

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: P544792

Luminaire Tested: **FMR-12-1-LD4-1LO-40-UNV-80-85-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: P544792
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-LD4-1LO-40-UNV-80-85-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

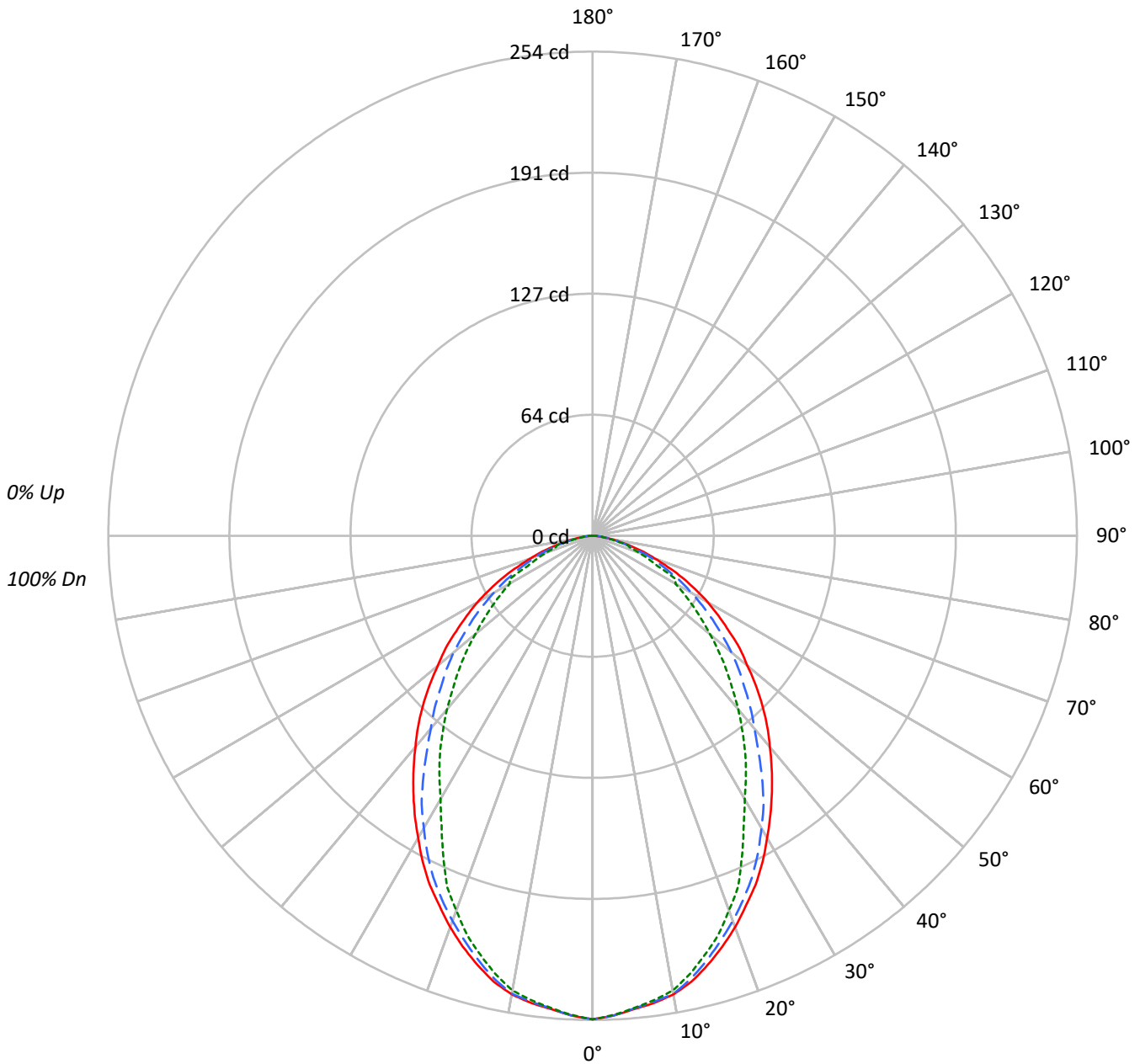
Lumens per Lamp: N/A
Luminaire Lumens: 498.0 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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

