

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: P547229

Luminaire Tested: **FMR-24-4-LD4-3STD-50-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: P547229
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

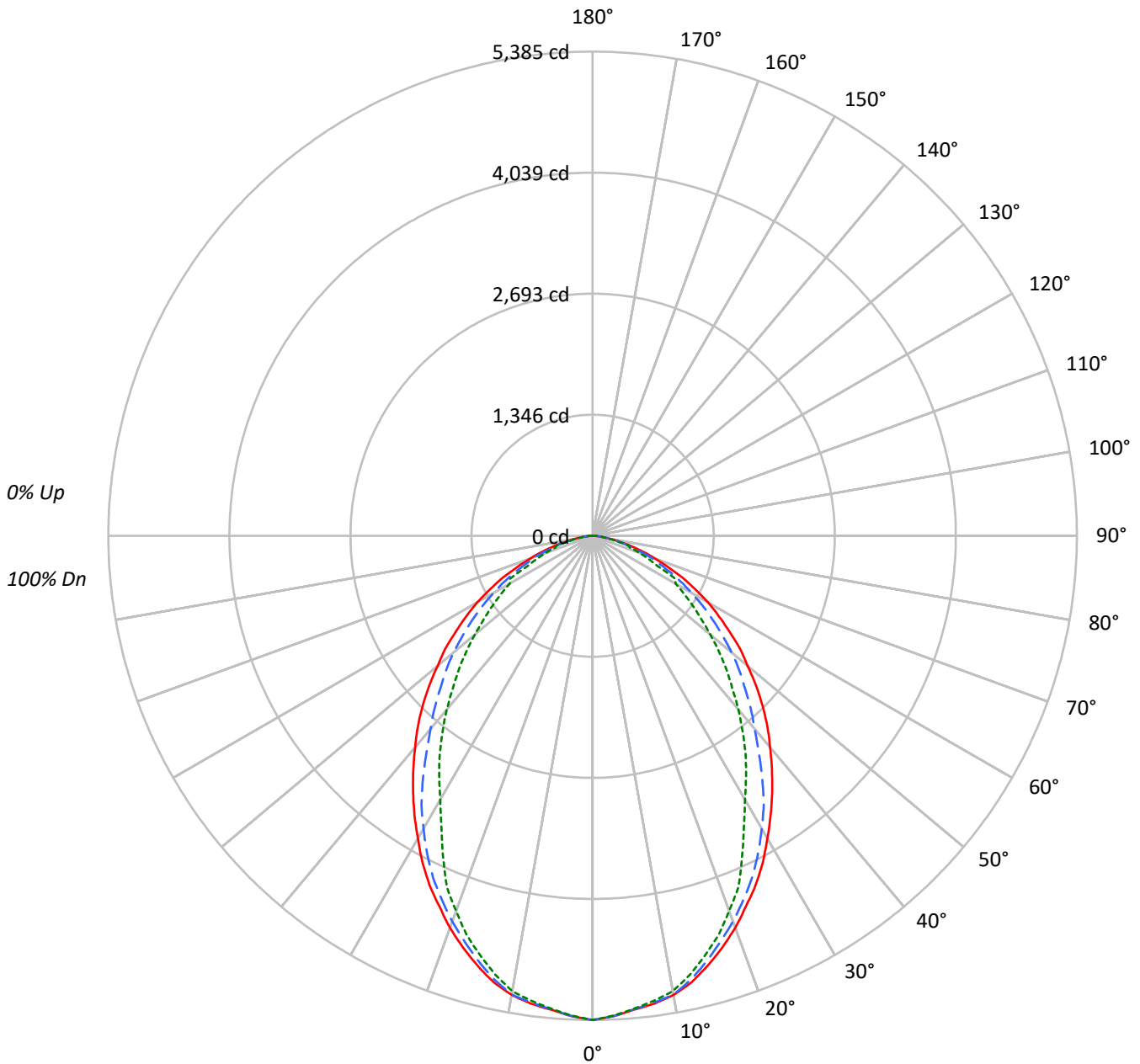
Lumens per Lamp: N/A
Luminaire Lumens: 10572.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	7246	7246	7246
5°	7147	7139	7131
10°	7085	7077	7026
15°	6894	6825	6729
20°	6641	6534	6356
25°	6368	6229	5841
30°	6036	5842	5262
35°	5716	5399	4868
40°	5391	4921	4429
45°	5082	4549	4004
50°	4704	4222	3571
55°	4352	3826	3198
60°	3987	3418	2865
65°	3508	2993	2537
70°	2890	2621	2155
75°	2298	2007	2104
80°	1543	1447	1351
85°	962	1153	1346



