

TEST REPORT



Intertek

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EVALUATION CENTER

Intertek Testing Services NA Inc.
16015 Shady Falls Road
Elmendorf, TX 78112

RENDERED TO

**Elite Screens Inc
16410 Manning Way
Cerritos, CA 90703**

PRODUCT EVALUATED: Evanesce Tension Model, In-Ceiling
Electric/Motorized Projector Screen
EVALUATION PROPERTY: Heat Release Rate, Smoke Release

**Report of Testing “Evanesce Tension Model, In-Ceiling
Electric/Motorized Projector Screen” for compliance with the
applicable requirements of the following criteria: UL 2043, Third
Edition, dated August 20, 2008, Fire test for Heat and Visible
Smoke Release for Discrete Products and Their Accessories
Installed in Air-Handling Spaces**

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2 Introduction

Intertek Testing Services NA (Intertek) has conducted testing for Elite Screens Inc, on the Evanesce Tension Model, In-Ceiling Electric/Motorized Projector Screen, to evaluate heat and smoke release. Testing was conducted in accordance with UL 2043, Third edition dated August 20, 2008, Fire test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces. This evaluation was performed on July 14, 2011.

This test method is for determining the fire performance response of discrete products (including, but not limited to electrical equipment) intended to be installed in air handling spaces, such as above suspended ceilings or below floors. These products are subjected to an open flame ignition source and evaluated using a product calorimeter. The purpose of this test is to determine the rate of heat release and the rate of smoke release of the burning product samples as they relate to the requirements for fire-resistant and low-smoke-producing characteristics in accordance with the provisions of the following codes: National Electric Code, NFPA 70; the International Mechanical Code, NFPA 5000; and the Standard for the Installation of Air Conditioning and Ventilating Systems, NFPA 90A.

3 Test Samples

3.1. SAMPLE SELECTION

Samples were submitted to Intertek directly from the client. Samples were not independently selected for testing. Samples, in good condition, were received at the Evaluation Center on June 29, 2011.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

Two identical specimen were received from the client. Each specimen consisted of an electric/motorized projection screen, wholly contained in a white-colored metal housing and secured with screws on its perimeter. Specimen 1 referenced Serial No. Mini-Evanesce-T-OAE 000008 and Specimen 2 referenced Serial No. Mini-Evanesce-T-OAE 000022. For additional details, see the photographs in this report. Sample information can be found in Appendix C.

4 Testing and Evaluation Methods

All instrumentation was zeroed and calibrated prior to testing. The test specimen, after conditioning to 73°F and 50% R.H., was placed on the specified test frame / enclosure. The 12" x 12" x 4" propane test burner was centered under the specimen and the test was started. The test specimen is exposed to a direct flame impingement with a heat release rate of 60 kW (92 cubic feet per hour). The test was conducted for 10 minutes at which time the gas burner is shut off.

5 Testing and Evaluation Results

5.1. RESULTS AND OBSERVATIONS

1st Test

The specimen was placed in the test enclosure and tested at 1:07pm on July 14, 2011. The ambient temperature was 76°F, with a relative humidity of 56%. The data recorded includes: Smoke Release Rate (SRR), Heat Release Rate (HRR). The acceptance criteria data was calculated from these values using the formulas in UL 2043 Section 7. This data, along with test photos may be found in Appendix A.

Observations during the test were recorded. The observations are as follows:

TIME (min:sec)	OBSERVATION
0:00	The 60 kW propane burner was ignited.
0:35	The specimen showed signs of melting.
1:00	The specimen showed signs of ignition with white smoke.
10:00	The propane burner was turned off.
10:01	Flames on the specimen ceased. Smoke was still being generated from the specimen.
11:52	Smoke from the specimen ceased. Test terminated.

2nd Test

The specimen was placed in the test enclosure and tested at 1:58pm on July 14, 2011. The ambient temperature was 77°F, with a relative humidity of 54%. The data recorded includes: Smoke Release Rate (SRR), Heat Release Rate (HRR). The acceptance criteria data was calculated from these values using the formulas in UL 2043 Section 7. This data, along with test photos may be found in Appendix A.

Observations during the test were recorded. The observations are as follows:

TIME (min:sec)	OBSERVATION
0:00	The 60 kW propane burner was ignited.
0:33	The specimen showed signs of melting.
0:46	Light white smoke.
0:58	Specimen ignition.
10:00	The propane burner was turned off.
10:01	Flames on the specimen ceased. Smoke was still being generated from the specimen.
11:36	Smoke from the specimen ceased. Test terminated.

ITEM	RESULTS	RESULTS
	1 st Test	2 nd Test
Peak rate of heat release (HRR _c)	10.0 kW	17.3 kW
Peak rate of smoke release	0.0154 m ² /s	0.0237 m ² /s
Total smoke released for first 10 minutes	2.5 m ²	7.2 m ²
Peak normalized optical density	0.037	0.057
Average normalized optical density (10 min)	0.0098	0.0288
	Compliant	Compliant

5.2. EXAMINATION OF RESULTS

ACCEPTANCE CRITERIA

1. The peak rate of heat release (HRR_c) measured during each test shall be 100 kilowatts or less.
2. The peak normalized optical density measured during each test shall be 0.50 or less.
3. The average normalized optical density (10 minute test duration) shall be 0.15 or less.

