

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: P547129

Luminaire Tested: **FMR-24-4-LD4-3LO-50-UNV-80-86-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: P547129
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-80-86-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

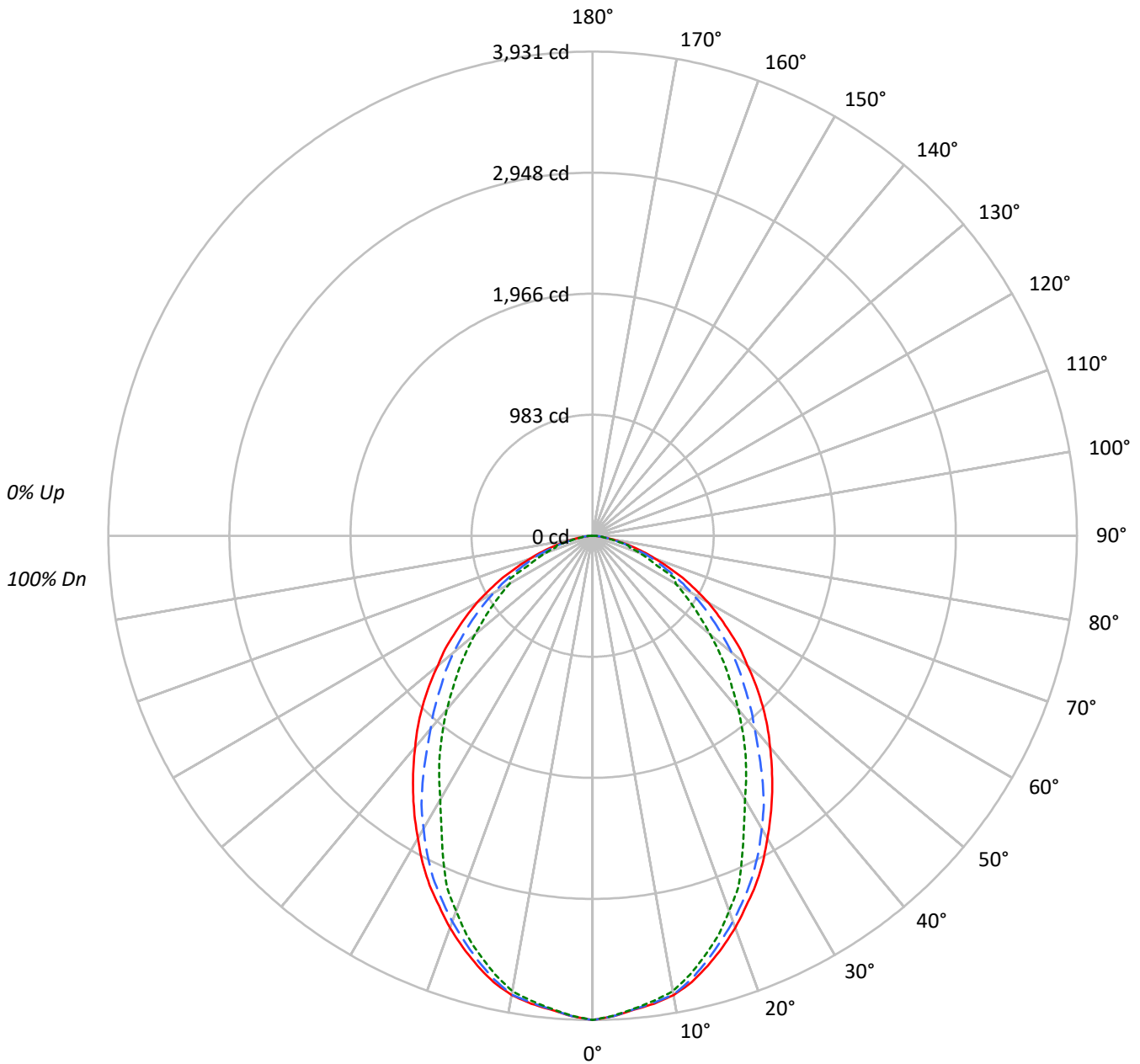
Lumens per Lamp: N/A
Luminaire Lumens: 7718.0 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	5290	5290	5290
5°	5218	5212	5206
10°	5173	5166	5129
15°	5033	4982	4913
20°	4848	4770	4640
25°	4649	4548	4264
30°	4406	4265	3841
35°	4173	3942	3553
40°	3936	3592	3233
45°	3710	3321	2923
50°	3435	3082	2607
55°	3177	2793	2335
60°	2911	2495	2091
65°	2561	2185	1852
70°	2110	1913	1574
75°	1678	1465	1536
80°	1127	1057	986
85°	702	841	982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.0	4.7
10°-20°	1004.4	13.0
20°-30°	1390.5	18.0
30°-40°	1482.6	19.2
40°-50°	1352.6	17.5
50°-60°	1059.7	13.7
60°-70°	690.6	8.9
70°-80°	306.0	4.0
80°-90°	65.7	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°	2760.8	35.8
0°-40°	4243.4	55.0
0°-60°	6655.7	86.2
0°-90°	7718.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7718.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3931	3931	3931	3931	3931	
5°	3863	3859	3859	3854	3854	367
15°	3613	3613	3577	3541	3527	1016
25°	3132	3113	3063	2954	2872	1438
35°	2541	2522	2400	2218	2163	1588
45°	1950	1909	1745	1600	1536	1502
55°	1354	1314	1191	1050	995	1215
65°	804	759	686	700	582	793
75°	323	300	282	268	295	346