TEST NUMBER: P544792

CATALOG NUMBER: FMR-12-1-LD4-1LO-40-UNV-80-85-EDD

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°	2731	2731	2731
5°	2694	2690	2687
10°	2670	2667	2647
15°	2598	2572	2536
20°	2503	2463	2395
25°	2400	2348	2201
30°	2275	2201	1982
35°	2154	2034	1834
40°	2032	1855	1669
45°	1915	1714	1509
50°	1773	1591	1346
55°	1640	1441	1205
60°	1503	1287	1079
65°	1322	1128	955
70°	1089	988	812
75°	865	757	794
80°	583	545	508
85°	358	432	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.6	4.7
10°-20°	64.8	13.0
20°-30°	89.7	18.0
30°-40°	95.7	19.2
40°-50°	87.3	17.5
50°-60°	68.4	13.7
60°-70°	44.6	8.9
70°-80°	19.7	4.0
80°-90°	4.2	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°	178.1	35.8
0°-40°	273.8	55.0
0°-60°	429.4	86.2
0°-90°	498.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	498.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	254	254	254	254	254	
5°	249	249	249	249	249	24
15°	233	233	231	228	228	66
25°	202	201	198	191	185	93
35°	164	163	155	143	140	102
45°	126	123	113	103	99	97
55°	87	85	77	68	64	78
65°	52	49	44	45	38	51
75°	21	19	18	17	19	22
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	253.7	253.7	253.7	253.7	253.7
2.5°	251.9	251.9	251.9	251.6	251.6
5°	249.3	249.0	249.0	248.7	248.7
7.5°	247.2	246.9	246.6	246.3	245.8
10°	244.3	244.3	244.0	242.5	242.2
12.5°	239.6	239.3	238.1	236.1	235.5
15°	233.1	233.1	230.8	228.5	227.6
17.5°	226.1	225.8	222.9	220.5	219.4
20°	218.5	217.9	215.0	211.2	209.1
22.5°	210.0	210.0	206.5	201.5	199.4
25°	202.1	200.9	197.7	190.6	185.3
27.5°	193.0	191.2	187.7	177.7	171.6
30°	183.0	182.1	177.1	164.2	159.5
32.5°	173.6	172.1	166.9	153.4	149.6
35°	163.9	162.8	154.8	143.1	139.6
37.5°	154.3	152.8	142.8	133.4	129.0
40°	144.6	142.8	132.0	123.5	118.8
42.5°	135.5	133.1	122.6	113.5	108.2
45°	125.8	123.2	112.6	103.2	99.1
47.5°	116.1	113.8	104.1	94.4	89.7
50°	105.9	103.8	95.0	85.3	80.4
52.5°	97.4	94.1	85.6	76.0	71.9
55°	87.4	84.8	76.8	67.7	64.2
57.5°	78.3	75.7	68.3	59.8	56.9
60°	69.8	66.0	59.8	52.5	50.1
62.5°	60.4	57.5	52.2	46.0	49.0
65°	51.9	49.0	44.3	45.2	37.5
67.5°	42.5	41.1	37.0	32.8	31.7
70°	34.6	32.8	31.4	27.0	25.8
72.5°	27.6	25.8	23.8	21.4	20.5
75°	20.8	19.4	18.2	17.3	19.1
77.5°	14.4	13.8	12.9	12.0	11.7
80°	9.4	9.1	8.8	8.5	8.2
82.5°	5.6	5.6	5.6	5.6	5.6
85°	2.9	3.2	3.5	3.8	4.1
87.5°	1.8	1.8	2.1	2.3	2.6
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)