

ICC-ES Report

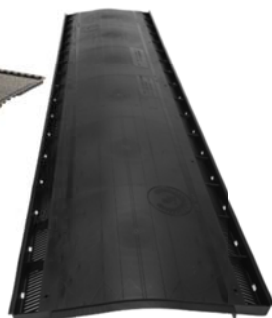
ESR-3482

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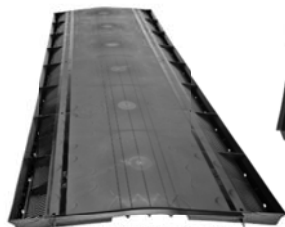
Reissued 11/2017
This report is subject to renewal 11/2018.



Lo-OmniRoll LOR-30



Lo-OmniRidge LOR9-4



OmniRidge OR-4



TileRidge TRV-4



TileInTake IV-9



Deck-Air DA-4

EVALUATION SUBJECT:

**LO-OMNIROLL LOR-30,
LO-OMNIRIDGE LOR9-4,
OMNIRIDGE OR-4,
TILERIDGE TRV-4,
TILEINTAKE IV-9 AND
DECK-AIR DA-4**

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

SECTION: 07 72 26—RIDGE VENTS

SECTION: 07 72 27—EAVE VENTS

Report Holder:

LOMANCO, INC.

2101 WEST MAIN STREET
JACKSONVILLE, ARKANSAS 72076

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ICC-ES Evaluation Report

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Section: 07 72 26—Ridge Vents
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REPORT HOLDER:

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EVALUATION SUBJECT:

LO-OMNIROLL LOR-30, LO-OMNIRIDGE LOR9-4,
OMNIRIDGE OR-4, TILERIDGE TRV-4, TILEINTAKE IV-9
AND DECK-AIR DA-4

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2012 and 2009 *International Building Code*® (IBC)
- 2012 and 2009 *International Residential Code*® (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Net free ventilation area
- Weather resistance
- Wind uplift resistance
- Fire classification

2.0 USES

The Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4, OmniRidge OR-4 and TileRidge TRV-4 ridge exhaust vents are used in conjunction with intake vents to provide natural ventilation of enclosed attic and rafter spaces in accordance with IBC Section 1203.2 and IRC Section R806. Lo-OmniRoll LOR-30 and OmniRidge OR-4 are for use beneath asphalt ridge cap shingles; Lo-OmniRidge LOR9-4 is for use beneath asphalt ridge cap shingles and flat concrete or clay roof tile; and TileRidge TRV-4 is for use beneath concrete and clay roof tiles.

The TileInTake IV-9 intake vent is used in conjunction with attic exhaust vents to provide natural ventilation of enclosed attic and rafter spaces beneath concrete and clay

roof tiles in accordance with IBC Section 1203.2 and IRC R806.

The Deck-Air DA-4 is a dual-purpose vent that functions as an intake or exhaust vent used in conjunction with attic vents to provide natural ventilation of enclosed attic and rafter spaces beneath asphalt shingles in accordance with IBC Section 1203.2 and IRC Section R806.

3.0 DESCRIPTION

3.1 Lo-OmniRoll LOR-30:

The Lo-OmniRoll LOR-30 ridge vent is a three-dimensional panel with internal baffles, an external baffle, and louvers that form an air-flow pathway for attic ventilation (see Figure 1). The vents are manufactured in 30-foot (9.1 m) rolls and are 14¹/₂ inches (368 mm) wide. The net free ventilation area (NFVA) is 11.0 square inches per lineal foot (23 284 mm²/m).

3.2 Lo-OmniRidge LOR9-4:

The Lo-OmniRidge LOR9-4 ridge vent is a three-dimensional panel with internal baffles, an external baffle, and louvers that form an air-flow pathway for attic ventilation (see Figure 2). The vents are 48 inches (1219 mm) long by 11³/₈ inches (289 mm) wide. The NFVA is 11.0 square inches per lineal foot (23 284 mm²/mm).

3.3 OmniRidge OR-4:

The OmniRidge OR-4 ridge vent is a three-dimensional panel with internal baffles, an external baffle and louvers that form an air-flow pathway for attic ventilation (see Figure 3). The vents are 48 inches (1219 mm) long by 15¹/₄ inches (387 mm) wide. The NFVA is 18.0 square inches per lineal foot (38 100 mm²/m).

3.4 TileRidge TRV-4:

The TileRidge TRV-4 ridge vent is a three-dimensional molded product that is installed on the side of the ridge beam beneath the concrete and clay roof ridge cap tiles. The vent forms an air-flow pathway for attic ventilation through openings along the length of the long edge (see Figure 4). The vents are 48 inches (1219 mm) long. The NFVA is 18 square inches per lineal foot (38 100 mm²/m) when installation is on both sides of the ridge beam.

