

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: P547164

Luminaire Tested: **FMR-24-4-LD4-3STD-35-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: P547164
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-LD4-3STD-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

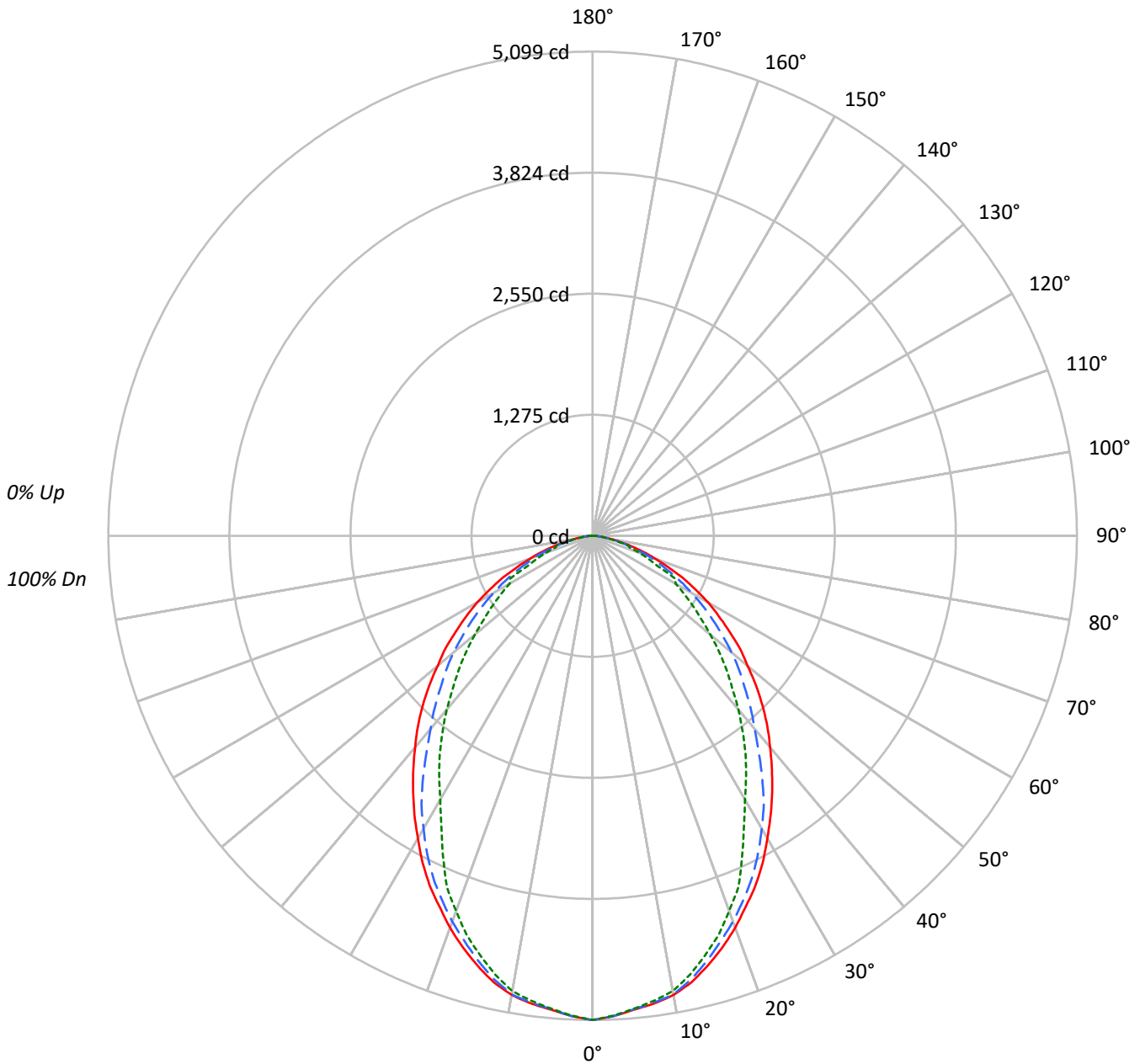
Lumens per Lamp: N/A
Luminaire Lumens: 10010.0 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	6861	6861	6861
5°	6767	6759	6751
10°	6709	6701	6652
15°	6528	6462	6372
20°	6288	6187	6018
25°	6030	5898	5531
30°	5715	5532	4982
35°	5412	5112	4609
40°	5104	4659	4193
45°	4812	4307	3791
50°	4454	3998	3381
55°	4121	3623	3028
60°	3775	3236	2713
65°	3322	2834	2402
70°	2736	2481	2041
75°	2176	1900	1992
80°	1461	1370	1279
85°	909	1091	1274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	474.6	4.7
10°-20°	1302.6	13.0
20°-30°	1803.4	18.0
30°-40°	1922.9	19.2
40°-50°	1754.3	17.5
50°-60°	1374.3	13.7
60°-70°	895.7	8.9
70°-80°	396.8	4.0
80°-90°	85.2	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°	3580.7	35.8
0°-40°	5503.6	55.0
0°-60°	8632.2	86.2
0°-90°	10010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10010.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5099	5099	5099	5099	5099	
5°	5010	5005	5005	4999	4999	476
15°	4686	4686	4639	4592	4574	1317
25°	4062	4038	3973	3832	3726	1865
35°	3295	3272	3112	2877	2806	2060
45°	2529	2476	2264	2075	1992	1948
55°	1757	1704	1544	1362	1291	1576
65°	1043	984	890	908	754	1028
75°	418	389	366	348	383	449