5.3. EVALUATION OF RESULTS

The size of the sample tested (Specimen 1 referenced Serial No. Mini-Evanescence-T-OAE 000008 and Specimen 2 referenced Serial No. Mini-Evanescence-T-OAE 000022.) was of 34-1/4" L x 3-7/8" W x 24-1/4" H (unretracted). This sample was a model constructed specifically for testing since larger dimension would not fit into the test apparatus. Based on the information provided by the client, the largest model of the Evanesce Tension screens is to be of 132.3" L x 3.9" W x 126.1" H. Therefore, all models will consist of the same dimension in width and height, and will only vary in length. Based on the information on the largest size model (ITE139XW2-E8), the scaling between the large model and the small model (tested) would be 1/4 .

Based on the 1/4 scale, the results for the large model can be extrapolated from the results of the small model. The table below lists the extrapolated results:

ITEM	RESULTS	
	(Measured) Small Model	(Extrapolated) Large Model
Peak rate of heat release (HRR _c)	17.3 kW	69.2 kW
Peak rate of smoke release	0.0237 m ² /s	0.0948 m ² /s
Total smoke released for first 10 minutes	7.2 m ²	28.8 m ²
Peak normalized optical density	0.057	0.228
Average normalized optical density (10 min)	0.0288	0.1152

Note: The unit uses an independent infrared receiver to remotely deploy the unit, however since this is a separate discrete component it was not evaluated with the screen assembly.


6 Conclusion

Intertek Testing Services NA (Intertek) has conducted testing for Elite Screens Inc, on the Evanesce Tension Model, In-Ceiling Electric/Motorized Screen, to evaluate heat and smoke release. Testing was conducted in accordance with UL 2043, Third edition dated August 20, 2008, Fire test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces. **The specimen tested MET the requirements of this test method.**

Additionally, based on the extrapolated results, similarly constructed models up to 132.3" in length (Model ITE139XW2-E8) can also be recognized as being compliant with the test standard.

