

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: P547067

Luminaire Tested: **FMR-24-4-LD4-3LO-35-UNV-80-88-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: P547067
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-80-88-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

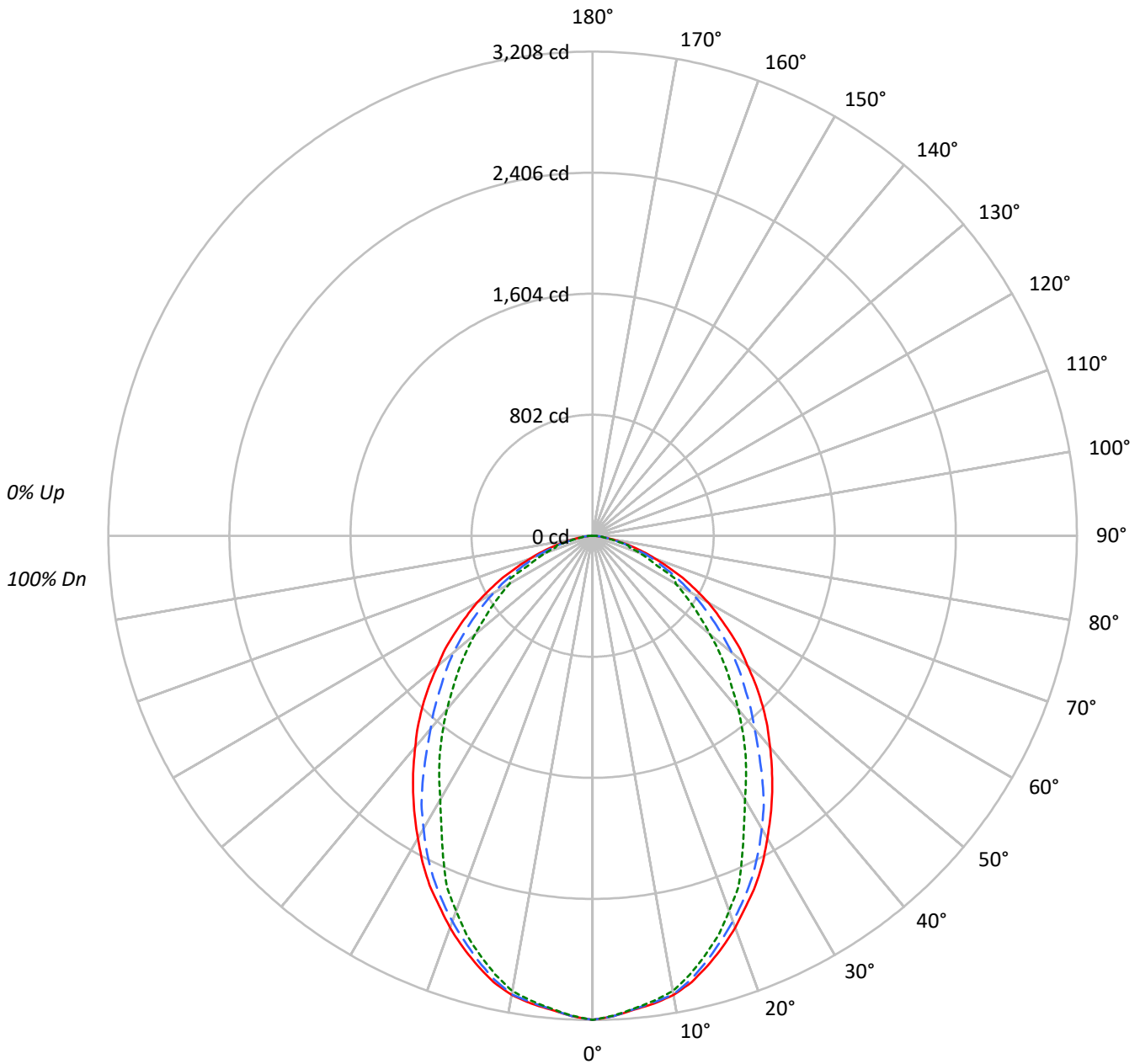
Lumens per Lamp: N/A
Luminaire Lumens: 6297.0 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	4316	4316	4316
5°	4257	4252	4247
10°	4220	4215	4185
15°	4106	4065	4008
20°	3956	3892	3786
25°	3793	3710	3479
30°	3595	3480	3134
35°	3405	3216	2899
40°	3211	2931	2638
45°	3027	2710	2385
50°	2802	2515	2127
55°	2592	2279	1905
60°	2375	2036	1706
65°	2090	1783	1511
70°	1721	1561	1284
75°	1369	1195	1253
80°	920	862	804
85°	573	687	801



