

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: P546873

Luminaire Tested: **FMR-24-4-LD4-2STD-35-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: P546873
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-80-86-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

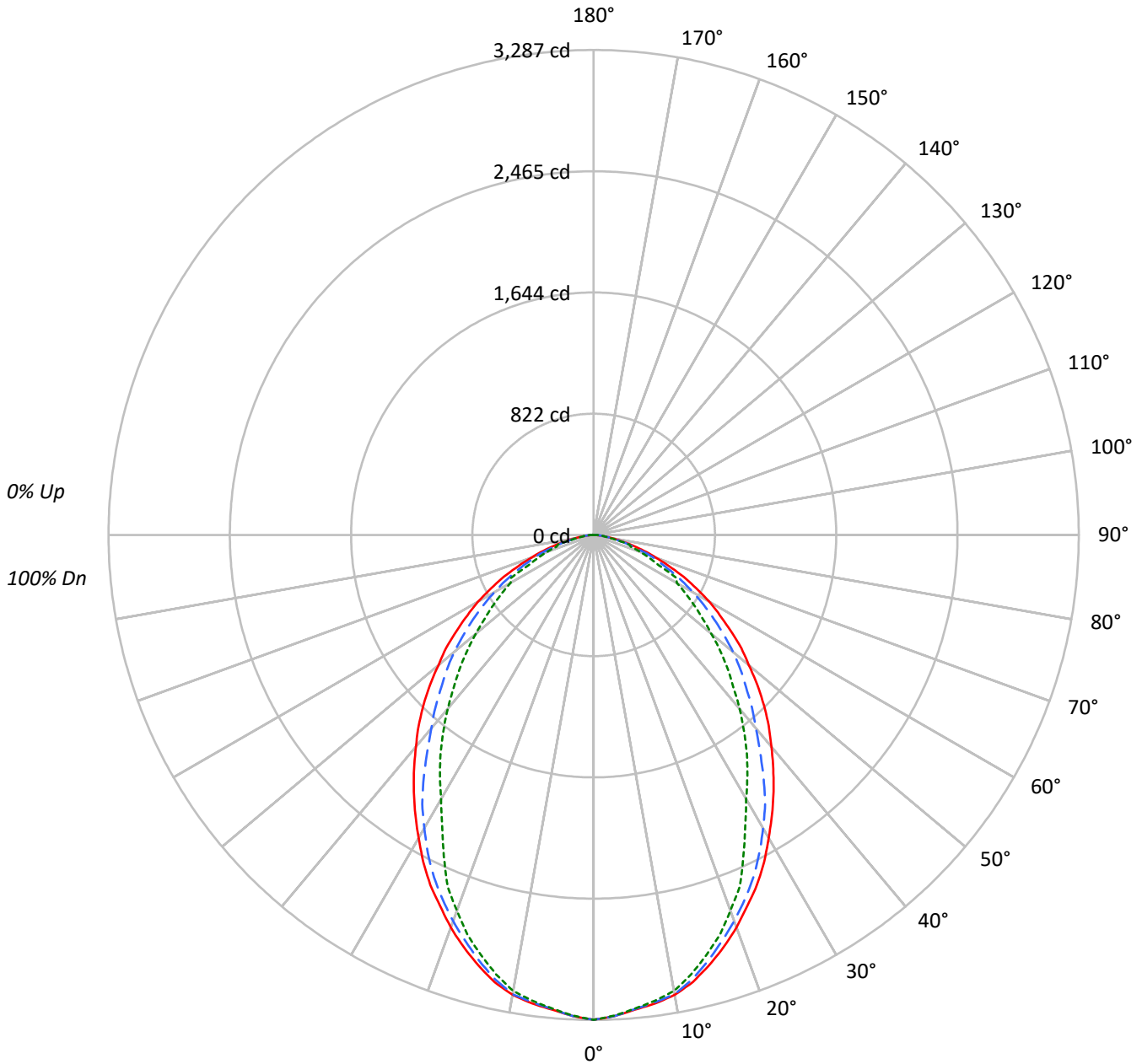
Lumens per Lamp: N/A
Luminaire Lumens: 6452.0 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4422	4422	4422
5°	4362	4357	4352
10°	4324	4319	4288
15°	4208	4165	4107
20°	4053	3988	3879
25°	3886	3802	3565
30°	3684	3565	3211
35°	3489	3295	2971
40°	3290	3003	2703
45°	3102	2776	2444
50°	2871	2577	2179
55°	2656	2335	1952
60°	2433	2086	1748
65°	2141	1826	1548
70°	1764	1599	1316
75°	1403	1225	1284
80°	942	883	824
85°	587	704	821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.9	4.7
10°-20°	839.6	13.0
20°-30°	1162.4	18.0
30°-40°	1239.4	19.2
40°-50°	1130.7	17.5
50°-60°	885.8	13.7
60°-70°	577.3	8.9
70°-80°	255.8	4.0
80°-90°	54.9	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°	2307.9	35.8
0°-40°	3547.4	55.0
0°-60°	5564.0	86.2
0°-90°	6452.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6452.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3287	3287	3287	3287	3287	
5°	3230	3226	3226	3222	3222	307
15°	3021	3021	2990	2960	2948	849
25°	2618	2603	2561	2470	2401	1202
35°	2124	2109	2006	1854	1809	1328
45°	1630	1596	1459	1337	1284	1256
55°	1132	1098	996	878	832	1016
65°	672	634	574	585	486	663
75°	270	251	236	224	247	289
