

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: P544674

Luminaire Tested: **FMR-12-1-LD4-1HI-35-UNV-81-87-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: P544674
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-12-1-LD4-1HI-35-UNV-81-87-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

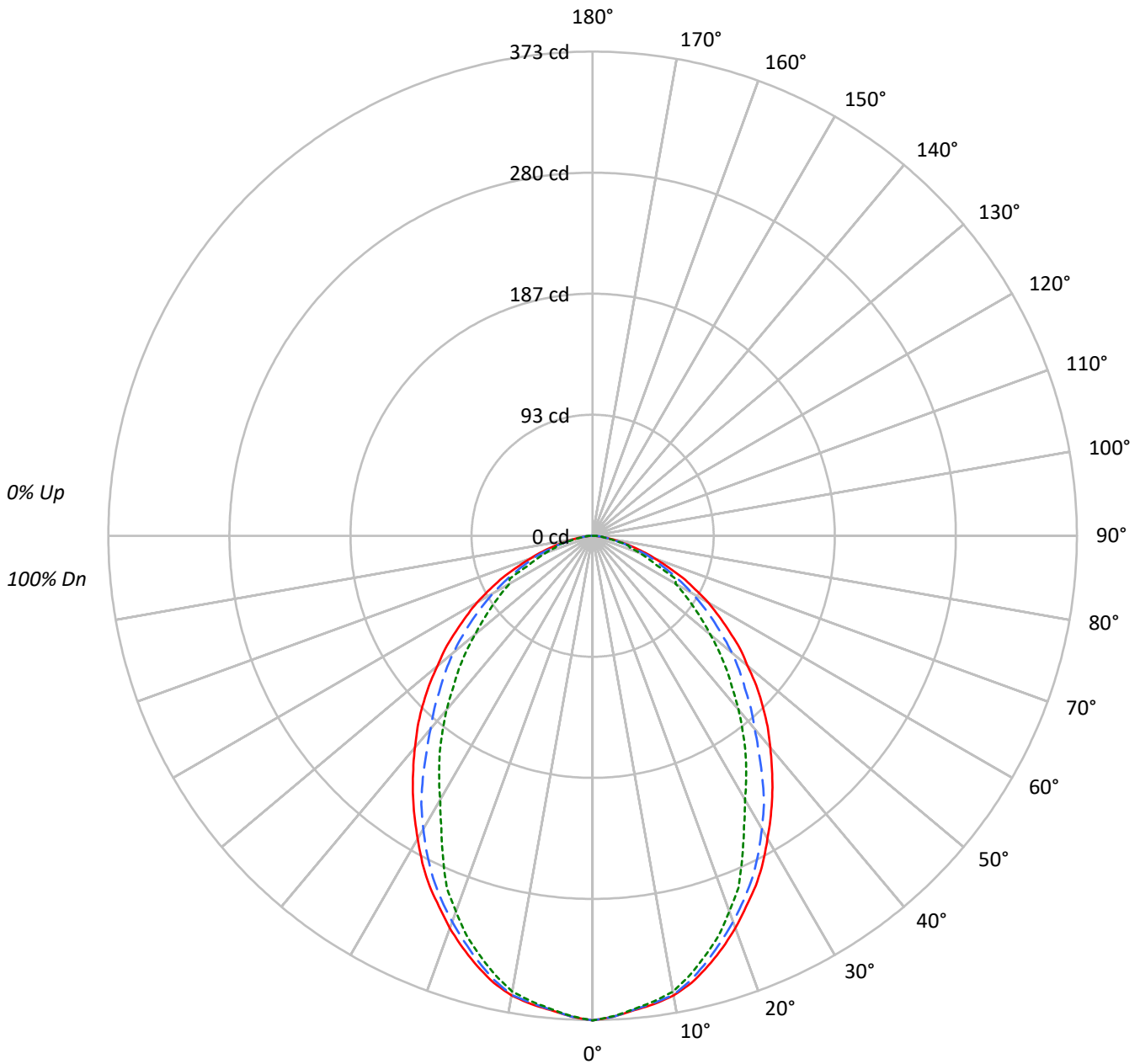
Lumens per Lamp: N/A
Luminaire Lumens: 733.0 lumens
Efficiency: N/A
Efficacy: 67.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
Input Voltage (V): NR
Input Current (A_{in}): 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°	4019	4019	4019
5°	3964	3960	3955
10°	3930	3925	3897
15°	3824	3785	3733
20°	3684	3624	3526
25°	3532	3455	3240
30°	3348	3240	2918
35°	3171	2995	2700
40°	2990	2729	2456
45°	2819	2524	2221
50°	2609	2343	1981
55°	2413	2122	1773
60°	2211	1897	1589
65°	1946	1661	1408
70°	1602	1454	1196
75°	1273	1115	1169
80°	855	800	750
85°	531	642	741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	4.7
10°-20°	95.4	13.0
20°-30°	132.1	18.0
30°-40°	140.8	19.2
40°-50°	128.5	17.5
50°-60°	100.6	13.7
60°-70°	65.6	8.9
70°-80°	29.1	4.0
80°-90°	6.2	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°	262.2	35.8
0°-40°	403.0	55.0
0°-60°	632.1	86.2
0°-90°	733.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	733.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	373	373	373	373	373	
5°	367	366	366	366	366	35
15°	343	343	340	336	335	96
