

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: P545765

Luminaire Tested: **FMR-12-2-LD4-2STD-40-UNV-81-96-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: P545765
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-81-96-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

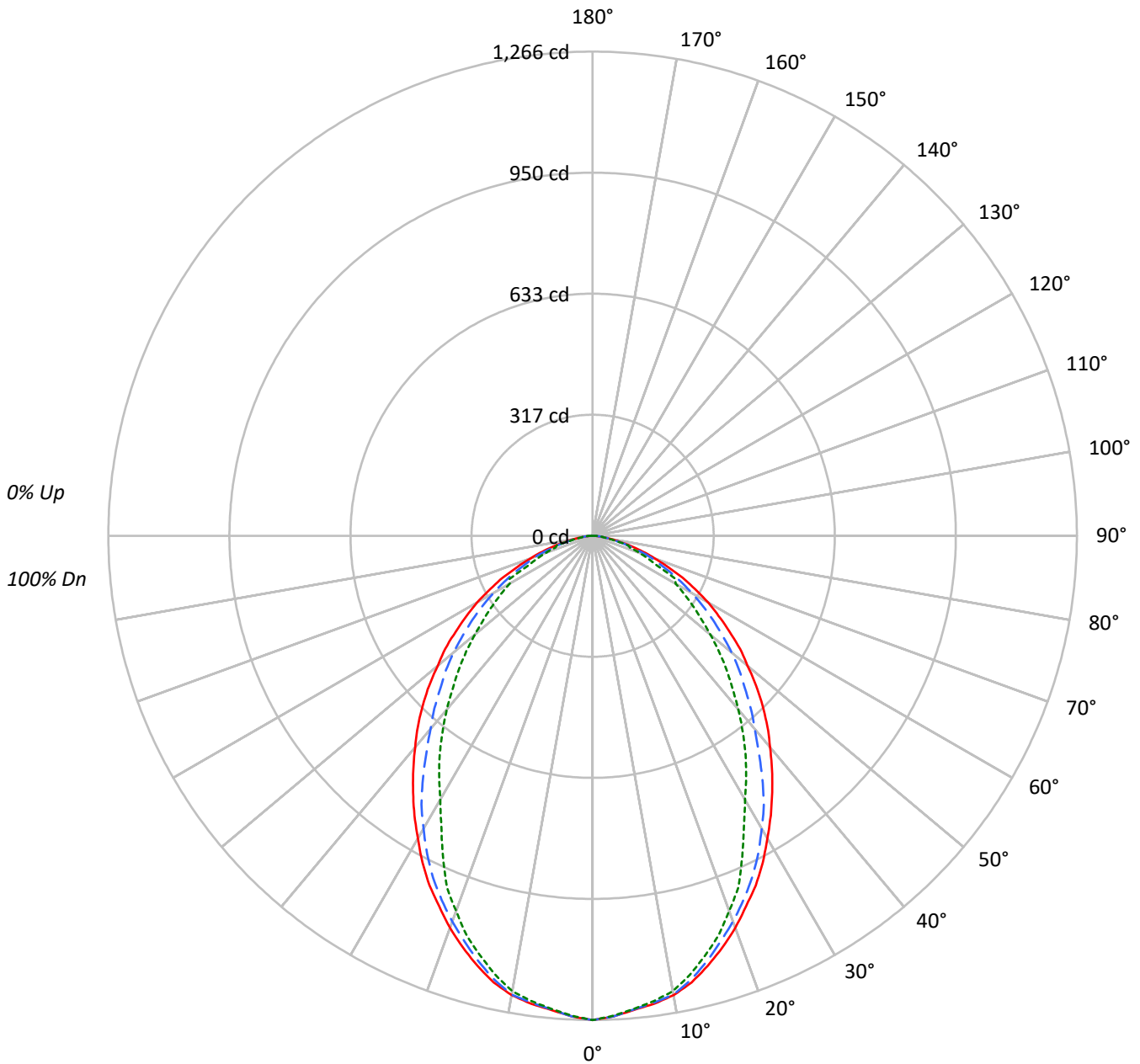
Lumens per Lamp: N/A
Luminaire Lumens: 2486.0 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	6815	6815	6815
5°	6723	6715	6707
10°	6665	6656	6608
15°	6485	6419	6330
20°	6247	6146	5978
25°	5990	5859	5494
30°	5677	5495	4949
35°	5377	5079	4579
40°	5070	4628	4166
45°	4780	4279	3766
50°	4425	3971	3358
55°	4094	3599	3008
60°	3750	3215	2694
65°	3300	2816	2387
70°	2718	2464	2027
75°	2161	1888	1980
80°	1450	1361	1271
85°	902	1087	1266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.9	4.7
10°-20°	323.5	13.0
20°-30°	447.9	18.0
30°-40°	477.6	19.2
40°-50°	435.7	17.5
50°-60°	341.3	13.7
60°-70°	222.5	8.9
70°-80°	98.6	4.0
80°-90°	21.2	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°	889.3	35.8
0°-40°	1366.8	55.0
0°-60°	2143.8	86.2
0°-90°	2486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2486.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1266	1266	1266	1266	1266	
5°	1244	1243	1243	1241	1241	118
15°	1164	1164	1152	1140	1136	327
25°	1009	1003	987	952	925	463
35°	818	812	773	714	697	512
45°	628	615	562	515	495	484
55°	436	423	384	338	321	391
65°	259	244	221	226	187	255
