

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: P545727

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-81-84-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: P545727
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-LD4-2STD-35-UNV-81-84-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

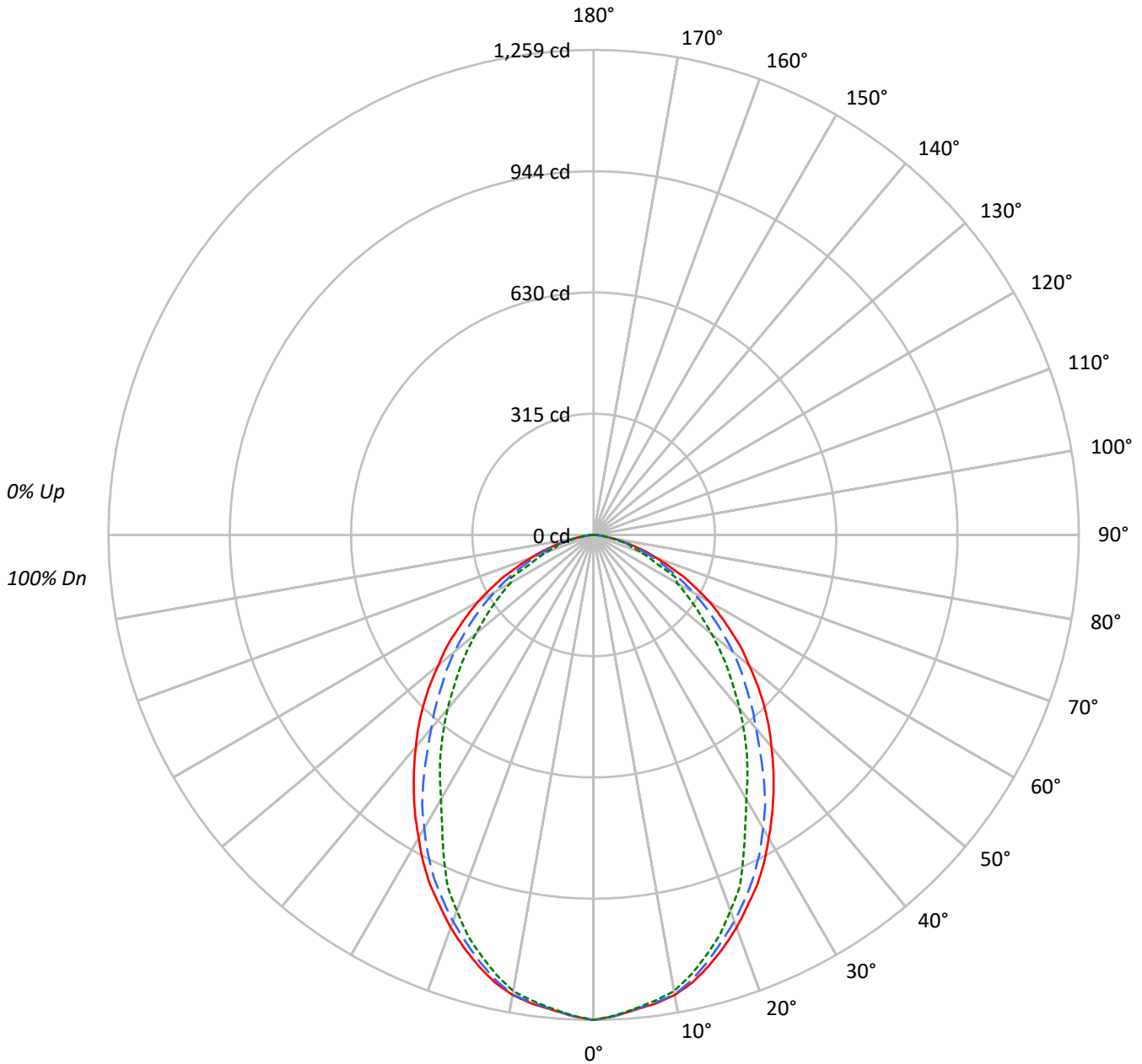
Lumens per Lamp: N/A
Luminaire Lumens: 2472.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	6777	6777	6777
5°	6685	6677	6669
10°	6627	6619	6571
15°	6448	6384	6294
20°	6211	6111	5944
25°	5956	5827	5463
30°	5645	5464	4921
35°	5347	5050	4552
40°	5042	4603	4142
45°	4753	4255	3745
50°	4400	3949	3340
55°	4070	3579	2991
60°	3730	3197	2679
65°	3282	2799	2372
70°	2703	2452	2016
75°	2150	1878	1967
80°	1444	1354	1265
85°	902	1081	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.2	4.7
10°-20°	321.7	13.0
20°-30°	445.4	18.0
30°-40°	474.9	19.2
40°-50°	433.2	17.5
50°-60°	339.4	13.7
60°-70°	221.2	8.9
70°-80°	98.0	4.0
80°-90°	21.0	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°	884.3	35.8
0°-40°	1359.1	55.0
0°-60°	2131.8	86.2
0°-90°	2472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1259	1259	1259	1259	1259	
5°	1237	1236	1236	1234	1234	117
15°	1157	1157	1146	1134	1130	325
25°	1003	997	981	946	920	460
35°	814	808	769	710	693	509
45°	624	611	559	512	492	481
55°	434	421	381	336	319	389
65°	258	243	220	224	186	254
75°	103	96	90	86	95	111
