



REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 103246068

Date: October 12, 2017

REPORT NO. 103246068CRT-001a

**AIR LEAKAGE TESTS ON TWO
MODEL NUMBER 1282-21AT I.C. BOXES
WITH 1242-30 AND 1242-31**

RENDERED TO:

**TRIPAR INC.
9750 MAURICE DUPLESSIS
MONTREAL, QC H1C 1G1**

INTRODUCTION

This report gives the results of air leakage testing on two recessed lighting fixtures. The samples were selected and supplied by the client and received at the laboratory on August 14, 2017. The samples appeared to be in a new, unused condition.

AUTHORIZATION

Signed Intertek Quotation Number Qu-00817315

TEST METHOD

The specimens were tested in accordance with the ASTM Standard E283-04 "Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen."

This test method describes the leakage of air through a building component under controlled laboratory conditions. The test unit was sealed into a flow test chamber and a negative pressure of 75 pascals (1.57 lbs/ft²) was applied to the rear of the unit as per the requirements of WAC 51-11-0502 of the State of Washington. The airflow through the unit was measured in accordance with ASTM F558-03 "Standard Test Method for Measuring Air Performance of Vacuum Cleaners" and employed a plenum chamber built in accordance with ASTM F431-98 "Standard Specification for Air Performance Measurement Plenum Chamber for Vacuum Cleaners."

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program. Measurement uncertainty budgets have been determined for applicable test methods and are available upon request.



TEST METHOD – Cont.

The measurement conditions and limitations were in accordance with the following requirements:

Energy Star Program Requirements for Residential Light Fixtures “Recessed Downlight Fixtures – Air Tight For Restricted Air Movement”.

California Energy Commission 2005 Building Energy Efficiency Standards for residential and non residential buildings

WAC 51-11-0502 of the State of Washington

The airflow through the unit was measured utilizing ASTM F558-03 “Standard Test Method for Measuring Air Performance of Vacuum Cleaners” and employed a plenum chamber built in accordance with ASTM F431-98 “Standard Specification for Air Performance Measurement Plenum Chamber for Vacuum Cleaners.”

GENERAL

The pressure differential was measured across the plenum chamber’s orifice plate to determine airflow rate using a Dwyer Inclined Manometer, Model No. 400 and an Alnor Model 8530D-I ElectroManometer. Prior to the test, the face of the unit was sealed and a tare measurement was obtained for the flow measuring station to ensure accurate results.

DESCRIPTION OF TEST SPECIMENS

The test samples consisted of two Model Number 1282-21AT I.C. boxes with 1242-30 and 1242-31. Each sample measured 12 inches wide by 15 inches long by 11 ¼ inches high. The face had a 4 ¾ inch diameter cutout for the face trim piece. One sample had a 1486-1SPAT trim piece installed. Each sample was tested as received.

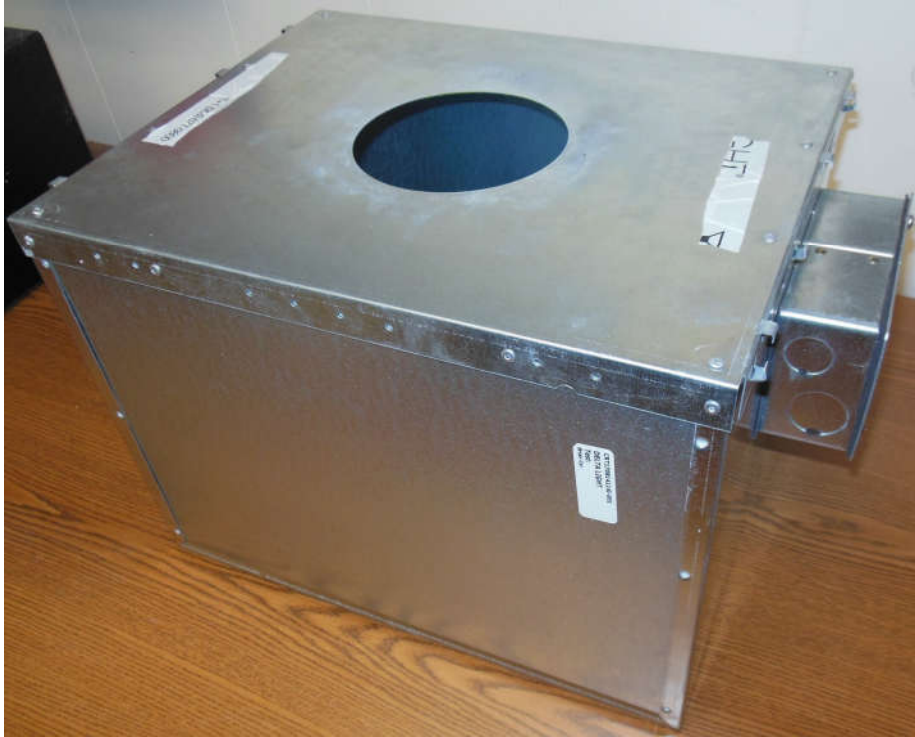
RESULTS OF TESTS

The following table gives a summary of the air leakage through the light fixtures with a 75 Pascal (1.57 lbs/ft²) pressure differential across the unit

<u>Sample</u>	<u>Airflow at 75 Pa (1.57 lbs/ft²) Pressure Differential (CFM)</u>	<u>Pass/Fail</u>
1282-21AT I.C. box with 1242-30 and 1242-31	0.18	Pass
1282-21AT I.C. box with 1242-30 and 1242-31 with 1486-1SPAT trim	0.17	Pass

PHOTOGRAPHS

1282-21AT I.C. box with 1242-30 and 1242-31



1282-21AT I.C. box with 1242-30 and 1242-31 with 1486-1SPAT trim





CONCLUSION

The maximum allowable leakage per publication WAC 51-11-0502 of the State of Washington is 2 CFM through the light fixture with a pressure differential of 75 pascals (1.57 lbs/ft²). The fixtures as received met the minimum leakage requirement.

Date of Tests: August 15, 2017

Report Approved by:

A handwritten signature in black ink that reads "Brian Cyr".

Brian Cyr
Engineer
Acoustical Testing

Report Reviewed By:

A handwritten signature in black ink that reads "James R. Kline".

James R. Kline
Engineer/Quality Supervisor
Acoustical Testing