3.5 TileInTake IV-9:

The TileInTake IV-9 intake vent is a three-dimensional panel, with internal baffles and external louvers along the length of one side, that forms an air-flow pathway for attic ventilation (see Figure 5). The vents are 48 inches (1219 m) long by 10¹/₈ inches (257 mm) wide. The NFVA is 9.0 square inches per lineal foot (19 050 mm²/m).

3.6 Deck-Air DA4:

The Deck-Air DA4 intake/exhaust vent is a three-dimensional panel with internal baffles, a partial external baffle, louvers and an internal mesh that forms an air-flow pathway for attic ventilation (see Figure 6). The vents are 48 inches (1219 mm) long by 13¹/₄ inches (336 mm) wide. The NFVA is 9.0 square inches per lineal foot (19 050 mm²/m).

3.7 Material:

The vents are made from polypropylene classified as a CC2 plastic under IBC Section 2606.4.

4.0 DESIGN AND INSTALLATION

4.1 Design:

The required ventilation area must be determined and sufficient ventilating panels must be installed to provide ventilation in accordance with IBC Section 1203.2 or IRC Section R806, as applicable. Each vent is marked with the NFVA it provides when installed in accordance with this report.

4.2 Installation:

Installation of the Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4, OmniRidge OR-4, and TileRidge TRV-4 ridge vents, TileIntake IV-9 intake vent and Deck-Air DA4 intake/exhaust vent must comply with this report, the manufacturer's published installation instructions and the applicable code. For the TileIntake IV-9 intake vent and Deck-Air DA4 intake/exhaust vent, there must be nothing within the attic rafter spaces that blocks the free flow of air between the intake vents and the exhaust or ridge vents.

4.2.1 Installation of Ridge Vents: Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4 and OmniRidge OR-4 ridge vents are used where the minimum roof slope is 3:12 (25 percent) and the maximum roof slope is 16:12 (133 percent).

Where there is a ridge board, the Lo-OmniRoll LOR-30 and Lo-OmniRidge LOR9-4 ridge vents are applied over a vent opening measuring at least 2³/₄ inches (69.9 mm) and not more than 3¹/₄ inches (82.6 mm) in width. Where there is no ridge board, the Lo-OmniRoll LOR-30 and Lo-OmniRidge LOR9-4 ridge vents are applied over a vent opening measuring at least 1¹/₄ inches (31.8 mm) and not more than 1³/₄ inches (44.5 mm) wide that is centered on the apex of the ridge.

Where there is a ridge board, the OmniRidge OR-4 ridge vent is applied over a vent opening measuring at least 3 inches (76.2 mm) and not more than 3¹/₄ inches (82.6 mm) in width. Where there is no ridge board, the OmniRidge OR-4 is applied over a vent opening measuring at least 1¹/₂ inches (38.1 mm) and not more than 1³/₄ inches (44.5 mm) wide that is centered at the apex of the ridge.

The last 6 inches (152 mm) of sheathing, inside the exterior wall line at each end of the ridge, must be left uncut. The ridge vent must overlap the roof shingles and be positioned to extend at least 6 inches (152 mm) past the end of the vent opening. The ridge vents are centered over the vent opening and fastened to the roof deck with No. 11 gage, corrosion-resistant roofing nails. The Lo-OmniRoll LOR-30 and Lo-OmniRidge LOR9-4 ridge vents must be installed using minimum 1³/₄-inch-long (44.5 mm) nails. The OmniRidge OR-4 ridge vent must be installed using minimum 2¹/₂-inch-long (63.5 mm) nails. The ridge vents must be secured at marked locations on both sides of the ridge vents. Ridge vents must be joined

by butting the ends together with no gaps between sections. When installation is performed in cold weather, a gap of ¹/₈ inch (3.18 mm) between sections is recommended for thermal expansion. The ridge vent must be completely covered by the ridge cap shingles. Ridge cap shingles must be nailed in place with No. 11 gage, corrosion-resistant roofing nails with ³/₈-inch-diameter (9.5 mm) heads, penetrating ³/₄-inch (19.1 mm) into or through the sheathing, whichever is less.

The LOR9-4 ridge vent may be used on flat clay or concrete roof tile but felt paper must be used on top of the LOR9-4 prior to installing the cap tiles.

The TileRidge TRV-4 ridge vent may be installed beneath concrete and clay roof ridge cap tiles where the minimum roof slope is 3:12 (25 percent) and the maximum roof slope is 8:12 (66.7 percent).

