

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: P547196

Luminaire Tested: **FMR-24-4-LD4-3STD-40-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: P547196
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-LD4-3STD-40-UNV-80-94-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

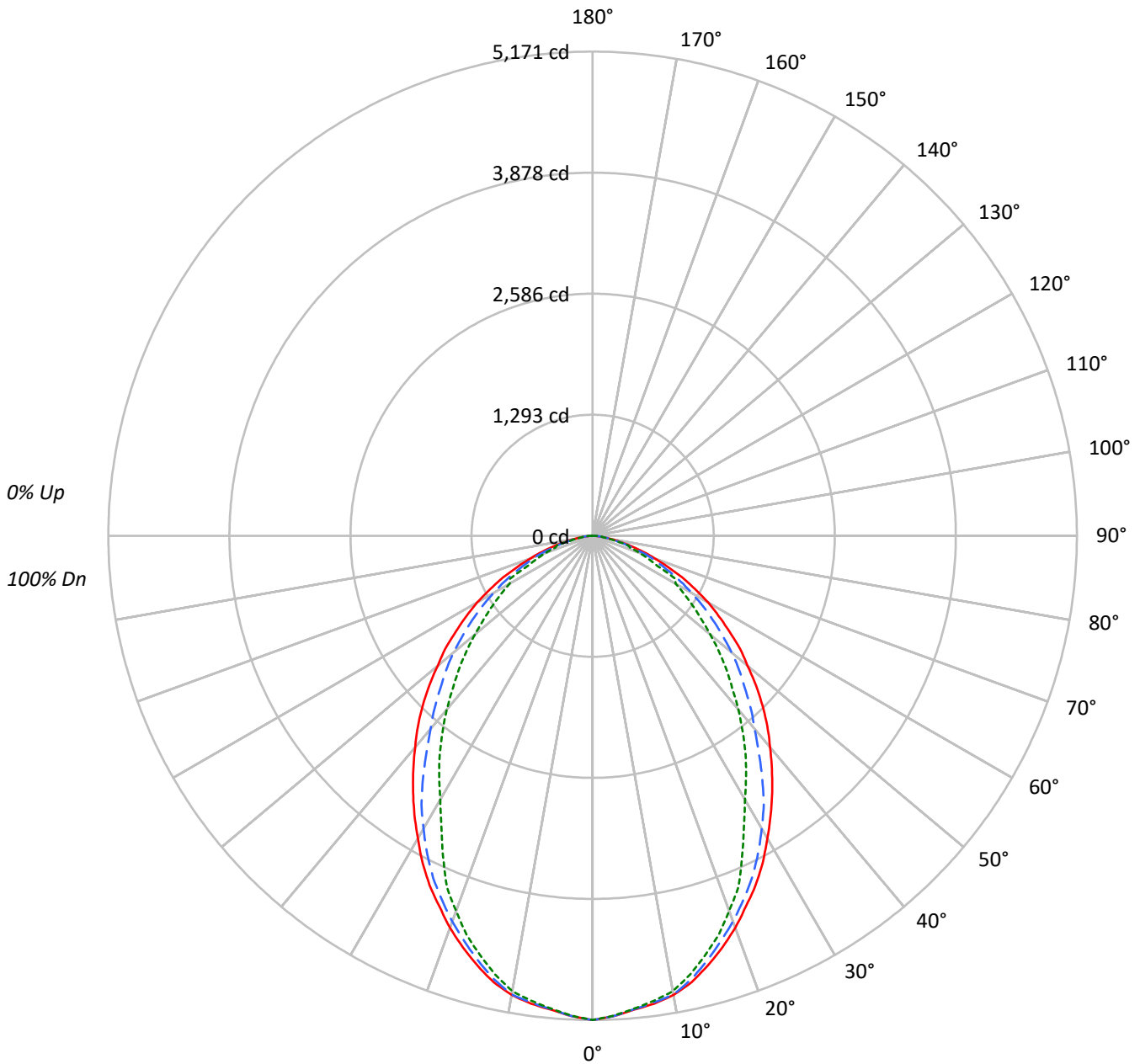
Lumens per Lamp: N/A
Luminaire Lumens: 10152.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	6958	6958	6958
5°	6863	6855	6847
10°	6804	6796	6747
15°	6620	6554	6462
20°	6377	6274	6103
25°	6115	5982	5609
30°	5796	5610	5053
35°	5489	5185	4674
40°	5177	4725	4253
45°	4880	4368	3845
50°	4518	4055	3429
55°	4179	3674	3071
60°	3829	3282	2751
65°	3369	2874	2436
70°	2775	2517	2070
75°	2207	1927	2020
80°	1482	1390	1297
85°	923	1107	1292



