

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: P547517

Luminaire Tested: **FMR-24-4-LD4-4STD-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: P547517
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-LD4-4STD-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

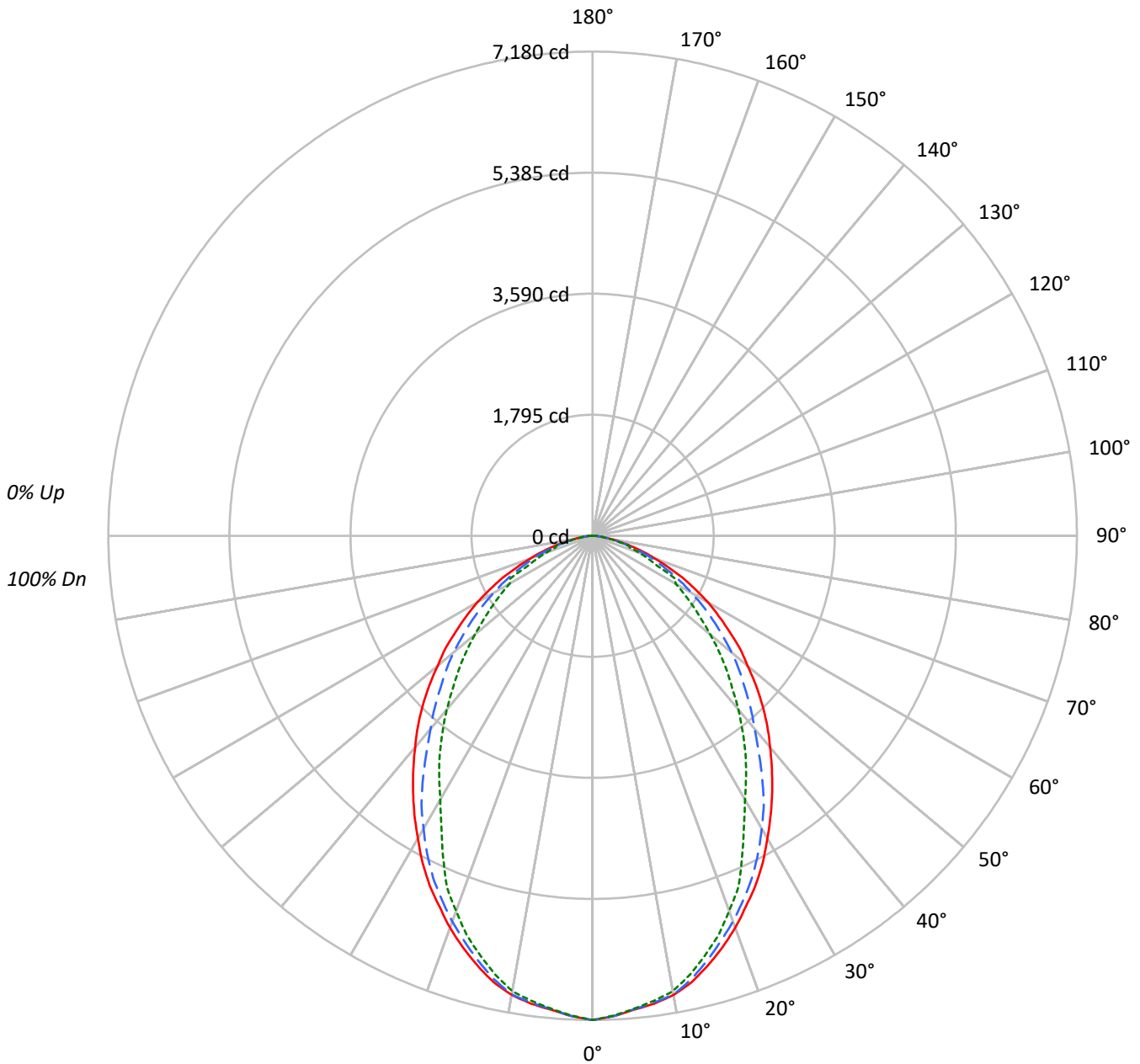
Lumens per Lamp: N/A
Luminaire Lumens: 14096.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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°	9661	9661	9661
5°	9530	9519	9507
10°	9447	9436	9368
15°	9192	9100	8973
20°	8855	8712	8474
25°	8491	8306	7788
30°	8048	7790	7016
35°	7622	7199	6490
40°	7188	6561	5905
45°	6776	6065	5339
50°	6273	5630	4761
55°	5803	5102	4264
60°	5316	4557	3820
65°	4678	3990	3383
70°	3853	3494	2874
75°	3064	2676	2805
80°	2058	1929	1801
85°	1281	1538	1794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	668.4	4.7
10°-20°	1834.3	13.0
20°-30°	2539.5	18.0
30°-40°	2707.9	19.2
40°-50°	2470.4	17.5
50°-60°	1935.3	13.7
60°-70°	1261.4	8.9
70°-80°	558.8	4.0
80°-90°	120.0	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°	5042.3	35.8
0°-40°	7750.1	55.0
0°-60°	12155.8	86.2
0°-90°	14096.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14096.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7180	7180	7180	7180	7180	
5°	7056	7048	7048	7039	7039	670
15°	6599	6599	6533	6466	6442	1855
25°	5719	5686	5595	5396	5246	2626
35°	4640	4607	4383	4051	3951	2901
45°	3561	3486	3188	2922	2806	2743
55°	2474	2399	2175	1918	1818	2219
65°	1469	1386	1253	1278	1062	1448
