

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: P547165

Luminaire Tested: **FMR-24-4-LD4-3STD-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: P547165
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-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

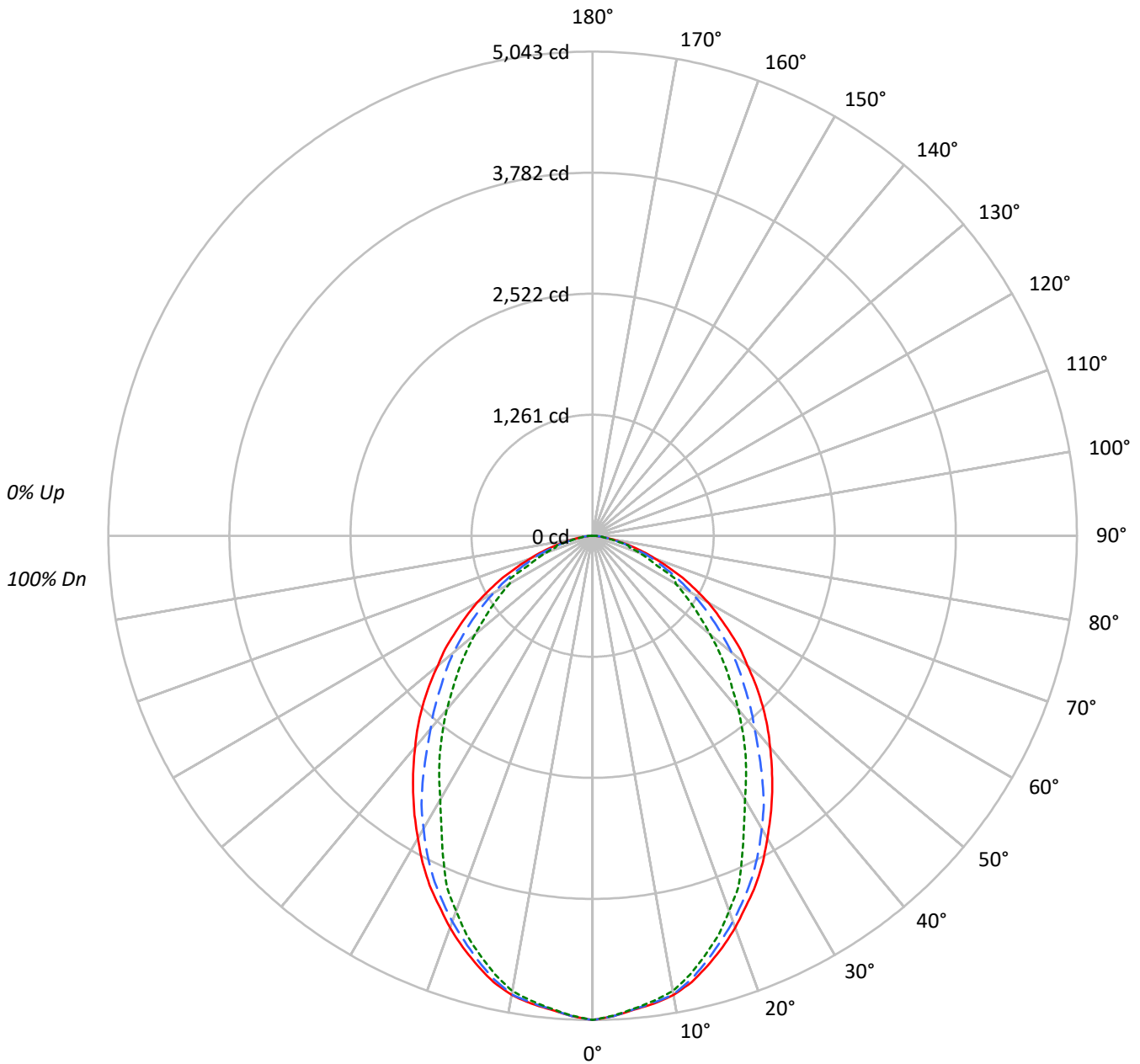
Lumens per Lamp: N/A
Luminaire Lumens: 9900.0 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	6785	6785	6785
5°	6693	6685	6677
10°	6635	6627	6579
15°	6456	6391	6302
20°	6219	6119	5952
25°	5963	5834	5470
30°	5652	5471	4927
35°	5353	5056	4558
40°	5048	4608	4147
45°	4759	4260	3749
50°	4405	3954	3344
55°	4075	3583	2995
60°	3734	3200	2683
65°	3285	2803	2376
70°	2706	2454	2018
75°	2152	1879	1970
80°	1446	1355	1265
85°	900	1081	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	469.4	4.7
10°-20°	1288.3	13.0
20°-30°	1783.6	18.0
30°-40°	1901.8	19.2
40°-50°	1735.0	17.5
50°-60°	1359.2	13.7
60°-70°	885.9	8.9
70°-80°	392.5	4.0
80°-90°	84.3	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°	3541.3	35.8
0°-40°	5443.1	55.0
0°-60°	8537.4	86.2
0°-90°	9900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9900.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5043	5043	5043	5043	5043	
5°	4956	4950	4950	4944	4944	470
15°	4635	4635	4588	4542	4524	1303
25°	4017	3994	3929	3790	3684	1844
35°	3259	3236	3078	2845	2775	2037
45°	2501	2449	2239	2052	1970	1927
55°	1737	1685	1528	1347	1277	1558
65°	1032	974	880	898	746	1017
75°	414	385	362	344	379	444
