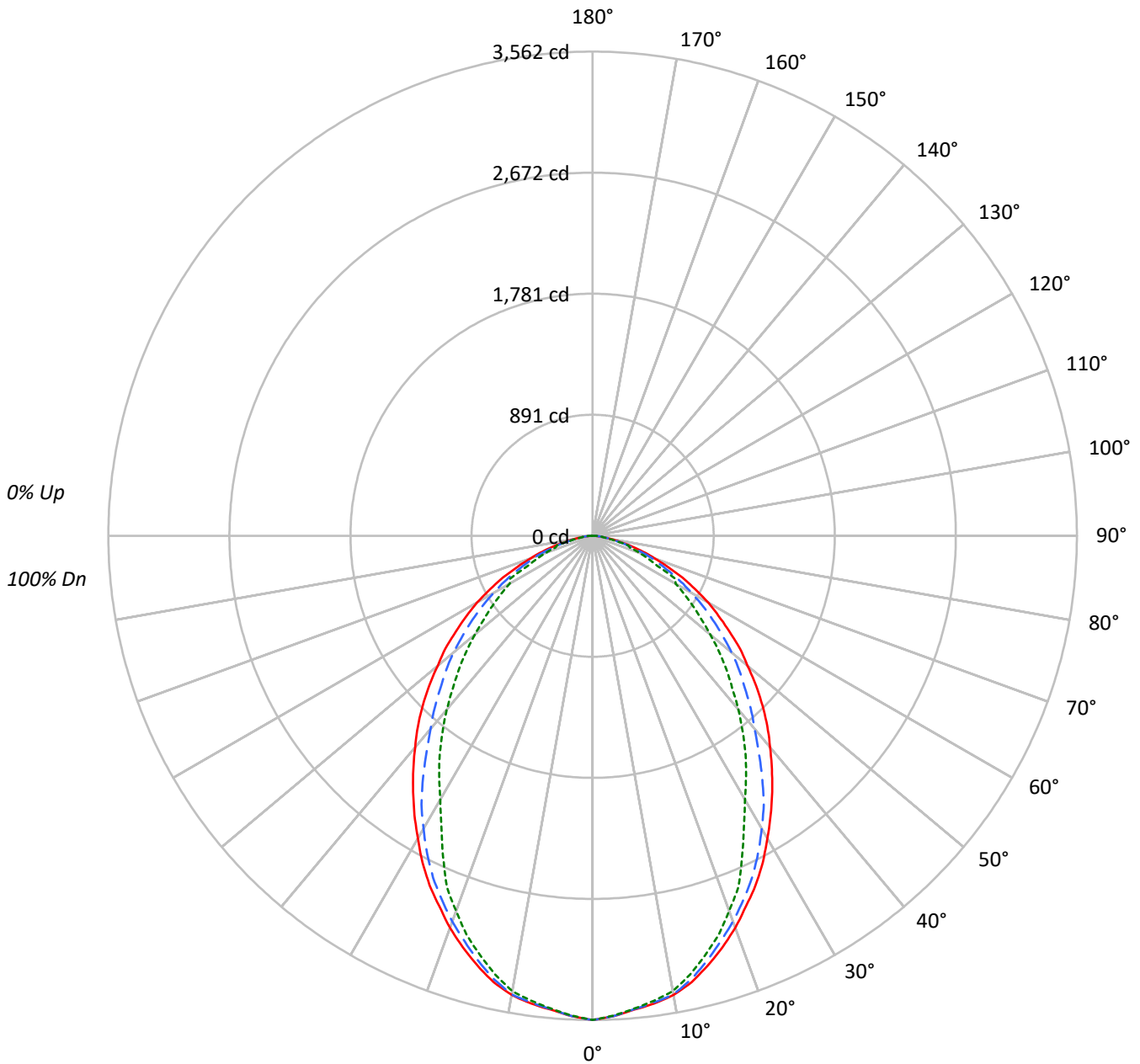
Lumens per Lamp: N/A
Luminaire Lumens: 6993.0 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	4793	4793	4793
5°	4728	4722	4717
10°	4687	4681	4647
15°	4560	4514	4451
20°	4393	4322	4204
25°	4212	4121	3864
30°	3992	3864	3480
35°	3781	3571	3220
40°	3566	3255	2929
45°	3362	3009	2649
50°	3112	2793	2362
55°	2879	2531	2116
60°	2637	2261	1895
65°	2321	1980	1678
70°	1912	1733	1426
75°	1520	1327	1392
80°	1021	957	893
85°	636	763	891



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.6	4.7
10°-20°	910.0	13.0
20°-30°	1259.9	18.0
30°-40°	1343.4	19.2
40°-50°	1225.5	17.5
50°-60°	960.1	13.7
60°-70°	625.7	8.9
70°-80°	277.2	4.0
80°-90°	59.5	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°	2501.5	35.8
0°-40°	3844.8	55.0
0°-60°	6030.5	86.2
0°-90°	6993.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6993.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3562	3562	3562	3562	3562	
5°	3500	3496	3496	3492	3492	332
15°	3274	3274	3241	3208	3196	920
25°	2837	2821	2776	2677	2603	1303
35°	2302	2286	2174	2010	1960	1439
45°	1767	1730	1581	1450	1392	1361
55°	1227	1190	1079	951	902	1101
65°	729	688	622	634	527	718
75°	292	272	255	243	268	313
85°	41	45	49	54	58	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3562.1	3562.1	3562.1	3562.1	3562.1
2.5°	3537.4	3537.4	3537.4	3533.3	3533.3
