

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: P547228

Luminaire Tested: **FMR-24-4-LD4-3STD-50-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: P547228
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

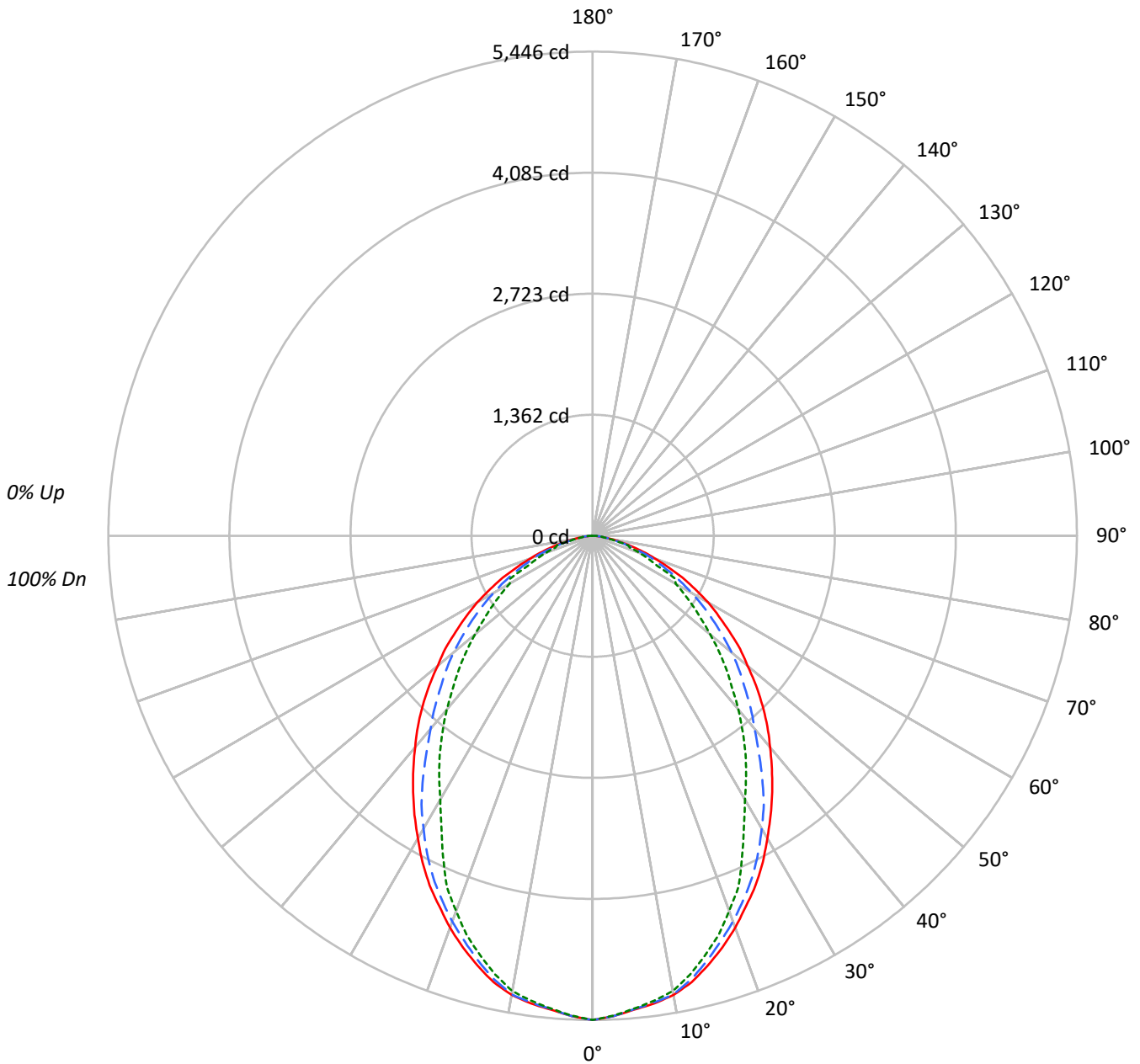
Lumens per Lamp: N/A
Luminaire Lumens: 10691.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	7327	7327	7327
5°	7228	7219	7211
10°	7165	7157	7105
15°	6972	6902	6805
20°	6716	6608	6427
25°	6440	6300	5907
30°	6104	5908	5321
35°	5781	5460	4922
40°	5452	4976	4478
45°	5139	4600	4049
50°	4757	4270	3611
55°	4401	3869	3234
60°	4032	3456	2897
65°	3548	3027	2566
70°	2923	2650	2179
75°	2324	2029	2127
80°	1561	1464	1366
85°	973	1166	1360



