

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: P546876

Luminaire Tested: **FMR-24-4-LD4-2STD-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: P546876
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-LD4-2STD-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

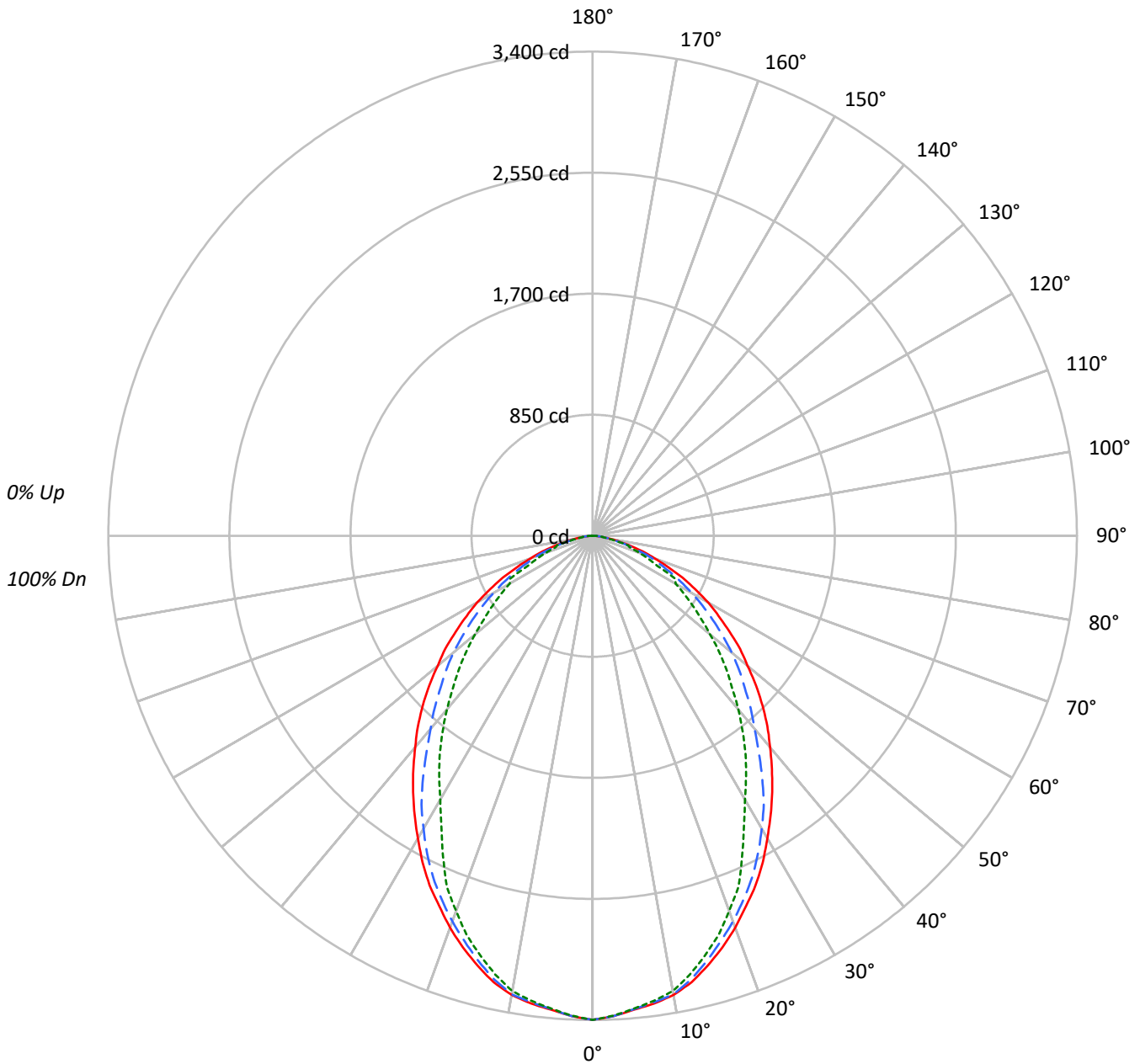
Lumens per Lamp: N/A
Luminaire Lumens: 6674.0 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	4574	4574	4574
5°	4512	4507	4501
10°	4473	4467	4435
15°	4352	4309	4248
20°	4192	4125	4012
25°	4020	3933	3688
30°	3810	3688	3322
35°	3609	3409	3073
40°	3403	3106	2796
45°	3208	2872	2528
50°	2970	2665	2254
55°	2747	2415	2019
60°	2517	2158	1809
65°	2215	1890	1602
70°	1825	1654	1361
75°	1450	1267	1328
80°	975	914	852
85°	607	729	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.5	4.7
10°-20°	868.5	13.0
20°-30°	1202.4	18.0
30°-40°	1282.1	19.2
40°-50°	1169.6	17.5
50°-60°	916.3	13.7
60°-70°	597.2	8.9
70°-80°	264.6	4.0
80°-90°	56.8	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°	2387.3	35.8
0°-40°	3669.4	55.0
0°-60°	5755.4	86.2
0°-90°	6674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3400	3400	3400	3400	3400	
5°	3341	3337	3337	3333	3333	317
15°	3124	3124	3093	3062	3050	878
25°	2708	2692	2649	2555	2484	1243
35°	2197	2181	2075	1918	1871	1374
45°	1686	1651	1509	1383	1328	1299
55°	1171	1136	1030	908	861	1050
65°	696	656	594	605	503	686
75°	279	259	244	232	256	299
