

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: P545723

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-80-88-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: P545723
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-80-88-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

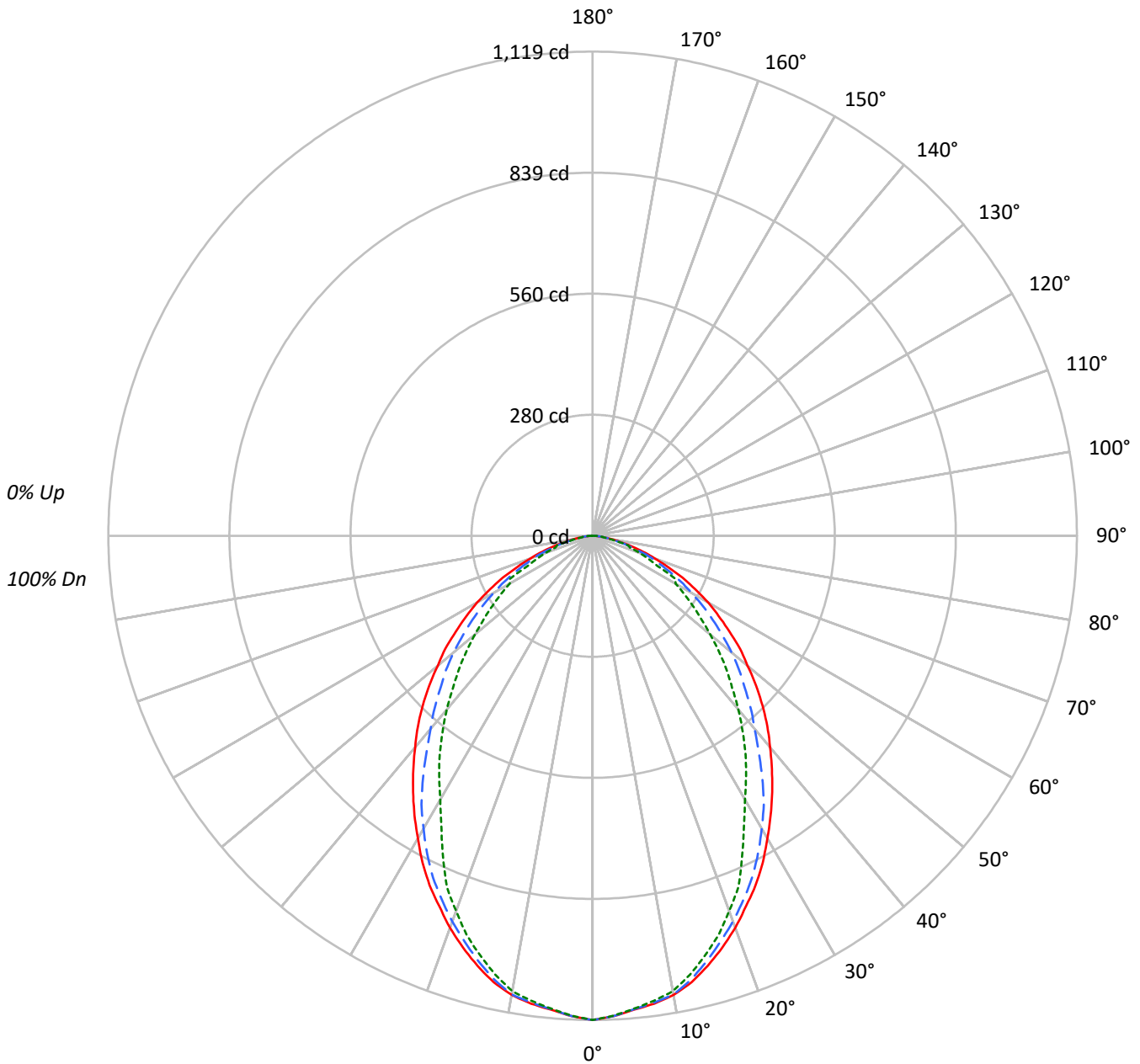
Lumens per Lamp: N/A
Luminaire Lumens: 2197.0 lumens
Efficiency: N/A
Efficacy: 66.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	6023	6023	6023
5°	5941	5934	5927
10°	5890	5883	5840
15°	5731	5673	5594
20°	5521	5431	5283
25°	5293	5178	4856
30°	5017	4856	4374
35°	4752	4488	4046
40°	4481	4090	3681
45°	4224	3781	3328
50°	3911	3510	2968
55°	3617	3181	2658
60°	3314	2841	2381
65°	2916	2488	2109
70°	2403	2178	1792
75°	1911	1668	1749
80°	1283	1203	1122
85°	797	957	1118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.2	4.7
10°-20°	285.9	13.0
20°-30°	395.8	18.0
30°-40°	422.0	19.2
40°-50°	385.0	17.5
50°-60°	301.6	13.7
60°-70°	196.6	8.9
70°-80°	87.1	4.0
80°-90°	18.7	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°	785.9	35.8
0°-40°	1207.9	55.0
0°-60°	1894.6	86.2
0°-90°	2197.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2197.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1119	1119	1119	1119	1119	
5°	1100	1098	1098	1097	1097	104
15°	1029	1029	1018	1008	1004	289
25°	891	886	872	841	818	409
35°	723	718	683	631	616	452
45°	555	543	497	455	437	428
55°	386	374	339	299	283	346
