

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: P544760

Luminaire Tested: **FMR-12-1-LD4-1LO-35-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: P544760
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

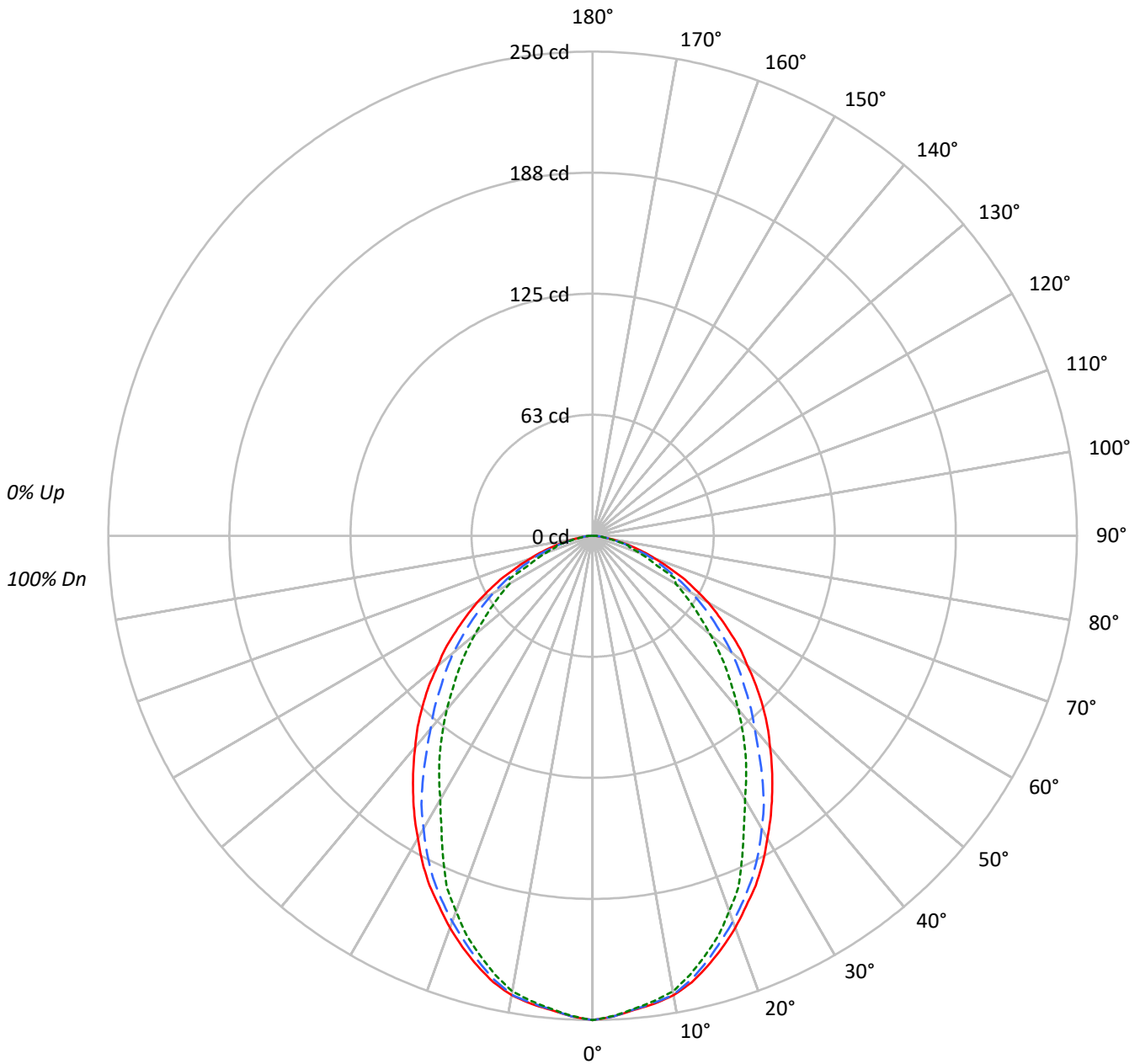
Lumens per Lamp: N/A
Luminaire Lumens: 491.0 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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: P544760

CATALOG NUMBER: FMR-12-1-LD4-1LO-35-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	47	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°	2692	2692	2692
5°	2656	2653	2649
10°	2633	2630	2610
15°	2562	2536	2501
20°	2467	2427	2362
25°	2366	2315	2170
30°	2242	2170	1955
35°	2123	2007	1808
40°	2002	1828	1645
45°	1888	1690	1487
50°	1748	1569	1326
55°	1618	1422	1188
60°	1481	1270	1063
65°	1304	1113	942
70°	1073	972	799
75°	853	744	782
80°	576	539	502
85°	358	432	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.3	4.7
10°-20°	63.9	13.0
20°-30°	88.5	18.0
30°-40°	94.3	19.2
40°-50°	86.0	17.5
50°-60°	67.4	13.7
60°-70°	43.9	8.9
70°-80°	19.5	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°	175.6	35.8
0°-40°	270.0	55.0
0°-60°	423.4	86.2
0°-90°	491.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	491.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	250	250	250	250	250	
5°	246	246	246	245	245	23
15°	230	230	228	225	224	65
25°	199	198	195	188	183	91
35°	162	160	153	141	138	101
45°	124	121	111	102	98	96
55°	86	84	76	67	63	77
65°	51	48	44	44	37	50
75°	20	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°	250.1	250.1	250.1	250.1	250.1
2.5°	248.4	248.4	248.4	248.1	248.1
5°	245.8	245.5	245.5	245.2	245.2
7.5°	243.7	243.5	243.2	242.9	242.3
10°	240.9	240.9	240.6	239.1	238.8
12.5°	236.2	235.9	234.8	232.8	232.2
15°	229.9	229.9	227.6	225.2	224.4
17.5°	222.9	222.6	219.7	217.4	216.3
20°	215.4	214.8	211.9	208.2	206.2
22.5°	207.0	207.0	203.6	198.6	196.6
25°	199.2	198.1	194.9	187.9	182.7
27.5°	190.3	188.5	185.1	175.2	169.1
30°	180.4	179.6	174.6	161.9	157.3
32.5°	171.2	169.7	164.5	151.2	147.5
35°	161.6	160.5	152.7	141.1	137.6
37.5°	152.1	150.6	140.8	131.6	127.2
40°	142.5	140.8	130.1	121.7	117.1
42.5°	133.6	131.3	120.9	111.9	106.7
45°	124.0	121.4	111.0	101.8	97.7
47.5°	114.5	112.2	102.6	93.1	88.5
50°	104.4	102.4	93.7	84.1	79.2
52.5°	96.0	92.8	84.4	74.9	70.8
55°	86.2	83.6	75.8	66.8	63.3
57.5°	77.2	74.6	67.4	59.0	56.1
60°	68.8	65.1	59.0	51.8	49.4
62.5°	59.6	56.7	51.5	45.4	48.3
65°	51.2	48.3	43.7	44.5	37.0
67.5°	41.9	40.5	36.4	32.4	31.2
70°	34.1	32.4	30.9	26.6	25.4
72.5°	27.2	25.4	23.4	21.1	20.2
75°	20.5	19.1	17.9	17.1	18.8
77.5°	14.2	13.6	12.7	11.9	11.6
80°	9.3	9.0	8.7	8.4	8.1
82.5°	5.5	5.5	5.5	5.5	5.5
85°	2.9	3.2	3.5	3.8	4.0
87.5°	1.7	1.7	2.0	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)