

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: P545539

Luminaire Tested: **FMR-12-2-LD4-2HI-35-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: P545539
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-81-88-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC 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

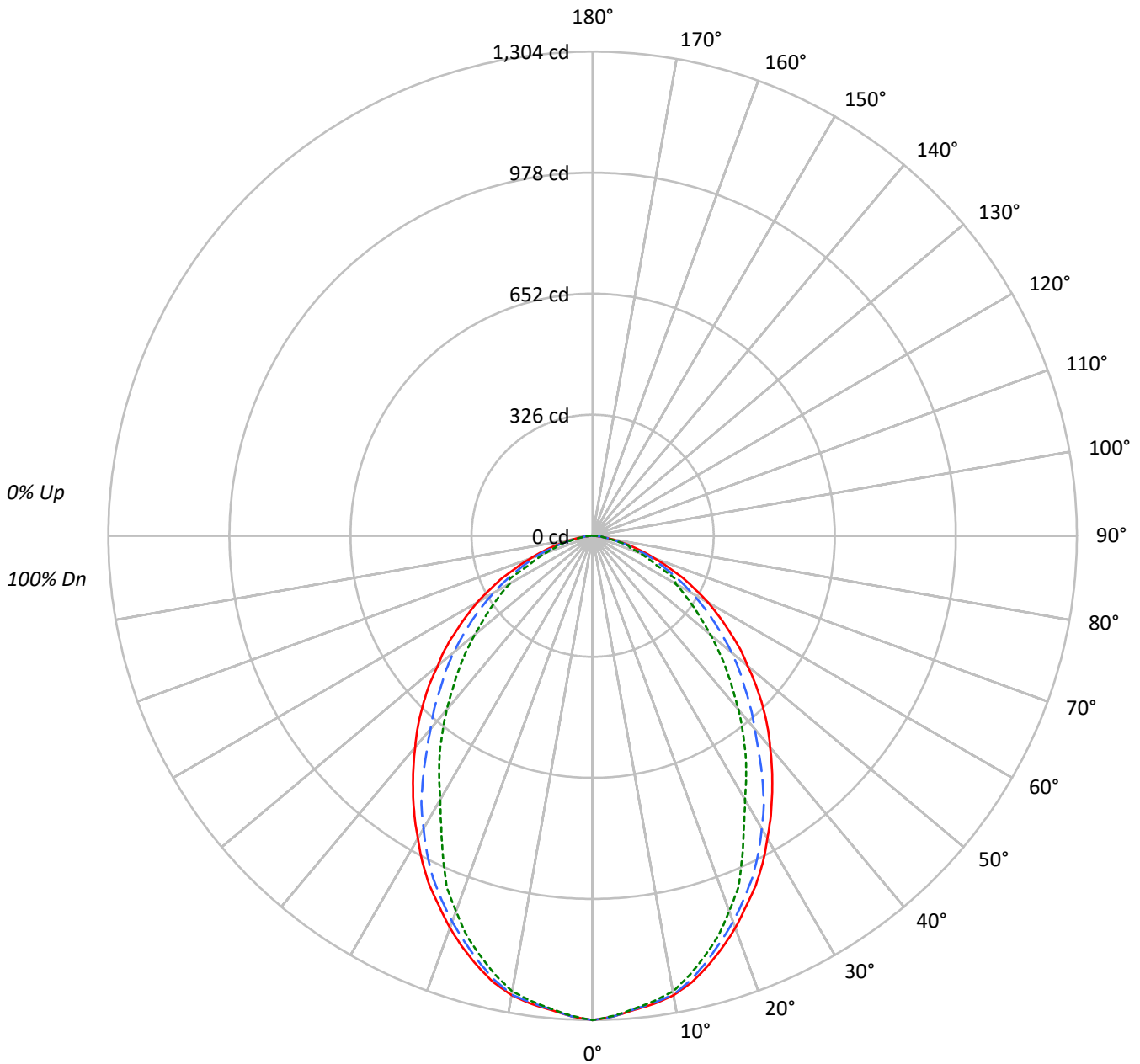
Lumens per Lamp: N/A
Luminaire Lumens: 2561.0 lumens
Efficiency: N/A
Efficacy: 59.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	7021	7021	7021
5°	6925	6917	6909
10°	6866	6857	6808
15°	6681	6613	6521
20°	6435	6332	6159
25°	6171	6036	5660
30°	5849	5661	5098
35°	5539	5232	4717
40°	5224	4768	4291
45°	4924	4408	3880
50°	4558	4091	3460
55°	4217	3707	3099
60°	3863	3312	2776
65°	3399	2900	2458
70°	2801	2540	2088
75°	2227	1944	2038
80°	1497	1401	1308
85°	932	1118	1303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.4	4.7
10°-20°	333.3	13.0
20°-30°	461.4	18.0
30°-40°	492.0	19.2
40°-50°	448.8	17.5
50°-60°	351.6	13.7
60°-70°	229.2	8.9
70°-80°	101.5	4.0
80°-90°	21.8	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°	916.1	35.8
0°-40°	1408.1	55.0
0°-60°	2208.5	86.2
0°-90°	2561.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2561.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1304	1304	1304	1304	1304	
5°	1282	1280	1280	1279	1279	122
15°	1199	1199	1187	1175	1170	337
25°	1039	1033	1016	980	953	477
35°	843	837	796	736	718	527
45°	647	633	579	531	510	498
