

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: P547069

Luminaire Tested: **FMR-24-4-LD4-3LO-35-UNV-80-96-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: P547069
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-80-96-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

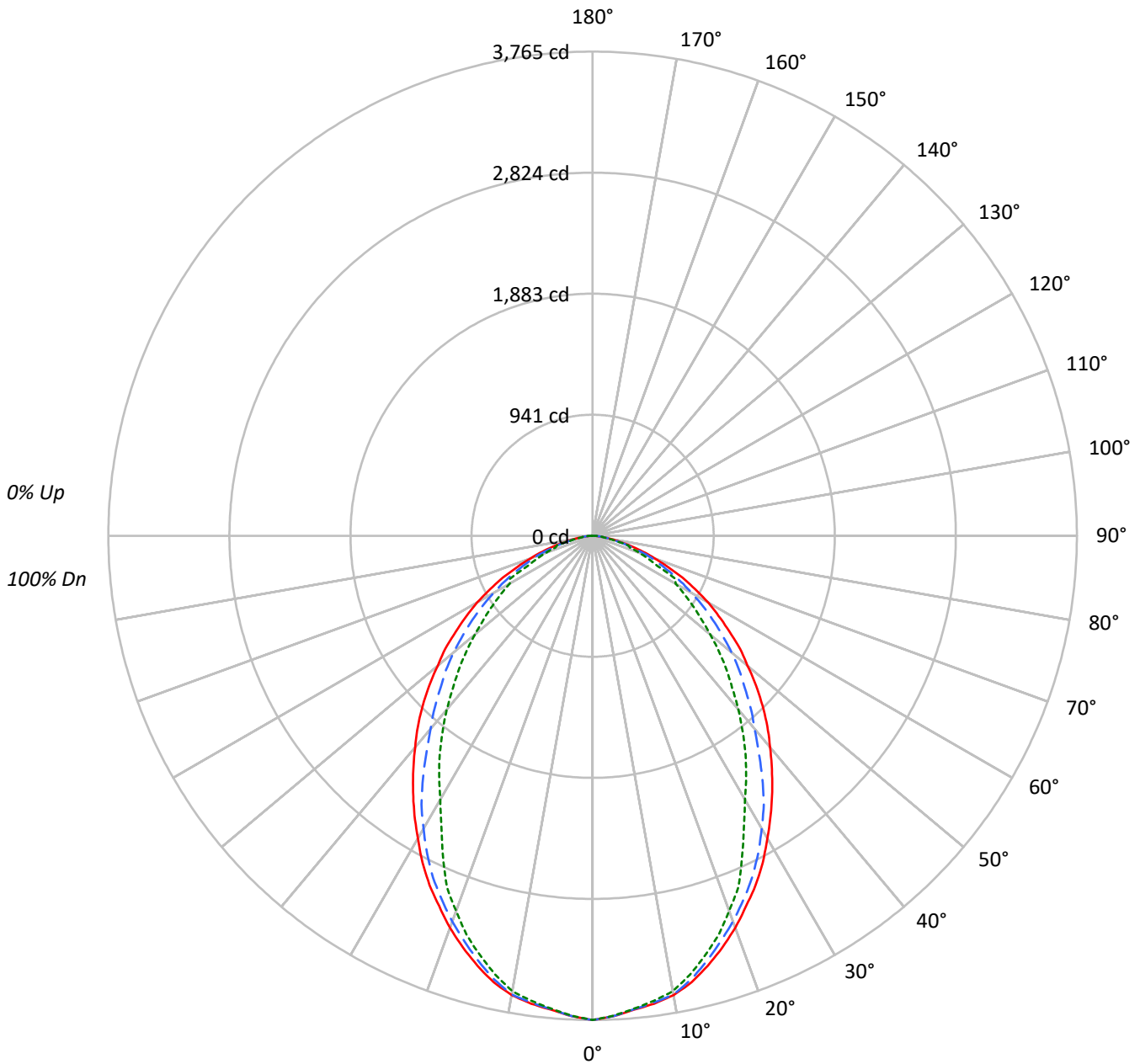
Lumens per Lamp: N/A
Luminaire Lumens: 7392.0 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (A_{in}): 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				20				
RC	80				70				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°	5066	5066	5066
5°	4997	4992	4986
10°	4954	4948	4912
15°	4821	4772	4705
20°	4643	4569	4444
25°	4453	4356	4084
30°	4220	4085	3679
35°	3997	3775	3404
40°	3769	3441	3097
45°	3553	3181	2800
50°	3289	2952	2497
55°	3043	2675	2236
60°	2788	2390	2003
65°	2453	2093	1774
70°	2021	1832	1507
75°	1607	1403	1471
80°	1079	1012	945
85°	672	806	940