75°	589	548	515	490	540	632
85°	83	91	100	108	116	115
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7180.3	7180.3	7180.3	7180.3	7180.3
2.5°	7130.5	7130.5	7130.5	7122.2	7122.2
5°	7055.8	7047.5	7047.5	7039.2	7039.2
7.5°	6997.7	6989.4	6981.1	6972.8	6956.2
10°	6914.7	6914.7	6906.4	6864.9	6856.6
12.5°	6781.9	6773.6	6740.4	6682.3	6665.7
15°	6599.2	6599.2	6532.8	6466.4	6441.5
17.5°	6400.0	6391.7	6308.7	6242.3	6209.1
20°	6184.2	6167.6	6084.6	5976.7	5918.6
22.5°	5943.5	5943.5	5843.9	5702.7	5644.6
25°	5719.3	5686.1	5594.8	5395.6	5246.2
27.5°	5462.0	5412.2	5312.6	5030.4	4856.1
30°	5179.8	5154.9	5013.8	4648.5	4515.7
32.5°	4914.2	4872.7	4723.2	4341.4	4233.5
35°	4640.2	4607.0	4382.9	4050.9	3951.2
37.5°	4366.3	4324.8	4042.6	3776.9	3652.4
40°	4092.4	4042.6	3735.4	3494.7	3361.9
42.5°	3835.0	3768.6	3469.8	3212.5	3063.0
45°	3561.1	3486.4	3187.6	2921.9	2805.7
47.5°	3287.2	3220.8	2946.8	2672.9	2540.1
50°	2996.6	2938.5	2689.5	2415.6	2274.5
52.5°	2755.9	2664.6	2423.9	2149.9	2033.7
55°	2473.7	2399.0	2174.8	1917.5	1817.9
57.5°	2216.4	2141.6	1934.1	1693.4	1610.4
60°	1975.6	1867.7	1693.4	1485.9	1419.5
62.5°	1710.0	1627.0	1477.6	1303.2	1386.3
65°	1469.3	1386.3	1253.4	1278.3	1062.5
67.5°	1203.6	1162.1	1045.9	929.7	896.5
70°	979.5	929.7	888.2	763.7	730.5
72.5°	780.3	730.5	672.4	606.0	581.1
75°	589.4	547.9	514.7	489.8	539.6
77.5°	406.7	390.1	365.2	340.3	332.0
80°	265.6	257.3	249.0	240.7	232.4
82.5°	157.7	157.7	157.7	157.7	157.7
85°	83.0	91.3	99.6	107.9	116.2
87.5°	49.8	49.8	58.1	66.4	74.7
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)