

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: P545753

Luminaire Tested: **FMR-12-2-LD4-2STD-40-UNV-80-86-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: P545753
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-80-86-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

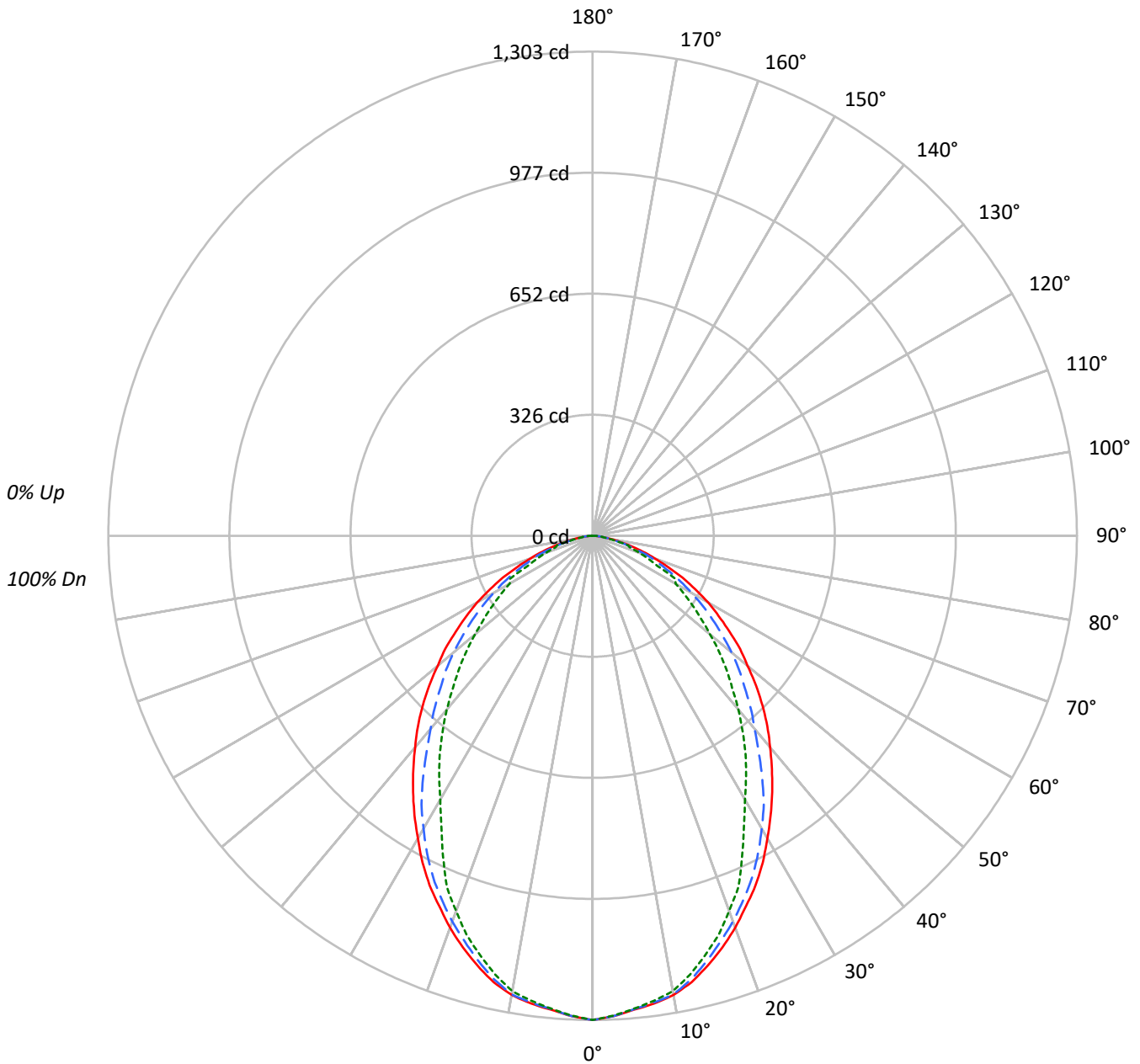
Lumens per Lamp: N/A
Luminaire Lumens: 2558.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7013	7013	7013
5°	6917	6909	6901
10°	6857	6849	6800
15°	6673	6605	6513
20°	6427	6324	6151
25°	6163	6029	5653
30°	5842	5654	5093
35°	5533	5226	4711
40°	5217	4763	4286
45°	4918	4402	3876
50°	4553	4087	3455
55°	4212	3704	3096
60°	3859	3308	2773
65°	3395	2897	2455
70°	2798	2537	2087
75°	2225	1942	2036
80°	1494	1401	1308
85°	932	1118	1303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.3	4.7
10°-20°	332.9	13.0
20°-30°	460.9	18.0
30°-40°	491.4	19.2
40°-50°	448.3	17.5
50°-60°	351.2	13.7
60°-70°	228.9	8.9
70°-80°	101.4	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°	915.0	35.8
0°-40°	1406.4	55.0
0°-60°	2205.9	86.2
0°-90°	2558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2558.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1303	1303	1303	1303	1303	
5°	1280	1279	1279	1277	1277	122
15°	1198	1198	1186	1174	1169	337
25°	1038	1032	1015	979	952	476
35°	842	836	795	735	717	526
45°	646	633	578	530	509	498
55°	449	435	395	348	330	403
65°	267	252	228	232	193	263
75°	107	99	93	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°	1303.0	1303.0	1303.0	1303.0	1303.0
2.5°	1294.0	1294.0	1294.0	1292.5	1292.5
5°	1280.4	1278.9	1278.9	1277.4	1277.4
7.5°	1269.9	1268.4	1266.9	1265.4	1262.3
10°	1254.8	1254.8	1253.3	1245.8	1244.3
12.5°	1230.7	1229.2	1223.2	1212.6	1209.6
15°	1197.6	1197.6	1185.5	1173.5	1168.9
17.5°	1161.4	1159.9	1144.8	1132.8	1126.8
20°	1122.2	1119.2	1104.2	1084.6	1074.0
22.5°	1078.6	1078.6	1060.5	1034.9	1024.3
25°	1037.9	1031.9	1015.3	979.1	952.0
27.5°	991.2	982.2	964.1	912.9	881.2
30°	940.0	935.5	909.8	843.6	819.5
32.5°	891.8	884.2	857.1	787.8	768.2
35°	842.1	836.0	795.4	735.1	717.0
37.5°	792.4	784.8	733.6	685.4	662.8
40°	742.6	733.6	677.9	634.2	610.1
42.5°	695.9	683.9	629.7	583.0	555.9
45°	646.2	632.7	578.4	530.2	509.2
47.5°	596.5	584.5	534.8	485.1	460.9
50°	543.8	533.3	488.1	438.4	412.7
52.5°	500.1	483.5	439.9	390.2	369.1
55°	448.9	435.3	394.7	348.0	329.9
57.5°	402.2	388.6	351.0	307.3	292.2
60°	358.5	338.9	307.3	269.6	257.6
62.5°	310.3	295.2	268.1	236.5	251.6
65°	266.6	251.6	227.5	232.0	192.8
67.5°	218.4	210.9	189.8	168.7	162.7
70°	177.8	168.7	161.2	138.6	132.6
72.5°	141.6	132.6	122.0	110.0	105.4
75°	107.0	99.4	93.4	88.9	97.9
77.5°	73.8	70.8	66.3	61.8	60.3
80°	48.2	46.7	45.2	43.7	42.2
82.5°	28.6	28.6	28.6	28.6	28.6
85°	15.1	16.6	18.1	19.6	21.1
87.5°	9.0	9.0	10.5	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)