

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: P545499

Luminaire Tested: **FMR-12-2-LD4-1STD-50-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: P545499
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-12-2-LD4-1STD-50-UNV-80-88-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

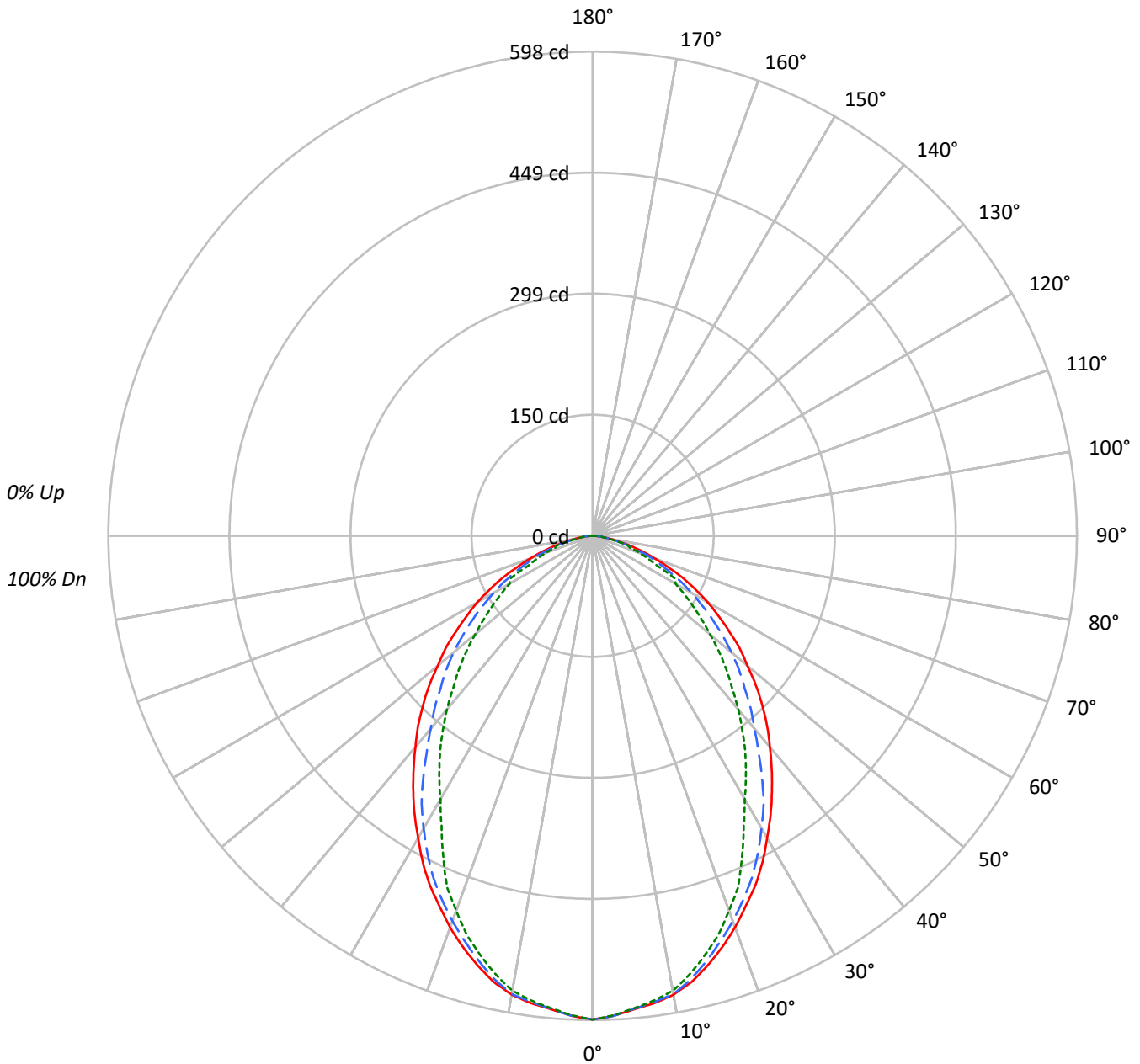
Lumens per Lamp: N/A
Luminaire Lumens: 1173.0 lumens
Efficiency: N/A
Efficacy: 70.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	3216	3216	3216
5°	3172	3169	3165
10°	3145	3141	3118
15°	3060	3029	2986
20°	2947	2900	2821
25°	2826	2765	2593
30°	2678	2593	2335
35°	2537	2396	2160
40°	2392	2184	1966
45°	2255	2019	1777
50°	2088	1874	1585
55°	1931	1698	1420
60°	1770	1517	1271
65°	1557	1328	1126
70°	1282	1163	957
75°	1019	890	934
80°	685	642	598
85°	426	513	599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	4.7
10°-20°	152.6	13.0
20°-30°	211.3	18.0
30°-40°	225.3	19.2
40°-50°	205.6	17.5
50°-60°	161.0	13.7
60°-70°	105.0	8.9
70°-80°	46.5	4.0
80°-90°	10.0	0.8
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°	419.6	35.8
0°-40°	644.9	55.0
0°-60°	1011.5	86.2
0°-90°	1173.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1173.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	587	586	586	586	586	56
15°	549	549	544	538	536	154
25°	476	473	466	449	437	218
35°	386	383	365	337	329	241
45°	296	290	265	243	234	228
55°	206	200	181	160	151	185
65°	122	115	104	106	88	121
75°	49	46	43	41	45	53
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	597.5	597.5	597.5	597.5	597.5
2.5°	593.4	593.4	593.4	592.7	592.7
5°	587.1	586.5	586.5	585.8	585.8
7.5°	582.3	581.6	580.9	580.2	578.9
10°	575.4	575.4	574.7	571.3	570.6
12.5°	564.4	563.7	560.9	556.1	554.7
15°	549.2	549.2	543.6	538.1	536.0
17.5°	532.6	531.9	525.0	519.5	516.7
20°	514.6	513.2	506.3	497.3	492.5
22.5°	494.6	494.6	486.3	474.6	469.7
25°	475.9	473.2	465.6	449.0	436.6
27.5°	454.5	450.4	442.1	418.6	404.1
30°	431.0	429.0	417.2	386.8	375.8
32.5°	408.9	405.5	393.0	361.3	352.3
35°	386.1	383.4	364.7	337.1	328.8
37.5°	363.3	359.9	336.4	314.3	303.9
40°	340.5	336.4	310.8	290.8	279.8
42.5°	319.1	313.6	288.7	267.3	254.9
45°	296.3	290.1	265.3	243.1	233.5
47.5°	273.5	268.0	245.2	222.4	211.4
50°	249.4	244.5	223.8	201.0	189.3
52.5°	229.3	221.7	201.7	178.9	169.2
55°	205.8	199.6	181.0	159.6	151.3
57.5°	184.4	178.2	160.9	140.9	134.0
60°	164.4	155.4	140.9	123.6	118.1
62.5°	142.3	135.4	123.0	108.4	115.4
65°	122.3	115.4	104.3	106.4	88.4
67.5°	100.2	96.7	87.0	77.4	74.6
70°	81.5	77.4	73.9	63.6	60.8
72.5°	64.9	60.8	56.0	50.4	48.4
75°	49.0	45.6	42.8	40.8	44.9
77.5°	33.8	32.5	30.4	28.3	27.6
80°	22.1	21.4	20.7	20.0	19.3
82.5°	13.1	13.1	13.1	13.1	13.1
85°	6.9	7.6	8.3	9.0	9.7
87.5°	4.1	4.1	4.8	5.5	6.2
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)