

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: P546268

Luminaire Tested: **FMR-12-4-LD4-2LO-50-UNV-80-94-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: P546268
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-12-4-LD4-2LO-50-UNV-80-94-EDD
Description: 1X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

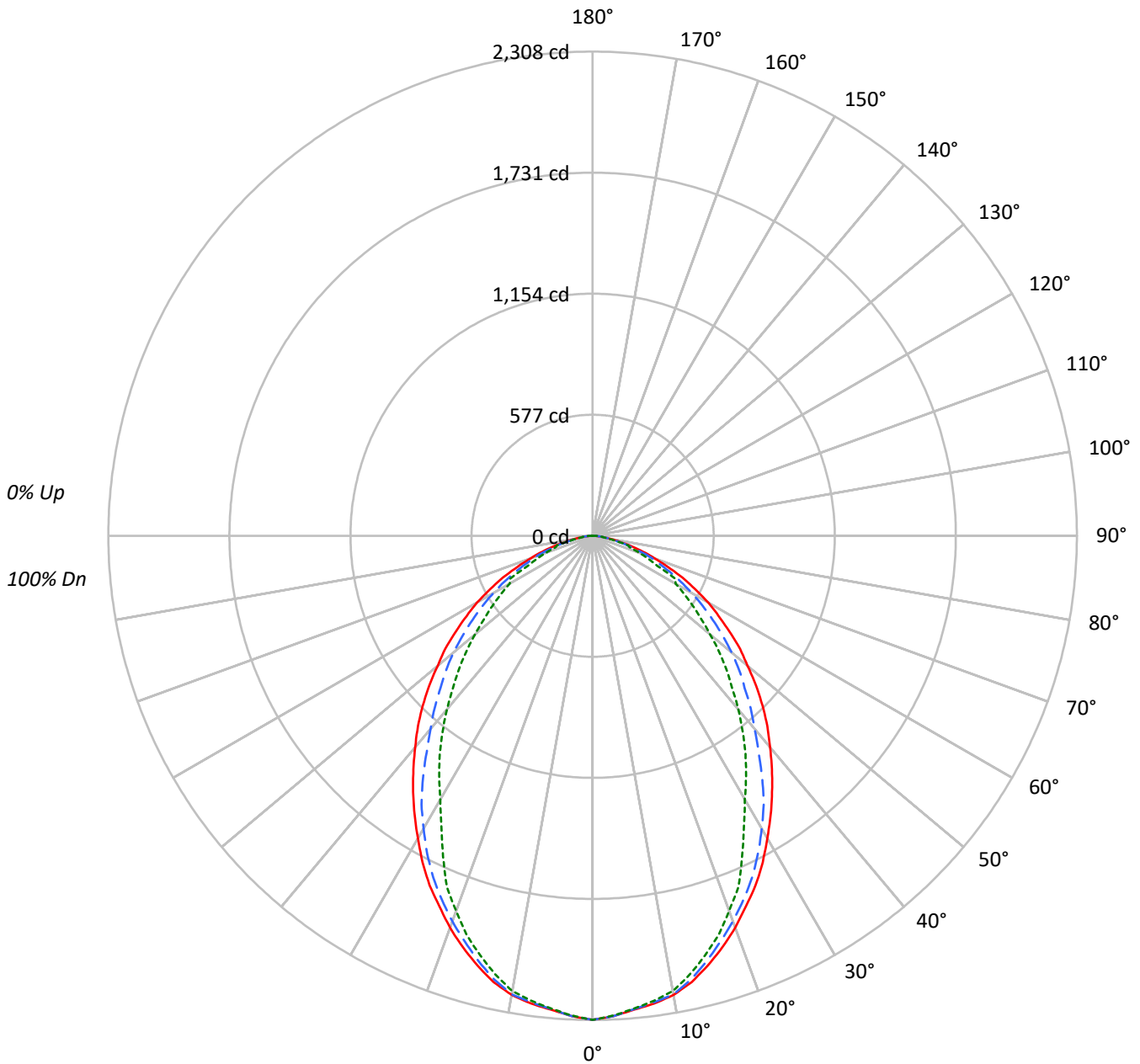
Lumens per Lamp: N/A
Luminaire Lumens: 4530.0 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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									
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°	6209	6209	6209
5°	6125	6118	6111
10°	6072	6065	6021
15°	5908	5849	5767
20°	5691	5600	5447
25°	5457	5339	5006
30°	5172	5007	4509
35°	4899	4627	4171
40°	4620	4217	3795
45°	4355	3898	3432
50°	4032	3618	3060
55°	3730	3279	2741
60°	3417	2929	2455
65°	3007	2565	2174
70°	2477	2245	1847
75°	1969	1720	1803
80°	1323	1240	1158
85°	824	988	1152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.8	4.7
10°-20°	589.5	13.0
20°-30°	816.1	18.0
30°-40°	870.2	19.2
40°-50°	793.9	17.5
50°-60°	622.0	13.7
60°-70°	405.4	8.9
70°-80°	179.6	4.0
80°-90°	38.6	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°	1620.4	35.8
0°-40°	2490.6	55.0
0°-60°	3906.5	86.2
0°-90°	4530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4530.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2308	2308	2308	2308	2308	
5°	2268	2265	2265	2262	2262	215
15°	2121	2121	2099	2078	2070	596
25°	1838	1827	1798	1734	1686	844
35°	1491	1480	1408	1302	1270	932
45°	1144	1120	1024	939	902	882
