

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: P545627

Luminaire Tested: **FMR-12-2-LD4-2LO-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: P545627
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-LD4-2LO-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

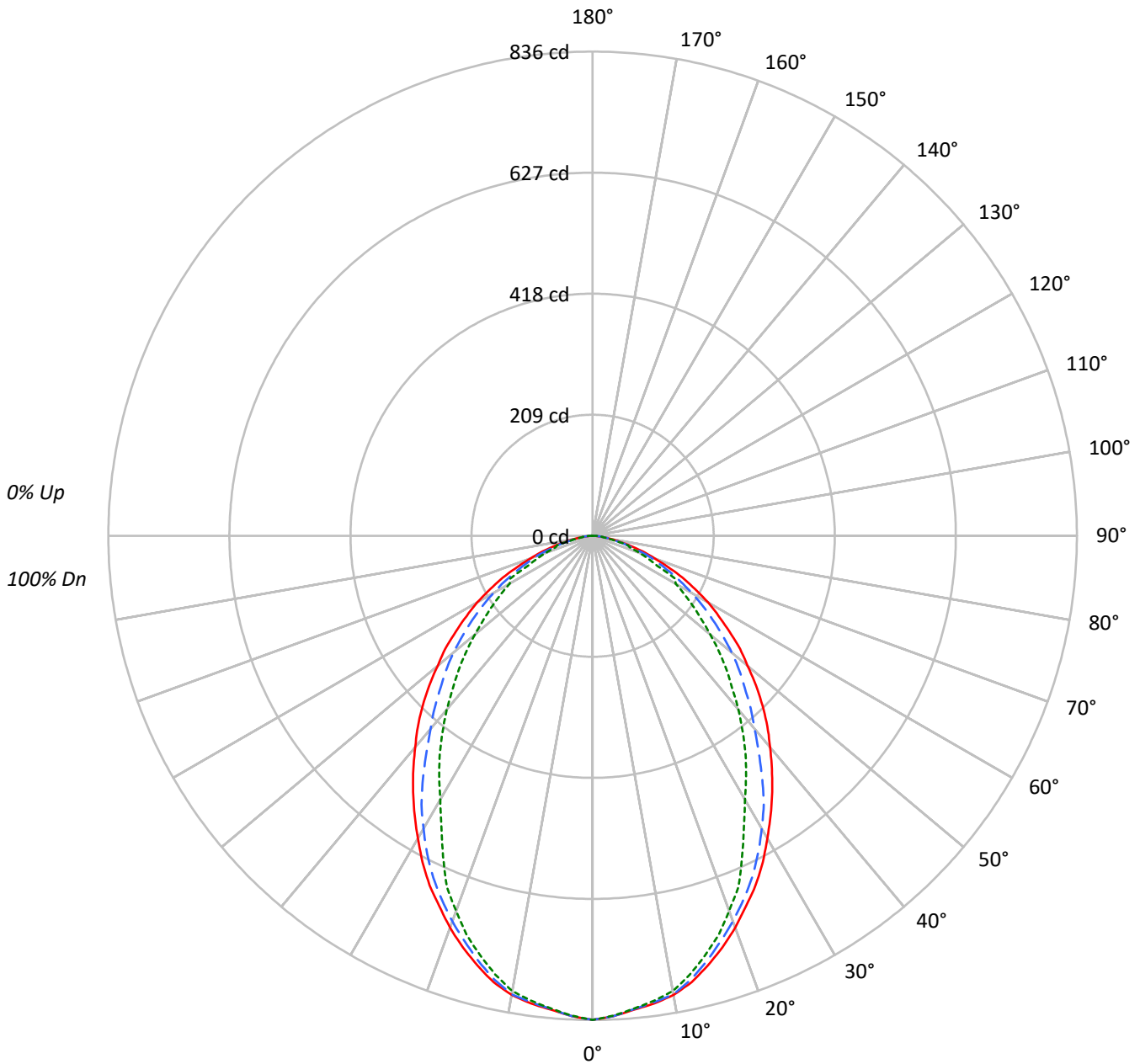
Lumens per Lamp: N/A
Luminaire Lumens: 1641.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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				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			100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87			87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75			75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65			65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56			56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44			44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40			40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33			33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30			30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4499	4499	4499
5°	4438	4432	4427
10°	4399	4394	4362
15°	4281	4237	4178
20°	4123	4057	3946
25°	3954	3868	3627
30°	3747	3627	3267
35°	3549	3352	3022
40°	3347	3055	2750
45°	3156	2825	2486
50°	2921	2622	2217
55°	2702	2376	1985
60°	2476	2122	1778
65°	2178	1858	1575
70°	1794	1627	1338
75°	1426	1246	1306
80°	958	899	840
85°	599	716	834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	4.7
10°-20°	213.5	13.0
20°-30°	295.6	18.0
30°-40°	315.2	19.2
40°-50°	287.6	17.5
50°-60°	225.3	13.7
60°-70°	146.8	8.9
70°-80°	65.0	4.0
80°-90°	14.0	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°	587.0	35.8
0°-40°	902.2	55.0
0°-60°	1415.1	86.2
0°-90°	1641.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1641.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	821	820	820	820	820	78
15°	768	768	760	753	750	216
25°	666	662	651	628	611	306
35°	540	536	510	472	460	338
45°	415	406	371	340	327	319
55°	288	279	253	223	212	258
65°	171	161	146	149	124	169
75°	69	64	60	57	63	74
85°	10	11	12	13	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	835.9	835.9	835.9	835.9	835.9
2.5°	830.1	830.1	830.1	829.1	829.1
5°	821.4	820.4	820.4	819.5	819.5
7.5°	814.6	813.7	812.7	811.7	809.8
10°	805.0	805.0	804.0	799.2	798.2
12.5°	789.5	788.6	784.7	777.9	776.0
15°	768.3	768.3	760.5	752.8	749.9
17.5°	745.1	744.1	734.4	726.7	722.8
20°	719.9	718.0	708.3	695.8	689.0
22.5°	691.9	691.9	680.3	663.9	657.1
25°	665.8	662.0	651.3	628.1	610.7
27.5°	635.9	630.1	618.5	585.6	565.3
30°	603.0	600.1	583.7	541.2	525.7
32.5°	572.1	567.3	549.9	505.4	492.8
35°	540.2	536.3	510.2	471.6	460.0
37.5°	508.3	503.5	470.6	439.7	425.2
40°	476.4	470.6	434.9	406.8	391.4
42.5°	446.5	438.7	403.9	374.0	356.6
45°	414.6	405.9	371.1	340.2	326.6
47.5°	382.7	374.9	343.1	311.2	295.7
50°	348.9	342.1	313.1	281.2	264.8
52.5°	320.8	310.2	282.2	250.3	236.8
55°	288.0	279.3	253.2	223.2	211.6
57.5°	258.0	249.3	225.2	197.1	187.5
60°	230.0	217.4	197.1	173.0	165.2
62.5°	199.1	189.4	172.0	151.7	161.4
65°	171.0	161.4	145.9	148.8	123.7
67.5°	140.1	135.3	121.8	108.2	104.4
70°	114.0	108.2	103.4	88.9	85.0
72.5°	90.8	85.0	78.3	70.5	67.6
75°	68.6	63.8	59.9	57.0	62.8
77.5°	47.4	45.4	42.5	39.6	38.7
80°	30.9	30.0	29.0	28.0	27.1
82.5°	18.4	18.4	18.4	18.4	18.4
85°	9.7	10.6	11.6	12.6	13.5
87.5°	5.8	5.8	6.8	7.7	8.7
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)