

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: P545733

Luminaire Tested: **FMR-12-2-LD4-2STD-35-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: P545733
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-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

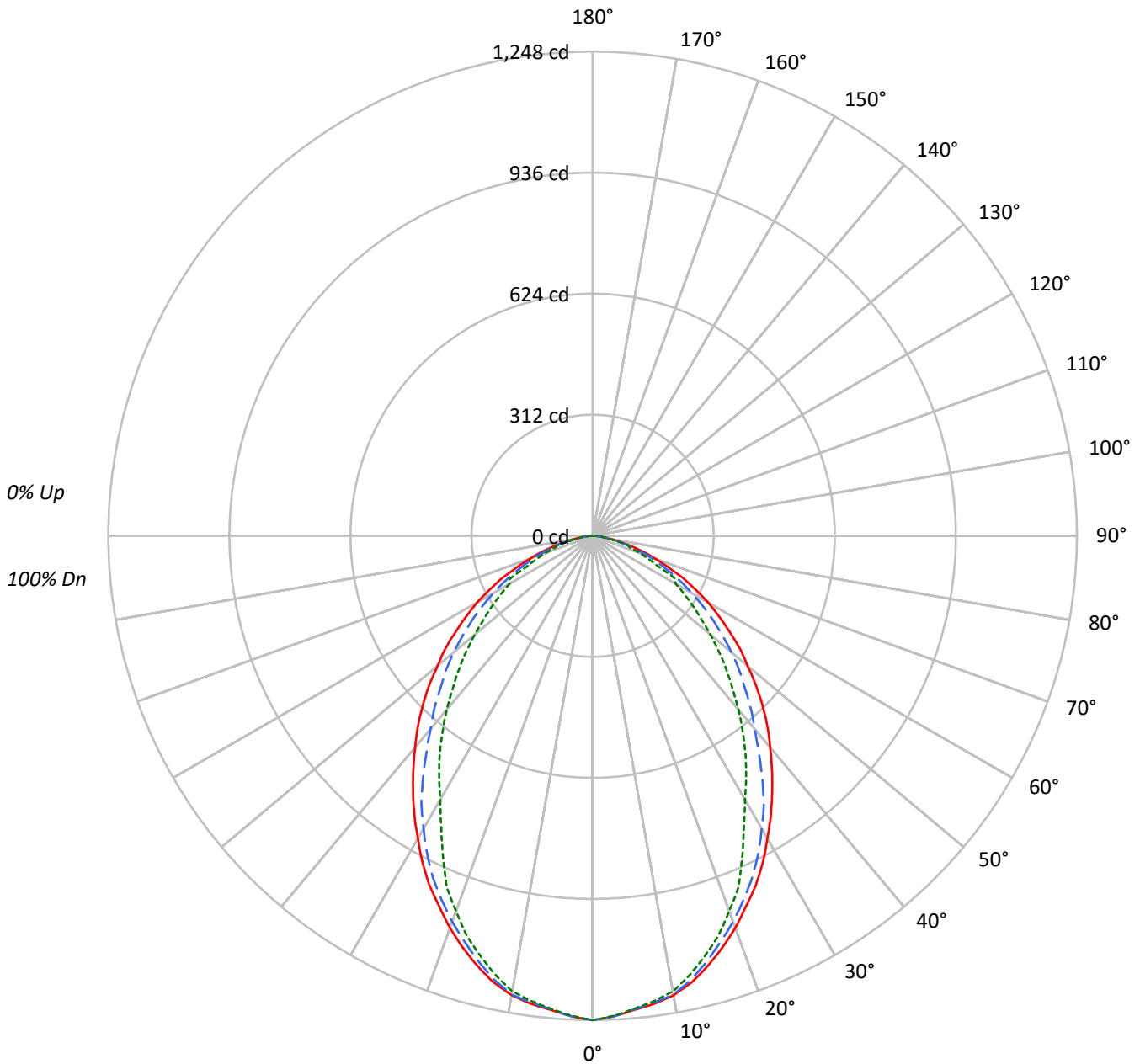
Lumens per Lamp: N/A
Luminaire Lumens: 2451.0 lumens
Efficiency: N/A
Efficacy: 73.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	6719	6719	6719
5°	6628	6620	6613
10°	6571	6563	6515
15°	6394	6329	6240
20°	6159	6060	5894
25°	5906	5777	5417
30°	5597	5418	4880
35°	5301	5007	4514
40°	4999	4563	4107
45°	4713	4219	3714
50°	4363	3915	3311
55°	4036	3549	2966
60°	3697	3169	2657
65°	3254	2775	2353
70°	2680	2430	1998
75°	2131	1861	1951
80°	1432	1342	1252
85°	889	1068	1247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	4.7
10°-20°	319.0	13.0
20°-30°	441.6	18.0
30°-40°	470.8	19.2
40°-50°	429.6	17.5
50°-60°	336.5	13.7
60°-70°	219.3	8.9
70°-80°	97.2	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°	876.7	35.8
0°-40°	1347.6	55.0
0°-60°	2113.7	86.2
0°-90°	2451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2451.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1227	1225	1225	1224	1224	116
15°	1148	1148	1136	1124	1120	323
25°	994	989	973	938	912	457
35°	807	801	762	704	687	504
45°	619	606	554	508	488	477
55°	430	417	378	333	316	386
65°	256	241	218	222	185	252
75°	102	95	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°	1248.5	1248.5	1248.5	1248.5	1248.5
2.5°	1239.8	1239.8	1239.8	1238.4	1238.4
5°	1226.9	1225.4	1225.4	1224.0	1224.0
7.5°	1216.8	1215.3	1213.9	1212.4	1209.5
10°	1202.3	1202.3	1200.9	1193.7	1192.2
12.5°	1179.2	1177.8	1172.0	1161.9	1159.0
15°	1147.5	1147.5	1135.9	1124.4	1120.0
17.5°	1112.8	1111.4	1097.0	1085.4	1079.6
20°	1075.3	1072.4	1058.0	1039.2	1029.1
22.5°	1033.4	1033.4	1016.1	991.6	981.5
25°	994.5	988.7	972.8	938.2	912.2
27.5°	949.7	941.1	923.8	874.7	844.4
30°	900.7	896.3	871.8	808.3	785.2
32.5°	854.5	847.3	821.3	754.9	736.1
35°	806.8	801.1	762.1	704.4	687.0
37.5°	759.2	752.0	702.9	656.7	635.1
40°	711.6	702.9	649.5	607.7	584.6
42.5°	666.8	655.3	603.3	558.6	532.6
45°	619.2	606.2	554.3	508.1	487.9
47.5°	571.6	560.0	512.4	464.8	441.7
50°	521.1	510.9	467.6	420.0	395.5
52.5°	479.2	463.3	421.5	373.8	353.6
55°	430.1	417.1	378.2	333.4	316.1
57.5°	385.4	372.4	336.3	294.4	280.0
60°	343.5	324.8	294.4	258.4	246.8
62.5°	297.3	282.9	256.9	226.6	241.0
65°	255.5	241.0	217.9	222.3	184.8
67.5°	209.3	202.1	181.9	161.7	155.9
70°	170.3	161.7	154.4	132.8	127.0
72.5°	135.7	127.0	116.9	105.4	101.0
75°	102.5	95.3	89.5	85.2	93.8
77.5°	70.7	67.8	63.5	59.2	57.7
80°	46.2	44.7	43.3	41.9	40.4
82.5°	27.4	27.4	27.4	27.4	27.4
85°	14.4	15.9	17.3	18.8	20.2
87.5°	8.7	8.7	10.1	11.5	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)