25°	297	296	291	281	273	137
35°	241	240	228	211	206	151
45°	185	181	166	152	146	143
55°	129	125	113	100	94	115
65°	76	72	65	66	55	75
75°	31	28	27	26	28	33
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	373.4	373.4	373.4	373.4	373.4
2.5°	370.8	370.8	370.8	370.4	370.4
5°	366.9	366.5	366.5	366.0	366.0
7.5°	363.9	363.5	363.0	362.6	361.7
10°	359.6	359.6	359.1	357.0	356.5
12.5°	352.7	352.2	350.5	347.5	346.6
15°	343.2	343.2	339.7	336.3	335.0
17.5°	332.8	332.4	328.1	324.6	322.9
20°	321.6	320.7	316.4	310.8	307.8
22.5°	309.1	309.1	303.9	296.5	293.5
25°	297.4	295.7	290.9	280.6	272.8
27.5°	284.0	281.4	276.3	261.6	252.5
30°	269.4	268.1	260.7	241.7	234.8
32.5°	255.5	253.4	245.6	225.8	220.1
35°	241.3	239.6	227.9	210.6	205.5
37.5°	227.0	224.9	210.2	196.4	189.9
40°	212.8	210.2	194.2	181.7	174.8
42.5°	199.4	196.0	180.4	167.0	159.3
45°	185.2	181.3	165.8	151.9	145.9
47.5°	170.9	167.5	153.2	139.0	132.1
50°	155.8	152.8	139.9	125.6	118.3
52.5°	143.3	138.6	126.0	111.8	105.8
55°	128.6	124.7	113.1	99.7	94.5
57.5°	115.3	111.4	100.6	88.1	83.7
60°	102.7	97.1	88.1	77.3	73.8
62.5°	88.9	84.6	76.8	67.8	72.1
65°	76.4	72.1	65.2	66.5	55.3
67.5°	62.6	60.4	54.4	48.3	46.6
70°	50.9	48.3	46.2	39.7	38.0
72.5°	40.6	38.0	35.0	31.5	30.2
75°	30.6	28.5	26.8	25.5	28.1
77.5°	21.2	20.3	19.0	17.7	17.3
80°	13.8	13.4	12.9	12.5	12.1
82.5°	8.2	8.2	8.2	8.2	8.2
85°	4.3	4.7	5.2	5.6	6.0
87.5°	2.6	2.6	3.0	3.5	3.9
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)