85°	58	64	70	76	82	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5042.9	5042.9	5042.9	5042.9	5042.9
2.5°	5007.9	5007.9	5007.9	5002.1	5002.1
5°	4955.5	4949.6	4949.6	4943.8	4943.8
7.5°	4914.7	4908.8	4903.0	4897.2	4885.5
10°	4856.4	4856.4	4850.5	4821.4	4815.6
12.5°	4763.1	4757.3	4733.9	4693.1	4681.5
15°	4634.8	4634.8	4588.2	4541.5	4524.1
17.5°	4494.9	4489.1	4430.8	4384.1	4360.8
20°	4343.3	4331.7	4273.4	4197.6	4156.8
22.5°	4174.3	4174.3	4104.3	4005.2	3964.4
25°	4016.9	3993.5	3929.4	3789.5	3684.5
27.5°	3836.1	3801.1	3731.2	3533.0	3410.5
30°	3637.9	3620.4	3521.3	3264.8	3171.5
32.5°	3451.3	3422.2	3317.3	3049.1	2973.3
35°	3259.0	3235.6	3078.2	2845.0	2775.1
37.5°	3066.6	3037.4	2839.2	2652.6	2565.2
40°	2874.2	2839.2	2623.5	2454.4	2361.1
42.5°	2693.4	2646.8	2436.9	2256.2	2151.3
45°	2501.1	2448.6	2238.7	2052.2	1970.5
47.5°	2308.7	2262.0	2069.6	1877.3	1784.0
50°	2104.6	2063.8	1888.9	1696.5	1597.4
52.5°	1935.6	1871.4	1702.4	1510.0	1428.3
55°	1737.3	1684.9	1527.5	1346.7	1276.8
57.5°	1556.6	1504.1	1358.4	1189.3	1131.0
60°	1387.5	1311.7	1189.3	1043.6	996.9
62.5°	1201.0	1142.7	1037.7	915.3	973.6
65°	1031.9	973.6	880.3	897.8	746.2
67.5°	845.3	816.2	734.6	653.0	629.6
70°	687.9	653.0	623.8	536.4	513.0
72.5°	548.0	513.0	472.2	425.6	408.1
75°	413.9	384.8	361.5	344.0	378.9
77.5°	285.7	274.0	256.5	239.0	233.2
80°	186.6	180.7	174.9	169.1	163.2
82.5°	110.8	110.8	110.8	110.8	110.8
85°	58.3	64.1	70.0	75.8	81.6
87.5°	35.0	35.0	40.8	46.6	52.5
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)