5°	3500.4	3496.3	3496.3	3492.1	3492.1
7.5°	3471.5	3467.4	3463.3	3459.2	3451.0
10°	3430.4	3430.4	3426.2	3405.7	3401.5
12.5°	3364.5	3360.4	3343.9	3315.1	3306.8
15°	3273.9	3273.9	3240.9	3208.0	3195.6
17.5°	3175.0	3170.9	3129.7	3096.8	3080.3
20°	3068.0	3059.7	3018.6	2965.0	2936.2
22.5°	2948.5	2948.5	2899.1	2829.1	2800.3
25°	2837.4	2820.9	2775.6	2676.8	2602.6
27.5°	2709.7	2685.0	2635.6	2495.6	2409.1
30°	2569.7	2557.3	2487.3	2306.1	2240.2
32.5°	2437.9	2417.3	2343.2	2153.8	2100.2
35°	2302.0	2285.5	2174.3	2009.6	1960.2
37.5°	2166.1	2145.5	2005.5	1873.7	1812.0
40°	2030.2	2005.5	1853.1	1733.7	1667.8
42.5°	1902.6	1869.6	1721.4	1593.7	1519.6
45°	1766.7	1729.6	1581.3	1449.6	1391.9
47.5°	1630.8	1597.8	1461.9	1326.0	1260.1
50°	1486.6	1457.8	1334.3	1198.4	1128.4
52.5°	1367.2	1321.9	1202.5	1066.6	1008.9
55°	1227.2	1190.1	1078.9	951.3	901.9
57.5°	1099.5	1062.5	959.5	840.1	798.9
60°	980.1	926.6	840.1	737.1	704.2
62.5°	848.3	807.1	733.0	646.5	687.7
65°	728.9	687.7	621.8	634.2	527.1
67.5°	597.1	576.5	518.9	461.2	444.8
70°	485.9	461.2	440.6	378.9	362.4
72.5°	387.1	362.4	333.6	300.6	288.3
75°	292.4	271.8	255.3	243.0	267.7
77.5°	201.8	193.5	181.2	168.8	164.7
80°	131.8	127.7	123.5	119.4	115.3
82.5°	78.2	78.2	78.2	78.2	78.2
85°	41.2	45.3	49.4	53.5	57.7
87.5°	24.7	24.7	28.8	32.9	37.1
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)