

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: P544964

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-81-94-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: P544964
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-12-1-LD4-2HI-35-UNV-81-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

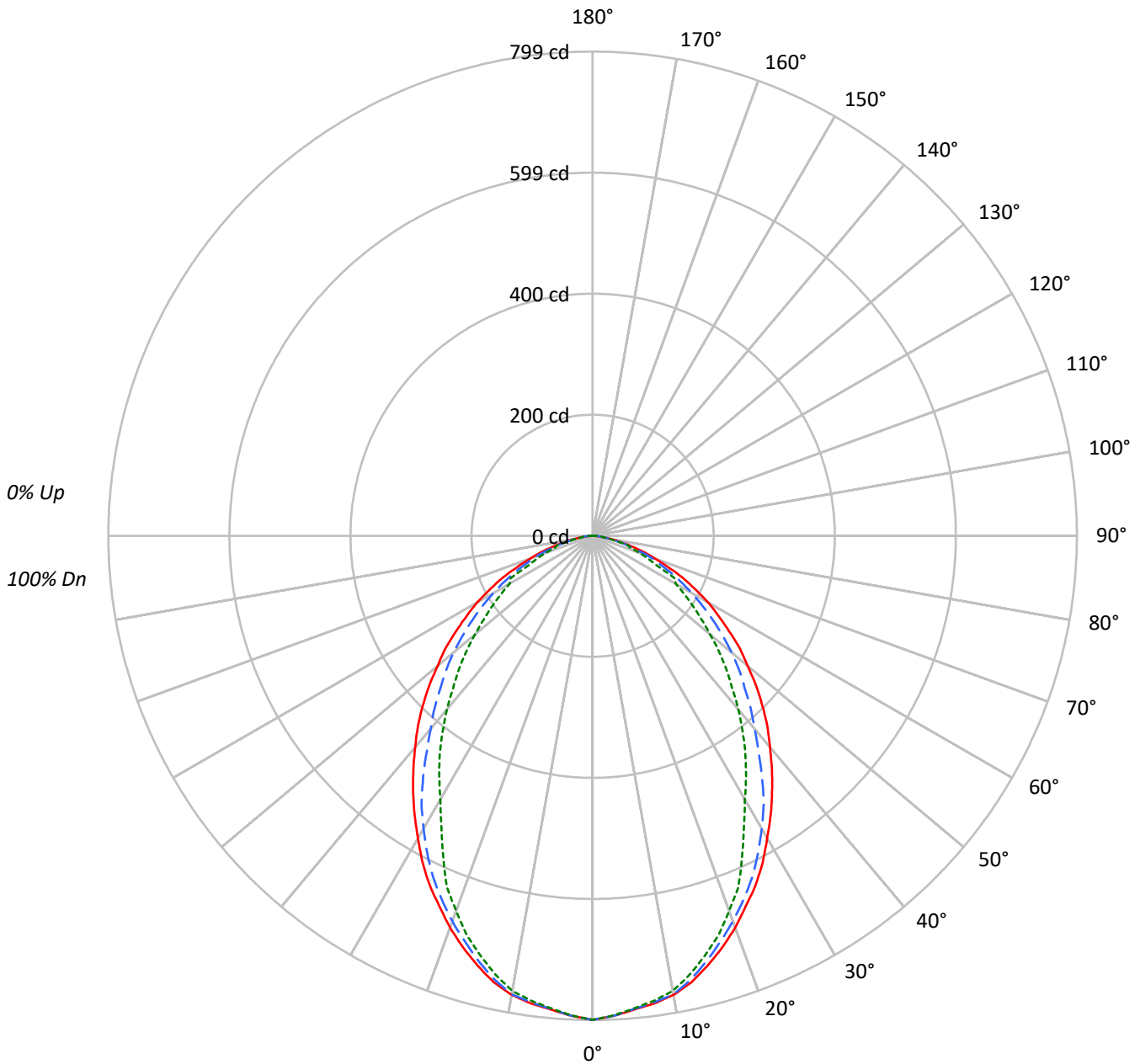
Lumens per Lamp: N/A
Luminaire Lumens: 1568.0 lumens
Efficiency: N/A
Efficacy: 72.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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

