

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: P545253

Luminaire Tested: **FMR-12-2-LD4-1HI-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: P545253
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-12-2-LD4-1HI-35-UNV-81-96-EDD
Description: 1X2 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

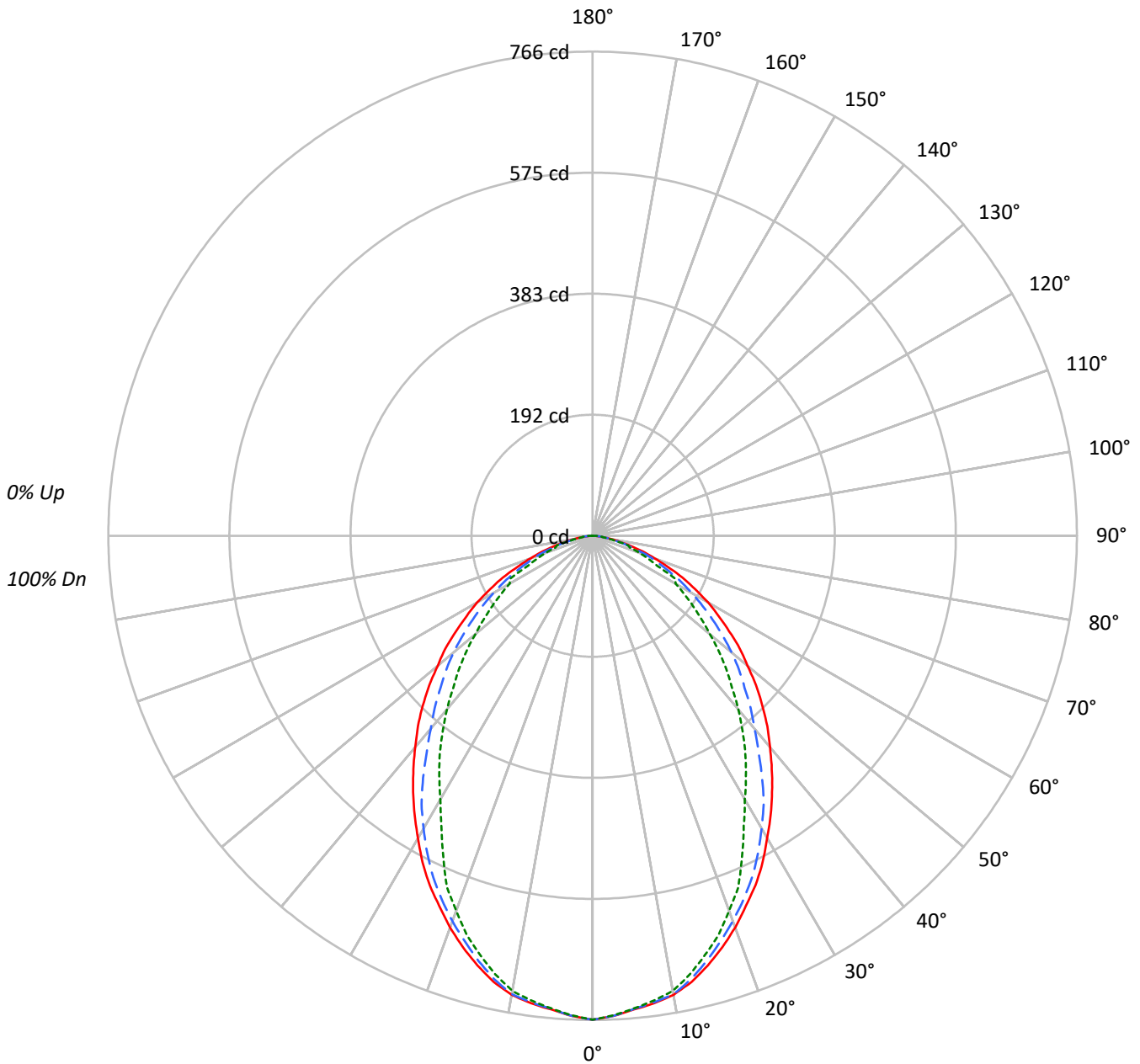
Lumens per Lamp: N/A
Luminaire Lumens: 1503.0 lumens
Efficiency: N/A
Efficacy: 69.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	4120	4120	4120
5°	4064	4059	4055
10°	4029	4024	3995
15°	3921	3881	3827
20°	3777	3716	3615
25°	3621	3543	3322
30°	3432	3322	2992
35°	3251	3070	2768
40°	3066	2798	2519
45°	2890	2587	2277
50°	2675	2401	2030
55°	2475	2176	1818
60°	2268	1944	1630
65°	1996	1701	1443
70°	1643	1490	1226
75°	1306	1142	1196
80°	877	824	769
85°	550	655	766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	4.7
10°-20°	195.6	13.0
20°-30°	270.8	18.0
30°-40°	288.7	19.2
40°-50°	263.4	17.5
50°-60°	206.4	13.7
60°-70°	134.5	8.9
70°-80°	59.6	4.0
80°-90°	12.8	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°	537.6	35.8
0°-40°	826.4	55.0
0°-60°	1296.1	86.2
0°-90°	1503.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1503.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	752	751	751	751	751	71
15°	704	704	697	690	687	198
25°	610	606	597	575	559	280
35°	495	491	467	432	421	309
45°	380	372	340	312	299	292
55°	264	256	232	204	194	237
65°	157	148	134	136	113	154
75°	63	58	55	52	58	67
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	765.6	765.6	765.6	765.6	765.6
2.5°	760.3	760.3	760.3	759.4	759.4
5°	752.3	751.4	751.4	750.6	750.6
7.5°	746.1	745.3	744.4	743.5	741.7
10°	737.3	737.3	736.4	732.0	731.1
12.5°	723.1	722.2	718.7	712.5	710.7
15°	703.7	703.7	696.6	689.5	686.8
17.5°	682.4	681.5	672.7	665.6	662.1
20°	659.4	657.6	648.8	637.3	631.1
22.5°	633.7	633.7	623.1	608.1	601.9
25°	609.8	606.3	596.6	575.3	559.4
27.5°	582.4	577.1	566.5	536.4	517.8
30°	552.3	549.6	534.6	495.7	481.5
32.5°	524.0	519.6	503.6	462.9	451.4
35°	494.8	491.2	467.3	431.9	421.3
37.5°	465.6	461.1	431.0	402.7	389.4
40°	436.4	431.0	398.3	372.6	358.5
42.5°	408.9	401.8	370.0	342.5	326.6
45°	379.7	371.7	339.9	311.6	299.2
47.5°	350.5	343.4	314.2	285.0	270.8
50°	319.5	313.3	286.8	257.6	242.5
52.5°	293.9	284.1	258.4	229.2	216.8
55°	263.8	255.8	231.9	204.5	193.8
57.5°	236.3	228.4	206.2	180.6	171.7
60°	210.7	199.1	180.6	158.4	151.4
62.5°	182.3	173.5	157.5	139.0	147.8
65°	156.7	147.8	133.6	136.3	113.3
67.5°	128.3	123.9	111.5	99.1	95.6
70°	104.4	99.1	94.7	81.4	77.9
72.5°	83.2	77.9	71.7	64.6	62.0
75°	62.8	58.4	54.9	52.2	57.5
77.5°	43.4	41.6	38.9	36.3	35.4
80°	28.3	27.4	26.6	25.7	24.8
82.5°	16.8	16.8	16.8	16.8	16.8
85°	8.9	9.7	10.6	11.5	12.4
87.5°	5.3	5.3	6.2	7.1	8.0
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)