

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: P547516

Luminaire Tested: **FMR-24-4-LD4-4STD-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: P547516
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-80-94-EDD
Description: 2X4 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

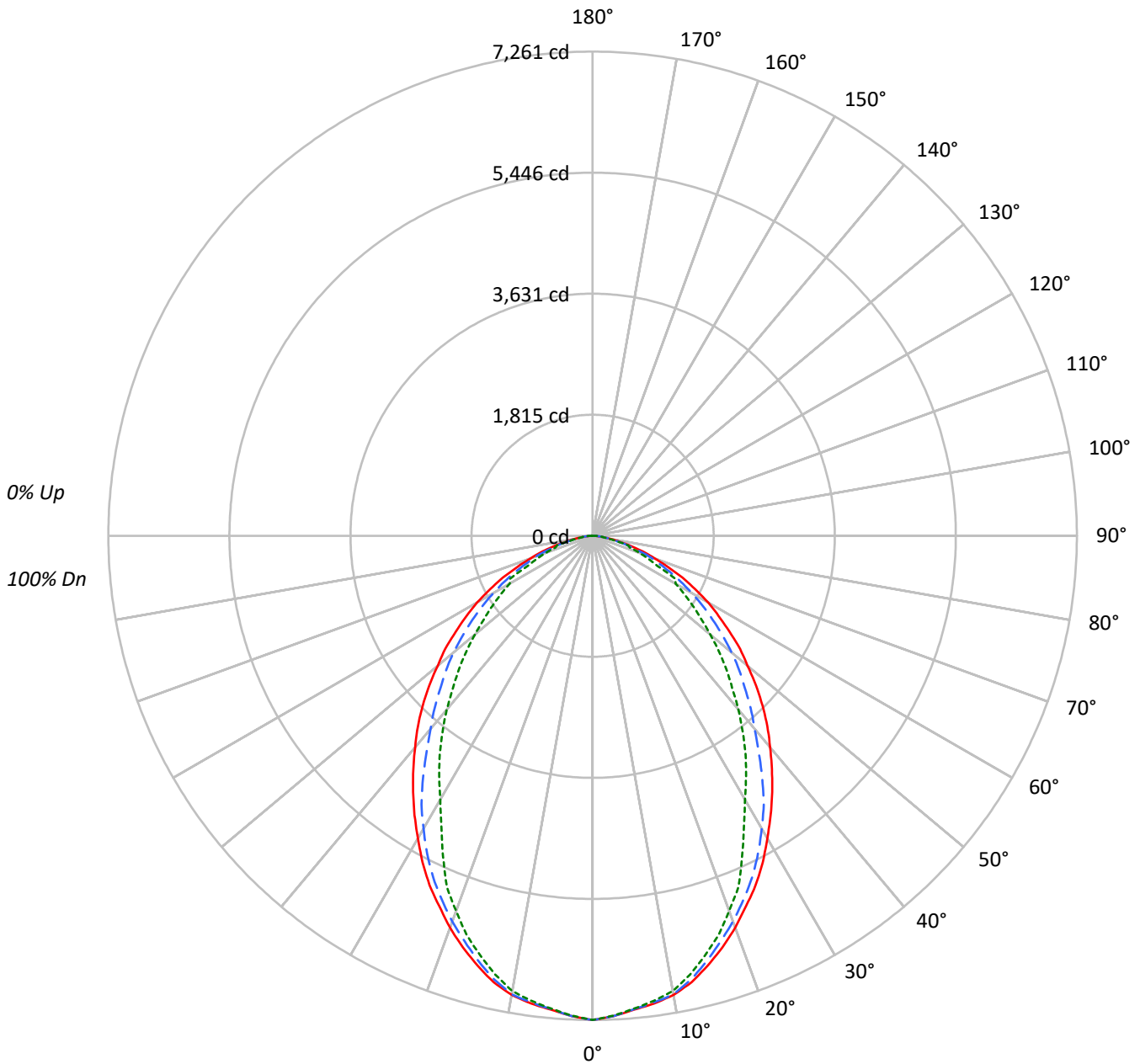
Lumens per Lamp: N/A
Luminaire Lumens: 14254.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	9769	9769	9769
5°	9637	9625	9614
10°	9553	9542	9473
15°	9295	9202	9073
20°	8954	8810	8569
25°	8586	8399	7876
30°	8138	7877	7094
35°	7707	7280	6563
40°	7268	6634	5971
45°	6852	6133	5399
50°	6343	5693	4814
55°	5868	5159	4312
60°	5376	4608	3863
65°	4730	4035	3421
70°	3897	3533	2906
75°	3098	2705	2836
80°	2081	1951	1821
85°	1295	1555	1814