85°	39	43	47	51	55	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3399.6	3399.6	3399.6	3399.6	3399.6
2.5°	3376.1	3376.1	3376.1	3372.1	3372.1
5°	3340.7	3336.8	3336.8	3332.8	3332.8
7.5°	3313.2	3309.3	3305.3	3301.4	3293.5
10°	3273.9	3273.9	3269.9	3250.3	3246.4
12.5°	3211.0	3207.1	3191.3	3163.8	3156.0
15°	3124.5	3124.5	3093.1	3061.6	3049.9
17.5°	3030.2	3026.3	2987.0	2955.5	2939.8
20°	2928.0	2920.2	2880.9	2829.8	2802.3
22.5°	2814.0	2814.0	2766.9	2700.1	2672.6
25°	2707.9	2692.2	2649.0	2554.6	2483.9
27.5°	2586.1	2562.5	2515.3	2381.7	2299.2
30°	2452.5	2440.7	2373.9	2200.9	2138.0
32.5°	2326.7	2307.0	2236.3	2055.5	2004.4
35°	2197.0	2181.3	2075.2	1918.0	1870.8
37.5°	2067.3	2047.6	1914.0	1788.3	1729.3
40°	1937.6	1914.0	1768.6	1654.6	1591.7
42.5°	1815.8	1784.3	1642.8	1521.0	1450.3
45°	1686.1	1650.7	1509.2	1383.4	1328.4
47.5°	1556.4	1524.9	1395.2	1265.5	1202.6
50°	1418.8	1391.3	1273.4	1143.7	1076.9
52.5°	1304.8	1261.6	1147.6	1017.9	962.9
55°	1171.2	1135.8	1029.7	907.9	860.7
57.5°	1049.4	1014.0	915.7	801.8	762.5
60°	935.4	884.3	801.8	703.5	672.1
62.5°	809.6	770.3	699.6	617.0	656.3
65°	695.7	656.3	593.5	605.3	503.1
67.5°	569.9	550.2	495.2	440.2	424.5
70°	463.8	440.2	420.5	361.6	345.9
72.5°	369.4	345.9	318.3	286.9	275.1
75°	279.0	259.4	243.7	231.9	255.5
77.5°	192.6	184.7	172.9	161.1	157.2
80°	125.8	121.8	117.9	114.0	110.0
82.5°	74.7	74.7	74.7	74.7	74.7
85°	39.3	43.2	47.2	51.1	55.0
87.5°	23.6	23.6	27.5	31.4	35.4
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)