

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: P544686

Luminaire Tested: **FMR-12-1-LD4-1HI-35-UNV-82-97-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: P544686
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-LD4-1HI-35-UNV-82-97-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

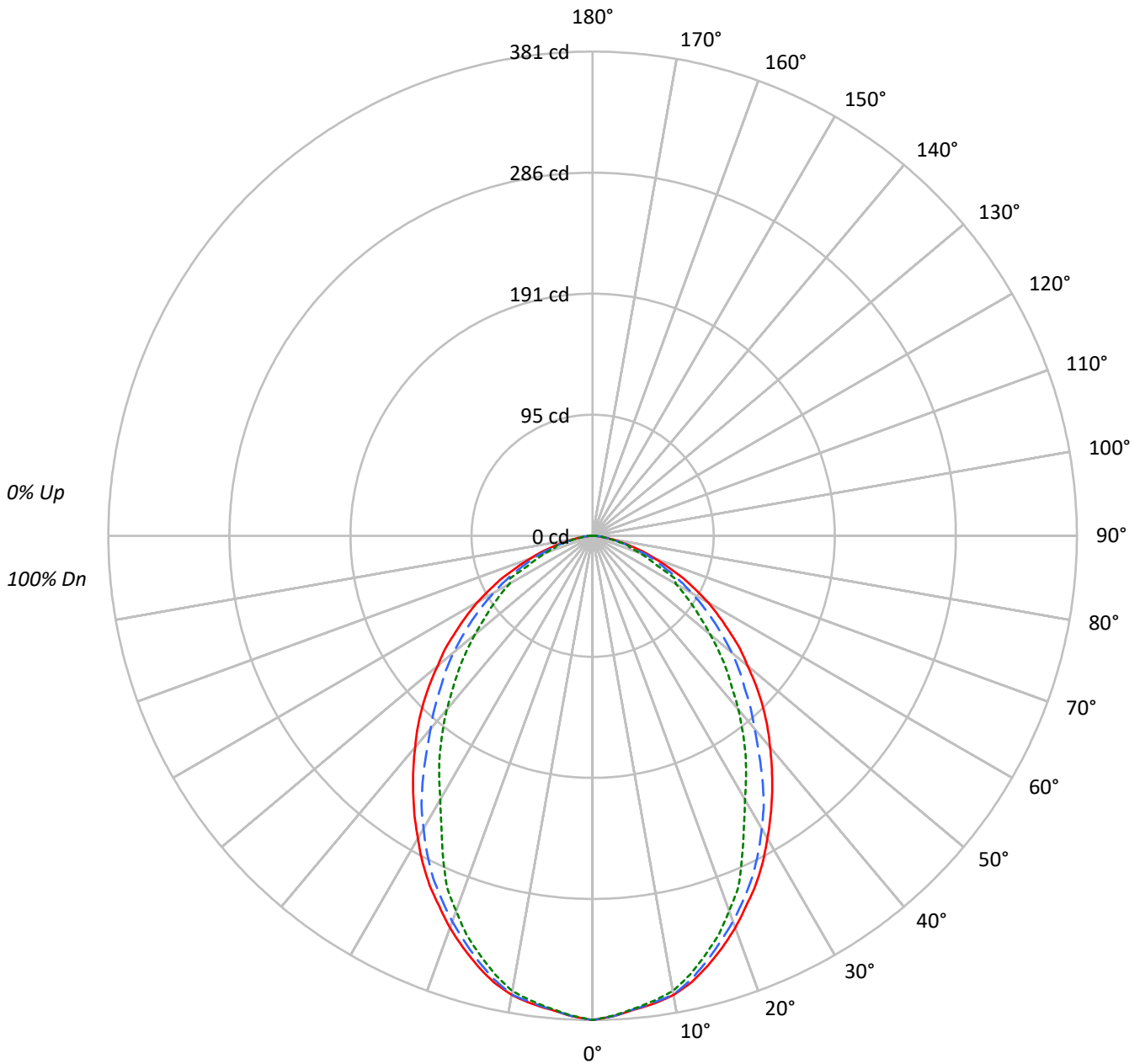
Lumens per Lamp: N/A
Luminaire Lumens: 748.0 lumens
Efficiency: N/A
Efficacy: 69.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
Input Voltage (V): NR
Input Current (Ain): 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°	4101	4101	4101
5°	4045	4041	4036
10°	4010	4006	3976
15°	3902	3863	3809
20°	3759	3699	3598
25°	3605	3526	3306
30°	3417	3307	2978
35°	3235	3056	2756
40°	3052	2785	2507
45°	2877	2574	2267
50°	2663	2390	2021
55°	2464	2166	1811
60°	2256	1935	1621
65°	1987	1694	1436
70°	1637	1482	1221
75°	1302	1135	1189
80°	874	818	762
85°	543	655	766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.5	4.7
10°-20°	97.3	13.0
20°-30°	134.8	18.0
30°-40°	143.7	19.2
40°-50°	131.1	17.5
50°-60°	102.7	13.7
60°-70°	66.9	8.9
70°-80°	29.7	4.0
80°-90°	6.4	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°	267.6	35.8
0°-40°	411.3	55.0
0°-60°	645.0	86.2
0°-90°	748.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	748.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	381	381	381	381	381	
5°	374	374	374	374	374	36
15°	350	350	347	343	342	98