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	675.9	4.7
10°-20°	1854.9	13.0
20°-30°	2568.0	18.0
30°-40°	2738.2	19.2
40°-50°	2498.1	17.5
50°-60°	1957.0	13.7
60°-70°	1275.5	8.9
70°-80°	565.1	4.0
80°-90°	121.3	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°	5098.8	35.8
0°-40°	7837.0	55.0
0°-60°	12292.1	86.2
0°-90°	14254.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14254.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7261	7261	7261	7261	7261	
5°	7135	7126	7126	7118	7118	677
15°	6673	6673	6606	6539	6514	1876
25°	5784	5750	5658	5456	5305	2655
35°	4692	4659	4432	4096	3996	2933
45°	3601	3526	3223	2955	2837	2774
55°	2501	2426	2199	1939	1838	2244
65°	1486	1402	1268	1293	1074	1464
75°	596	554	520	495	546	639
85°	84	92	101	109	118	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7260.8	7260.8	7260.8	7260.8	7260.8
2.5°	7210.4	7210.4	7210.4	7202.0	7202.0
5°	7134.9	7126.5	7126.5	7118.1	7118.1
7.5°	7076.1	7067.7	7059.3	7050.9	7034.2
10°	6992.2	6992.2	6983.8	6941.8	6933.4
12.5°	6857.9	6849.5	6815.9	6757.2	6740.4
15°	6673.2	6673.2	6606.1	6538.9	6513.7
17.5°	6471.8	6463.4	6379.4	6312.3	6278.7
20°	6253.5	6236.7	6152.8	6043.7	5984.9
22.5°	6010.1	6010.1	5909.4	5766.7	5707.9
25°	5783.5	5749.9	5657.5	5456.1	5305.0
27.5°	5523.2	5472.9	5372.2	5086.8	4910.5
30°	5237.8	5212.7	5070.0	4700.6	4566.3
32.5°	4969.2	4927.3	4776.2	4390.1	4280.9
35°	4692.2	4658.7	4432.0	4096.3	3995.5
37.5°	4415.2	4373.3	4087.9	3819.3	3693.4
40°	4138.2	4087.9	3777.3	3533.9	3399.6
42.5°	3878.0	3810.9	3508.7	3248.5	3097.4
45°	3601.0	3525.5	3223.3	2954.7	2837.2
47.5°	3324.0	3256.9	2979.9	2702.9	2568.6
50°	3030.2	2971.5	2719.7	2442.6	2300.0
52.5°	2786.8	2694.5	2451.0	2174.0	2056.5
55°	2501.4	2425.9	2199.2	1939.0	1838.3
57.5°	2241.2	2165.6	1955.8	1712.4	1628.4
60°	1997.8	1888.6	1712.4	1502.5	1435.4
62.5°	1729.2	1645.2	1494.1	1317.9	1401.8
65°	1485.7	1401.8	1267.5	1292.7	1074.4
67.5°	1217.1	1175.2	1057.6	940.1	906.6
70°	990.5	940.1	898.2	772.2	738.7
72.5°	789.0	738.7	679.9	612.8	587.6
75°	596.0	554.0	520.4	495.2	545.6
77.5°	411.3	394.5	369.3	344.2	335.8
80°	268.6	260.2	251.8	243.4	235.0
82.5°	159.5	159.5	159.5	159.5	159.5
85°	83.9	92.3	100.7	109.1	117.5
87.5°	50.4	50.4	58.8	67.2	75.5
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)