

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: P546300

Luminaire Tested: **FMR-12-4-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: P546300
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-12-4-LD4-2STD-35-UNV-80-94-EDD
Description: 1X4 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

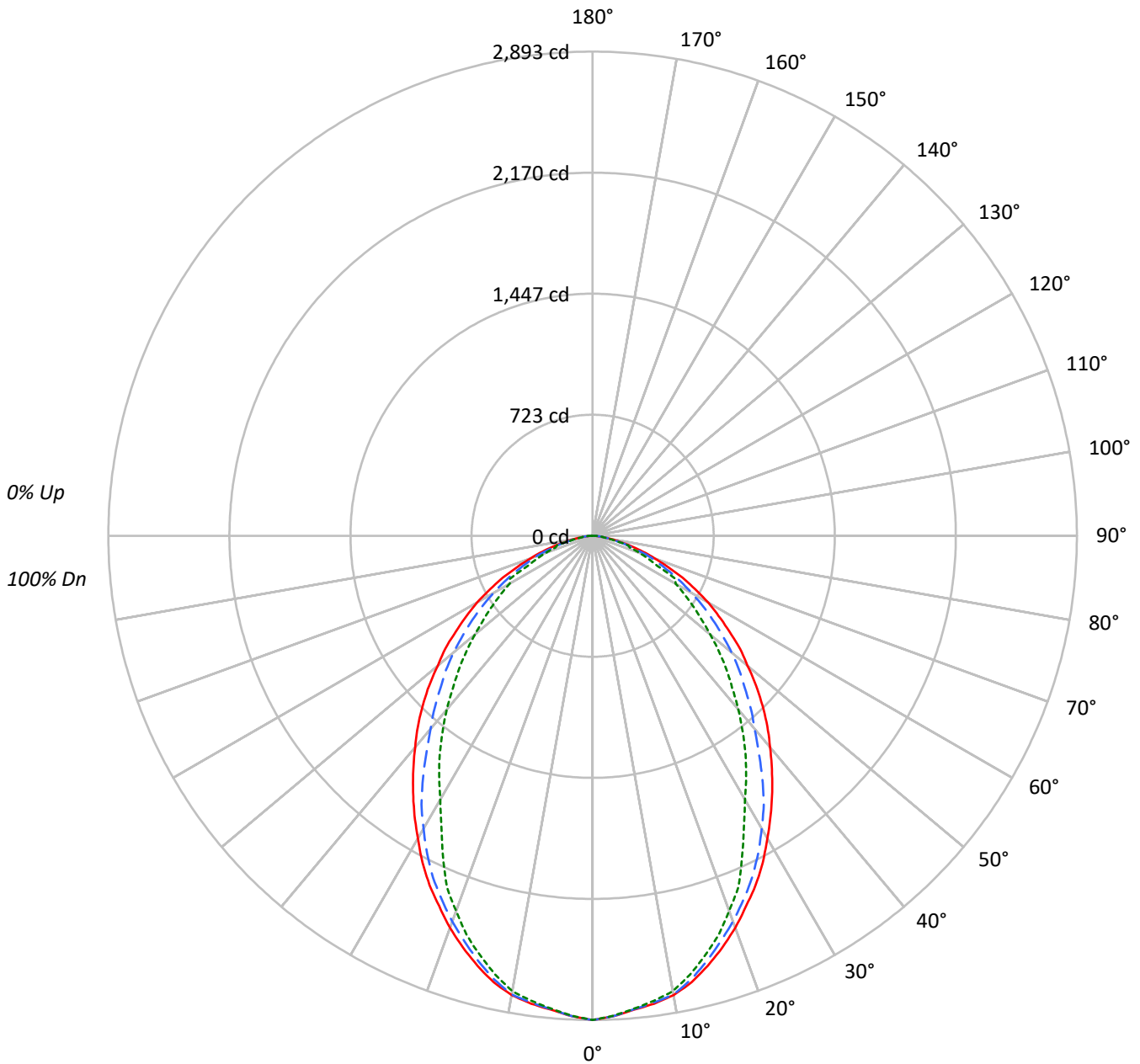
Lumens per Lamp: N/A
Luminaire Lumens: 5680.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7786	7786	7786
5°	7680	7671	7662
10°	7614	7604	7550
15°	7408	7334	7231
20°	7136	7021	6830
25°	6843	6694	6277
30°	6486	6278	5654
35°	6142	5802	5231
40°	5793	5288	4759
45°	5461	4888	4303
50°	5055	4537	3837
55°	4677	4112	3437
60°	4285	3673	3078
65°	3769	3216	2726
70°	3105	2816	2316
75°	2469	2156	2260
80°	1658	1554	1452
85°	1031	1238	1445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.3	4.7
10°-20°	739.1	13.0
20°-30°	1023.3	18.0
30°-40°	1091.1	19.2
40°-50°	995.4	17.5
50°-60°	779.9	13.7
60°-70°	508.3	8.9
70°-80°	225.2	4.0
80°-90°	48.4	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°	2031.8	35.8
0°-40°	3122.9	55.0
0°-60°	4898.2	86.2
0°-90°	5680.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5680.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2893	2893	2893	2893	2893	
5°	2843	2840	2840	2836	2836	270
15°	2659	2659	2632	2606	2596	748
25°	2305	2291	2254	2174	2114	1058
35°	1870	1856	1766	1632	1592	1169
45°	1435	1405	1284	1177	1131	1105
55°	997	967	876	773	732	894
65°	592	559	505	515	428	583
