

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: P545743

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-93-84-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: P545743
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-35-UNV-93-84-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

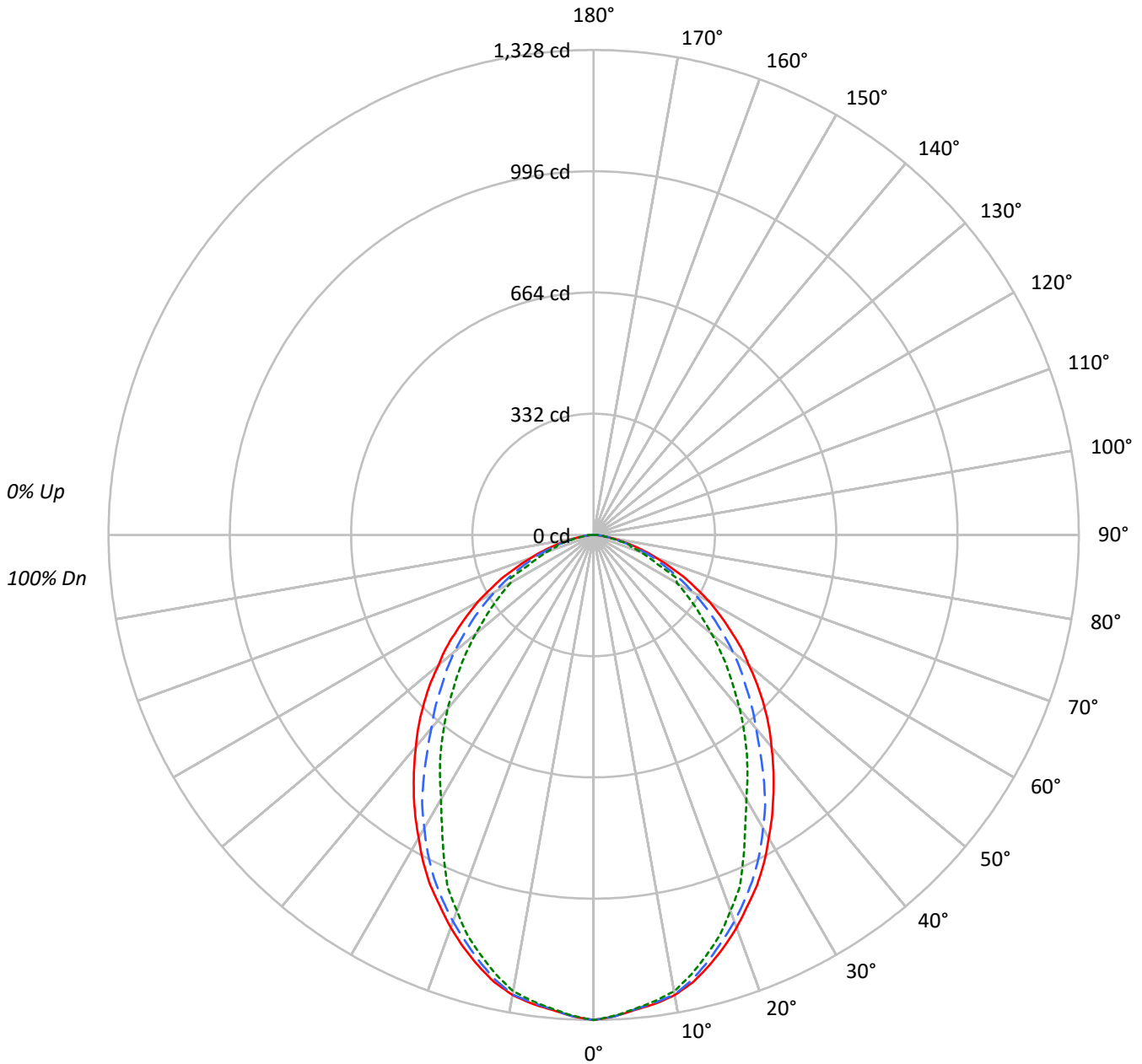
Lumens per Lamp: N/A
Luminaire Lumens: 2608.0 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7150	7150	7150
5°	7052	7044	7036
10°	6991	6983	6933
15°	6803	6735	6640
20°	6553	6448	6271
25°	6284	6147	5764
30°	5955	5765	5192
35°	5640	5328	4803
40°	5320	4855	4370
45°	5015	4489	3951
50°	4642	4166	3523
55°	4295	3776	3156
60°	3934	3372	2827
65°	3461	2953	2504
70°	2851	2585	2127
75°	2267	1980	2075
80°	1522	1429	1333
85°	951	1136	1328