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	481.4	4.7
10°-20°	1321.1	13.0
20°-30°	1829.0	18.0
30°-40°	1950.2	19.2
40°-50°	1779.2	17.5
50°-60°	1393.8	13.7
60°-70°	908.4	8.9
70°-80°	402.5	4.0
80°-90°	86.4	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°	3631.4	35.8
0°-40°	5581.7	55.0
0°-60°	8754.7	86.2
0°-90°	10152.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10152.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5171	5171	5171	5171	5171	
5°	5082	5076	5076	5070	5070	482
15°	4753	4753	4705	4657	4639	1336
25°	4119	4095	4029	3886	3778	1891
35°	3342	3318	3157	2917	2846	2089
45°	2565	2511	2296	2104	2021	1976
55°	1782	1728	1566	1381	1309	1598
65°	1058	998	903	921	765	1043
75°	424	395	371	353	389	455
85°	60	66	72	78	84	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5171.3	5171.3	5171.3	5171.3	5171.3
2.5°	5135.4	5135.4	5135.4	5129.4	5129.4
5°	5081.6	5075.6	5075.6	5069.7	5069.7
7.5°	5039.8	5033.8	5027.8	5021.8	5009.9
10°	4980.0	4980.0	4974.0	4944.1	4938.1
12.5°	4884.3	4878.4	4854.4	4812.6	4800.6
15°	4752.8	4752.8	4705.0	4657.2	4639.2
17.5°	4609.3	4603.3	4543.6	4495.7	4471.8
20°	4453.9	4441.9	4382.1	4304.4	4262.6
22.5°	4280.5	4280.5	4208.8	4107.1	4065.3
25°	4119.1	4095.2	4029.4	3885.9	3778.3
27.5°	3933.8	3897.9	3826.2	3622.9	3497.3
30°	3730.5	3712.6	3610.9	3347.9	3252.2
32.5°	3539.2	3509.3	3401.7	3126.7	3049.0
35°	3341.9	3318.0	3156.6	2917.4	2845.7
37.5°	3144.6	3114.7	2911.5	2720.2	2630.5
40°	2947.3	2911.5	2690.3	2516.9	2421.2
42.5°	2762.0	2714.2	2499.0	2313.6	2206.0
45°	2564.7	2510.9	2295.7	2104.4	2020.7
47.5°	2367.4	2319.6	2122.3	1925.0	1829.4
50°	2158.2	2116.3	1937.0	1739.7	1638.1
52.5°	1984.8	1919.1	1745.7	1548.4	1464.7
55°	1781.6	1727.7	1566.3	1381.0	1309.3
57.5°	1596.2	1542.4	1393.0	1219.6	1159.8
60°	1422.9	1345.1	1219.6	1070.1	1022.3
62.5°	1231.5	1171.8	1064.2	938.6	998.4
65°	1058.2	998.4	902.7	920.7	765.2
67.5°	866.9	837.0	753.3	669.6	645.7
70°	705.4	669.6	639.7	550.0	526.1
72.5°	562.0	526.1	484.2	436.4	418.5
75°	424.5	394.6	370.7	352.7	388.6
77.5°	292.9	281.0	263.0	245.1	239.1
80°	191.3	185.3	179.4	173.4	167.4
82.5°	113.6	113.6	113.6	113.6	113.6
85°	59.8	65.8	71.7	77.7	83.7
87.5°	35.9	35.9	41.8	47.8	53.8
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)