

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: P545603

Luminaire Tested: **FMR-12-2-LD4-2HI-50-UNV-81-88-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: P545603
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-50-UNV-81-88-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

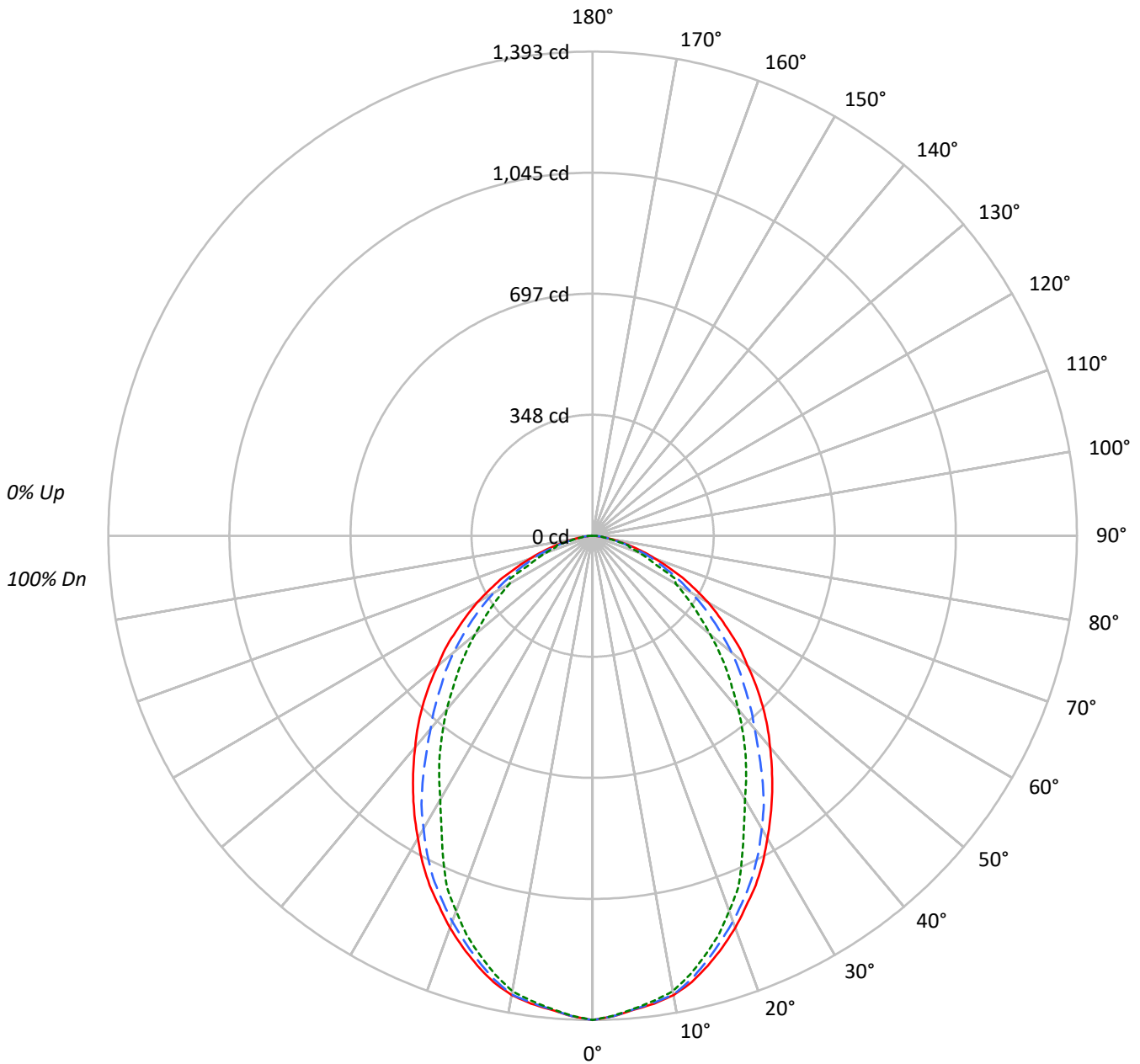
Lumens per Lamp: N/A
Luminaire Lumens: 2735.0 lumens
Efficiency: N/A
Efficacy: 63.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	7498	7498	7498
5°	7396	7387	7379
10°	7332	7323	7271
15°	7134	7062	6964
20°	6872	6762	6577
25°	6590	6446	6045
30°	6246	6046	5445
35°	5915	5587	5037
40°	5578	5092	4583
45°	5259	4708	4144
50°	4868	4369	3695
55°	4504	3960	3309
60°	4126	3537	2964
65°	3631	3097	2626
70°	2991	2711	2230
75°	2379	2077	2177
80°	1596	1497	1398
85°	994	1192	1389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.7	4.7
10°-20°	355.9	13.0
20°-30°	492.7	18.0
30°-40°	525.4	19.2
40°-50°	479.3	17.5
50°-60°	375.5	13.7
60°-70°	244.7	8.9
70°-80°	108.4	4.0
80°-90°	23.3	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°	978.3	35.8
0°-40°	1503.7	55.0
0°-60°	2358.6	86.2
0°-90°	2735.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2735.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1369	1367	1367	1366	1366	130
15°	1280	1280	1268	1255	1250	360
25°	1110	1103	1086	1047	1018	509
35°	900	894	850	786	767	563
45°	691	676	618	567	544	532
55°	480	466	422	372	353	430