65°	229	216	195	199	166	226
75°	92	85	80	76	84	98
85°	13	14	16	17	18	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1119.1	1119.1	1119.1	1119.1	1119.1
2.5°	1111.4	1111.4	1111.4	1110.1	1110.1
5°	1099.7	1098.4	1098.4	1097.1	1097.1
7.5°	1090.7	1089.4	1088.1	1086.8	1084.2
10°	1077.7	1077.7	1076.4	1070.0	1068.7
12.5°	1057.0	1055.7	1050.6	1041.5	1038.9
15°	1028.6	1028.6	1018.2	1007.9	1004.0
17.5°	997.5	996.2	983.3	972.9	967.7
20°	963.9	961.3	948.3	931.5	922.5
22.5°	926.3	926.3	910.8	888.8	879.8
25°	891.4	886.2	872.0	841.0	817.7
27.5°	851.3	843.5	828.0	784.0	756.9
30°	807.3	803.4	781.4	724.5	703.8
32.5°	765.9	759.5	736.2	676.6	659.8
35°	723.2	718.0	683.1	631.4	615.8
37.5°	680.5	674.1	630.1	588.7	569.3
40°	637.8	630.1	582.2	544.7	524.0
42.5°	597.7	587.4	540.8	500.7	477.4
45°	555.0	543.4	496.8	455.4	437.3
47.5°	512.3	502.0	459.3	416.6	395.9
50°	467.1	458.0	419.2	376.5	354.5
52.5°	429.5	415.3	377.8	335.1	317.0
55°	385.5	373.9	339.0	298.9	283.3
57.5°	345.4	333.8	301.5	263.9	251.0
60°	307.9	291.1	263.9	231.6	221.2
62.5°	266.5	253.6	230.3	203.1	216.1
65°	229.0	216.1	195.4	199.2	165.6
67.5°	187.6	181.1	163.0	144.9	139.7
70°	152.7	144.9	138.4	119.0	113.9
72.5°	121.6	113.9	104.8	94.4	90.6
75°	91.9	85.4	80.2	76.3	84.1
77.5°	63.4	60.8	56.9	53.0	51.8
80°	41.4	40.1	38.8	37.5	36.2
82.5°	24.6	24.6	24.6	24.6	24.6
85°	12.9	14.2	15.5	16.8	18.1
87.5°	7.8	7.8	9.1	10.4	11.6
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)