

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: P544965

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-81-96-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: P544965
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-81-96-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

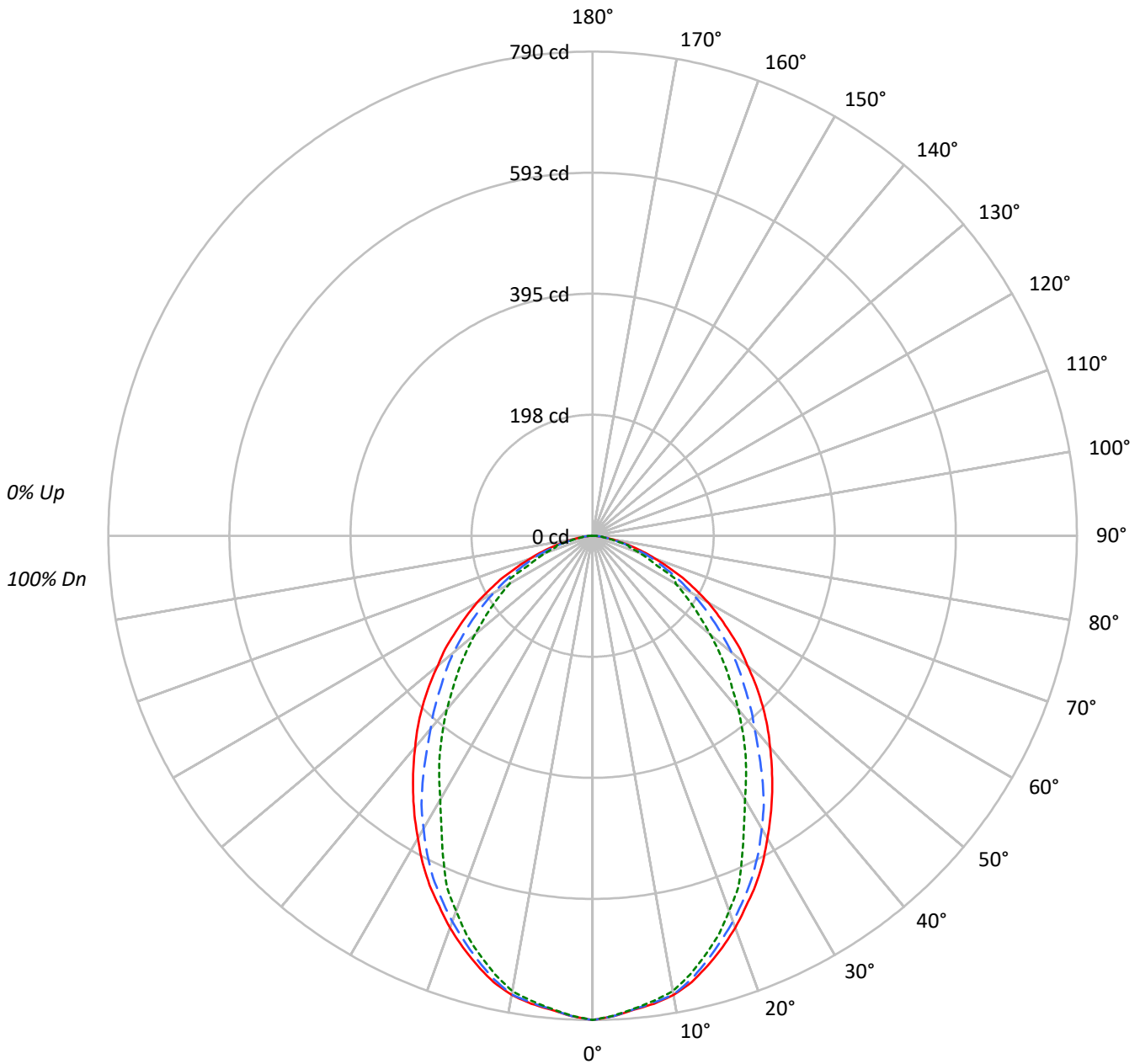
Lumens per Lamp: N/A
Luminaire Lumens: 1551.0 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (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°	8505	8505	8505
5°	8389	8378	8368
10°	8316	8306	8246
15°	8091	8010	7899
20°	7795	7669	7459
25°	7474	7311	6855
30°	7083	6857	6176
35°	6709	6338	5713
40°	6327	5775	5198
45°	5964	5339	4699
50°	5521	4955	4191
55°	5108	4491	3753
60°	4680	4011	3363
65°	4118	3512	2977
70°	3393	3075	2530
75°	2695	2354	2470
80°	1810	1698	1587
85°	1124	1359	1581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	4.7
10°-20°	201.8	13.0
20°-30°	279.4	18.0
30°-40°	298.0	19.2
40°-50°	271.8	17.5
50°-60°	212.9	13.7
60°-70°	138.8	8.9
70°-80°	61.5	4.0
80°-90°	13.2	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°	554.8	35.8
0°-40°	852.8	55.0
0°-60°	1337.5	86.2
0°-90°	1551.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1551.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	790	790	790	790	790	
5°	776	775	775	774	774	74
15°	726	726	719	712	709	204
25°	629	626	616	594	577	289
35°	511	507	482	446	435	319
45°	392	384	351	322	309	302
55°	272	264	239	211	200	244
65°	162	152	138	141	117	159
75°	65	60	57	54	59	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°	790.1	790.1	790.1	790.1	790.1
2.5°	784.6	784.6	784.6	783.7	783.7
5°	776.4	775.4	775.4	774.5	774.5
7.5°	770.0	769.1	768.1	767.2	765.4
10°	760.8	760.8	759.9	755.4	754.4
12.5°	746.2	745.3	741.7	735.3	733.4
15°	726.1	726.1	718.8	711.5	708.8
17.5°	704.2	703.3	694.2	686.8	683.2
20°	680.5	678.6	669.5	657.6	651.2
22.5°	654.0	654.0	643.0	627.5	621.1
25°	629.3	625.7	615.6	593.7	577.2
27.5°	601.0	595.5	584.6	553.5	534.3
30°	569.9	567.2	551.7	511.5	496.9
32.5°	540.7	536.1	519.7	477.7	465.8
35°	510.6	506.9	482.3	445.7	434.8
37.5°	480.4	475.9	444.8	415.6	401.9
40°	450.3	444.8	411.0	384.5	369.9
42.5°	422.0	414.7	381.8	353.5	337.0
45°	391.8	383.6	350.7	321.5	308.7
47.5°	361.7	354.4	324.2	294.1	279.5
50°	329.7	323.3	295.9	265.8	250.3
52.5°	303.2	293.2	266.7	236.6	223.8
55°	272.2	264.0	239.3	211.0	200.0
57.5°	243.9	235.6	212.8	186.3	177.2
60°	217.4	205.5	186.3	163.5	156.2
62.5°	188.2	179.0	162.6	143.4	152.5
65°	161.7	152.5	137.9	140.7	116.9
67.5°	132.4	127.9	115.1	102.3	98.6
70°	107.8	102.3	97.7	84.0	80.4
72.5°	85.9	80.4	74.0	66.7	63.9
75°	64.8	60.3	56.6	53.9	59.4
77.5°	44.8	42.9	40.2	37.4	36.5
80°	29.2	28.3	27.4	26.5	25.6
82.5°	17.4	17.4	17.4	17.4	17.4
85°	9.1	10.0	11.0	11.9	12.8
87.5°	5.5	5.5	6.4	7.3	8.2
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)