

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: P545354

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-82-87-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: P545354
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-82-87-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

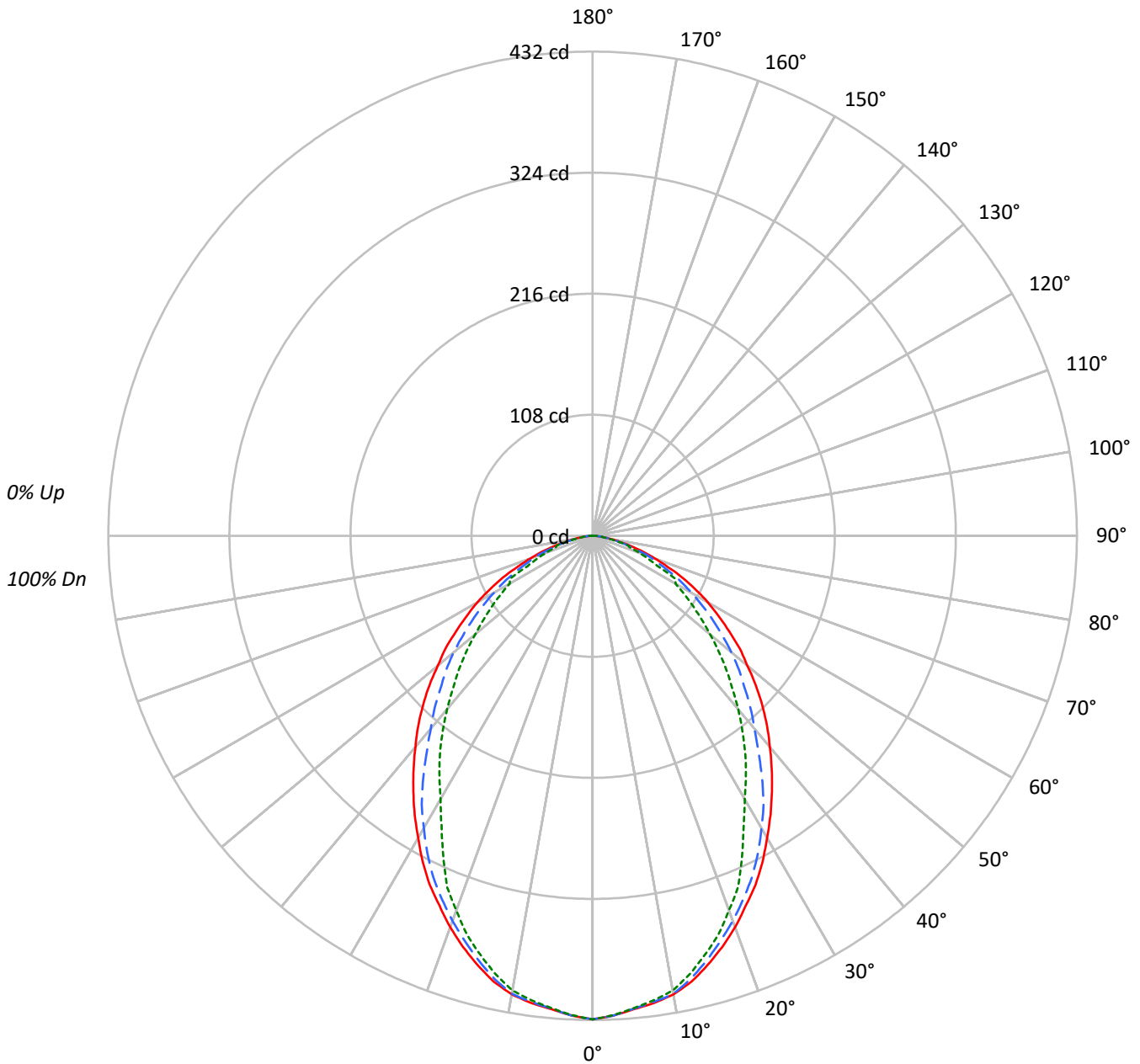
Lumens per Lamp: N/A
Luminaire Lumens: 847.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	2322	2322	2322
5°	2291	2288	2285
10°	2271	2268	2252
15°	2209	2187	2157
20°	2128	2094	2037
25°	2041	1996	1872
30°	1934	1872	1686
35°	1832	1731	1560
40°	1728	1577	1419
45°	1629	1458	1283
50°	1508	1353	1145
55°	1394	1226	1025
60°	1278	1096	918
65°	1124	959	812
70°	927	840	691
75°	736	643	674
80°	496	465	434
85°	309	371	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	4.7
10°-20°	110.2	13.0
20°-30°	152.6	18.0
30°-40°	162.7	19.2
40°-50°	148.4	17.5
50°-60°	116.3	13.7
60°-70°	75.8	8.9
70°-80°	33.6	4.0
80°-90°	7.2	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°	303.0	35.8
0°-40°	465.7	55.0
0°-60°	730.4	86.2
0°-90°	847.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	847.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	432	432	432	432	432	
5°	424	424	424	423	423	40
15°	396	396	392	389	387	111
25°	344	342	336	324	315	158
35°	279	277	263	243	237	174
45°	214	210	192	176	169	165
55°	149	144	131	115	109	133
65°	88	83	75	77	64	87
75°	35	33	31	29	32	38
85°	5	6	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°	431.5	431.5	431.5	431.5	431.5
2.5°	428.5	428.5	428.5	428.0	428.0
5°	424.0	423.5	423.5	423.0	423.0
7.5°	420.5	420.0	419.5	419.0	418.0
10°	415.5	415.5	415.0	412.5	412.0
12.5°	407.5	407.0	405.0	401.5	400.5
15°	396.5	396.5	392.5	388.6	387.1
17.5°	384.6	384.1	379.1	375.1	373.1
20°	371.6	370.6	365.6	359.1	355.6
22.5°	357.1	357.1	351.1	342.7	339.2
25°	343.7	341.7	336.2	324.2	315.2
27.5°	328.2	325.2	319.2	302.3	291.8
30°	311.2	309.7	301.3	279.3	271.3
32.5°	295.3	292.8	283.8	260.9	254.4
35°	278.8	276.8	263.4	243.4	237.4
37.5°	262.4	259.9	242.9	226.9	219.5
40°	245.9	242.9	224.5	210.0	202.0
42.5°	230.4	226.4	208.5	193.0	184.1
45°	214.0	209.5	191.5	175.6	168.6
47.5°	197.5	193.5	177.1	160.6	152.6
50°	180.1	176.6	161.6	145.1	136.7
52.5°	165.6	160.1	145.6	129.2	122.2
55°	148.6	144.1	130.7	115.2	109.2
57.5°	133.2	128.7	116.2	101.8	96.8
60°	118.7	112.2	101.8	89.3	85.3
62.5°	102.8	97.8	88.8	78.3	83.3
65°	88.3	83.3	75.3	76.8	63.8
67.5°	72.3	69.8	62.8	55.9	53.9
70°	58.9	55.9	53.4	45.9	43.9
72.5°	46.9	43.9	40.4	36.4	34.9
75°	35.4	32.9	30.9	29.4	32.4
77.5°	24.4	23.4	21.9	20.5	20.0
80°	16.0	15.5	15.0	14.5	14.0
82.5°	9.5	9.5	9.5	9.5	9.5
85°	5.0	5.5	6.0	6.5	7.0
87.5°	3.0	3.0	3.5	4.0	4.5
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)