TEST NUMBER: P544964

CATALOG NUMBER: FMR-12-1-LD4-2HI-35-UNV-81-94-EDD

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°	8597	8597	8597
5°	8481	8470	8460
10°	8407	8396	8336
15°	8181	8098	7984
20°	7880	7753	7542
25°	7556	7392	6931
30°	7162	6932	6243
35°	6783	6406	5775
40°	6396	5838	5255
45°	6030	5398	4751
50°	5581	5010	4237
55°	5164	4540	3795
60°	4732	4056	3399
65°	4162	3550	3011
70°	3430	3109	2559
75°	2728	2379	2495
80°	1829	1717	1605
85°	1136	1371	1593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	4.7
10°-20°	204.0	13.0
20°-30°	282.5	18.0
30°-40°	301.2	19.2
40°-50°	274.8	17.5
50°-60°	215.3	13.7
60°-70°	140.3	8.9
70°-80°	62.2	4.0
80°-90°	13.3	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°	560.9	35.8
0°-40°	862.1	55.0
0°-60°	1352.2	86.2
0°-90°	1568.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1568.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	799	799	799	799	799	
5°	785	784	784	783	783	75
15°	734	734	727	719	716	206
25°	636	632	622	600	584	292
35°	516	512	488	451	440	323
45°	396	388	355	325	312	305
55°	275	267	242	213	202	247
65°	163	154	139	142	118	161
75°	66	61	57	54	60	70
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	798.7	798.7	798.7	798.7	798.7
2.5°	793.2	793.2	793.2	792.3	792.3
5°	784.9	783.9	783.9	783.0	783.0
7.5°	778.4	777.5	776.6	775.6	773.8
10°	769.2	769.2	768.2	763.6	762.7
12.5°	754.4	753.5	749.8	743.3	741.5
15°	734.1	734.1	726.7	719.3	716.5
17.5°	711.9	711.0	701.8	694.4	690.7
20°	687.9	686.1	676.8	664.8	658.4
22.5°	661.1	661.1	650.1	634.4	627.9
25°	636.2	632.5	622.4	600.2	583.6
27.5°	607.6	602.0	591.0	559.6	540.2
30°	576.2	573.4	557.7	517.1	502.3
32.5°	546.6	542.0	525.4	482.9	470.9
35°	516.2	512.5	487.5	450.6	439.5
37.5°	485.7	481.1	449.7	420.1	406.3
40°	455.2	449.7	415.5	388.7	374.0
42.5°	426.6	419.2	386.0	357.3	340.7
45°	396.1	387.8	354.6	325.0	312.1
47.5°	365.7	358.3	327.8	297.3	282.6
50°	333.3	326.9	299.2	268.7	253.0
52.5°	306.6	296.4	269.6	239.2	226.2
55°	275.2	266.9	241.9	213.3	202.2
57.5°	246.5	238.2	215.1	188.4	179.1
60°	219.8	207.8	188.4	165.3	157.9
62.5°	190.2	181.0	164.4	145.0	154.2
65°	163.4	154.2	139.4	142.2	118.2
67.5°	133.9	129.3	116.3	103.4	99.7
70°	109.0	103.4	98.8	85.0	81.3
72.5°	86.8	81.3	74.8	67.4	64.6
75°	65.6	60.9	57.2	54.5	60.0
77.5°	45.2	43.4	40.6	37.9	36.9
80°	29.5	28.6	27.7	26.8	25.9
82.5°	17.5	17.5	17.5	17.5	17.5
85°	9.2	10.2	11.1	12.0	12.9
87.5°	5.5	5.5	6.5	7.4	8.3
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)