85°	59	65	71	77	82	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5099.0	5099.0	5099.0	5099.0	5099.0
2.5°	5063.6	5063.6	5063.6	5057.7	5057.7
5°	5010.5	5004.6	5004.6	4998.7	4998.7
7.5°	4969.3	4963.4	4957.5	4951.6	4939.8
10°	4910.3	4910.3	4904.4	4875.0	4869.1
12.5°	4816.0	4810.1	4786.5	4745.3	4733.5
15°	4686.3	4686.3	4639.2	4592.0	4574.3
17.5°	4544.9	4539.0	4480.0	4432.9	4409.3
20°	4391.6	4379.8	4320.9	4244.2	4203.0
22.5°	4220.6	4220.6	4149.9	4049.7	4008.4
25°	4061.5	4037.9	3973.1	3831.6	3725.5
27.5°	3878.7	3843.4	3772.6	3572.2	3448.4
30°	3678.3	3660.6	3560.4	3301.1	3206.7
32.5°	3489.7	3460.2	3354.1	3083.0	3006.3
35°	3295.2	3271.6	3112.4	2876.6	2805.9
37.5°	3100.6	3071.2	2870.7	2682.1	2593.7
40°	2906.1	2870.7	2652.6	2481.7	2387.4
42.5°	2723.4	2676.2	2464.0	2281.3	2175.2
45°	2528.8	2475.8	2263.6	2075.0	1992.4
47.5°	2334.3	2287.2	2092.6	1898.1	1803.8
50°	2128.0	2086.7	1909.9	1715.4	1615.2
52.5°	1957.1	1892.2	1721.3	1526.7	1444.2
55°	1756.6	1703.6	1544.4	1361.7	1291.0
57.5°	1573.9	1520.8	1373.5	1202.5	1143.6
60°	1403.0	1326.3	1202.5	1055.2	1008.0
62.5°	1214.3	1155.4	1049.3	925.5	984.4
65°	1043.4	984.4	890.1	907.8	754.5
67.5°	854.7	825.3	742.7	660.2	636.6
70°	695.6	660.2	630.7	542.3	518.7
72.5°	554.1	518.7	477.5	430.3	412.6
75°	418.5	389.1	365.5	347.8	383.2
77.5°	288.8	277.1	259.4	241.7	235.8
80°	188.6	182.7	176.8	170.9	165.1
82.5°	112.0	112.0	112.0	112.0	112.0
85°	58.9	64.8	70.7	76.6	82.5
87.5°	35.4	35.4	41.3	47.2	53.1
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)