65°	285	269	243	248	206	281
75°	114	106	100	95	105	123
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°	1393.2	1393.2	1393.2	1393.2	1393.2
2.5°	1383.5	1383.5	1383.5	1381.9	1381.9
5°	1369.0	1367.4	1367.4	1365.8	1365.8
7.5°	1357.7	1356.1	1354.5	1352.9	1349.7
10°	1341.6	1341.6	1340.0	1332.0	1330.4
12.5°	1315.9	1314.3	1307.8	1296.5	1293.3
15°	1280.4	1280.4	1267.5	1254.7	1249.8
17.5°	1241.8	1240.2	1224.1	1211.2	1204.7
20°	1199.9	1196.7	1180.6	1159.6	1148.4
22.5°	1153.2	1153.2	1133.9	1106.5	1095.2
25°	1109.7	1103.3	1085.5	1046.9	1017.9
27.5°	1059.8	1050.1	1030.8	976.0	942.2
30°	1005.0	1000.2	972.8	901.9	876.2
32.5°	953.5	945.4	916.4	842.3	821.4
35°	900.3	893.9	850.4	786.0	766.6
37.5°	847.2	839.1	784.4	732.8	708.7
40°	794.0	784.4	724.8	678.1	652.3
42.5°	744.1	731.2	673.2	623.3	594.3
45°	690.9	676.5	618.5	566.9	544.4
47.5°	637.8	624.9	571.8	518.6	492.8
50°	581.4	570.2	521.8	468.7	441.3
52.5°	534.7	517.0	470.3	417.1	394.6
55°	480.0	465.5	422.0	372.0	352.7
57.5°	430.0	415.5	375.3	328.6	312.5
60°	383.3	362.4	328.6	288.3	275.4
62.5°	331.8	315.7	286.7	252.9	269.0
65°	285.1	269.0	243.2	248.0	206.2
67.5°	233.5	225.5	202.9	180.4	173.9
70°	190.1	180.4	172.3	148.2	141.7
72.5°	151.4	141.7	130.5	117.6	112.7
75°	114.4	106.3	99.9	95.0	104.7
77.5°	78.9	75.7	70.9	66.0	64.4
80°	51.5	49.9	48.3	46.7	45.1
82.5°	30.6	30.6	30.6	30.6	30.6
85°	16.1	17.7	19.3	20.9	22.5
87.5°	9.7	9.7	11.3	12.9	14.5
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)