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

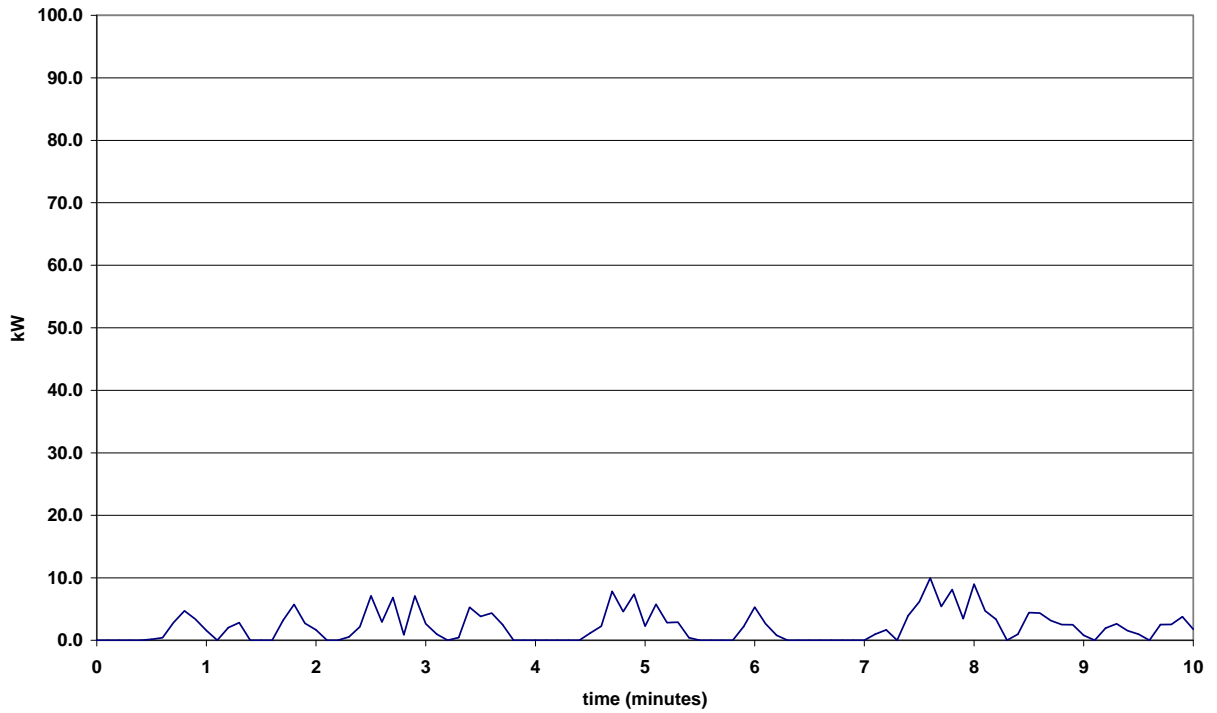
INTERTEK TESTING SERVICES NA

Reported by: 
Thomas Haynes
Technician

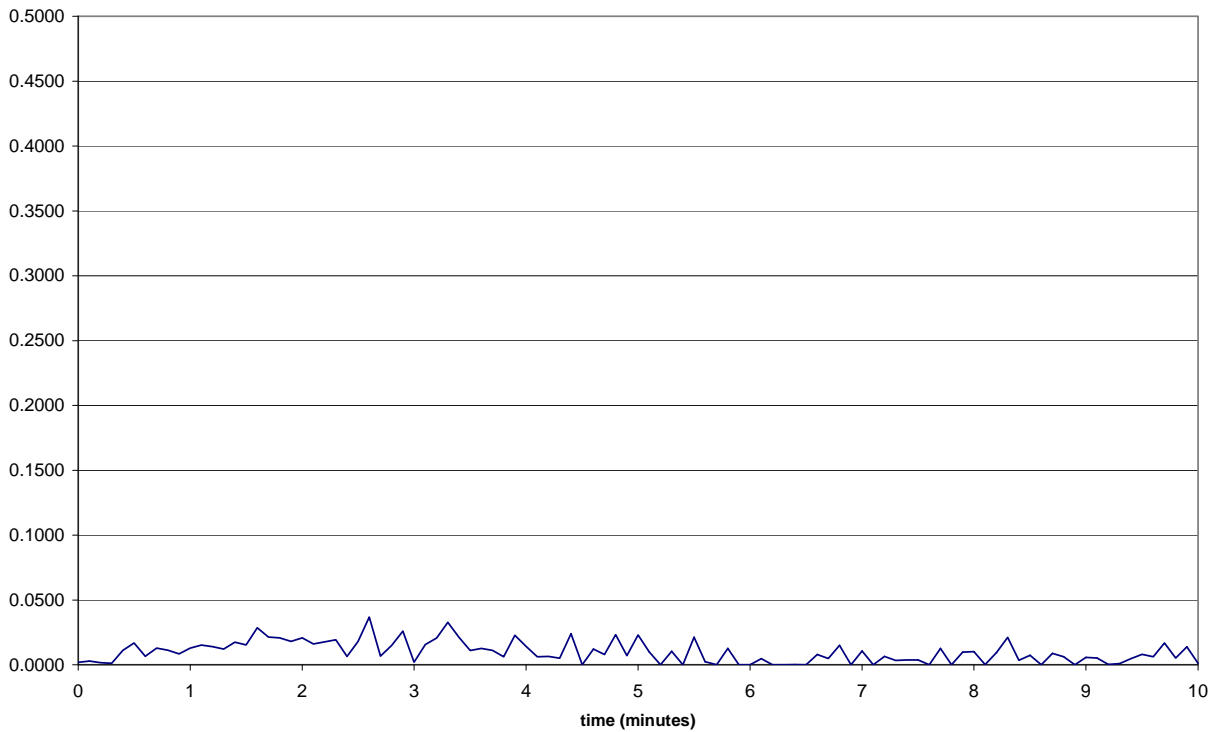
Reviewed by: 
Jason De La Cruz
Engineer

APPENDIX A
Test Data and Photographs
Specimen 1 of 2

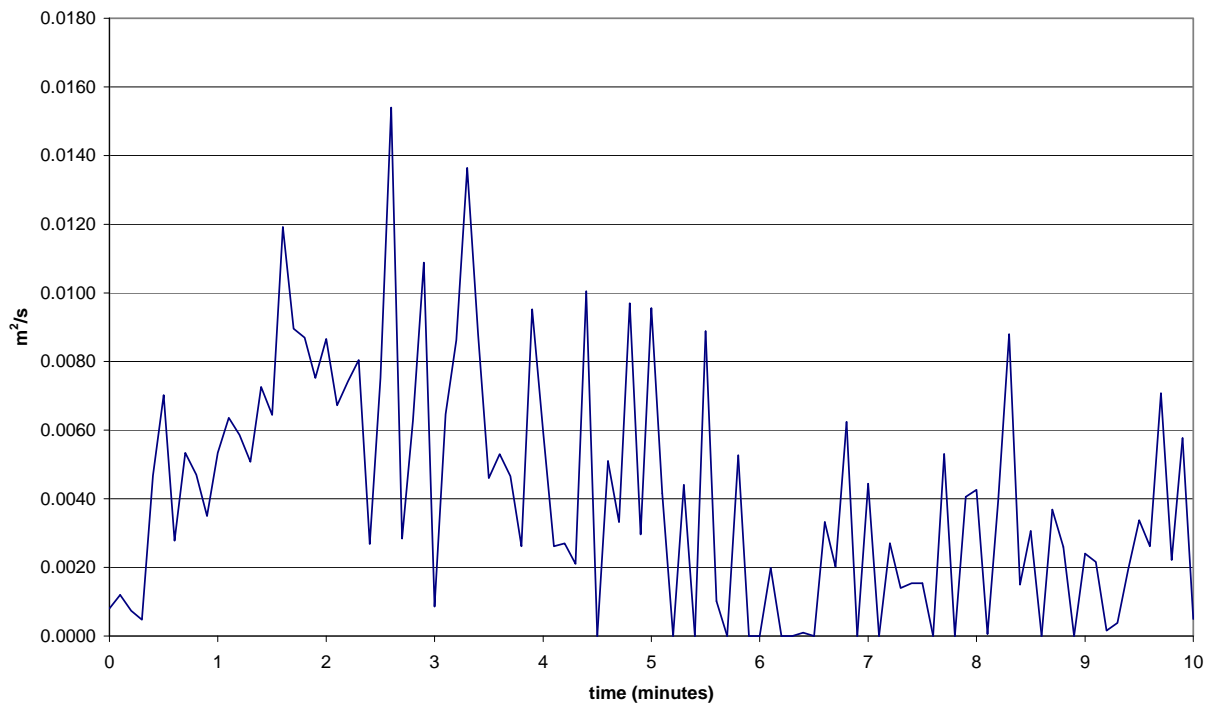
Net HRRc (kW) Heat Release Rate
Specimen 1 of 2