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	506.9	4.7
10°-20°	1391.2	13.0
20°-30°	1926.1	18.0
30°-40°	2053.8	19.2
40°-50°	1873.6	17.5
50°-60°	1467.8	13.7
60°-70°	956.7	8.9
70°-80°	423.8	4.0
80°-90°	91.0	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°	3824.3	35.8
0°-40°	5878.0	55.0
0°-60°	9219.5	86.2
0°-90°	10691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5446	5446	5446	5446	5446	
5°	5351	5345	5345	5339	5339	508
15°	5005	5005	4955	4904	4886	1407
25°	4338	4313	4243	4092	3979	1991
35°	3519	3494	3324	3072	2997	2200
45°	2701	2644	2418	2216	2128	2080
55°	1876	1820	1650	1454	1379	1683
65°	1114	1051	951	970	806	1098
75°	447	416	390	372	409	479
85°	63	69	76	82	88	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5445.9	5445.9	5445.9	5445.9	5445.9
2.5°	5408.1	5408.1	5408.1	5401.8	5401.8
5°	5351.4	5345.1	5345.1	5338.8	5338.8
7.5°	5307.3	5301.0	5294.8	5288.5	5275.9
10°	5244.4	5244.4	5238.1	5206.6	5200.3
12.5°	5143.7	5137.4	5112.2	5068.1	5055.5
15°	5005.1	5005.1	4954.8	4904.4	4885.5
17.5°	4854.0	4847.8	4784.8	4734.4	4709.2
20°	4690.4	4677.8	4614.8	4533.0	4488.9
22.5°	4507.8	4507.8	4432.2	4325.2	4281.1
25°	4337.8	4312.6	4243.4	4092.3	3978.9
27.5°	4142.6	4104.9	4029.3	3815.2	3683.0
30°	3928.6	3909.7	3802.7	3525.6	3424.9
32.5°	3727.1	3695.6	3582.3	3292.7	3210.8
35°	3519.3	3494.2	3324.2	3072.3	2996.8
37.5°	3311.6	3280.1	3066.0	2864.6	2770.1
40°	3103.8	3066.0	2833.1	2650.5	2549.8
42.5°	2908.7	2858.3	2631.6	2436.5	2323.1
45°	2700.9	2644.2	2417.6	2216.1	2128.0
47.5°	2493.1	2442.8	2235.0	2027.2	1926.5
50°	2272.8	2228.7	2039.8	1832.1	1725.0
52.5°	2090.2	2020.9	1838.4	1630.6	1542.5
55°	1876.1	1819.5	1649.5	1454.3	1378.8
57.5°	1681.0	1624.3	1466.9	1284.3	1221.4
60°	1498.4	1416.6	1284.3	1126.9	1076.6
62.5°	1296.9	1234.0	1120.6	988.4	1051.4
65°	1114.4	1051.4	950.7	969.6	805.9
67.5°	912.9	881.4	793.3	705.1	679.9
70°	742.9	705.1	673.6	579.2	554.0
72.5°	591.8	554.0	510.0	459.6	440.7
75°	447.0	415.5	390.3	371.5	409.2
77.5°	308.5	295.9	277.0	258.1	251.8
80°	201.5	195.2	188.9	182.6	176.3
82.5°	119.6	119.6	119.6	119.6	119.6
85°	63.0	69.3	75.5	81.8	88.1
87.5°	37.8	37.8	44.1	50.4	56.7
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)