

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: P545720

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-80-85-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: P545720
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-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

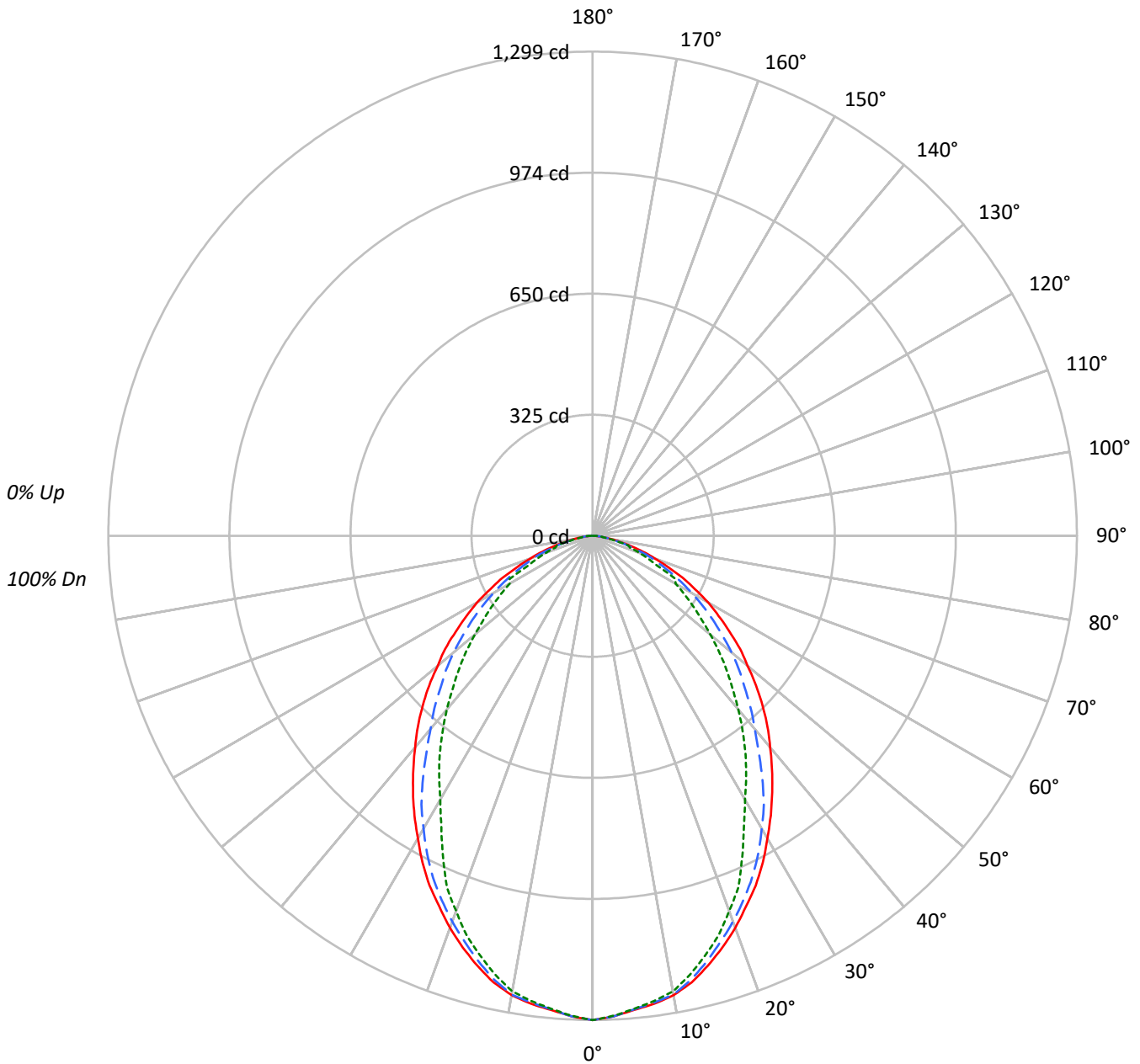
Lumens per Lamp: N/A
Luminaire Lumens: 2551.0 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P545720