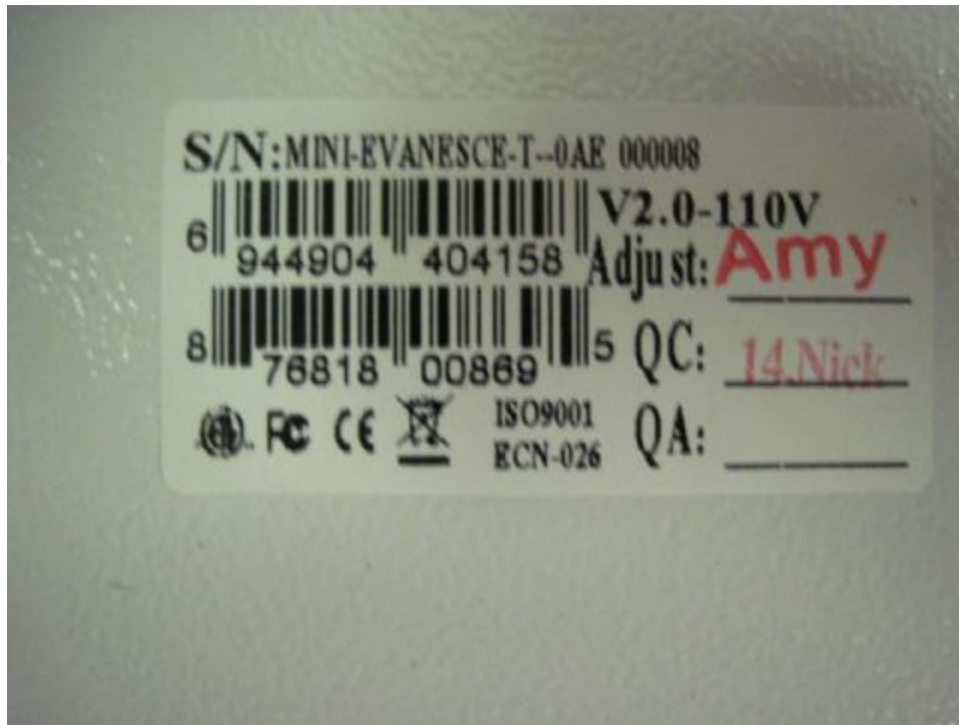
Normalized OD. Calculated from SRR
Specimen 1 of 2



**SRRc (m²/s) Smoke Release Rate, Corrected for 60kW Burner
Specimen 1 of 2**



Pre-test photo



Pre-test photo



Pre-test photo



Test photo



Test Photo



Test photo.



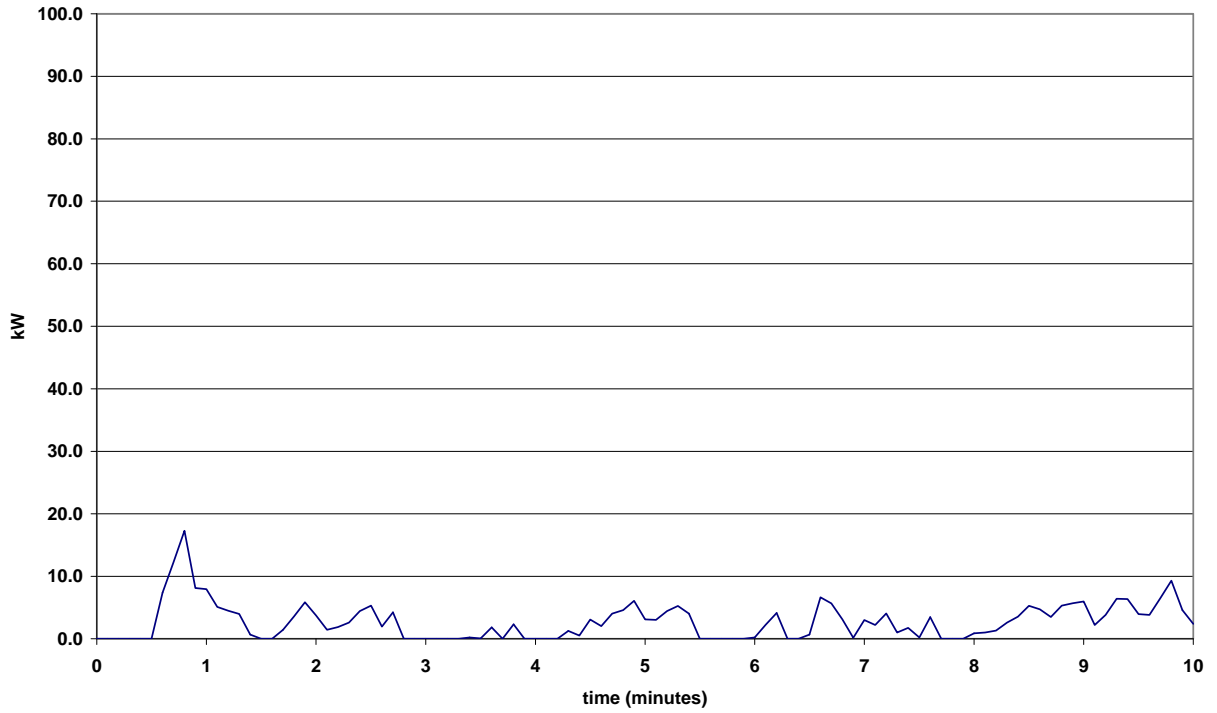
Post-test photo.



