

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: P545805

Luminaire Tested: **FMR-12-2-LD4-2STD-50-UNV-82-96-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: P545805
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-50-UNV-82-96-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

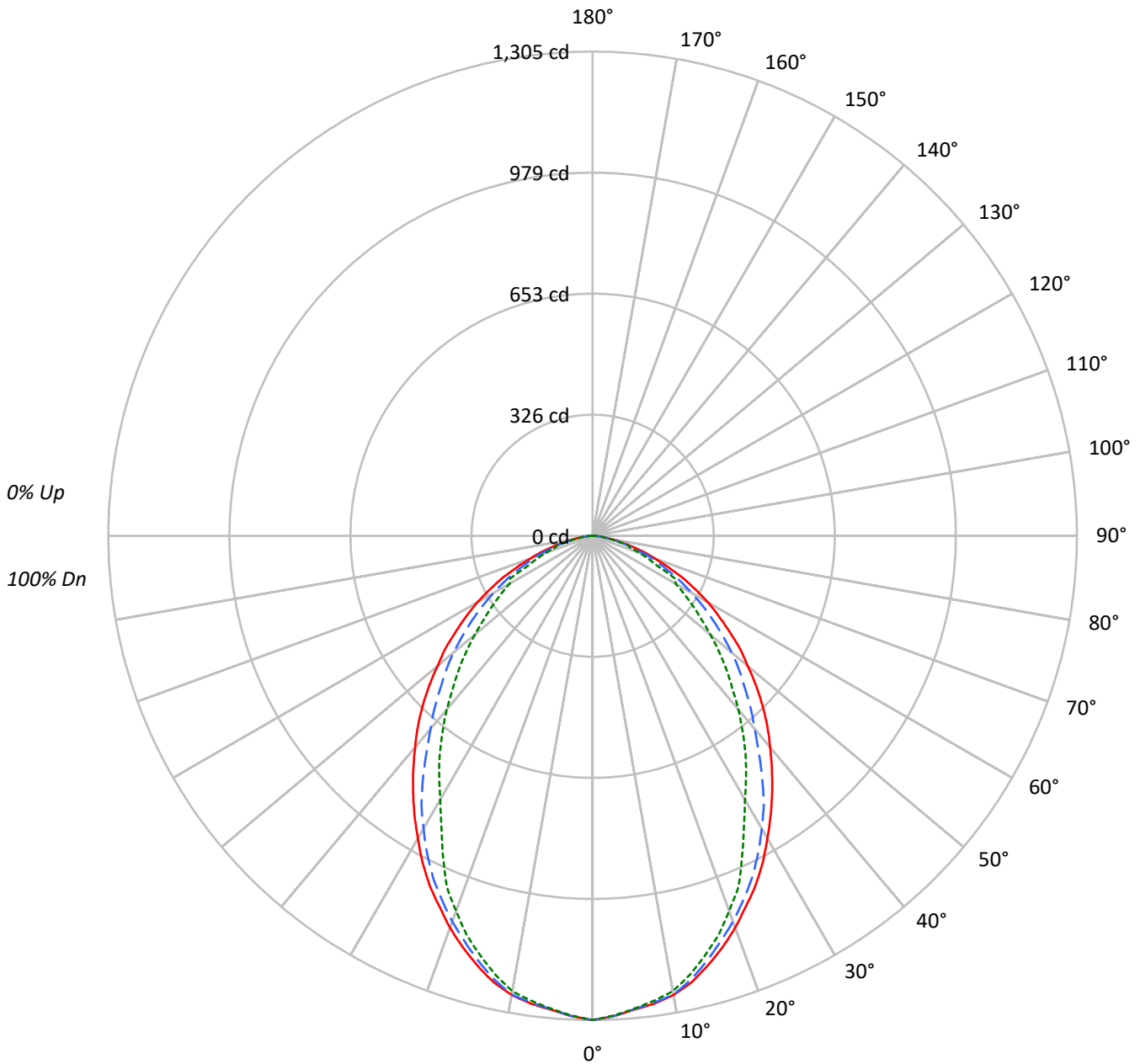
Lumens per Lamp: N/A
Luminaire Lumens: 2562.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	7023	7023	7023
5°	6928	6920	6912
10°	6868	6860	6810
15°	6683	6616	6523
20°	6438	6334	6161
25°	6173	6039	5662
30°	5850	5663	5100
35°	5541	5234	4719
40°	5226	4770	4293
45°	4926	4410	3881
50°	4561	4093	3461
55°	4219	3709	3100
60°	3865	3313	2777
65°	3400	2901	2459
70°	2801	2540	2090
75°	2227	1944	2040
80°	1497	1404	1308
85°	932	1118	1303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.5	4.7
10°-20°	333.4	13.0
20°-30°	461.6	18.0
30°-40°	492.2	19.2
40°-50°	449.0	17.5
50°-60°	351.8	13.7
60°-70°	229.3	8.9
70°-80°	101.6	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°	916.4	35.8
0°-40°	1408.6	55.0
0°-60°	2209.4	86.2
0°-90°	2562.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2562.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1305	1305	1305	1305	1305	
5°	1282	1281	1281	1279	1279	122
15°	1199	1199	1187	1175	1171	337
25°	1040	1034	1017	981	954	477
35°	843	837	797	736	718	527
45°	647	634	579	531	510	499
55°	450	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°	1305.0	1305.0	1305.0	1305.0	1305.0
2.5°	1296.0	1296.0	1296.0	1294.5	1294.5
5°	1282.4	1280.9	1280.9	1279.4	1279.4
7.5°	1271.9	1270.3	1268.8	1267.3	1264.3
10°	1256.8	1256.8	1255.3	1247.7	1246.2
12.5°	1232.6	1231.1	1225.1	1214.5	1211.5
15°	1199.4	1199.4	1187.4	1175.3	1170.8
17.5°	1163.2	1161.7	1146.6	1134.6	1128.5
20°	1124.0	1121.0	1105.9	1086.3	1075.7
22.5°	1080.2	1080.2	1062.1	1036.5	1025.9
25°	1039.5	1033.5	1016.9	980.7	953.5
27.5°	992.7	983.7	965.6	914.3	882.6
30°	941.4	936.9	911.3	844.9	820.7
32.5°	893.2	885.6	858.5	789.1	769.5
35°	843.4	837.3	796.6	736.3	718.2
37.5°	793.6	786.0	734.7	686.5	663.8
40°	743.8	734.7	678.9	635.2	611.0
42.5°	697.0	685.0	630.6	583.9	556.7
45°	647.2	633.7	579.4	531.1	509.9
47.5°	597.5	585.4	535.6	485.8	461.7
50°	544.7	534.1	488.8	439.0	413.4
52.5°	500.9	484.3	440.5	390.8	369.6
55°	449.6	436.0	395.3	348.5	330.4
57.5°	402.8	389.3	351.5	307.8	292.7
60°	359.1	339.5	307.8	270.1	258.0
62.5°	310.8	295.7	268.6	236.9	252.0
65°	267.0	252.0	227.8	232.3	193.1
67.5°	218.8	211.2	190.1	169.0	162.9
70°	178.0	169.0	161.4	138.8	132.8
72.5°	141.8	132.8	122.2	110.1	105.6
75°	107.1	99.6	93.5	89.0	98.1
77.5°	73.9	70.9	66.4	61.9	60.3
80°	48.3	46.8	45.3	43.8	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°	9.1	9.1	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)