55°	449	436	395	348	330	403
65°	267	252	228	232	193	263
75°	107	100	94	89	98	115
85°	15	17	18	20	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1304.5	1304.5	1304.5	1304.5	1304.5
2.5°	1295.5	1295.5	1295.5	1294.0	1294.0
5°	1281.9	1280.4	1280.4	1278.9	1278.9
7.5°	1271.4	1269.9	1268.3	1266.8	1263.8
10°	1256.3	1256.3	1254.8	1247.2	1245.7
12.5°	1232.1	1230.6	1224.6	1214.1	1211.0
15°	1199.0	1199.0	1186.9	1174.8	1170.3
17.5°	1162.8	1161.3	1146.2	1134.1	1128.1
20°	1123.6	1120.5	1105.5	1085.9	1075.3
22.5°	1079.8	1079.8	1061.7	1036.1	1025.5
25°	1039.1	1033.1	1016.5	980.3	953.1
27.5°	992.4	983.3	965.2	913.9	882.3
30°	941.1	936.6	910.9	844.6	820.4
32.5°	892.8	885.3	858.1	788.8	769.2
35°	843.0	837.0	796.3	736.0	717.9
37.5°	793.3	785.7	734.5	686.2	663.6
40°	743.5	734.5	678.7	634.9	610.8
42.5°	696.8	684.7	630.4	583.6	556.5
45°	647.0	633.4	579.1	530.9	509.8
47.5°	597.2	585.2	535.4	485.6	461.5
50°	544.4	533.9	488.6	438.9	413.2
52.5°	500.7	484.1	440.4	390.6	369.5
55°	449.4	435.9	395.1	348.4	330.3
57.5°	402.7	389.1	351.4	307.7	292.6
60°	358.9	339.3	307.7	270.0	257.9
62.5°	310.7	295.6	268.4	236.8	251.9
65°	266.9	251.9	227.7	232.3	193.0
67.5°	218.7	211.1	190.0	168.9	162.9
70°	178.0	168.9	161.4	138.7	132.7
72.5°	141.8	132.7	122.2	110.1	105.6
75°	107.1	99.5	93.5	89.0	98.0
77.5°	73.9	70.9	66.4	61.8	60.3
80°	48.3	46.8	45.2	43.7	42.2
82.5°	28.7	28.7	28.7	28.7	28.7
85°	15.1	16.6	18.1	19.6	21.1
87.5°	9.0	9.0	10.6	12.1	13.6
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)