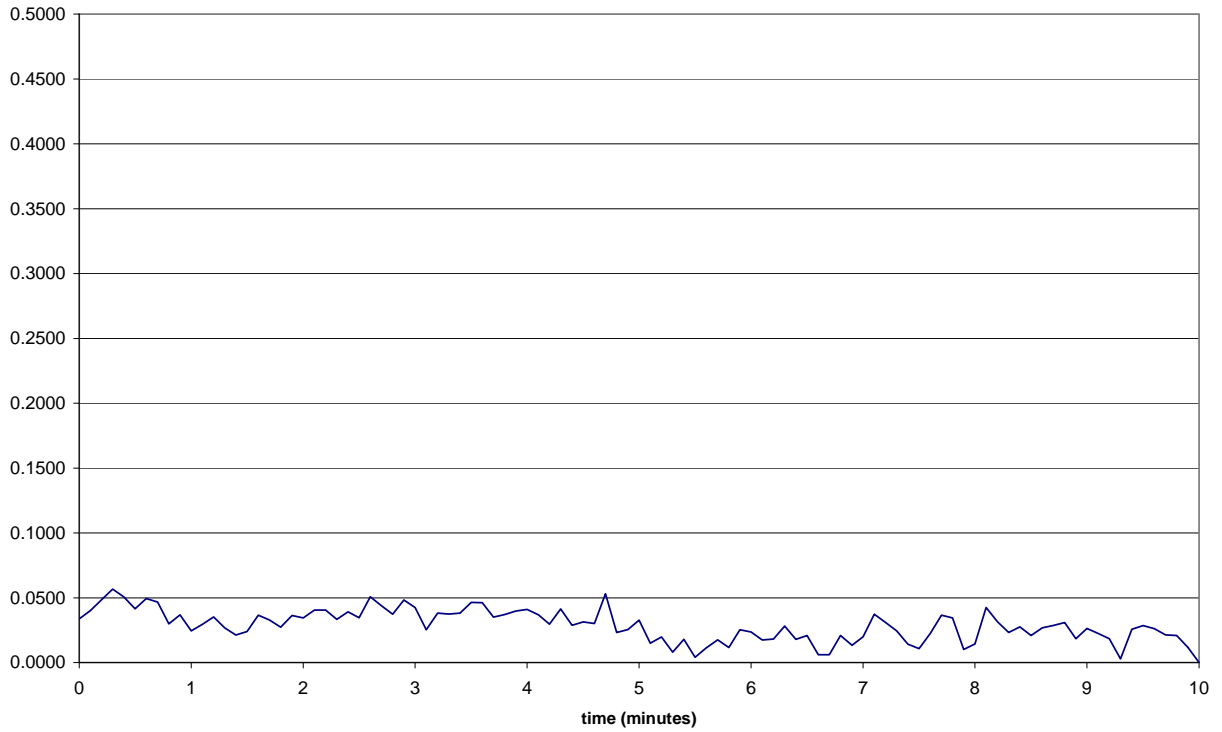
Post-test photo.

APPENDIX A
Test Data and Photographs
Specimen 2 of 2

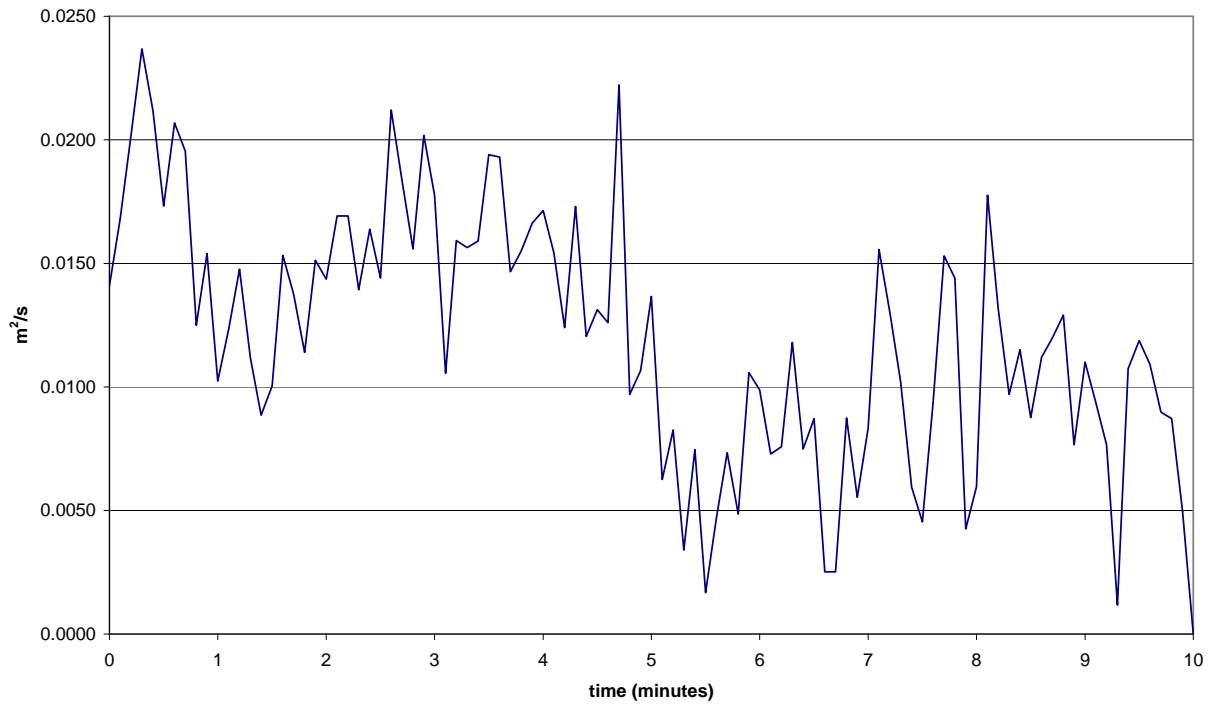
Net HRRc (kW) Heat Release Rate
Specimen 2 of 2