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.5	4.7
10°-20°	961.9	13.0
20°-30°	1331.7	18.0
30°-40°	1420.0	19.2
40°-50°	1295.5	17.5
50°-60°	1014.9	13.7
60°-70°	661.5	8.9
70°-80°	293.1	4.0
80°-90°	62.9	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°	2644.2	35.8
0°-40°	4064.2	55.0
0°-60°	6374.6	86.2
0°-90°	7392.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7392.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3765	3765	3765	3765	3765	
5°	3700	3696	3696	3691	3691	351
15°	3461	3461	3426	3391	3378	973
25°	2999	2982	2934	2830	2751	1377
35°	2433	2416	2298	2124	2072	1521
45°	1868	1828	1672	1532	1471	1439
55°	1297	1258	1140	1006	953	1164
65°	770	727	657	670	557	759
75°	309	287	270	257	283	331
85°	44	48	52	57	61	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3765.4	3765.4	3765.4	3765.4	3765.4
2.5°	3739.3	3739.3	3739.3	3734.9	3734.9
5°	3700.1	3695.7	3695.7	3691.4	3691.4
7.5°	3669.6	3665.3	3660.9	3656.6	3647.9
10°	3626.1	3626.1	3621.7	3600.0	3595.6
12.5°	3556.4	3552.1	3534.7	3504.2	3495.5
15°	3460.7	3460.7	3425.8	3391.0	3378.0
17.5°	3356.2	3351.8	3308.3	3273.5	3256.1
20°	3243.0	3234.3	3190.8	3134.2	3103.7
22.5°	3116.8	3116.8	3064.5	2990.5	2960.1
25°	2999.2	2981.8	2934.0	2829.5	2751.1
27.5°	2864.3	2838.2	2786.0	2637.9	2546.5
30°	2716.3	2703.2	2629.2	2437.7	2368.1
32.5°	2577.0	2555.2	2476.9	2276.6	2220.1
35°	2433.4	2415.9	2298.4	2124.3	2072.1
37.5°	2289.7	2267.9	2119.9	1980.6	1915.3
40°	2146.1	2119.9	1958.9	1832.6	1763.0
42.5°	2011.1	1976.3	1819.6	1684.6	1606.3
45°	1867.5	1828.3	1671.6	1532.3	1471.3
47.5°	1723.8	1689.0	1545.3	1401.7	1332.0
50°	1571.5	1541.0	1410.4	1266.7	1192.7
52.5°	1445.2	1397.3	1271.1	1127.4	1066.5
55°	1297.2	1258.0	1140.5	1005.6	953.3
57.5°	1162.3	1123.1	1014.3	888.0	844.5
60°	1036.0	979.4	888.0	779.2	744.4
62.5°	896.7	853.2	774.8	683.4	727.0
65°	770.5	727.0	657.3	670.4	557.2
67.5°	631.2	609.4	548.5	487.5	470.1
70°	513.7	487.5	465.8	400.5	383.1
72.5°	409.2	383.1	352.6	317.8	304.7
75°	309.1	287.3	269.9	256.8	282.9
77.5°	213.3	204.6	191.5	178.5	174.1
80°	139.3	134.9	130.6	126.2	121.9
82.5°	82.7	82.7	82.7	82.7	82.7
85°	43.5	47.9	52.2	56.6	60.9
87.5°	26.1	26.1	30.5	34.8	39.2
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)