75°	238	221	207	197	217	255
85°	33	37	40	44	47	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2893.3	2893.3	2893.3	2893.3	2893.3
2.5°	2873.2	2873.2	2873.2	2869.9	2869.9
5°	2843.1	2839.8	2839.8	2836.5	2836.5
7.5°	2819.7	2816.4	2813.0	2809.7	2803.0
10°	2786.3	2786.3	2782.9	2766.2	2762.9
12.5°	2732.8	2729.4	2716.0	2692.6	2685.9
15°	2659.2	2659.2	2632.4	2605.7	2595.6
17.5°	2578.9	2575.6	2542.1	2515.3	2502.0
20°	2491.9	2485.2	2451.8	2408.3	2384.9
22.5°	2394.9	2394.9	2354.8	2297.9	2274.5
25°	2304.6	2291.2	2254.4	2174.2	2114.0
27.5°	2200.9	2180.9	2140.7	2027.0	1956.8
30°	2087.2	2077.2	2020.3	1873.1	1819.6
32.5°	1980.2	1963.4	1903.2	1749.4	1705.9
35°	1869.8	1856.4	1766.1	1632.3	1592.2
37.5°	1759.4	1742.7	1629.0	1521.9	1471.7
40°	1649.0	1629.0	1505.2	1408.2	1354.7
42.5°	1545.3	1518.6	1398.2	1294.5	1234.3
45°	1435.0	1404.8	1284.4	1177.4	1130.6
47.5°	1324.6	1297.8	1187.4	1077.0	1023.5
50°	1207.5	1184.1	1083.7	973.4	916.5
52.5°	1110.5	1073.7	976.7	866.3	819.5
55°	996.8	966.7	876.4	772.7	732.5
57.5°	893.1	863.0	779.4	682.4	648.9
60°	796.1	752.6	682.4	598.7	572.0
62.5°	689.0	655.6	595.4	525.1	558.6
65°	592.0	558.6	505.1	515.1	428.1
67.5°	485.0	468.3	421.5	374.6	361.2
70°	394.7	374.6	357.9	307.7	294.3
72.5°	314.4	294.3	270.9	244.2	234.1
75°	237.5	220.8	207.4	197.3	217.4
77.5°	163.9	157.2	147.2	137.1	133.8
80°	107.0	103.7	100.3	97.0	93.7
82.5°	63.6	63.6	63.6	63.6	63.6
85°	33.4	36.8	40.1	43.5	46.8
87.5°	20.1	20.1	23.4	26.8	30.1
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)