Normalized OD. Calculated from SRR
Specimen 2 of 2



**SRRc (m²/s) Smoke Release Rate, Corrected for 60kW Burner
Specimen 2 of 2**



Pre-Test Photo



Pre-Test Photo



Test Photo



Test Photo



Test Photo



Post-test Photo



Post-test Photo

APPENDIX B
Sample Information

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2011

Evanescence Tension Series

In-Ceiling Electric Tab-Tensioned Front Projection Screen
www.elitescreens.com/evanescet



See our full product line at
www.elitescreens.com

Elite Screens Inc | Elite Screens China Corp. | Elite Screens Europe GMBH | Elite Screens France S.A.S | Elite Screens R&D Taiwan Ltd.

Page 2 of 3 of Product Spec Sheet

Evanesce Tension Series

- In-Ceiling Electric Tab-Tensioned Front Projection Screen
- Premium Custom Install/ProAV Screens

FEATURES & BENEFITS

- Available in diagonal sizes ranging from 84" - 139"
- Four aspect ratios to choose from, 4:3, 16:9, 16:10 and 2.35:1
- Optional Custom sizes, aspect ratios and screen material

Screen Material:

- Award winning Elite CineWhite 1.1 gain black backed PVC screen material
- Tab-tension cords provide uniform flatness on entire projection surface

Housing Finish and Installation:

- Heavy duty aluminum housing with white finish is strong and moisture resistant
- Disappearing in-ceiling design for non-dedicated media rooms
- Integrated ceiling projection screen ships fully assembled, ready to install

Control System:

- Internal Radio Frequency/Infrared receivers with IR, RF remotes included
- Low voltage 3-way wall switch included
- 5-12Volt trigger included to synchronize screen operation with the projector's power cycle
- Optional in-wall up/down switch

Quality and Reliability

- Standard 2-year parts and labor warranty
- 3-year warranty for GEMR (Government, Education, Military and Religious) - US only
- ETL, FCC, CE, CB GOSTCE & ISO9001:2008 Certified



Evanesce Tension Series: In-ceiling tensioned electric screen with IR/RF remotes, 3 way on-wall switch, in-wall module

Model	Nominal Diagonal	View Height (in)	View Width (in)	View Height (cm)	View Width (cm)	UPS or FedEx	Net Weight (lbs)	Gross Weight (lbs)	Net Weight (kgs)	Gross Weight (kgs)	Packaging Dimension (LxHxW)	Gain	Screen Material	Extra Black Drop (in/cm)
ITE84VW2-E30	84" (4:3)	50.4	67.2	128.0	170.7	Yes	26.9	41.5	12.2	18.8	89.1"x6.5"x8"	1.1	CineWhite	30"/76cm
ITE100VW2-E20	100" (4:3)	60.0	80.0	152.4	203.2	Yes	39.5	53.7	17.9	24.41	98"x7.5"x8.5"	1.1	CineWhite	20"/51cm
ITE120VW2-E10	120" (4:3)	72.0	96.0	182.9	243.8	No	44.6	61.6	20.3	28.02	114.5"x7.5"x8.5"	1.1	CineWhite	10"/25.4cm
ITE84HW2-E30	84" (16:9)	41.2	73.2	104.6	185.9	Yes	31.3	43.6	14.2	19.82	94"x7.3"x8.5"	1.1	CineWhite	30"/76.2cm
ITE100HW2-E24	100" (16:9)	49.1	87.2	124.7	221.5	Yes	46.7	62.83	21.2	28.56	107.4"x7.5"x9.8"	1.1	CineWhite	24"/61cm
ITE106HW2-E24	106" (16:9)	52.0	92.4	132.1	234.7	No	47.8	64.37	21.7	29.26	115.5"x7.5"x9.8"	1.1	CineWhite	24"/61cm
ITE120HW2-E20	121" (16:9)	58.8	104.6	149.4	265.7	No	52.7	70.55	24.0	32.07	130"x7.5"x9.8"	1.1	CineWhite	20"/51cm
ITE135HW2-E12	135" (16:9)	66.2	117.7	168.1	299.0	No	52.9	73.41	24.1	33.37	141.8"x7.5"x9.8"	1.1	CineWhite	12"/30cm
ITE94XW2-E30	94" (16:10)	49.8	79.7	126.5	202.4	Yes	38.4	53.9	17.5	24.5	97"x8.5"x7.6	1.1	CineWhite	30"/76cm
ITE108XW2-E24	108" (16:10)	57.2	91.5	145.3	232.4	No	42.8	58.8	19.5	26.73	109.5"x8.5"x7.6	1.1	CineWhite	24"/61cm
ITE114XW2-E20	114" (16:10)	60.4	96.6	153.4	245.4	No			0.0	0	N/A	1.1	CineWhite	20"/51cm
ITE126XW2-E14	126" (16:10)	66.8	106.8	169.5	271.3	No	48.2	66.45	21.9	30.20	124.5"x7.5"x8.5"	1.1	CineWhite	14"/36cm
ITE139XW2-E8	139" (16:10)	73.6	117.8	187.0	299.2	No			0.0	0	N/A	1.1	CineWhite	8"/20cm
ITE95C-E30	95" (2.35:1)	37.2	87.4	94.5	222.0	No			0.0	0	N/A	1.1	CineWhite	30"/76cm
ITE116C-E24	116" (2.35:1)	45.4	106.7	115.3	271.0	No			0.0	0	N/A	1.1	CineWhite	24"/61cm
ITE128C-E24	128" (2.35:1)	50.1	117.8	127.3	299.2	No	51.3	70.59	23.3	32.09	135"x7.5"x8.5"	1.1	CineWhite	18"/46cm
ITE138C-E24	138" (2.35:1)	54.0	126.9	137.2	322.3	No			0.0	0	N/A	1.1	CineWhite	24"/61cm

