

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: P544915

Luminaire Tested: **FMR-12-1-LD4-1STD-40-UNV-93-88-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: P544915
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-LD4-1STD-40-UNV-93-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

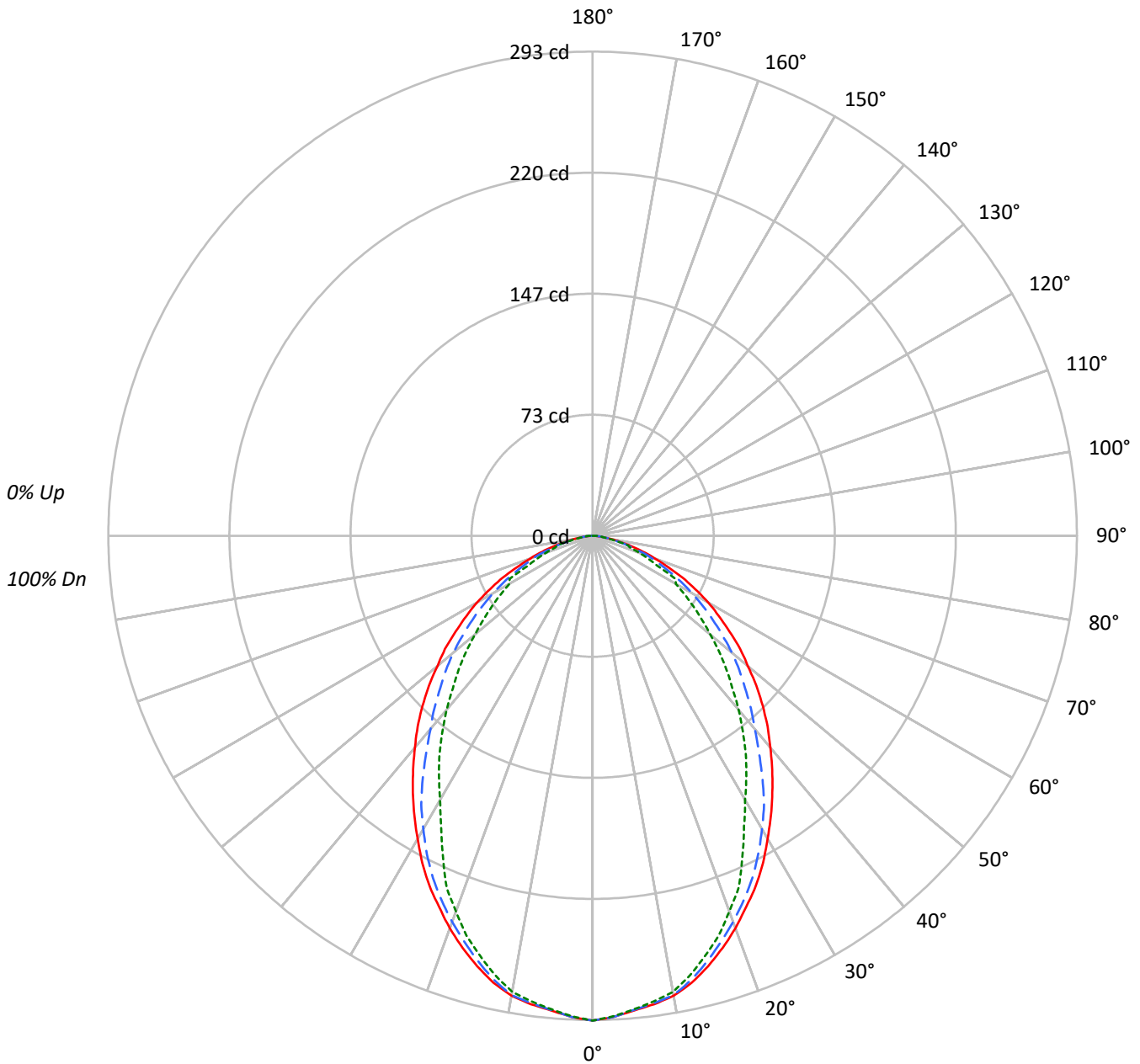
Lumens per Lamp: N/A
Luminaire Lumens: 576.0 lumens
Efficiency: N/A
Efficacy: 69.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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