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	4.7
10°-20°	339.4	13.0
20°-30°	469.9	18.0
30°-40°	501.0	19.2
40°-50°	457.1	17.5
50°-60°	358.1	13.7
60°-70°	233.4	8.9
70°-80°	103.4	4.0
80°-90°	22.2	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°	932.9	35.8
0°-40°	1433.9	55.0
0°-60°	2249.0	86.2
0°-90°	2608.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2608.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1328	1328	1328	1328	1328	
5°	1305	1304	1304	1302	1302	124
15°	1221	1221	1209	1196	1192	343
25°	1058	1052	1035	998	971	486
35°	858	852	811	750	731	537
45°	659	645	590	541	519	508
55°	458	444	402	355	336	411
65°	272	256	232	236	197	268
75°	109	101	95	91	100	117
85°	15	17	18	20	22	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1328.5	1328.5	1328.5	1328.5	1328.5
2.5°	1319.3	1319.3	1319.3	1317.7	1317.7
5°	1305.4	1303.9	1303.9	1302.4	1302.4
7.5°	1294.7	1293.2	1291.6	1290.1	1287.0
10°	1279.3	1279.3	1277.8	1270.1	1268.6
12.5°	1254.8	1253.2	1247.1	1236.3	1233.3
15°	1221.0	1221.0	1208.7	1196.4	1191.8
17.5°	1184.1	1182.6	1167.2	1154.9	1148.8
20°	1144.2	1141.1	1125.8	1105.8	1095.0
22.5°	1099.6	1099.6	1081.2	1055.1	1044.4
25°	1058.2	1052.0	1035.1	998.3	970.6
27.5°	1010.6	1001.4	982.9	930.7	898.5
30°	958.3	953.7	927.6	860.1	835.5
32.5°	909.2	901.5	873.9	803.2	783.3
35°	858.5	852.4	810.9	749.5	731.0
37.5°	807.8	800.2	747.9	698.8	675.8
40°	757.2	747.9	691.1	646.6	622.0
42.5°	709.5	697.3	642.0	594.4	566.7
45°	658.9	645.0	589.8	540.6	519.1
47.5°	608.2	595.9	545.2	494.5	470.0
50°	554.4	543.7	497.6	446.9	420.8
52.5°	509.9	493.0	448.5	397.8	376.3
55°	457.7	443.9	402.4	354.8	336.3
57.5°	410.1	396.2	357.8	313.3	297.9
60°	365.5	345.6	313.3	274.9	262.6
62.5°	316.4	301.0	273.4	241.1	256.5
65°	271.8	256.5	231.9	236.5	196.6
67.5°	222.7	215.0	193.5	172.0	165.9
70°	181.2	172.0	164.3	141.3	135.2
72.5°	144.4	135.2	124.4	112.1	107.5
75°	109.0	101.4	95.2	90.6	99.8
77.5°	75.3	72.2	67.6	63.0	61.4
80°	49.1	47.6	46.1	44.5	43.0
82.5°	29.2	29.2	29.2	29.2	29.2
85°	15.4	16.9	18.4	20.0	21.5
87.5°	9.2	9.2	10.8	12.3	13.8
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)