

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: P545760

Luminaire Tested: **FMR-12-2-LD4-2STD-40-UNV-81-85-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: P545760
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-40-UNV-81-85-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

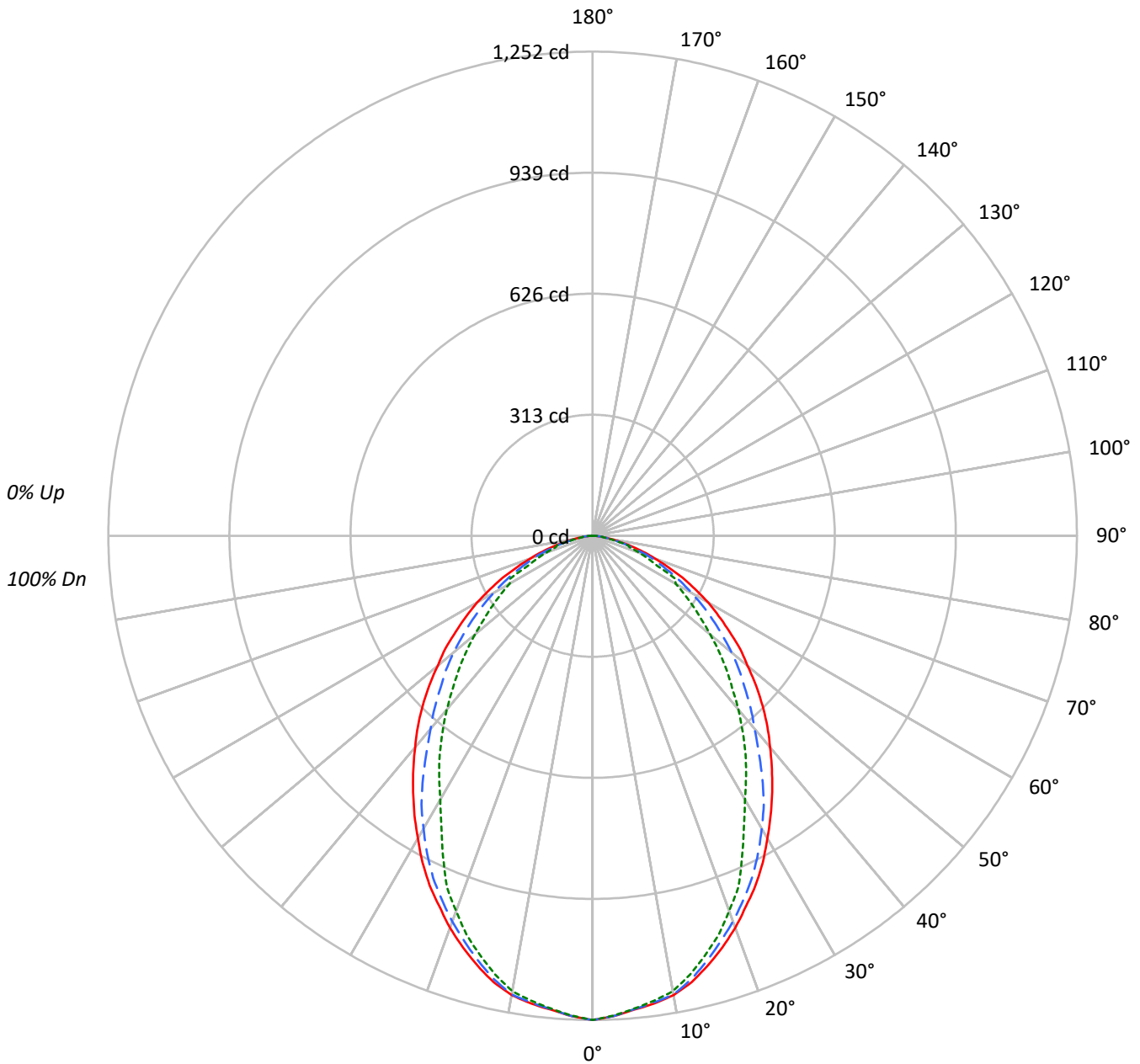
Lumens per Lamp: N/A
Luminaire Lumens: 2458.0 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	6739	6739	6739
5°	6647	6639	6632
10°	6590	6581	6534
15°	6411	6347	6258
20°	6176	6077	5911
25°	5922	5793	5432
30°	5613	5433	4893
35°	5316	5022	4527
40°	5014	4577	4118
45°	4727	4230	3723
50°	4375	3927	3321
55°	4047	3558	2974
60°	3708	3179	2664
65°	3263	2784	2360
70°	2688	2437	2005
75°	2138	1865	1957
80°	1435	1345	1255
85°	895	1074	1254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.6	4.7
10°-20°	319.9	13.0
20°-30°	442.8	18.0
30°-40°	472.2	19.2
40°-50°	430.8	17.5
50°-60°	337.5	13.7
60°-70°	220.0	8.9
70°-80°	97.4	4.0
80°-90°	20.9	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°	879.2	35.8
0°-40°	1351.4	55.0
0°-60°	2119.7	86.2
0°-90°	2458.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2458.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1230	1229	1229	1228	1228	117
15°	1151	1151	1139	1128	1123	324
25°	997	992	976	941	915	458
35°	809	803	764	706	689	506
45°	621	608	556	510	489	478
55°	431	418	379	334	317	387
65°	256	242	219	223	185	252
