

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: P544774

Luminaire Tested: **FMR-12-1-LD4-1LO-35-UNV-81-97-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: P544774
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-81-97-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

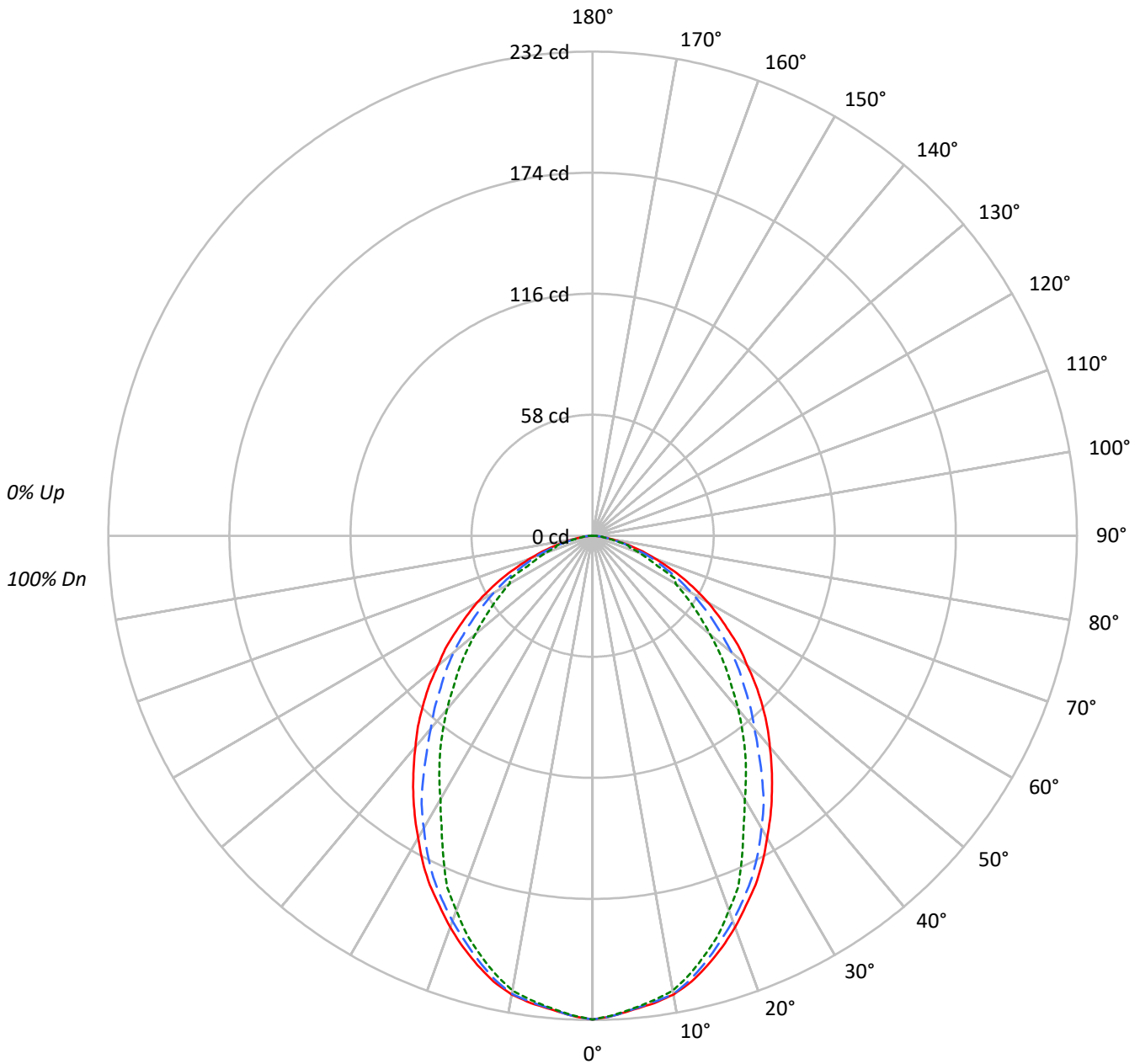
Lumens per Lamp: N/A
Luminaire Lumens: 455.0 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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	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°	2495	2495	2495
5°	2461	2458	2455
10°	2440	2436	2419
15°	2374	2350	2317
20°	2286	2250	2188
25°	2192	2145	2011
30°	2078	2011	1812
35°	1968	1859	1675
40°	1856	1695	1525
45°	1749	1566	1379
50°	1619	1454	1229
55°	1498	1317	1102
60°	1373	1178	986
65°	1207	1032	874
70°	995	903	743
75°	790	690	724
80°	533	496	465
85°	333	395	469



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.6	4.7
10°-20°	59.2	13.0
20°-30°	82.0	18.0
30°-40°	87.4	19.2
40°-50°	79.7	17.5
50°-60°	62.5	13.7
60°-70°	40.7	8.9
70°-80°	18.0	4.0
80°-90°	3.9	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°	162.8	35.8
0°-40°	250.2	55.0
0°-60°	392.4	86.2
0°-90°	455.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	455.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	232	232	232	232	232	
5°	228	228	228	227	227	22
15°	213	213	211	209	208	60
25°	185	184	181	174	169	85
35°	150	149	142	131	128	94
45°	115	112	103	94	91	89
55°	80	77	70	62	59	72
65°	47	45	40	41	34	47
75°	19	18	17	16	17	20
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	231.8	231.8	231.8	231.8	231.8
2.5°	230.2	230.2	230.2	229.9	229.9
5°	227.8	227.5	227.5	227.2	227.2
7.5°	225.9	225.6	225.3	225.1	224.5
10°	223.2	223.2	222.9	221.6	221.3
12.5°	218.9	218.6	217.6	215.7	215.2
15°	213.0	213.0	210.9	208.7	207.9
17.5°	206.6	206.3	203.6	201.5	200.4
20°	199.6	199.1	196.4	192.9	191.0
22.5°	191.8	191.8	188.6	184.1	182.2
25°	184.6	183.5	180.6	174.2	169.3
27.5°	176.3	174.7	171.5	162.4	156.7
30°	167.2	166.4	161.8	150.0	145.8
32.5°	158.6	157.3	152.5	140.1	136.7
35°	149.8	148.7	141.5	130.8	127.5
37.5°	140.9	139.6	130.5	121.9	117.9
40°	132.1	130.5	120.6	112.8	108.5
42.5°	123.8	121.6	112.0	103.7	98.9
45°	114.9	112.5	102.9	94.3	90.6
47.5°	106.1	104.0	95.1	86.3	82.0
50°	96.7	94.9	86.8	78.0	73.4
52.5°	89.0	86.0	78.2	69.4	65.6
55°	79.8	77.4	70.2	61.9	58.7
57.5°	71.5	69.1	62.4	54.7	52.0
60°	63.8	60.3	54.7	48.0	45.8
62.5°	55.2	52.5	47.7	42.1	44.7
65°	47.4	44.7	40.5	41.3	34.3
67.5°	38.9	37.5	33.8	30.0	28.9
70°	31.6	30.0	28.7	24.7	23.6
72.5°	25.2	23.6	21.7	19.6	18.8
75°	19.0	17.7	16.6	15.8	17.4
77.5°	13.1	12.6	11.8	11.0	10.7
80°	8.6	8.3	8.0	7.8	7.5
82.5°	5.1	5.1	5.1	5.1	5.1
85°	2.7	2.9	3.2	3.5	3.8
87.5°	1.6	1.6	1.9	2.1	2.4
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)