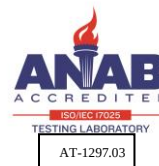




Test Report
4791664459v2.0
UL Solutions
72 West 64th Street
Suite 120
Holland, MI 49423
<https://www.ul.com/industries/products-and-components/furniture>



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Requester:	National Public Seating Corp. 149 Entin Road Clifton, NJ 07014
Contact Name:	Sherri Miller
Dates Tested:	02/27/25 – 03/10/25
Date Submitted:	03/12/25
Technician:	Ron Day, Matt Dekock
UL Order / Project Number:	15683567 / 4791664459

Scope: To evaluate the Music Chairs, supplied by National Public Seating Corp., by subjecting them to the following tests:

Requested Tests:

<u>Test Name</u>	<u>Requirement</u>
Backrest Strength - Static - Type III	ANSI/BIFMA X5.1-2017(R2022), Section 6
Drop Test - Dynamic	ANSI/BIFMA X5.1-2017(R2022), Section 7
Seating Durability Tests – Cyclic	ANSI/BIFMA X5.1-2017(R2022), Section 10
Stability Tests	ANSI/BIFMA X5.1-2017(R2022), Section 11
Backrest Durability Test - Cyclic - Type II and III	ANSI/BIFMA X5.1-2017(R2022), Section 15
Leg Strength Test – Front and Side Application	ANSI/BIFMA X5.1-2017(R2022), Section 17
Structural Durability Test	ANSI/BIFMA X5.1-2017(R2022), Section 24

Product Description:

<u>Specimen</u>	<u>Description</u>	<u>Received</u>	<u>Condition</u>	<u>Supplier</u>
8177638	Music Chair, Model 8210	02/26/25	New	National Public Seating Corp.
8177639	Music Chair, Model 8210	02/26/25	New	National Public Seating Corp.
8177641	Music Chair, Model 8210	02/26/25	New	National Public Seating Corp.

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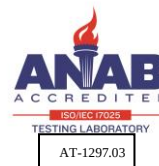
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Summary:

<u>Test Name</u>	<u>Specimen(s)</u>	<u>Results</u>
Backrest Strength - Static - Type III	8177638	Met Requirement
Drop Test - Dynamic	8177639	Met Requirement
Seating Durability Tests – Cyclic	8177638	Met Requirement
Stability Tests	8177638	Met Requirement
Backrest Durability Test - Cyclic - Type II and III	8177639	Met Requirement
Leg Strength Test – Front and Side Application	8177641	Met Requirement
Structural Durability Test	8177641	Met Requirement



Test Results:

Backrest Strength Test - Static - Type II and III:

Testing was performed per ANSI/BIFMA X5.1-2017(R2022), Section 6.

Notes:

- Functional load: 150 lbs. for 1 minute.
- Proof load: 225 lbs. for 1 minute.
- See photo for setup.



<u>Specimen</u>	<u>Load (lbs.)</u>	<u>Time (sec.)</u>	<u>Observations</u>
8177638	150	60	No loss of serviceability.
	225	60	No sudden and major change in structural integrity.

Requirement:

Functional Load: *There shall be no loss of serviceability to the chair.*

Proof Load: *There shall be no sudden and major change in the structural integrity of the chair.
Loss of serviceability is acceptable.*

Drop Test – Dynamic:

Testing was performed per ANSI/BIFMA X5.1-2017(R2022), Section 7.

Notes:

- Functional load: 225 lbs.
- Proof load: 300 lbs.
- See photo for setup.



<u>Specimen</u>	<u>Chair Height</u>	<u>Load (lbs.)</u>	<u>Observations</u>
8177639	Fixed	225	No loss of serviceability.
	Fixed	300	No sudden and major change in structural integrity.

Requirement:

Functional Load: *There shall be no loss of serviceability.*

Proof Load: *There shall be no sudden and major change in the structural integrity of the chair.
Loss of serviceability is acceptable.*

Seating Durability Tests – Cyclic:

Testing was performed per ANSI/BIFMA X5.1-2017(R2022), Section 10.

Notes:

- Impact test rate: 21 CPM.
- Load Ease test rate: 14 CPM.
- See photos for Drop Impact setup and Load Ease setups.



<u>Specimen</u>	<u>Segment</u>	<u>Cycles</u>	<u>Observations</u>
8177638	Impact	0	Test begun.
		100,000	No loss of serviceability.
	Load Ease	0	Test begun.
		20,000	No loss of serviceability.

