

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: P544856

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-80-85-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: P544856
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-LD4-1STD-35-UNV-80-85-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

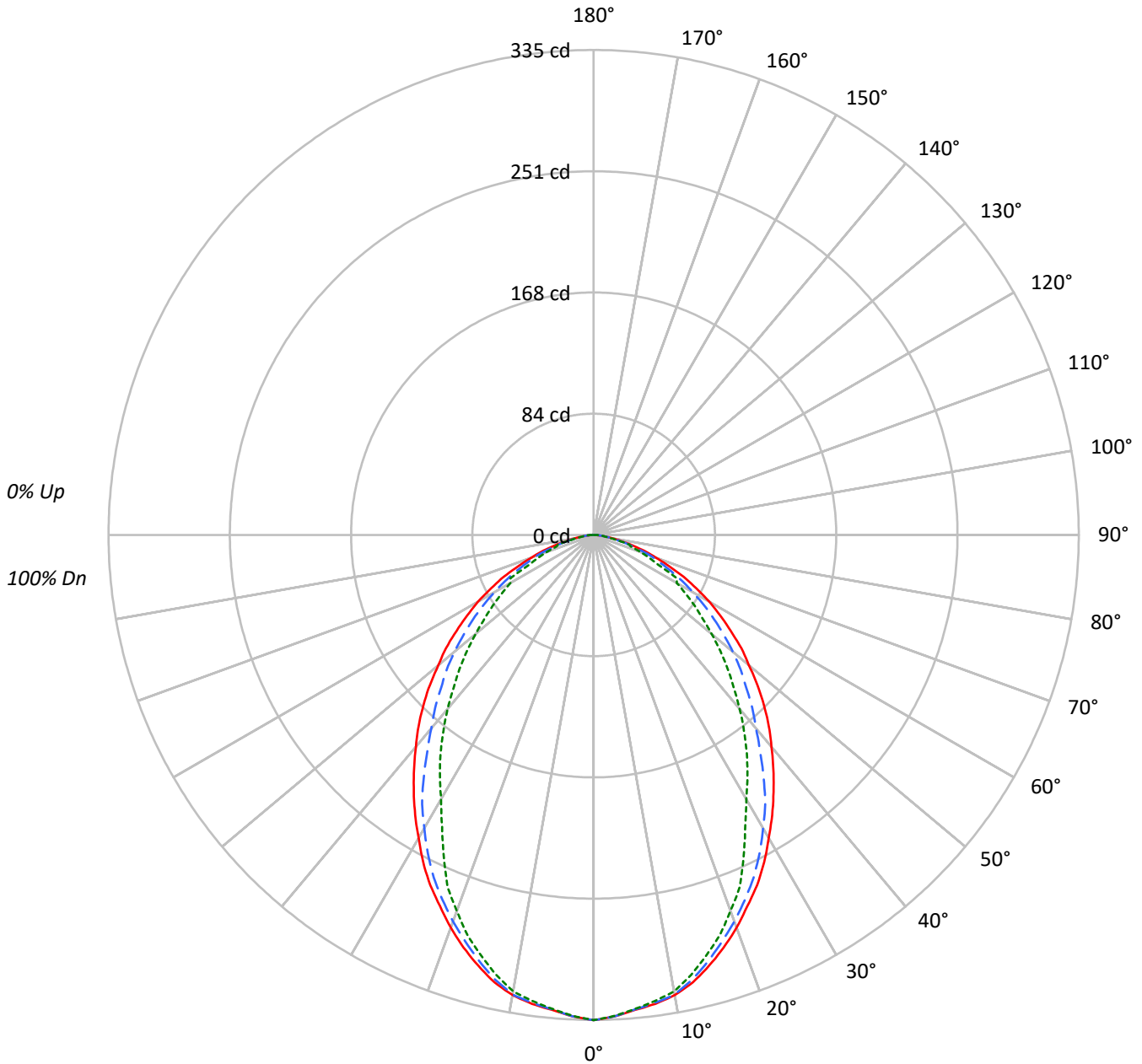
Lumens per Lamp: N/A
Luminaire Lumens: 658.0 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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					20					
RC	80					70					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°	3608	3608	3608
5°	3559	3555	3551
10°	3528	3524	3499
15°	3433	3399	3351
20°	3307	3253	3165
25°	3171	3102	2909
30°	3005	2908	2620
35°	2846	2689	2423
40°	2684	2451	2205
45°	2530	2265	1994
50°	2343	2102	1778
55°	2168	1905	1593
60°	1985	1701	1427
65°	1747	1490	1263
70°	1438	1306	1073
75°	1144	998	1048
80°	769	719	669
85°	482	568	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.2	4.7
10°-20°	85.6	13.0
20°-30°	118.5	18.0
30°-40°	126.4	19.2
40°-50°	115.3	17.5
50°-60°	90.3	13.7
60°-70°	58.9	8.9
70°-80°	26.1	4.0
80°-90°	5.6	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°	235.4	35.8
0°-40°	361.8	55.0
0°-60°	567.4	86.2
0°-90°	658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	658.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	335	335	335	335	335	
5°	329	329	329	329	329	31
15°	308	308	305	302	301	87
25°	267	265	261	252	245	123
35°	217	215	205	189	184	135
45°	166	163	149	136	131	128
55°	116	112	102	90	85	104
65°	69	65	58	60	50	68
75°	28	26	24	23	25	29
85°	4	4	5	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	335.2	335.2	335.2	335.2	335.2
2.5°	332.9	332.9	332.9	332.5	332.5
5°	329.4	329.0	329.0	328.6	328.6
7.5°	326.7	326.3	325.9	325.5	324.7
10°	322.8	322.8	322.4	320.5	320.1
12.5°	316.6	316.2	314.6	311.9	311.2
15°	308.1	308.1	305.0	301.9	300.7
17.5°	298.8	298.4	294.5	291.4	289.8
20°	288.7	287.9	284.0	279.0	276.3
22.5°	277.4	277.4	272.8	266.2	263.5
25°	267.0	265.4	261.2	251.9	244.9
27.5°	255.0	252.6	248.0	234.8	226.7
30°	241.8	240.6	234.0	217.0	210.8
32.5°	229.4	227.5	220.5	202.7	197.6
35°	216.6	215.1	204.6	189.1	184.4
37.5°	203.8	201.9	188.7	176.3	170.5
40°	191.0	188.7	174.4	163.1	156.9
42.5°	179.0	175.9	162.0	150.0	143.0
45°	166.2	162.7	148.8	136.4	131.0
47.5°	153.4	150.3	137.6	124.8	118.6
50°	139.9	137.2	125.5	112.8	106.2
52.5°	128.6	124.4	113.1	100.4	94.9
55°	115.5	112.0	101.5	89.5	84.9
57.5°	103.5	100.0	90.3	79.0	75.2
60°	92.2	87.2	79.0	69.4	66.3
62.5°	79.8	75.9	69.0	60.8	64.7
65°	68.6	64.7	58.5	59.7	49.6
67.5°	56.2	54.2	48.8	43.4	41.8
70°	45.7	43.4	41.5	35.6	34.1
72.5°	36.4	34.1	31.4	28.3	27.1
75°	27.5	25.6	24.0	22.9	25.2
77.5°	19.0	18.2	17.0	15.9	15.5
80°	12.4	12.0	11.6	11.2	10.8
82.5°	7.4	7.4	7.4	7.4	7.4
85°	3.9	4.3	4.6	5.0	5.4
87.5°	2.3	2.3	2.7	3.1	3.5
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)