85°	38	42	46	49	53	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3286.6	3286.6	3286.6	3286.6	3286.6
2.5°	3263.8	3263.8	3263.8	3260.0	3260.0
5°	3229.6	3225.8	3225.8	3222.0	3222.0
7.5°	3203.0	3199.2	3195.4	3191.6	3184.0
10°	3165.0	3165.0	3161.2	3142.2	3138.4
12.5°	3104.2	3100.4	3085.2	3058.6	3051.0
15°	3020.6	3020.6	2990.2	2959.8	2948.4
17.5°	2929.4	2925.6	2887.6	2857.2	2842.0
20°	2830.6	2823.0	2785.0	2735.6	2709.0
22.5°	2720.4	2720.4	2674.8	2610.3	2583.7
25°	2617.9	2602.7	2560.9	2469.7	2401.3
27.5°	2500.1	2477.3	2431.7	2302.5	2222.7
30°	2370.9	2359.5	2294.9	2127.7	2066.9
32.5°	2249.3	2230.3	2161.9	1987.1	1937.7
35°	2123.9	2108.7	2006.1	1854.2	1808.6
37.5°	1998.5	1979.5	1850.4	1728.8	1671.8
40°	1873.2	1850.4	1709.8	1599.6	1538.8
42.5°	1755.4	1725.0	1588.2	1470.4	1402.0
45°	1630.0	1595.8	1459.0	1337.4	1284.2
47.5°	1504.6	1474.2	1348.8	1223.4	1162.6
50°	1371.6	1345.0	1231.0	1105.7	1041.1
52.5°	1261.4	1219.6	1109.5	984.1	930.9
55°	1132.2	1098.1	995.5	877.7	832.1
57.5°	1014.5	980.3	885.3	775.1	737.1
60°	904.3	854.9	775.1	680.1	649.7
62.5°	782.7	744.7	676.3	596.5	634.5
65°	672.5	634.5	573.7	585.1	486.3
67.5°	550.9	531.9	478.7	425.5	410.3
70°	448.3	425.5	406.5	349.6	334.4
72.5°	357.2	334.4	307.8	277.4	266.0
75°	269.8	250.8	235.6	224.2	247.0
77.5°	186.2	178.6	167.2	155.8	152.0
80°	121.6	117.8	114.0	110.2	106.4
82.5°	72.2	72.2	72.2	72.2	72.2
85°	38.0	41.8	45.6	49.4	53.2
87.5°	22.8	22.8	26.6	30.4	34.2
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)