

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: P545721

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-80-86-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: P545721
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-80-86-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

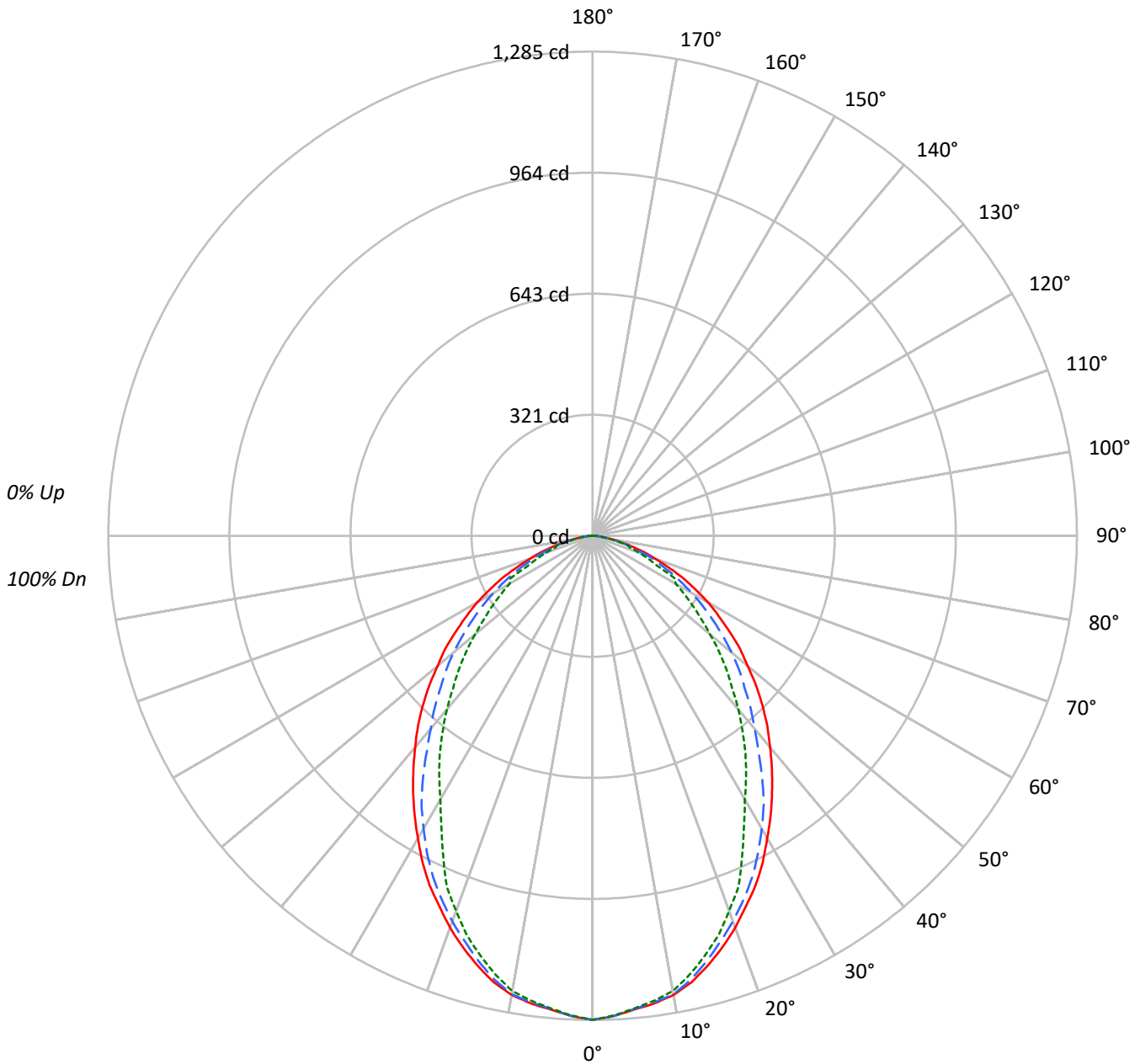
Lumens per Lamp: N/A
Luminaire Lumens: 2522.0 lumens
Efficiency: N/A
Efficacy: 75.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6914	6914	6914
5°	6820	6812	6804
10°	6761	6753	6704
15°	6579	6512	6422
20°	6337	6235	6065
25°	6077	5944	5574
30°	5759	5574	5021
35°	5455	5152	4644
40°	5144	4695	4226
45°	4849	4341	3821
50°	4489	4029	3407
55°	4153	3651	3052
60°	3805	3261	2734
65°	3348	2856	2421
70°	2758	2500	2057
75°	2192	1915	2007
80°	1472	1382	1289
85°	920	1099	1284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.6	4.7
10°-20°	328.2	13.0
20°-30°	454.4	18.0
30°-40°	484.5	19.2
40°-50°	442.0	17.5
50°-60°	346.3	13.7
60°-70°	225.7	8.9
70°-80°	100.0	4.0
80°-90°	21.5	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°	902.1	35.8
0°-40°	1386.6	55.0
0°-60°	2174.9	86.2
0°-90°	2522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2522.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1285	1285	1285	1285	1285	
5°	1262	1261	1261	1259	1259	120
15°	1181	1181	1169	1157	1152	332
25°	1023	1017	1001	965	939	470
35°	830	824	784	725	707	519
45°	637	624	570	523	502	491
55°	443	429	389	343	325	397