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Evanescence Tension

Evanescence Series Dimension Table

Model	Screen Diag. & Aspect Ratio	View Width (A)	L/R Black Masking (A1)	Case Length (A2)	Weight Bar Length (A3)	Full Housing Length (A4)	View Height (B1)	Screen Fully Deployed Height (B5)	Top Black Masking Border (B2)	Screen Material to weight bar (B3)	Case Height (B4)	Overall Height (B)	Case Width (C)	Screen Material to wall Distance (C1)	C2	C3	C4
ITE84VW2-E30	84" (4:3)	1706	95	2072	2012	2022	1280	2142	762	100	118	3170	98	40	125	150	50
ITE100VW2-E20	100" (4:3)	2032	95	2397	2337	2347	1524	2132	508	100	118	3160	98	40	125	150	50
ITE120VW2-E10	120" (4:3)	2438	95	2820	2760	2770	1828	2182	254	100	118	3210	98	40	125	150	50
ITE84HW2-E30	84" (16:9)	1860	95	2225	2165	2175	1046	1908	762	100	118	2936	98	40	125	150	50
ITE100HW2-E24	100" (16:9)	2214	95	2580	2520	2530	1245	1955	610	100	118	2983	98	40	125	150	50
ITE108HW2-E24	106" (16:9)	2347	95	2710	2650	2660	1320	2030	610	100	118	3058	98	40	125	150	50
ITE120HW2-E20	120" (16:9)	2657	95	3022	2962	2972	1494	2102	508	100	118	3130	98	40	125	150	50
ITE135HW2-E12	135" (16:9)	2989	95	3360	3300	3310	1681	2086	305	100	118	3114	98	40	125	150	50
ITE94XW2-E30	94" (16:10)	2025	95	2397	2337	2347	1265	2127	762	100	118	3155	98	40	125	150	50
ITE108XW2-E24	108" (16:10)	2326	95	2710	2650	2660	1454	2164	610	100	118	3192	98	40	125	150	50
ITE114XW2-E20	114" (16:10)	2455	95	2820	2760	2770	1534	2142	508	100	118	3170	98	40	125	150	50
ITE126XW2-E14	126" (16:10)	2714	95	3080	3020	3030	1696	2152	356	100	118	3180	98	40	125	150	50
ITE139XW2-E8	139" (16:10)	2994	95	3360	3300	3310	1871	2174	203	100	118	3202	98	40	125	150	50
ITE95C-E30	95" (2.35:1)	2220	95	2580	2520	2530	945	1807	762	100	118	2835	98	40	125	150	50
ITE116C-E24	116" (2.35:1)	2710	95	3080	3020	3030	1153	1863	610	100	118	2891	98	40	125	150	50
ITE128C-E24	128" (2.35:1)	2991	95	3360	3300	3310	1272	1982	610	100	118	3010	98	40	125	150	50
ITE138C-E24	138" (2.35:1)	3225	95	3590	3530	3540	1372	2082	610	100	118	3110	98	40	125	150	50

Unit: mm

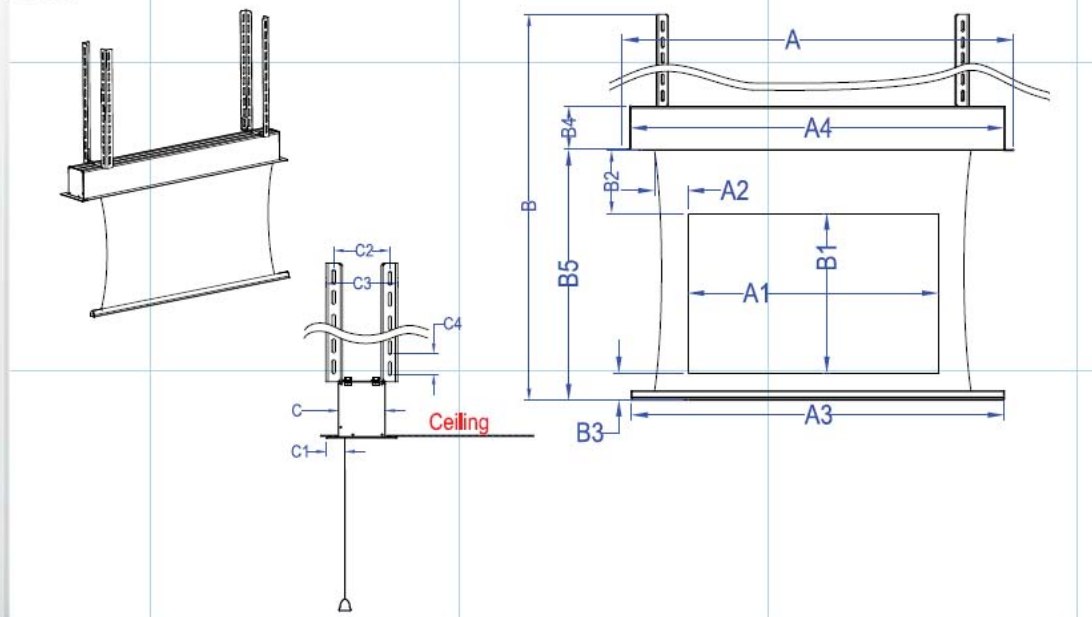
Can't find size and ratio you're looking for? Visit elitescreens.com/csr to create your own

