

2002 STANDARD for

COMMERCIAL REFRIGERATED DISPLAY CASES



Standard 1200

IMPORTANT

SAFETY RECOMMENDATIONS

It is strongly recommended that the product be designed, constructed, assembled and installed in accordance with nationally recognized safety requirements appropriate for products covered by this standard.

ARI, as a manufacturers' trade association, uses its best efforts to develop standards employing state-of-the-art and accepted industry practices. However, ARI does not certify or guarantee safety of any products, components or systems designed, tested, rated, installed or operated in accordance with these standards or that any tests conducted under its standards will be non-hazardous or free from risk.

Note:

This is a new standard.

TABLE OF CONTENTS

SECTION		PAGE
Section 1.	Purpose.....	1
Section 2.	Scope.....	1
Section 3.	Definitions	1
Section 4.	Test Requirements	3
Section 5.	Rating Requirements for Remote Commercial Refrigerated Display Cases	3
Section 6.	Rating Requirements for Self-contained Commercial Refrigerated Display Cases	5
Section 7.	Symbols and Subscripts	6
Section 8.	Minimum Data Requirements for Published Ratings	7
Section 9.	Marking and Nameplate Data	7
Section 10.	Conformance Conditions	7

TABLES

Table 1.	<i>EER</i> and <i>COP</i> for Remote Commercial Refrigerated Display Cases	4
Table 2.	Motor Efficiency Values, η_m	4
Table 3.	Presentation of Data for Remote Commercial Refrigerated Display Cases	8
Table 4.	Presentation of Data for Self-contained Commercial Refrigerated Display Cases.....	8

APPENDICES

Appendix A.	References - Normative.....	9
Appendix B.	References - Informative	9
Appendix C.	Commercial Refrigerated Display Case Volume Calculation - Normative	10
Appendix D.	Example – Energy Performance Representation for a Remote Commercial Refrigerated Display Case - Informative.....	11
Appendix E.	Example – Energy Performance Representation for a Self-contained Commercial Refrigerated Display Case - Informative	14

TABLES FOR APPENDICES

Table D1.	Sample Presentation of Data for Remote Commercial Refrigerated Display Cases.....	13
Table E1.	Sample Presentation of Data for Self-contained Commercial Refrigerated Display Cases.....	14

FIGURE FOR APPENDICES

Figure C1.	Sample Cross Sections of Commercial Refrigerated Display Cases for Volumetric Calculation.....	10
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COMMERCIAL REFRIGERATED DISPLAY CASES

Section 1. Purpose

1.1 Purpose. The purpose of this standard is to establish for Commercial Refrigerated Display Cases: definitions; test requirements; rating requirements; symbols and subscripts; minimum data requirements for Published Ratings; marking and nameplate data; and conformance conditions.

1.1.1 Intent. This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors and users. The values reported using this standard allow comparison of energy consumption between Remote Commercial Refrigerated Display Cases or comparison of energy consumption between Self-contained Commercial Refrigerated Display Cases.

1.1.2 Review and Amendment. This standard is subject to review and amendment as technology advances.

Section 2. Scope

2.1 Scope. This standard applies to manufacturers' standard catalog Commercial Refrigerated Display Cases, provided that the cases are equipped and designed to work with electrically driven, direct expansion type systems:

- a. Self-contained and Remote Commercial Refrigerated Display Cases
- b. Open and Closed Commercial Refrigerated Display Cases
- c. Service and Self-service Commercial Refrigerated Display Cases

2.2 Exclusions. This standard does not apply to the following:

- a. Commercial Refrigerated Display Cases forming the front wall of a refrigerated storage room backed up to a walk-in cooler
- b. Miter transition display cases used as a corner section between two refrigerated display cases
- c. Floral merchandisers
- d. Commercial refrigerators or freezers that are used for storage of food products
- e. Refrigerated vending machines
- f. Ice makers
- g. Ice cream dipping cabinets
- h. Soft serve extruders
- i. Secondary coolant applications

Section 3. Definitions

All terms in this document shall follow the standard industry definitions in the current edition of *ASHRAE Terminology of Heating, Ventilation, Air Conditioning and Refrigeration* unless otherwise defined in this section.

3.1 Anti-condensate Energy Consumption (AEC). The total energy consumption used in condensate removal on the outside of the case, which typically includes fan and condensate heater energy, in kW·h/ft [kW·h/m] per day.

3.2 Calculated Daily Energy Consumption (CDEC). This is a value for Remote Commercial Refrigerated Display Cases based upon the requirements of this standard, expressed in kW·h/ft [kW·h/m] of refrigerated area per day.

3.3 Coefficient of Performance (COP). A ratio of the cooling capacity in watts [W] to the power input value in watts [W] at any given set of Rating Conditions, expressed in watts/watt [W/W].

3.4 Commercial Refrigerated Display Case. A cabinet cooled by a refrigerating system for displaying chilled and /or frozen food to be maintained within predescribed temperature limits.

3.4.1 Closed Commercial Refrigerated Display Case. A display refrigerator where product is accessible for removal by opening or moving doors or panels.

3.4.2 Open Commercial Refrigerated Display Case. A display refrigerator where product is accessible for removal without opening or moving doors or panels.

3.4.3 Remote Commercial Refrigerated Display Case. A refrigerated display case that has a remote condensing unit.

3.4.4 Self-contained Commercial Refrigerated Display Case. A refrigerated display case that has the condensing unit attached to the display case.

3.4.5 Self-service Commercial Refrigerated Display Case. A refrigerated display case, either open or closed, where food products are readily accessible and intended to be removed by the consumer.

3.4.6 Service Commercial Refrigerated Display Case. A refrigerated display case, either open or closed, where food products are readily accessible and intended to be removed by service personnel.