

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: P547065

Luminaire Tested: **FMR-24-4-LD4-3LO-35-UNV-80-86-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: P547065
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-24-4-LD4-3LO-35-UNV-80-86-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

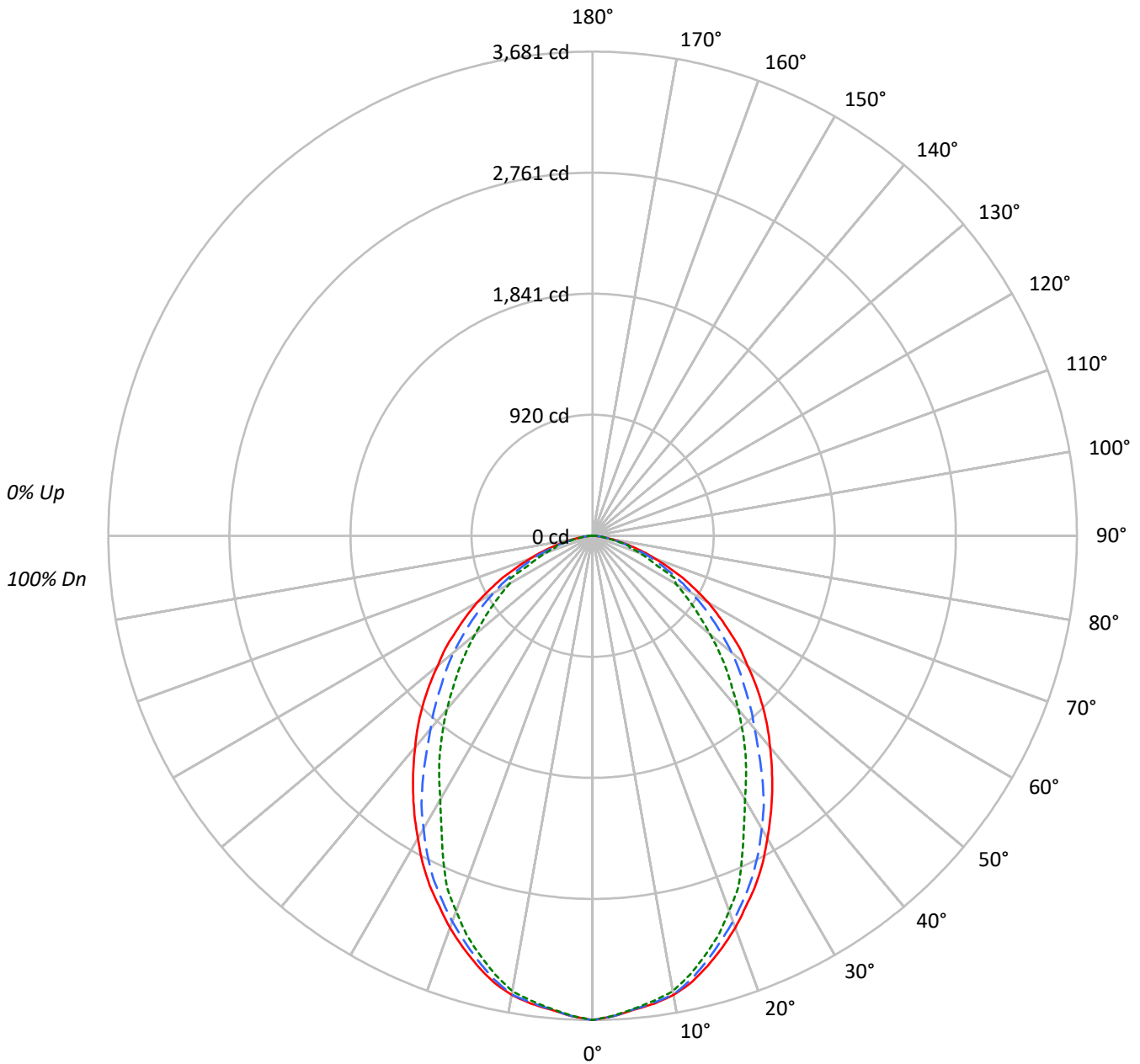
Lumens per Lamp: N/A
Luminaire Lumens: 7227.0 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	4953	4953	4953
5°	4886	4880	4874
10°	4843	4838	4803
15°	4713	4666	4600
20°	4540	4467	4345
25°	4353	4259	3993
30°	4126	3994	3597
35°	3908	3691	3327
40°	3685	3364	3027
45°	3474	3110	2737
50°	3216	2886	2441
55°	2975	2616	2186
60°	2726	2336	1958
65°	2398	2046	1734
70°	1976	1792	1473
75°	1571	1372	1438
80°	1055	989	924
85°	658	789	920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.7	4.7
10°-20°	940.5	13.0
20°-30°	1302.0	18.0
30°-40°	1388.3	19.2
40°-50°	1266.6	17.5
50°-60°	992.2	13.7
60°-70°	646.7	8.9
70°-80°	286.5	4.0
80°-90°	61.5	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°	2585.2	35.8
0°-40°	3973.5	55.0
0°-60°	6232.3	86.2
0°-90°	7227.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7227.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3681	3681	3681	3681	3681	
5°	3618	3613	3613	3609	3609	343
15°	3383	3383	3349	3315	3303	951
25°	2932	2915	2868	2766	2690	1346
35°	2379	2362	2247	2077	2026	1487
45°	1826	1788	1634	1498	1438	1406
55°	1268	1230	1115	983	932	1138
65°	753	711	643	655	545	742
75°	302	281	264	251	277	324