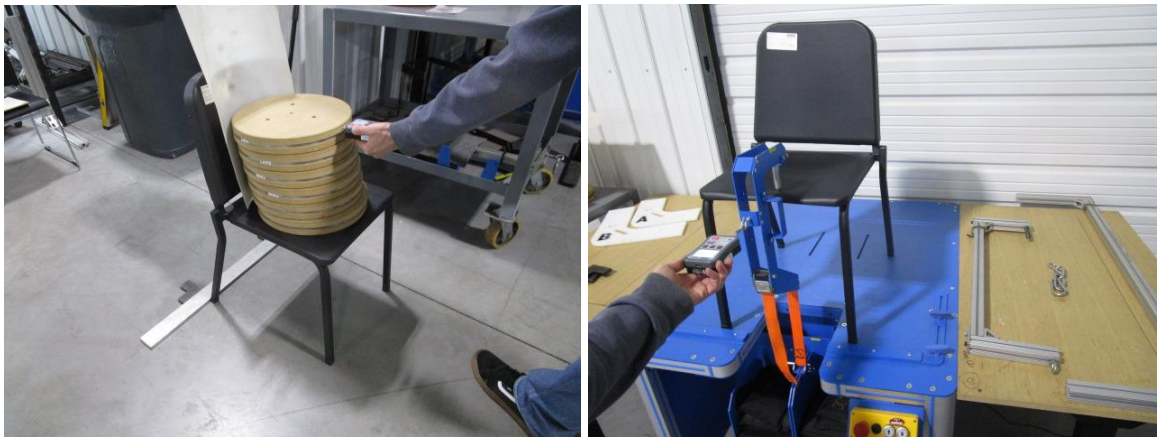
Requirement: *There shall be no loss of serviceability to the chair after completion of both the impact and load-ease tests. If applicable, the chair base (center structure) shall not touch the test platform as a result of the impact loads.*

Stability Tests:

Testing was performed per ANSI/BIFMA X5.1-2017(R2022), Section 11.

Notes:

- Rear calculation: $1.1(47-18) = 31.9$ lbs.
- See photos for setups.



Rear Stability:

<u>Specimen</u>	<u>Observations</u>
8177638	Type III – Unit tipped at 56.3 lbs. Unit passed 31.9 lb. minimum.
	Type I & II – N/A

Front Stability:

<u>Specimen</u>	<u>Force to Tip</u>
8177638	Unit tipped at 24.5 lbs. Unit passed 4.5 lb. minimum.

Requirement:

Rear Stability: The chair shall not tip over.

Front Stability: The chair shall not tip over as the result of the force application.

Backrest Durability Test - Cyclic - Type II and III:

Testing was performed per ANSI/BIFMA X5.1-2017(R2022), Section 15.

Notes:

- Test rate: 21 CPM.
- See photo for setup.



<u>Specimen</u>	<u>Segment</u>	<u>Cycles</u>	<u>Observations</u>
8177639	Center	0	Test begun.
		120,000	No loss of serviceability.

Requirement: *There shall be no loss of serviceability.*

Leg Strength Test – Front and Side Application:

Testing was performed per ANSI/BIFMA X5.1-2017(R2022), Section 17.

- See photo for setup.

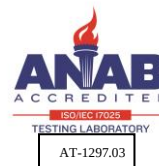


<u>Specimen</u>	<u>Load (lbf.)</u>	<u>Time (sec.)</u>	<u>Application</u>	<u>Observations</u>
8177641 / RF	75	60	Front	No loss of serviceability.
8177641 / LF	75	60	Front	No loss of serviceability.
8177641 / LF	75	60	Side	No loss of serviceability.
8177641 / LR	75	60	Side	No loss of serviceability.
8177641 / LR	113	60	Front	No sudden and major change in structural integrity.
8177641 / LF	113	60	Front	No sudden and major change in structural integrity.
8177641 / LF	113	60	Side	No sudden and major change in structural integrity.
8177641 / RF	113	60	Side	No sudden and major change in structural integrity.

Requirement:

Functional Load: Functional load(s) shall cause no loss of serviceability.

Proof Load: Proof load(s) shall cause no sudden and major change in the structural integrity of the chair. Loss of serviceability is acceptable.



Structural Durability Test:

Testing was performed per ANSI/BIFMA X5.1-2017(R2022), Section 24.

Notes:

- Test rate: 23 CPM.
- See photo for setup.



<u>Specimen</u>	<u>Cycles</u>	<u>Observations</u>
8177641	0	Begin test.
	25,000	No loss of serviceability.

Requirement: *There shall be no loss of serviceability.*

Revision History

<u>Version</u>	<u>Rev. Date</u>	<u>Change Control Comments</u>	<u>Approver</u>
1	03/12/25	Created document	Jason Wisniewski
2	03/12/25	Corrected dates tested	Jason Wisniewski

Written by Ron Day – Senior Laboratory Technician – Holland, MI
Reviewed by Jason Wisniewski – Lab Supervisor – Holland, MI
Approved by Jason Wisniewski – Lab Supervisor – Holland, MI

Version 2.0