

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: P544699

Luminaire Tested: **FMR-12-1-LD4-1HI-40-UNV-80-88-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: P544699
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-40-UNV-80-88-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

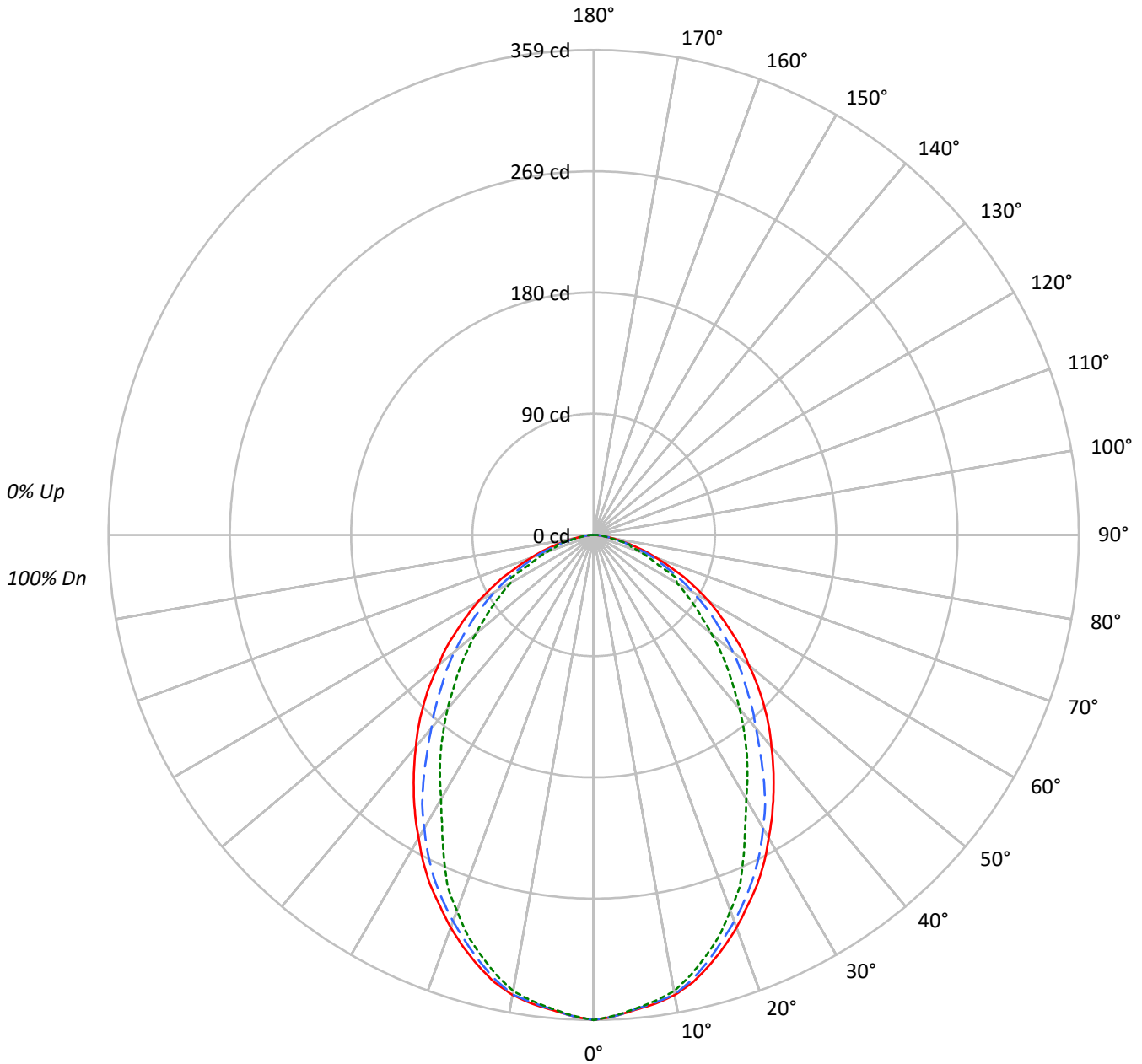
Lumens per Lamp: N/A
Luminaire Lumens: 705.0 lumens
Efficiency: N/A
Efficacy: 65.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	3865	3865	3865
5°	3813	3809	3804
10°	3780	3775	3748
15°	3679	3641	3590
20°	3543	3486	3391
25°	3397	3323	3116
30°	3220	3117	2806
35°	3050	2880	2597
40°	2876	2625	2362
45°	2711	2426	2136
50°	2510	2252	1906
55°	2321	2042	1706
60°	2127	1823	1528
65°	1872	1597	1352
70°	1542	1397	1149
75°	1227	1069	1123
80°	824	775	719
85°	519	618	716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.4	4.7
10°-20°	91.7	13.0
20°-30°	127.0	18.0
30°-40°	135.4	19.2
40°-50°	123.6	17.5
50°-60°	96.8	13.7
60°-70°	63.1	8.9
70°-80°	27.9	4.0
80°-90°	6.0	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°	252.2	35.8
0°-40°	387.6	55.0
0°-60°	608.0	86.2
0°-90°	705.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	359	359	359	359	359	
5°	353	352	352	352	352	33
15°	330	330	327	323	322	93
25°	286	284	280	270	262	131
35°	232	230	219	203	198	145
45°	178	174	159	146	140	137
55°	124	120	109	96	91	111
65°	74	69	63	64	53	72
75°	30	27	26	24	27	32
85°	4	5	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	359.1	359.1	359.1	359.1	359.1
2.5°	356.6	356.6	356.6	356.2	356.2
5°	352.9	352.5	352.5	352.1	352.1
7.5°	350.0	349.6	349.2	348.7	347.9
10°	345.8	345.8	345.4	343.3	342.9
12.5°	339.2	338.8	337.1	334.2	333.4
15°	330.1	330.1	326.7	323.4	322.2
17.5°	320.1	319.7	315.5	312.2	310.5
20°	309.3	308.5	304.3	298.9	296.0
22.5°	297.3	297.3	292.3	285.2	282.3
25°	286.0	284.4	279.8	269.9	262.4
27.5°	273.2	270.7	265.7	251.6	242.9
30°	259.1	257.8	250.8	232.5	225.8
32.5°	245.8	243.7	236.2	217.1	211.7
35°	232.1	230.4	219.2	202.6	197.6
37.5°	218.4	216.3	202.2	188.9	182.7
40°	204.7	202.2	186.8	174.8	168.1
42.5°	191.8	188.5	173.5	160.7	153.2
45°	178.1	174.4	159.4	146.1	140.3
47.5°	164.4	161.1	147.4	133.7	127.0
50°	149.9	147.0	134.5	120.8	113.8
52.5°	137.8	133.3	121.2	107.5	101.7
55°	123.7	120.0	108.8	95.9	90.9
57.5°	110.8	107.1	96.7	84.7	80.5
60°	98.8	93.4	84.7	74.3	71.0
62.5°	85.5	81.4	73.9	65.2	69.3
65°	73.5	69.3	62.7	63.9	53.1
67.5°	60.2	58.1	52.3	46.5	44.8
70°	49.0	46.5	44.4	38.2	36.5
72.5°	39.0	36.5	33.6	30.3	29.1
75°	29.5	27.4	25.7	24.5	27.0
77.5°	20.3	19.5	18.3	17.0	16.6
80°	13.3	12.9	12.5	12.0	11.6
82.5°	7.9	7.9	7.9	7.9	7.9
85°	4.2	4.6	5.0	5.4	5.8
87.5°	2.5	2.5	2.9	3.3	3.7
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)