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.6	4.7
10°-20°	819.4	13.0
20°-30°	1134.5	18.0
30°-40°	1209.7	19.2
40°-50°	1103.6	17.5
50°-60°	864.6	13.7
60°-70°	563.5	8.9
70°-80°	249.6	4.0
80°-90°	53.6	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°	2252.5	35.8
0°-40°	3462.2	55.0
0°-60°	5430.3	86.2
0°-90°	6297.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6297.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3208	3208	3208	3208	3208	
5°	3152	3148	3148	3145	3145	299
15°	2948	2948	2918	2889	2878	829
25°	2555	2540	2499	2410	2344	1173
35°	2073	2058	1958	1810	1765	1296
45°	1591	1558	1424	1305	1253	1225
55°	1105	1072	972	857	812	991
65°	656	619	560	571	475	647
75°	263	245	230	219	241	282
85°	37	41	44	48	52	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3207.6	3207.6	3207.6	3207.6	3207.6
2.5°	3185.4	3185.4	3185.4	3181.7	3181.7
5°	3152.0	3148.3	3148.3	3144.6	3144.6
7.5°	3126.0	3122.3	3118.6	3114.9	3107.5
10°	3088.9	3088.9	3085.2	3066.7	3063.0
12.5°	3029.6	3025.9	3011.1	2985.1	2977.7
15°	2948.0	2948.0	2918.4	2888.7	2877.6
17.5°	2859.0	2855.3	2818.2	2788.6	2773.7
20°	2762.6	2755.2	2718.1	2669.9	2644.0
22.5°	2655.1	2655.1	2610.6	2547.5	2521.6
25°	2555.0	2540.1	2499.3	2410.3	2343.6
27.5°	2440.0	2417.8	2373.3	2247.2	2169.3
30°	2313.9	2302.8	2239.8	2076.6	2017.3
32.5°	2195.3	2176.7	2110.0	1939.4	1891.2
35°	2072.9	2058.1	1957.9	1809.6	1765.1
37.5°	1950.5	1932.0	1805.9	1687.2	1631.6
40°	1828.2	1805.9	1668.7	1561.2	1501.8
42.5°	1713.2	1683.5	1550.0	1435.1	1368.3
45°	1590.8	1557.5	1424.0	1305.3	1253.4
47.5°	1468.5	1438.8	1316.4	1194.0	1134.7
50°	1338.7	1312.7	1201.5	1079.1	1016.1
52.5°	1231.1	1190.3	1082.8	960.4	908.5
55°	1105.0	1071.7	971.6	856.6	812.1
57.5°	990.1	956.7	864.0	756.5	719.4
60°	882.6	834.3	756.5	663.8	634.1
62.5°	763.9	726.8	660.1	582.2	619.3
65°	656.4	619.3	559.9	571.1	474.7
67.5°	537.7	519.2	467.2	415.3	400.5
70°	437.6	415.3	396.8	341.2	326.3
72.5°	348.6	326.3	300.4	270.7	259.6
75°	263.3	244.7	229.9	218.8	241.0
77.5°	181.7	174.3	163.2	152.0	148.3
80°	118.7	115.0	111.2	107.5	103.8
82.5°	70.5	70.5	70.5	70.5	70.5
85°	37.1	40.8	44.5	48.2	51.9
87.5°	22.2	22.2	26.0	29.7	33.4
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)