75°	103	96	90	85	94	110
85°	14	16	17	19	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1252.1	1252.1	1252.1	1252.1	1252.1
2.5°	1243.4	1243.4	1243.4	1241.9	1241.9
5°	1230.4	1228.9	1228.9	1227.5	1227.5
7.5°	1220.2	1218.8	1217.3	1215.9	1213.0
10°	1205.8	1205.8	1204.3	1197.1	1195.6
12.5°	1182.6	1181.1	1175.4	1165.2	1162.3
15°	1150.7	1150.7	1139.2	1127.6	1123.2
17.5°	1116.0	1114.6	1100.1	1088.5	1082.7
20°	1078.4	1075.5	1061.0	1042.2	1032.1
22.5°	1036.4	1036.4	1019.0	994.4	984.3
25°	997.3	991.5	975.6	940.9	914.8
27.5°	952.4	943.8	926.4	877.2	846.8
30°	903.2	898.9	874.3	810.6	787.4
32.5°	856.9	849.7	823.6	757.0	738.2
35°	809.1	803.4	764.3	706.4	689.0
37.5°	761.4	754.1	704.9	658.6	636.9
40°	713.6	704.9	651.4	609.4	586.2
42.5°	668.7	657.2	605.0	560.2	534.1
45°	621.0	607.9	555.8	509.5	489.2
47.5°	573.2	561.6	513.9	466.1	442.9
50°	522.5	512.4	469.0	421.2	396.6
52.5°	480.6	464.6	422.7	374.9	354.6
55°	431.3	418.3	379.2	334.4	317.0
57.5°	386.5	373.5	337.3	295.3	280.8
60°	344.5	325.7	295.3	259.1	247.5
62.5°	298.2	283.7	257.7	227.3	241.7
65°	256.2	241.7	218.6	222.9	185.3
67.5°	209.9	202.6	182.4	162.1	156.3
70°	170.8	162.1	154.9	133.2	127.4
72.5°	136.1	127.4	117.2	105.7	101.3
75°	102.8	95.5	89.7	85.4	94.1
77.5°	70.9	68.0	63.7	59.3	57.9
80°	46.3	44.9	43.4	42.0	40.5
82.5°	27.5	27.5	27.5	27.5	27.5
85°	14.5	15.9	17.4	18.8	20.3
87.5°	8.7	8.7	10.1	11.6	13.0
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)