85°	46	50	54	59	64	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3931.4	3931.4	3931.4	3931.4	3931.4
2.5°	3904.2	3904.2	3904.2	3899.6	3899.6
5°	3863.3	3858.7	3858.7	3854.2	3854.2
7.5°	3831.5	3826.9	3822.4	3817.8	3808.7
10°	3786.0	3786.0	3781.5	3758.7	3754.2
12.5°	3713.3	3708.7	3690.6	3658.7	3649.7
15°	3613.3	3613.3	3576.9	3540.6	3526.9
17.5°	3504.2	3499.7	3454.2	3417.9	3399.7
20°	3386.0	3377.0	3331.5	3272.4	3240.6
22.5°	3254.2	3254.2	3199.7	3122.4	3090.6
25°	3131.5	3113.3	3063.3	2954.3	2872.5
27.5°	2990.6	2963.4	2908.8	2754.3	2658.8
30°	2836.1	2822.5	2745.2	2545.2	2472.5
32.5°	2690.7	2667.9	2586.1	2377.0	2318.0
35°	2540.7	2522.5	2399.8	2218.0	2163.4
37.5°	2390.7	2368.0	2213.4	2068.0	1999.8
40°	2240.7	2213.4	2045.3	1913.5	1840.7
42.5°	2099.8	2063.4	1899.8	1758.9	1677.1
45°	1949.8	1908.9	1745.3	1599.8	1536.2
47.5°	1799.8	1763.5	1613.5	1463.5	1390.8
50°	1640.8	1608.9	1472.6	1322.6	1245.3
52.5°	1508.9	1459.0	1327.1	1177.2	1113.5
55°	1354.4	1313.5	1190.8	1049.9	995.4
57.5°	1213.5	1172.6	1059.0	927.2	881.7
60°	1081.7	1022.6	927.2	813.6	777.2
62.5°	936.3	890.8	809.0	713.6	759.0
65°	804.5	759.0	686.3	699.9	581.8
67.5°	659.0	636.3	572.7	509.0	490.9
70°	536.3	509.0	486.3	418.1	400.0
72.5°	427.2	400.0	368.1	331.8	318.2
75°	322.7	300.0	281.8	268.2	295.4
77.5°	222.7	213.6	200.0	186.3	181.8
80°	145.4	140.9	136.4	131.8	127.3
82.5°	86.4	86.4	86.4	86.4	86.4
85°	45.5	50.0	54.5	59.1	63.6
87.5°	27.3	27.3	31.8	36.4	40.9
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)