85°	15	16	18	19	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1259.2	1259.2	1259.2	1259.2	1259.2
2.5°	1250.5	1250.5	1250.5	1249.0	1249.0
5°	1237.4	1235.9	1235.9	1234.5	1234.5
7.5°	1227.2	1225.7	1224.3	1222.8	1219.9
10°	1212.6	1212.6	1211.2	1203.9	1202.4
12.5°	1189.3	1187.9	1182.1	1171.9	1168.9
15°	1157.3	1157.3	1145.7	1134.0	1129.6
17.5°	1122.4	1120.9	1106.4	1094.7	1088.9
20°	1084.5	1081.6	1067.0	1048.1	1037.9
22.5°	1042.3	1042.3	1024.8	1000.1	989.9
25°	1003.0	997.2	981.2	946.2	920.0
27.5°	957.9	949.1	931.7	882.2	851.6
30°	908.4	904.0	879.3	815.2	791.9
32.5°	861.8	854.5	828.3	761.3	742.4
35°	813.8	807.9	768.6	710.4	692.9
37.5°	765.7	758.4	708.9	662.4	640.5
40°	717.7	708.9	655.1	612.9	589.6
42.5°	672.5	660.9	608.5	563.4	537.2
45°	624.5	611.4	559.0	512.4	492.0
47.5°	576.5	564.8	516.8	468.7	445.5
50°	525.5	515.3	471.7	423.6	398.9
52.5°	483.3	467.3	425.1	377.0	356.7
55°	433.8	420.7	381.4	336.3	318.8
57.5°	388.7	375.6	339.2	297.0	282.4
60°	346.5	327.5	297.0	260.6	248.9
62.5°	299.9	285.3	259.1	228.5	243.1
65°	257.7	243.1	219.8	224.2	186.3
67.5°	211.1	203.8	183.4	163.0	157.2
70°	171.8	163.0	155.8	133.9	128.1
72.5°	136.8	128.1	117.9	106.3	101.9
75°	103.4	96.1	90.3	85.9	94.6
77.5°	71.3	68.4	64.1	59.7	58.2
80°	46.6	45.1	43.7	42.2	40.8
82.5°	27.7	27.7	27.7	27.7	27.7
85°	14.6	16.0	17.5	18.9	20.4
87.5°	8.7	8.7	10.2	11.6	13.1
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)