55°	795	771	699	616	584	713
65°	472	446	403	411	342	465
75°	189	176	165	157	173	203
85°	27	29	32	35	37	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2307.5	2307.5	2307.5	2307.5	2307.5
2.5°	2291.5	2291.5	2291.5	2288.8	2288.8
5°	2267.5	2264.8	2264.8	2262.2	2262.2
7.5°	2248.8	2246.2	2243.5	2240.8	2235.5
10°	2222.2	2222.2	2219.5	2206.2	2203.5
12.5°	2179.5	2176.8	2166.1	2147.5	2142.1
15°	2120.8	2120.8	2099.4	2078.1	2070.1
17.5°	2056.8	2054.1	2027.4	2006.1	1995.4
20°	1987.4	1982.1	1955.4	1920.7	1902.0
22.5°	1910.0	1910.0	1878.0	1832.7	1814.0
25°	1838.0	1827.3	1798.0	1734.0	1686.0
27.5°	1755.3	1739.3	1707.3	1616.6	1560.6
30°	1664.6	1656.6	1611.3	1493.9	1451.2
32.5°	1579.3	1565.9	1517.9	1395.2	1360.5
35°	1491.2	1480.5	1408.5	1301.8	1269.8
37.5°	1403.2	1389.8	1299.1	1213.8	1173.8
40°	1315.2	1299.1	1200.4	1123.1	1080.4
42.5°	1232.5	1211.1	1115.1	1032.4	984.4
45°	1144.4	1120.4	1024.4	939.0	901.7
47.5°	1056.4	1035.1	947.0	859.0	816.3
50°	963.0	944.3	864.3	776.3	730.9
52.5°	885.7	856.3	779.0	690.9	653.6
55°	795.0	771.0	698.9	616.2	584.2
57.5°	712.3	688.3	621.6	544.2	517.5
60°	634.9	600.2	544.2	477.5	456.2
62.5°	549.5	522.9	474.8	418.8	445.5
65°	472.2	445.5	402.8	410.8	341.5
67.5°	386.8	373.5	336.1	298.8	288.1
70°	314.8	298.8	285.4	245.4	234.8
72.5°	250.8	234.8	216.1	194.7	186.7
75°	189.4	176.1	165.4	157.4	173.4
77.5°	130.7	125.4	117.4	109.4	106.7
80°	85.4	82.7	80.0	77.4	74.7
82.5°	50.7	50.7	50.7	50.7	50.7
85°	26.7	29.3	32.0	34.7	37.3
87.5°	16.0	16.0	18.7	21.3	24.0
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)