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	501.3	4.7
10°-20°	1375.8	13.0
20°-30°	1904.6	18.0
30°-40°	2030.9	19.2
40°-50°	1852.8	17.5
50°-60°	1451.5	13.7
60°-70°	946.0	8.9
70°-80°	419.1	4.0
80°-90°	90.0	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°	3781.7	35.8
0°-40°	5812.6	55.0
0°-60°	9116.9	86.2
0°-90°	10572.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10572.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5385	5385	5385	5385	5385	
5°	5292	5286	5286	5279	5279	502
15°	4949	4949	4900	4850	4831	1391
25°	4290	4265	4196	4047	3935	1969
35°	3480	3455	3287	3038	2963	2176
45°	2671	2615	2391	2191	2104	2057
55°	1855	1799	1631	1438	1363	1664
65°	1102	1040	940	959	797	1086
75°	442	411	386	367	405	474
85°	62	68	75	81	87	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5385.2	5385.2	5385.2	5385.2	5385.2
2.5°	5347.9	5347.9	5347.9	5341.7	5341.7
5°	5291.8	5285.6	5285.6	5279.4	5279.4
7.5°	5248.3	5242.0	5235.8	5229.6	5217.1
10°	5186.0	5186.0	5179.8	5148.7	5142.4
12.5°	5086.4	5080.2	5055.3	5011.7	4999.2
15°	4949.4	4949.4	4899.6	4849.8	4831.1
17.5°	4800.0	4793.8	4731.5	4681.7	4656.8
20°	4638.2	4625.7	4563.4	4482.5	4438.9
22.5°	4457.6	4457.6	4382.9	4277.1	4233.5
25°	4289.5	4264.6	4196.1	4046.7	3934.6
27.5°	4096.5	4059.2	3984.5	3772.8	3642.0
30°	3884.8	3866.2	3760.3	3486.4	3386.8
32.5°	3685.6	3654.5	3542.4	3256.0	3175.1
35°	3480.2	3455.3	3287.2	3038.1	2963.4
37.5°	3274.7	3243.6	3031.9	2832.7	2739.3
40°	3069.3	3031.9	2801.6	2621.0	2521.4
42.5°	2876.3	2826.5	2602.3	2409.3	2297.3
45°	2670.8	2614.8	2390.7	2191.4	2104.3
47.5°	2465.4	2415.6	2210.1	2004.7	1905.1
50°	2247.5	2203.9	2017.1	1811.7	1705.8
52.5°	2066.9	1998.5	1817.9	1612.5	1525.3
55°	1855.3	1799.2	1631.1	1438.1	1363.4
57.5°	1662.3	1606.2	1450.6	1270.0	1207.8
60°	1481.7	1400.8	1270.0	1114.4	1064.6
62.5°	1282.5	1220.2	1108.2	977.4	1039.7
65°	1101.9	1039.7	940.1	958.8	796.9
67.5°	902.7	871.6	784.4	697.3	672.4
70°	734.6	697.3	666.2	572.8	547.9
72.5°	585.2	547.9	504.3	454.5	435.8
75°	442.0	410.9	386.0	367.3	404.7
77.5°	305.1	292.6	273.9	255.3	249.0
80°	199.2	193.0	186.8	180.5	174.3
82.5°	118.3	118.3	118.3	118.3	118.3
85°	62.3	68.5	74.7	80.9	87.2
87.5°	37.4	37.4	43.6	49.8	56.0
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)