

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: P545790

Luminaire Tested: **FMR-12-2-LD4-2STD-50-UNV-80-97-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: P545790
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-80-97-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

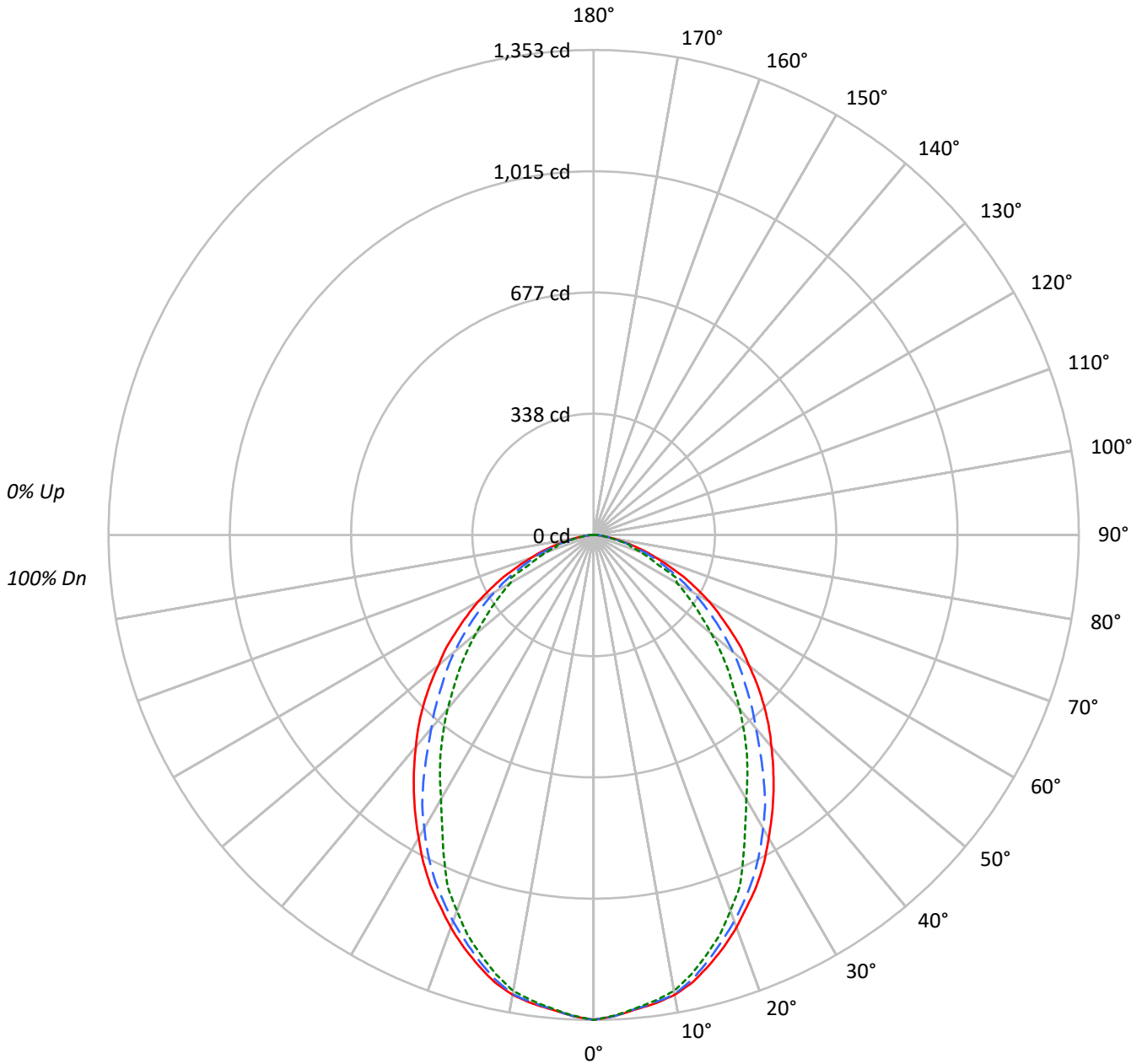
Lumens per Lamp: N/A
Luminaire Lumens: 2656.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): 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°	7281	7281	7281
5°	7183	7174	7165
10°	7120	7112	7060
15°	6928	6858	6763
20°	6674	6566	6387
25°	6400	6260	5870
30°	6065	5871	5288
35°	5744	5426	4891
40°	5417	4945	4451
45°	5107	4571	4024
50°	4727	4243	3589
55°	4373	3845	3214
60°	4007	3435	2879
65°	3525	3008	2550
70°	2905	2634	2165
75°	2308	2017	2115
80°	1553	1454	1358
85°	963	1161	1352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.9	4.7
10°-20°	345.6	13.0
20°-30°	478.5	18.0
30°-40°	510.2	19.2
40°-50°	465.5	17.5
50°-60°	364.7	13.7
60°-70°	237.7	8.9
70°-80°	105.3	4.0
80°-90°	22.6	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°	950.1	35.8
0°-40°	1460.3	55.0
0°-60°	2290.4	86.2
0°-90°	2656.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2656.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1353	1353	1353	1353	1353	
5°	1330	1328	1328	1326	1326	126
15°	1243	1243	1231	1218	1214	350
25°	1078	1071	1054	1017	988	495
35°	874	868	826	763	744	547
45°	671	657	601	551	529	517
55°	466	452	410	361	342	418
