

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: P545555

Luminaire Tested: **FMR-12-2-LD4-2HI-35-UNV-93-88-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: P545555
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-LD4-2HI-35-UNV-93-88-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

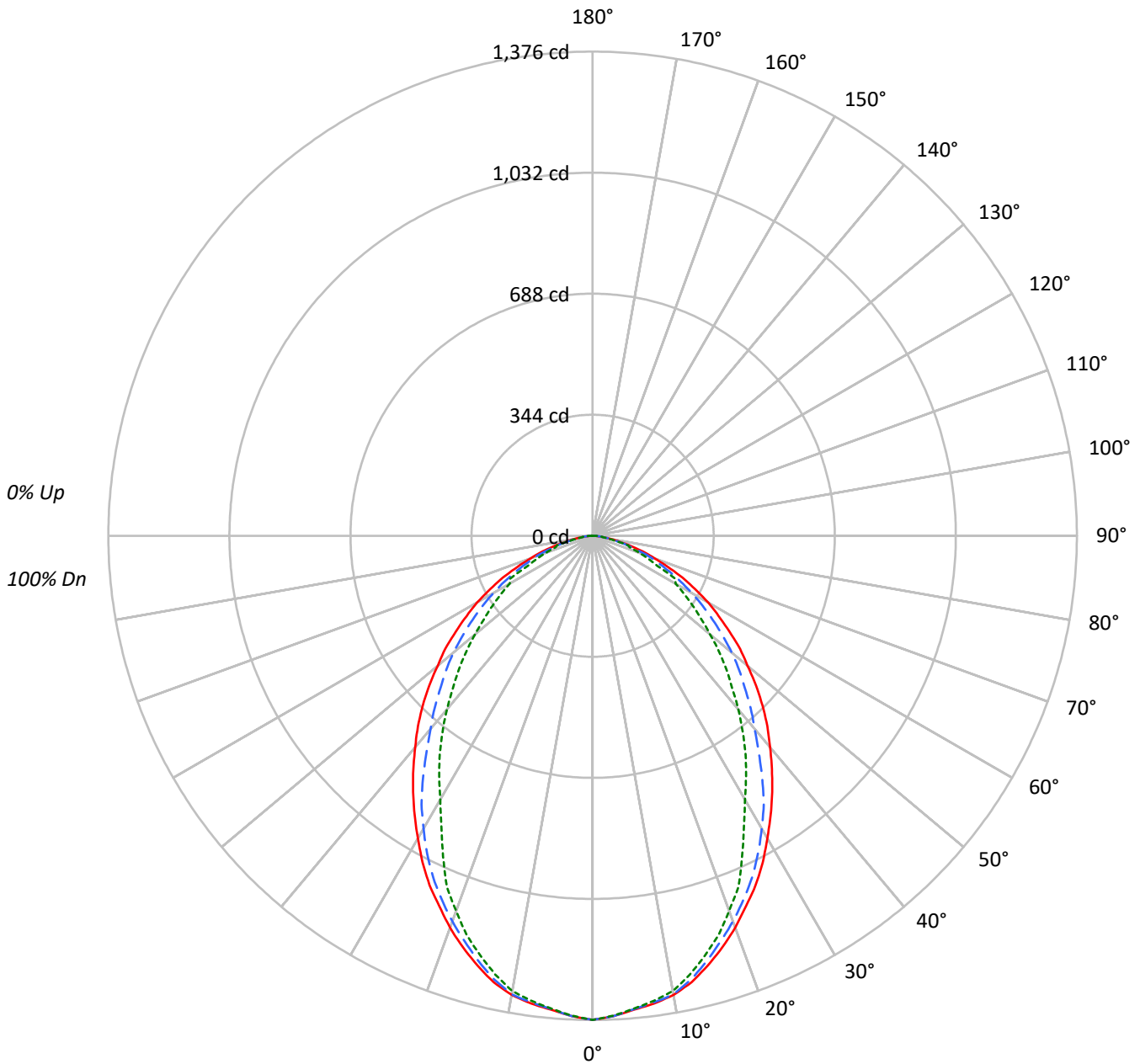
Lumens per Lamp: N/A
Luminaire Lumens: 2701.0 lumens
Efficiency: N/A
Efficacy: 62.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (A_{in}): 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°	7405	7405	7405
5°	7304	7296	7287
10°	7241	7232	7180
15°	7046	6975	6877
20°	6787	6678	6495
25°	6508	6366	5969
30°	6168	5970	5377
35°	5842	5518	4974
40°	5510	5029	4526
45°	5194	4649	4092
50°	4808	4315	3649
55°	4448	3910	3268
60°	4075	3493	2928
65°	3585	3059	2593
70°	2954	2678	2203
75°	2348	2050	2150
80°	1578	1478	1379
85°	982	1179	1377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.1	4.7
10°-20°	351.5	13.0
20°-30°	486.6	18.0
30°-40°	518.9	19.2
40°-50°	473.4	17.5
50°-60°	370.8	13.7
60°-70°	241.7	8.9
70°-80°	107.1	4.0
80°-90°	23.0	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°	966.2	35.8
0°-40°	1485.0	55.0
0°-60°	2329.2	86.2
0°-90°	2701.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2701.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1376	1376	1376	1376	1376	
5°	1352	1350	1350	1349	1349	128
15°	1264	1264	1252	1239	1234	355
25°	1096	1090	1072	1034	1005	503
35°	889	883	840	776	757	556
45°	682	668	611	560	538	526