75°	104	97	91	86	95	111
85°	15	16	18	19	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1266.3	1266.3	1266.3	1266.3	1266.3
2.5°	1257.6	1257.6	1257.6	1256.1	1256.1
5°	1244.4	1242.9	1242.9	1241.4	1241.4
7.5°	1234.1	1232.7	1231.2	1229.7	1226.8
10°	1219.5	1219.5	1218.0	1210.7	1209.2
12.5°	1196.1	1194.6	1188.7	1178.5	1175.6
15°	1163.9	1163.9	1152.1	1140.4	1136.0
17.5°	1128.7	1127.3	1112.6	1100.9	1095.1
20°	1090.7	1087.7	1073.1	1054.1	1043.8
22.5°	1048.2	1048.2	1030.6	1005.7	995.5
25°	1008.7	1002.8	986.7	951.6	925.2
27.5°	963.3	954.5	936.9	887.2	856.4
30°	913.5	909.1	884.2	819.8	796.4
32.5°	866.7	859.4	833.0	765.7	746.6
35°	818.4	812.5	773.0	714.4	696.9
37.5°	770.0	762.7	713.0	666.1	644.1
40°	721.7	713.0	658.8	616.3	592.9
42.5°	676.4	664.6	611.9	566.6	540.2
45°	628.0	614.9	562.2	515.3	494.8
47.5°	579.7	568.0	519.7	471.4	448.0
50°	528.5	518.2	474.3	426.0	401.1
52.5°	486.0	469.9	427.5	379.2	358.7
55°	436.3	423.1	383.6	338.2	320.6
57.5°	390.9	377.7	341.1	298.7	284.0
60°	348.4	329.4	298.7	262.1	250.3
62.5°	301.6	286.9	260.6	229.8	244.5
65°	259.1	244.5	221.1	225.5	187.4
67.5°	212.3	205.0	184.5	164.0	158.1
70°	172.7	164.0	156.6	134.7	128.8
72.5°	137.6	128.8	118.6	106.9	102.5
75°	103.9	96.6	90.8	86.4	95.2
77.5°	71.7	68.8	64.4	60.0	58.6
80°	46.8	45.4	43.9	42.5	41.0
82.5°	27.8	27.8	27.8	27.8	27.8
85°	14.6	16.1	17.6	19.0	20.5
87.5°	8.8	8.8	10.2	11.7	13.2
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)