TEST NUMBER: P544915

CATALOG NUMBER: FMR-12-1-LD4-1STD-40-UNV-93-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544915

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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	39	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°	3158	3158	3158
5°	3115	3112	3108
10°	3089	3084	3063
15°	3005	2974	2933
20°	2895	2848	2770
25°	2776	2715	2546
30°	2631	2547	2293
35°	2491	2353	2122
40°	2349	2144	1931
45°	2215	1983	1744
50°	2051	1840	1556
55°	1897	1668	1394
60°	1737	1490	1249
65°	1528	1304	1105
70°	1259	1142	938
75°	1002	873	915
80°	676	632	589
85°	420	506	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.3	4.7
10°-20°	75.0	13.0
20°-30°	103.8	18.0
30°-40°	110.6	19.2
40°-50°	100.9	17.5
50°-60°	79.1	13.7
60°-70°	51.5	8.9
70°-80°	22.8	4.0
80°-90°	4.9	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°	206.0	35.8
0°-40°	316.7	55.0
0°-60°	496.7	86.2
0°-90°	576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	576.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	293	293	293	293	293	
5°	288	288	288	288	288	27
15°	270	270	267	264	263	76
25°	234	232	229	220	214	107
35°	190	188	179	166	162	119
45°	146	142	130	119	115	112
55°	101	98	89	78	74	91
65°	60	57	51	52	43	59
75°	24	22	21	20	22	26
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	293.4	293.4	293.4	293.4	293.4
2.5°	291.4	291.4	291.4	291.0	291.0
5°	288.3	288.0	288.0	287.6	287.6
7.5°	285.9	285.6	285.3	284.9	284.2
10°	282.6	282.6	282.2	280.5	280.2
12.5°	277.1	276.8	275.4	273.1	272.4
15°	269.7	269.7	266.9	264.2	263.2
17.5°	261.5	261.2	257.8	255.1	253.7
20°	252.7	252.0	248.6	244.2	241.8
22.5°	242.9	242.9	238.8	233.0	230.7
25°	233.7	232.4	228.6	220.5	214.4
27.5°	223.2	221.2	217.1	205.6	198.4
30°	211.7	210.6	204.9	190.0	184.5
32.5°	200.8	199.1	193.0	177.4	173.0
35°	189.6	188.3	179.1	165.5	161.5
37.5°	178.4	176.7	165.2	154.3	149.2
40°	167.2	165.2	152.6	142.8	137.4
42.5°	156.7	154.0	141.8	131.3	125.2
45°	145.5	142.5	130.3	119.4	114.6
47.5°	134.3	131.6	120.4	109.2	103.8
50°	122.5	120.1	109.9	98.7	92.9
52.5°	112.6	108.9	99.0	87.9	83.1
55°	101.1	98.0	88.9	78.4	74.3
57.5°	90.6	87.5	79.0	69.2	65.8
60°	80.7	76.3	69.2	60.7	58.0
62.5°	69.9	66.5	60.4	53.3	56.6
65°	60.0	56.6	51.2	52.2	43.4
67.5°	49.2	47.5	42.7	38.0	36.6
70°	40.0	38.0	36.3	31.2	29.8
72.5°	31.9	29.8	27.5	24.8	23.7
75°	24.1	22.4	21.0	20.0	22.0
77.5°	16.6	15.9	14.9	13.9	13.6
80°	10.9	10.5	10.2	9.8	9.5
82.5°	6.4	6.4	6.4	6.4	6.4
85°	3.4	3.7	4.1	4.4	4.7
87.5°	2.0	2.0	2.4	2.7	3.1
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)