65°	263	248	224	229	190	259
75°	105	98	92	88	96	113
85°	15	16	18	19	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1284.7	1284.7	1284.7	1284.7	1284.7
2.5°	1275.8	1275.8	1275.8	1274.3	1274.3
5°	1262.4	1260.9	1260.9	1259.4	1259.4
7.5°	1252.0	1250.5	1249.0	1247.5	1244.6
10°	1237.1	1237.1	1235.7	1228.2	1226.8
12.5°	1213.4	1211.9	1206.0	1195.6	1192.6
15°	1180.7	1180.7	1168.8	1156.9	1152.5
17.5°	1145.1	1143.6	1128.7	1116.8	1110.9
20°	1106.5	1103.5	1088.6	1069.3	1058.9
22.5°	1063.4	1063.4	1045.6	1020.3	1009.9
25°	1023.3	1017.3	1001.0	965.4	938.6
27.5°	977.2	968.3	950.5	900.0	868.8
30°	926.7	922.3	897.0	831.7	807.9
32.5°	879.2	871.8	845.1	776.7	757.4
35°	830.2	824.3	784.2	724.8	706.9
37.5°	781.2	773.8	723.3	675.8	653.5
40°	732.2	723.3	668.3	625.3	601.5
42.5°	686.1	674.3	620.8	574.8	548.0
45°	637.1	623.8	570.3	522.8	502.0
47.5°	588.1	576.2	527.2	478.2	454.5
50°	536.1	525.8	481.2	432.2	406.9
52.5°	493.1	476.7	433.7	384.7	363.9
55°	442.6	429.2	389.1	343.1	325.3
57.5°	396.5	383.2	346.0	303.0	288.1
60°	353.5	334.2	303.0	265.8	254.0
62.5°	305.9	291.1	264.4	233.2	248.0
65°	262.9	248.0	224.3	228.7	190.1
67.5°	215.3	207.9	187.1	166.3	160.4
70°	175.3	166.3	158.9	136.6	130.7
72.5°	139.6	130.7	120.3	108.4	104.0
75°	105.4	98.0	92.1	87.6	96.5
77.5°	72.8	69.8	65.3	60.9	59.4
80°	47.5	46.0	44.6	43.1	41.6
82.5°	28.2	28.2	28.2	28.2	28.2
85°	14.9	16.3	17.8	19.3	20.8
87.5°	8.9	8.9	10.4	11.9	13.4
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)