

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: P545419

Luminaire Tested: **FMR-12-2-LD4-1LO-50-UNV-82-88-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: P545419
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-12-2-LD4-1LO-50-UNV-82-88-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

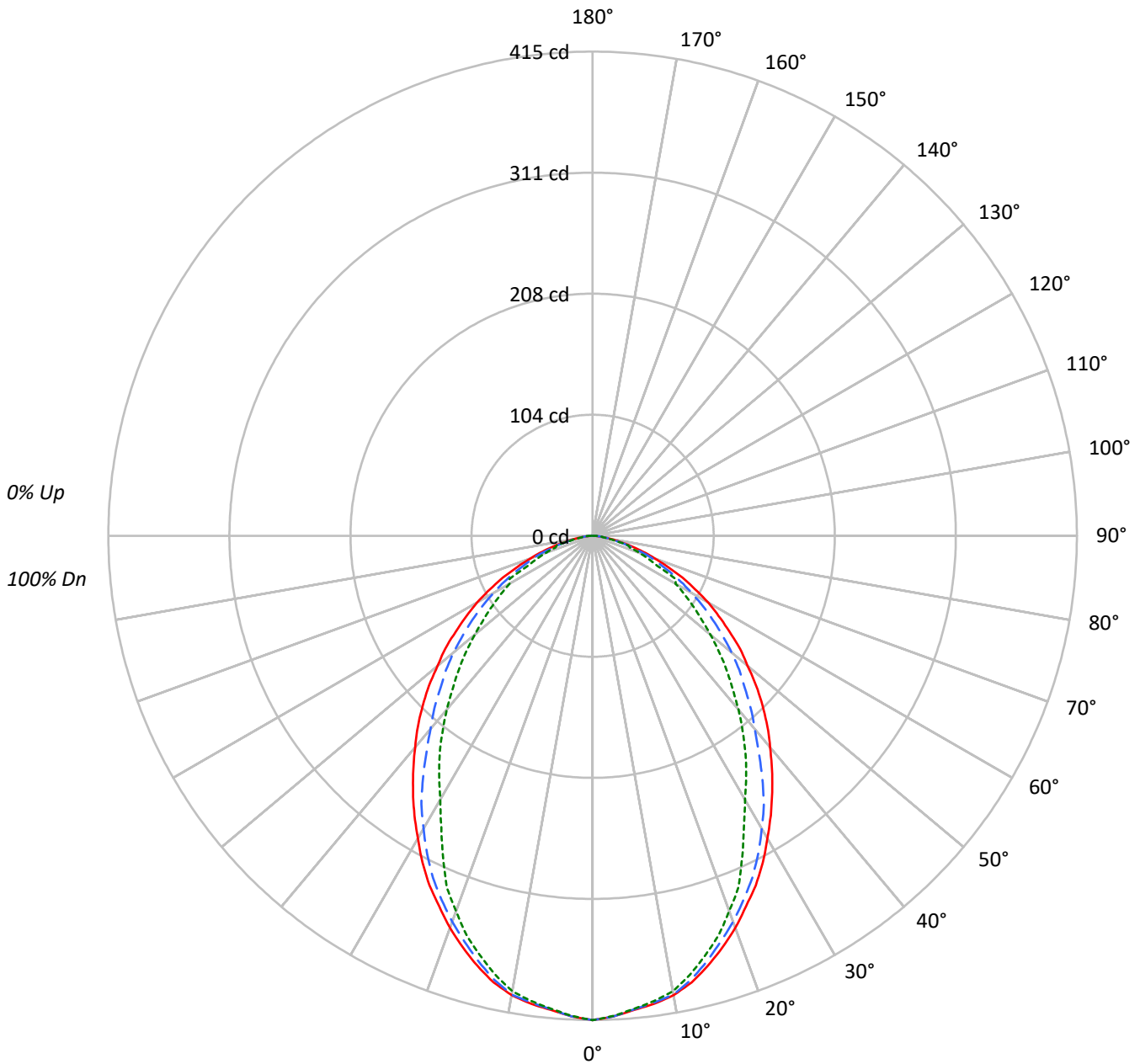
Lumens per Lamp: N/A
Luminaire Lumens: 815.0 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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°	2235	2235	2235
5°	2204	2202	2199
10°	2185	2182	2166
15°	2126	2104	2075
20°	2048	2015	1960
25°	1964	1921	1801
30°	1861	1802	1623
35°	1763	1665	1501
40°	1662	1518	1366
45°	1567	1403	1235
50°	1451	1302	1101
55°	1342	1179	986
60°	1229	1054	884
65°	1081	923	782
70°	891	809	664
75°	709	620	649
80°	477	446	415
85°	296	358	414



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	4.7
10°-20°	106.1	13.0
20°-30°	146.8	18.0
30°-40°	156.6	19.2
40°-50°	142.8	17.5
50°-60°	111.9	13.7
60°-70°	72.9	8.9
70°-80°	32.3	4.0
80°-90°	6.9	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°	291.5	35.8
0°-40°	448.1	55.0
0°-60°	702.8	86.2
0°-90°	815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	815.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	415	415	415	415	415	
5°	408	408	408	407	407	39
15°	382	382	378	374	372	107
25°	331	329	324	312	303	152
35°	268	266	253	234	228	168
45°	206	202	184	169	162	159
55°	143	139	126	111	105	128
65°	85	80	72	74	61	84
75°	34	32	30	28	31	37
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	415.2	415.2	415.2	415.2	415.2
2.5°	412.3	412.3	412.3	411.8	411.8
5°	408.0	407.5	407.5	407.0	407.0
7.5°	404.6	404.1	403.6	403.2	402.2
10°	399.8	399.8	399.3	396.9	396.4
12.5°	392.1	391.6	389.7	386.4	385.4
15°	381.6	381.6	377.7	373.9	372.4
17.5°	370.0	369.6	364.8	360.9	359.0
20°	357.6	356.6	351.8	345.6	342.2
22.5°	343.6	343.6	337.9	329.7	326.4
25°	330.7	328.8	323.5	312.0	303.3
27.5°	315.8	312.9	307.2	290.8	280.8
30°	299.5	298.0	289.9	268.8	261.1
32.5°	284.1	281.7	273.1	251.0	244.8
35°	268.3	266.4	253.4	234.2	228.5
37.5°	252.4	250.0	233.7	218.4	211.2
40°	236.6	233.7	216.0	202.1	194.4
42.5°	221.7	217.9	200.6	185.7	177.1
45°	205.9	201.6	184.3	168.9	162.2
47.5°	190.1	186.2	170.4	154.5	146.9
50°	173.3	169.9	155.5	139.7	131.5
52.5°	159.3	154.1	140.1	124.3	117.6
55°	143.0	138.7	125.7	110.9	105.1
57.5°	128.1	123.8	111.8	97.9	93.1
60°	114.2	108.0	97.9	85.9	82.1
62.5°	98.9	94.1	85.4	75.4	80.2
65°	84.9	80.2	72.5	73.9	61.4
67.5°	69.6	67.2	60.5	53.8	51.8
70°	56.6	53.8	51.4	44.2	42.2
72.5°	45.1	42.2	38.9	35.0	33.6
75°	34.1	31.7	29.8	28.3	31.2
77.5°	23.5	22.6	21.1	19.7	19.2
80°	15.4	14.9	14.4	13.9	13.4
82.5°	9.1	9.1	9.1	9.1	9.1
85°	4.8	5.3	5.8	6.2	6.7
87.5°	2.9	2.9	3.4	3.8	4.3
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)