CATALOG NUMBER: FMR-12-2-LD4-2STD-35-UNV-80-85-EDD

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°	6993	6993	6993
5°	6898	6890	6882
10°	6839	6831	6781
15°	6654	6588	6495
20°	6410	6306	6135
25°	6146	6013	5638
30°	5826	5639	5079
35°	5518	5211	4698
40°	5203	4749	4274
45°	4905	4391	3865
50°	4541	4075	3446
55°	4201	3693	3087
60°	3848	3299	2765
65°	3386	2888	2449
70°	2790	2529	2080
75°	2219	1936	2030
80°	1491	1398	1305
85°	926	1112	1297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.0	4.7
10°-20°	332.0	13.0
20°-30°	459.6	18.0
30°-40°	490.1	19.2
40°-50°	447.1	17.5
50°-60°	350.2	13.7
60°-70°	228.3	8.9
70°-80°	101.1	4.0
80°-90°	21.7	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°	912.5	35.8
0°-40°	1402.6	55.0
0°-60°	2199.9	86.2
0°-90°	2551.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2551.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1299	1299	1299	1299	1299	
5°	1277	1275	1275	1274	1274	121
15°	1194	1194	1182	1170	1166	336
25°	1035	1029	1012	976	949	475
35°	840	834	793	733	715	525
45°	644	631	577	529	508	496
55°	448	434	394	347	329	402
65°	266	251	227	231	192	262
75°	107	99	93	89	98	114
85°	15	16	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°	1299.4	1299.4	1299.4	1299.4	1299.4
2.5°	1290.4	1290.4	1290.4	1288.9	1288.9
5°	1276.9	1275.4	1275.4	1273.9	1273.9
7.5°	1266.4	1264.9	1263.4	1261.9	1258.9
10°	1251.4	1251.4	1249.9	1242.4	1240.9
12.5°	1227.3	1225.8	1219.8	1209.3	1206.3
15°	1194.3	1194.3	1182.3	1170.3	1165.7
17.5°	1158.2	1156.7	1141.7	1129.7	1123.7
20°	1119.2	1116.2	1101.1	1081.6	1071.1
22.5°	1075.6	1075.6	1057.6	1032.0	1021.5
25°	1035.0	1029.0	1012.5	976.5	949.4
27.5°	988.5	979.5	961.4	910.4	878.8
30°	937.4	932.9	907.4	841.3	817.2
32.5°	889.3	881.8	854.8	785.7	766.1
35°	839.8	833.7	793.2	733.1	715.1
37.5°	790.2	782.7	731.6	683.5	661.0
40°	740.6	731.6	676.0	632.4	608.4
42.5°	694.0	682.0	627.9	581.4	554.3
45°	644.5	630.9	576.9	528.8	507.8
47.5°	594.9	582.9	533.3	483.7	459.7
50°	542.3	531.8	486.7	437.2	411.6
52.5°	498.7	482.2	438.7	389.1	368.1
55°	447.7	434.1	393.6	347.0	329.0
57.5°	401.1	387.6	350.0	306.5	291.4
60°	357.5	338.0	306.5	268.9	256.9
62.5°	309.5	294.4	267.4	235.9	250.9
65°	265.9	250.9	226.8	231.3	192.3
67.5°	217.8	210.3	189.3	168.3	162.2
70°	177.3	168.3	160.7	138.2	132.2
72.5°	141.2	132.2	121.7	109.7	105.2
75°	106.7	99.1	93.1	88.6	97.6
77.5°	73.6	70.6	66.1	61.6	60.1
80°	48.1	46.6	45.1	43.6	42.1
82.5°	28.5	28.5	28.5	28.5	28.5
85°	15.0	16.5	18.0	19.5	21.0
87.5°	9.0	9.0	10.5	12.0	13.5
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)