

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: P545479

Luminaire Tested: **FMR-12-2-LD4-1STD-40-UNV-82-84-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: P545479
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-LD4-1STD-40-UNV-82-84-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

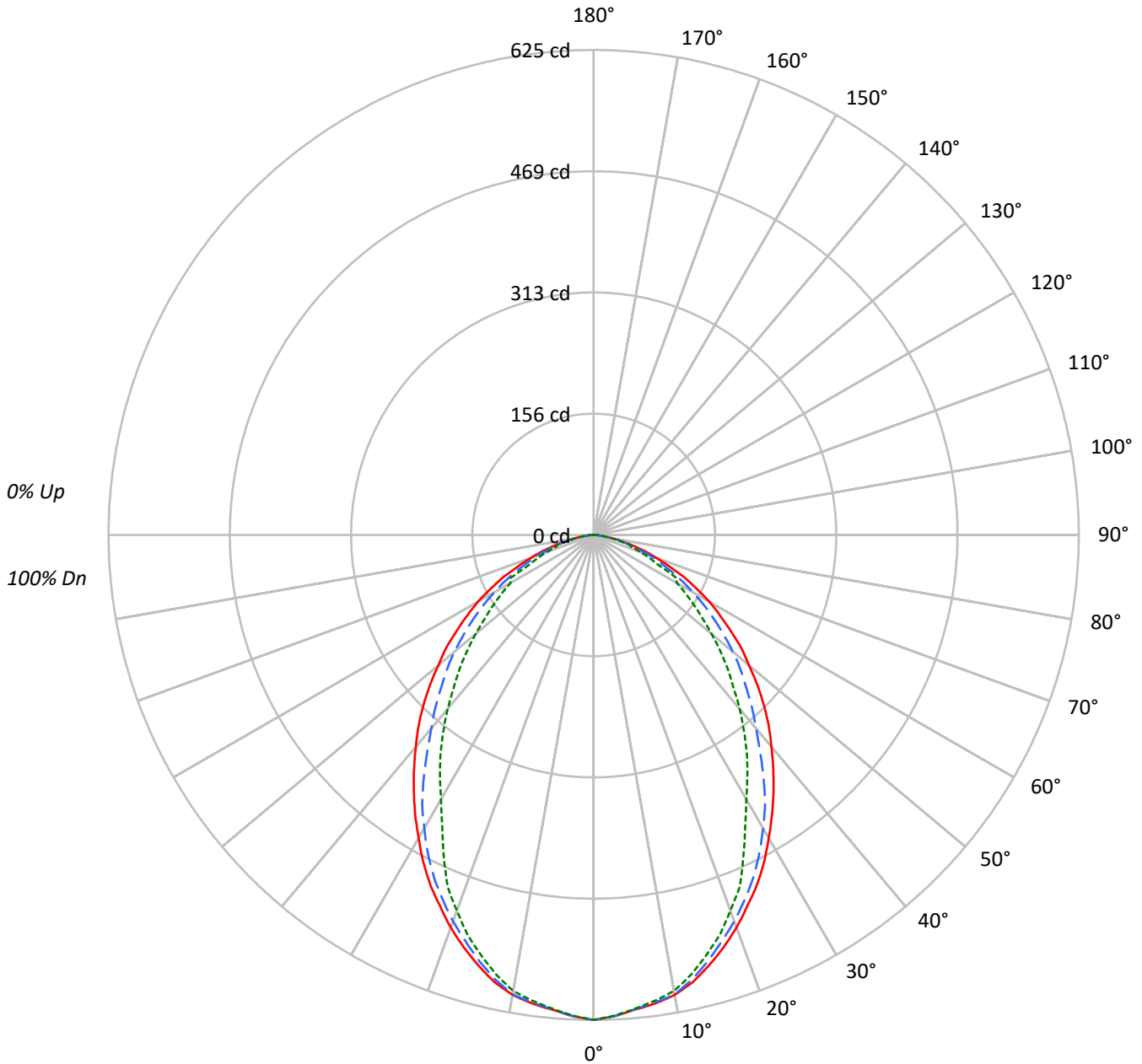
Lumens per Lamp: N/A
Luminaire Lumens: 1227.0 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	3364	3364	3364
5°	3318	3314	3310
10°	3289	3286	3262
15°	3200	3169	3124
20°	3083	3033	2951
25°	2956	2892	2712
30°	2802	2712	2443
35°	2654	2507	2259
40°	2503	2285	2056
45°	2359	2112	1859
50°	2184	1960	1658
55°	2020	1776	1484
60°	1851	1587	1330
65°	1629	1389	1178
70°	1342	1216	1001
75°	1067	932	977
80°	716	673	626
85°	445	537	624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.2	4.7
10°-20°	159.7	13.0
20°-30°	221.1	18.0
30°-40°	235.7	19.2
40°-50°	215.0	17.5
50°-60°	168.5	13.7
60°-70°	109.8	8.9
70°-80°	48.6	4.0
80°-90°	10.4	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°	438.9	35.8
0°-40°	674.6	55.0
0°-60°	1058.1	86.2
0°-90°	1227.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1227.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	625	625	625	625	625	
5°	614	614	614	613	613	58
15°	574	574	569	563	561	161
25°	498	495	487	470	457	229
35°	404	401	382	353	344	253
45°	310	304	278	254	244	239
55°	215	209	189	167	158	193
65°	128	121	109	111	92	126
75°	51	48	45	43	47	55
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	625.0	625.0	625.0	625.0	625.0
2.5°	620.7	620.7	620.7	620.0	620.0
5°	614.2	613.5	613.5	612.7	612.7
7.5°	609.1	608.4	607.7	607.0	605.5
10°	601.9	601.9	601.2	597.6	596.8
12.5°	590.3	589.6	586.7	581.7	580.2
15°	574.4	574.4	568.7	562.9	560.7
17.5°	557.1	556.4	549.1	543.4	540.5
20°	538.3	536.9	529.6	520.2	515.2
22.5°	517.4	517.4	508.7	496.4	491.3
25°	497.8	495.0	487.0	469.7	456.7
27.5°	475.4	471.1	462.4	437.9	422.7
30°	450.9	448.7	436.4	404.6	393.1
32.5°	427.8	424.1	411.1	377.9	368.5
35°	403.9	401.0	381.5	352.6	343.9
37.5°	380.1	376.5	351.9	328.8	317.9
40°	356.2	351.9	325.2	304.2	292.6
42.5°	333.8	328.0	302.0	279.6	266.6
45°	310.0	303.5	277.5	254.3	244.2
47.5°	286.1	280.4	256.5	232.7	221.1
50°	260.8	255.8	234.1	210.3	198.0
52.5°	239.9	231.9	211.0	187.1	177.0
55°	215.3	208.8	189.3	166.9	158.2
57.5°	192.9	186.4	168.4	147.4	140.2
60°	172.0	162.6	147.4	129.3	123.6
62.5°	148.8	141.6	128.6	113.4	120.7
65°	127.9	120.7	109.1	111.3	92.5
67.5°	104.8	101.2	91.0	80.9	78.0
70°	85.3	80.9	77.3	66.5	63.6
72.5°	67.9	63.6	58.5	52.7	50.6
75°	51.3	47.7	44.8	42.6	47.0
77.5°	35.4	34.0	31.8	29.6	28.9
80°	23.1	22.4	21.7	21.0	20.2
82.5°	13.7	13.7	13.7	13.7	13.7
85°	7.2	7.9	8.7	9.4	10.1
87.5°	4.3	4.3	5.1	5.8	6.5
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)