Model	Screen Diag. & Aspect Ratio	View Width (A)	L/R Black Masking (A1)	Case Length (A2)	Weight Bar Length (A3)	Full Housing Length (A4)	View Height (B1)	Screen Fully Deployed Height (B5)	Top Black Masking Border (B2)	Screen Material to weight bar (B3)	Case Height (B4)	Overall Height (B)	Case Width (C)	Screen Material to wall Distance (C1)	C2	C3	C4
ITE84VW2-E30	84" (4:3)	67.2	3.7	81.6	79.2	79.6	50.4	84.3	30.0	3.9	4.6	124.8	3.9	1.6	4.9	5.9	2.0
ITE100VW2-E20	100" (4:3)	80.0	3.7	94.4	92.0	92.4	60.0	83.9	20.0	3.9	4.6	124.4	3.9	1.6	4.9	5.9	2.0
ITE120VW2-E10	120" (4:3)	96.0	3.7	111.0	108.7	109.1	72.0	85.9	10.0	3.9	4.6	126.4	3.9	1.6	4.9	5.9	2.0
ITE84HW2-E30	84" (16:9)	73.2	3.7	87.6	85.2	85.6	41.2	75.1	30.0	3.9	4.6	115.6	3.9	1.6	4.9	5.9	2.0
ITE100HW2-E24	100" (16:9)	87.2	3.7	101.6	99.2	99.6	49.0	77.0	24.0	3.9	4.6	117.4	3.9	1.6	4.9	5.9	2.0
ITE108HW2-E24	106" (16:9)	92.4	3.7	106.7	104.3	104.7	52.0	79.9	24.0	3.9	4.6	120.4	3.9	1.6	4.9	5.9	2.0
ITE120HW2-E20	120" (16:9)	104.6	3.7	119.0	116.6	117.0	58.8	82.8	20.0	3.9	4.6	123.2	3.9	1.6	4.9	5.9	2.0
ITE135HW2-E12	135" (16:9)	117.7	3.7	132.3	129.9	130.3	66.2	82.1	12.0	3.9	4.6	122.6	3.9	1.6	4.9	5.9	2.0
ITE94XW2-E30	94" (16:10)	79.7	3.7	94.4	92.0	92.4	49.8	83.7	30.0	3.9	4.6	124.2	3.9	1.6	4.9	5.9	2.0
ITE108XW2-E24	108" (16:10)	91.6	3.7	106.7	104.3	104.7	57.2	85.2	24.0	3.9	4.6	125.7	3.9	1.6	4.9	5.9	2.0
ITE114XW2-E20	114" (16:10)	96.7	3.7	111.0	108.7	109.1	60.4	84.3	20.0	3.9	4.6	124.8	3.9	1.6	4.9	5.9	2.0
ITE126XW2-E14	126" (16:10)	106.9	3.7	121.3	118.9	119.3	66.8	84.7	14.0	3.9	4.6	125.2	3.9	1.6	4.9	5.9	2.0
ITE139XW2-E8	139" (16:10)	117.9	3.7	132.3	129.9	130.3	73.7	85.6	8.0	3.9	4.6	126.1	3.9	1.6	4.9	5.9	2.0
ITE95C-E30	95" (2.35:1)	87.4	3.7	101.6	99.2	99.6	37.2	71.1	30.0	3.9	4.6	111.6	3.9	1.6	4.9	5.9	2.0
ITE116C-E24	116" (2.35:1)	106.7	3.7	121.3	118.9	119.3	45.4	73.3	24.0	3.9	4.6	113.8	3.9	1.6	4.9	5.9	2.0
ITE128C-E24	128" (2.35:1)	117.8	3.7	132.3	129.9	130.3	50.1	78.0	24.0	3.9	4.6	118.5	3.9	1.6	4.9	5.9	2.0
ITE138C-E24	138" (2.35:1)	127.0	3.7	141.3	139.0	139.4	54.0	82.0	24.0	3.9	4.6	122.4	3.9	1.6	4.9	5.9	2.0

Unit: inch

Can't find size and ratio you're looking for? Visit elitescreens.com/csr to create your own

The listed measurements are for general reference only. Please contact Elite Screens to verify product design and dimensions before attempting to integrate its products with any structural or furniture modification. Although a manufacturer may offer product advice, it may be taken or disregarded at the integrator's discretion. Elite Screens will not be held responsible or be otherwise liable for faulty installations.



REVISION SUMMARY

NONE		