65°	277	261	236	241	200	273
75°	111	103	97	92	102	119
85°	16	17	19	20	22	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1352.9	1352.9	1352.9	1352.9	1352.9
2.5°	1343.5	1343.5	1343.5	1342.0	1342.0
5°	1329.5	1327.9	1327.9	1326.3	1326.3
7.5°	1318.5	1317.0	1315.4	1313.8	1310.7
10°	1302.9	1302.9	1301.3	1293.5	1291.9
12.5°	1277.9	1276.3	1270.0	1259.1	1256.0
15°	1243.4	1243.4	1230.9	1218.4	1213.7
17.5°	1205.9	1204.3	1188.7	1176.2	1169.9
20°	1165.2	1162.1	1146.5	1126.1	1115.2
22.5°	1119.9	1119.9	1101.1	1074.5	1063.6
25°	1077.7	1071.4	1054.2	1016.7	988.5
27.5°	1029.2	1019.8	1001.0	947.8	915.0
30°	976.0	971.3	944.7	875.9	850.9
32.5°	925.9	918.1	890.0	818.0	797.7
35°	874.3	868.1	825.8	763.3	744.5
37.5°	822.7	814.9	761.7	711.7	688.2
40°	771.1	761.7	703.8	658.5	633.5
42.5°	722.6	710.1	653.8	605.3	577.1
45°	671.0	656.9	600.6	550.6	528.7
47.5°	619.4	606.9	555.2	503.6	478.6
50°	564.6	553.7	506.8	455.1	428.6
52.5°	519.3	502.1	456.7	405.1	383.2
55°	466.1	452.0	409.8	361.3	342.5
57.5°	417.6	403.5	364.4	319.1	303.4
60°	372.3	351.9	319.1	280.0	267.5
62.5°	322.2	306.6	278.4	245.6	261.2
65°	276.8	261.2	236.2	240.9	200.2
67.5°	226.8	219.0	197.1	175.2	168.9
70°	184.6	175.2	167.4	143.9	137.6
72.5°	147.0	137.6	126.7	114.2	109.5
75°	111.0	103.2	97.0	92.3	101.7
77.5°	76.6	73.5	68.8	64.1	62.6
80°	50.1	48.5	46.9	45.4	43.8
82.5°	29.7	29.7	29.7	29.7	29.7
85°	15.6	17.2	18.8	20.3	21.9
87.5°	9.4	9.4	10.9	12.5	14.1
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)