85°	43	47	51	55	60	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3681.3	3681.3	3681.3	3681.3	3681.3
2.5°	3655.8	3655.8	3655.8	3651.5	3651.5
5°	3617.5	3613.2	3613.2	3609.0	3609.0
7.5°	3587.7	3583.5	3579.2	3574.9	3566.4
10°	3545.1	3545.1	3540.9	3519.6	3515.4
12.5°	3477.1	3472.8	3455.8	3426.0	3417.5
15°	3383.4	3383.4	3349.4	3315.3	3302.6
17.5°	3281.3	3277.0	3234.5	3200.4	3183.4
20°	3170.6	3162.1	3119.6	3064.2	3034.4
22.5°	3047.2	3047.2	2996.1	2923.8	2894.0
25°	2932.3	2915.3	2868.5	2766.3	2689.7
27.5°	2800.4	2774.8	2723.8	2579.1	2489.7
30°	2655.7	2642.9	2570.6	2383.3	2315.2
32.5°	2519.5	2498.2	2421.6	2225.8	2170.5
35°	2379.0	2362.0	2247.1	2076.9	2025.8
37.5°	2238.6	2217.3	2072.6	1936.4	1872.6
40°	2098.1	2072.6	1915.1	1791.7	1723.6
42.5°	1966.2	1932.2	1779.0	1647.0	1570.4
45°	1825.8	1787.5	1634.3	1498.1	1438.5
47.5°	1685.3	1651.3	1510.8	1370.4	1302.3
50°	1536.4	1506.6	1378.9	1238.5	1166.1
52.5°	1413.0	1366.1	1242.7	1102.3	1042.7
55°	1268.3	1229.9	1115.0	983.1	932.0
57.5°	1136.3	1098.0	991.6	868.2	825.6
60°	1012.9	957.6	868.2	761.8	727.8
62.5°	876.7	834.2	757.5	668.2	710.7
65°	753.3	710.7	642.6	655.4	544.8
67.5°	617.1	595.8	536.2	476.7	459.6
70°	502.2	476.7	455.4	391.5	374.5
72.5°	400.1	374.5	344.7	310.7	297.9
75°	302.2	280.9	263.9	251.1	276.6
77.5°	208.5	200.0	187.3	174.5	170.2
80°	136.2	131.9	127.7	123.4	119.2
82.5°	80.9	80.9	80.9	80.9	80.9
85°	42.6	46.8	51.1	55.3	59.6
87.5°	25.5	25.5	29.8	34.0	38.3
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)