55°	474	460	417	367	348	425
65°	282	266	240	245	204	277
75°	113	105	99	94	103	121
85°	16	18	19	21	22	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1375.9	1375.9	1375.9	1375.9	1375.9
2.5°	1366.3	1366.3	1366.3	1364.7	1364.7
5°	1352.0	1350.4	1350.4	1348.8	1348.8
7.5°	1340.9	1339.3	1337.7	1336.1	1332.9
10°	1325.0	1325.0	1323.4	1315.4	1313.8
12.5°	1299.5	1297.9	1291.6	1280.4	1277.2
15°	1264.5	1264.5	1251.8	1239.1	1234.3
17.5°	1226.3	1224.7	1208.8	1196.1	1189.8
20°	1185.0	1181.8	1165.9	1145.2	1134.1
22.5°	1138.9	1138.9	1119.8	1092.7	1081.6
25°	1095.9	1089.5	1072.1	1033.9	1005.2
27.5°	1046.6	1037.1	1018.0	963.9	930.5
30°	992.5	987.8	960.7	890.7	865.3
32.5°	941.6	933.7	905.0	831.9	811.2
35°	889.1	882.8	839.8	776.2	757.1
37.5°	836.6	828.7	774.6	723.7	699.9
40°	784.2	774.6	715.8	669.6	644.2
42.5°	734.8	722.1	664.9	615.6	586.9
45°	682.4	668.0	610.8	559.9	537.6
47.5°	629.9	617.1	564.7	512.2	486.7
50°	574.2	563.1	515.3	462.9	435.8
52.5°	528.1	510.6	464.4	412.0	389.7
55°	474.0	459.7	416.7	367.4	348.3
57.5°	424.7	410.4	370.6	324.5	308.6
60°	378.6	357.9	324.5	284.7	272.0
62.5°	327.7	311.8	283.1	249.7	265.6
65°	281.5	265.6	240.2	244.9	203.6
67.5°	230.6	222.7	200.4	178.1	171.8
70°	187.7	178.1	170.2	146.3	140.0
72.5°	149.5	140.0	128.8	116.1	111.3
75°	112.9	105.0	98.6	93.8	103.4
77.5°	77.9	74.8	70.0	65.2	63.6
80°	50.9	49.3	47.7	46.1	44.5
82.5°	30.2	30.2	30.2	30.2	30.2
85°	15.9	17.5	19.1	20.7	22.3
87.5°	9.5	9.5	11.1	12.7	14.3
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)