

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: P545353

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-82-86-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: P545353
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-35-UNV-82-86-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

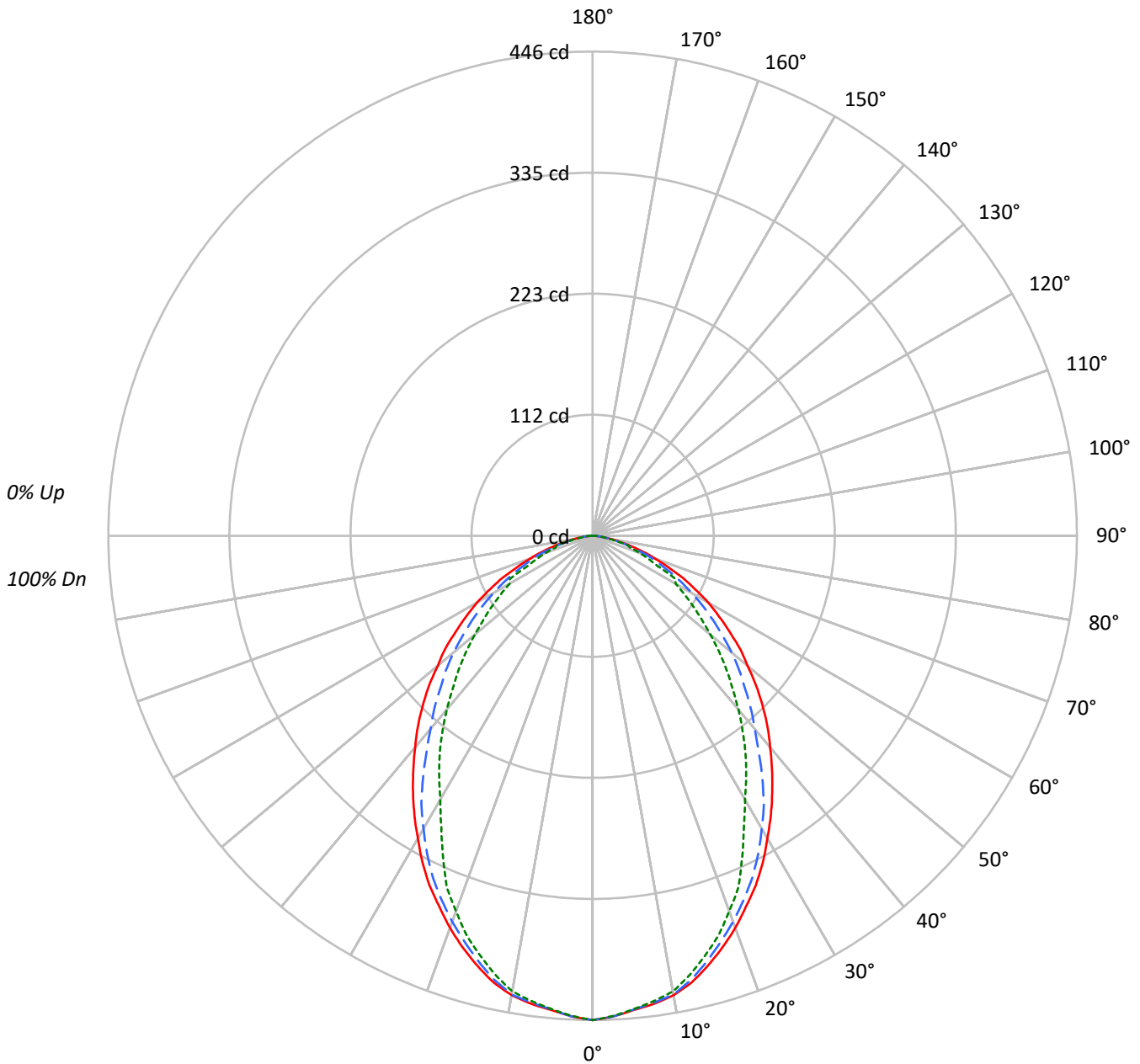
Lumens per Lamp: N/A
Luminaire Lumens: 876.0 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	2401	2401	2401
5°	2369	2366	2364
10°	2348	2346	2329
15°	2285	2262	2230
20°	2201	2166	2107
25°	2110	2065	1936
30°	2000	1936	1744
35°	1895	1790	1614
40°	1787	1631	1468
45°	1684	1508	1327
50°	1559	1399	1183
55°	1442	1269	1060
60°	1322	1132	949
65°	1163	992	840
70°	958	869	714
75°	761	665	697
80°	511	480	446
85°	321	383	445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.5	4.7
10°-20°	114.0	13.0
20°-30°	157.8	18.0
30°-40°	168.3	19.2
40°-50°	153.5	17.5
50°-60°	120.3	13.7
60°-70°	78.4	8.9
70°-80°	34.7	4.0
80°-90°	7.5	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°	313.4	35.8
0°-40°	481.6	55.0
0°-60°	755.4	86.2
0°-90°	876.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	876.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	438	438	438	438	438	42
15°	410	410	406	402	400	115
25°	355	353	348	335	326	163
35°	288	286	272	252	246	180
45°	221	217	198	182	174	170
55°	154	149	135	119	113	138
65°	91	86	78	79	66	90
75°	37	34	32	30	34	39
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	446.2	446.2	446.2	446.2	446.2
2.5°	443.1	443.1	443.1	442.6	442.6
5°	438.5	438.0	438.0	437.5	437.5
7.5°	434.9	434.4	433.8	433.3	432.3
10°	429.7	429.7	429.2	426.6	426.1
12.5°	421.5	420.9	418.9	415.3	414.2
15°	410.1	410.1	406.0	401.9	400.3
17.5°	397.7	397.2	392.1	387.9	385.9
20°	384.3	383.3	378.1	371.4	367.8
22.5°	369.4	369.4	363.2	354.4	350.8
25°	355.4	353.4	347.7	335.3	326.0
27.5°	339.4	336.3	330.2	312.6	301.8
30°	321.9	320.4	311.6	288.9	280.6
32.5°	305.4	302.8	293.5	269.8	263.1
35°	288.4	286.3	272.4	251.7	245.6
37.5°	271.3	268.8	251.2	234.7	227.0
40°	254.3	251.2	232.1	217.2	208.9
42.5°	238.3	234.2	215.6	199.6	190.4
45°	221.3	216.7	198.1	181.6	174.4
47.5°	204.3	200.2	183.1	166.1	157.9
50°	186.2	182.6	167.1	150.1	141.3
52.5°	171.3	165.6	150.6	133.6	126.4
55°	153.7	149.1	135.2	119.2	113.0
57.5°	137.7	133.1	120.2	105.2	100.1
60°	122.8	116.1	105.2	92.3	88.2
62.5°	106.3	101.1	91.8	81.0	86.1
65°	91.3	86.1	77.9	79.4	66.0
67.5°	74.8	72.2	65.0	57.8	55.7
70°	60.9	57.8	55.2	47.5	45.4
72.5°	48.5	45.4	41.8	37.7	36.1
75°	36.6	34.0	32.0	30.4	33.5
77.5°	25.3	24.2	22.7	21.2	20.6
80°	16.5	16.0	15.5	15.0	14.4
82.5°	9.8	9.8	9.8	9.8	9.8
85°	5.2	5.7	6.2	6.7	7.2
87.5°	3.1	3.1	3.6	4.1	4.6
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)