25°	304	302	297	286	278	139
35°	246	244	233	215	210	154
45°	189	185	169	155	149	146
55°	131	127	115	102	96	118
65°	78	74	66	68	56	77
75°	31	29	27	26	29	34
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	381.0	381.0	381.0	381.0	381.0
2.5°	378.4	378.4	378.4	377.9	377.9
5°	374.4	374.0	374.0	373.5	373.5
7.5°	371.3	370.9	370.4	370.0	369.1
10°	366.9	366.9	366.5	364.3	363.8
12.5°	359.9	359.4	357.7	354.6	353.7
15°	350.2	350.2	346.7	343.1	341.8
17.5°	339.6	339.2	334.8	331.2	329.5
20°	328.2	327.3	322.9	317.2	314.1
22.5°	315.4	315.4	310.1	302.6	299.5
25°	303.5	301.7	296.9	286.3	278.4
27.5°	289.8	287.2	281.9	266.9	257.7
30°	274.9	273.5	266.1	246.7	239.6
32.5°	260.8	258.6	250.6	230.4	224.6
35°	246.2	244.5	232.6	215.0	209.7
37.5°	231.7	229.5	214.5	200.4	193.8
40°	217.2	214.5	198.2	185.4	178.4
42.5°	203.5	200.0	184.1	170.5	162.5
45°	189.0	185.0	169.1	155.1	148.9
47.5°	174.4	170.9	156.4	141.8	134.8
50°	159.0	155.9	142.7	128.2	120.7
52.5°	146.2	141.4	128.6	114.1	107.9
55°	131.3	127.3	115.4	101.8	96.5
57.5°	117.6	113.6	102.6	89.9	85.5
60°	104.8	99.1	89.9	78.8	75.3
62.5°	90.7	86.3	78.4	69.2	73.6
65°	78.0	73.6	66.5	67.8	56.4
67.5°	63.9	61.7	55.5	49.3	47.6
70°	52.0	49.3	47.1	40.5	38.8
72.5°	41.4	38.8	35.7	32.2	30.8
75°	31.3	29.1	27.3	26.0	28.6
77.5°	21.6	20.7	19.4	18.1	17.6
80°	14.1	13.7	13.2	12.8	12.3
82.5°	8.4	8.4	8.4	8.4	8.4
85°	4.4	4.8	5.3	5.7	6.2
87.5°	2.6	2.6	3.1	3.5	4.0
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)