The Tile Ridge TRV-4 ridge vent is applied over a vent opening measuring ³/₄ inch (19.1 mm) wide on each side of the ridge board. The last 6 inches (152 mm) of sheathing, inside the exterior wall line at each end of the ridge, must be left uncut. The ridge vent must overlap the tile roof underlayment and be positioned to extend at least 6 inches (152 mm) past the end of the vent opening. The ridge board must be installed to the proper height based on the roof slope. Sealant is applied under both the top and bottom flanges of the ridge vent. Using the pre-marked nail locations, the TileRidge TRV-4 ridge vent is installed using No. 11 gage, corrosion-resistant roofing nails. The vent is secured to one side of the ridge board using nails at least 1³/₄ inches (44.5 mm) long. The top flange is secured to the top of the ridge board and the bottom flange to the roof sheathing using nails at least ³/₄ inches (19.1 mm) long. Ridge vents must be joined by butting the ends together and applying sealant with no gaps between sections. When installation is performed in cold weather, a gap of ¹/₈ inch (3.18 mm) between sections is recommended for thermal expansion. The installation of the ridge vent is then repeated on the other side of the ridge board. Sealant is applied at each end wall of the installed vent. The installed sections of the TileRidge TRV-4 ridge vent must be sealed along the top flange, at each butt joint and on each end by applying a minimum of 3-inch-wide (76.2 mm) aluminum-backed peel and seal tape or roofing mastic. The last row of field tiles and weather blocking material is installed, ensuring that the air flow path to the vent louvers and weep holes is not blocked. A minimum 1¹/₂-inch (38.1 mm) gap must be left between the bottom of the cap tiles and the top of the field tiles. The cap tiles must be installed in accordance with the concrete or clay roof tile manufacturer's published installation instructions and the applicable code.

4.2.2 Installation of Intake and Exhaust Vents:

4.2.2.1 Installation of TileIntake IV-9: The TileIntake IV-9 vent may be installed beneath concrete and clay roof tiles where the minimum roof slope is 3:12 (25 percent).

The TileIntake IV-9 vent is applied over a vent opening measuring 1¹/₄ inches (31.8 mm) wide that is positioned 6¹/₄ inches (159 mm) above the top edge of the lower batten or field tile and a minimum of 6 inches (152 mm) inside the exterior wall line. The TileIntake IV-9 is installed as a single vent or two vents. For a single-vent installation, the vent opening should be 36 inches (914 mm) long. For a two-vent installation, the vent opening should be 84 inches (2134 mm) long. Consecutive vent openings should be horizontally spaced a minimum of 18 inches (457 mm) apart so a 6-inch (152 mm) gap is left between venting

locations. The TileInTake IV-9 must overlap the tile roof underlayment and be positioned to extend at least 6 inches (152 mm) past the end of the vent opening. Sealant is applied beneath the top flange and the TileInTake IV-9 is applied by centering the vent horizontally over the vent opening with the top edge of the upper flange 3 inches (76.2 mm) above the top edge of the vent opening. When two vents are installed by butting together, in cold weather, a gap of $\frac{1}{8}$ inch between sections is recommended for thermal expansion. The vent is fastened to the roof deck at the pre-marked nail locations with No. 11 gage, corrosion-resistant roofing nail. The top flange is secured using a minimum $\frac{3}{4}$ -inch-long (19.1 mm) nail and the vent body is secured using a minimum 2-inch-long (51 mm) nail. Sealant is applied to each end and at the butt joint if two vents are installed. The installed sections of the TileInTake IV-9 must be sealed along the top flange, on each end and at each butt joint, if two vents are used, by applying a minimum 3-inch-wide (76.2 mm) aluminum-backed peel-and-seal tape or a roofing mastic. Alternatively, roof tile underlayment may be placed over the top flange provided the underlayment overlaps the flange by 2 inches (51 mm) and extends at least 6 inches (152 mm) past the end of the vent. The concrete and clay roof tiles must be installed in accordance with the tile manufacturer's published installation instructions and the applicable code over the top of the TileInTake IV-9 vent.

4.3 Installation Deck-Air DA-4:

The Deck-Air DA-4 vent is used where the minimum roof slope is 3:12 (25 percent) and the maximum roof slope is 16:12 (133 percent).

The Deck-Air DA-4 intake/exhaust vent is applied over a 1-inch-wide (25.4 mm) vent opening located 6 to 7 inches (152 to 178 mm) above the front edge of the drip edge or above the shingle exposure line. For a straight termination, the end of the vent opening should be at least 6 inches (152 mm) from the inside of the exterior wall. For a tapered termination, the end of the vent opening should be at least 18 inches (457 mm) from the inside of the exterior walls, hips, valleys or any structure that penetrates the roof. For a straight termination, the Deck-Air DA-4 must extend at least 6 inches (152 mm) beyond the vent opening. For installation along the eave, the drip edge and underlayment must be installed first, and then the Deck-Air DA-4 intake/exhaust vent is aligned with the front edge of the drip edge and so as to overlap the drip edge and underlayment. For installation up from the eave above the attic floor insulation and in the upper portion of the roof, the Deck-Air DA-4 should be aligned with the shingle exposure line. The Deck-Air DA-4 is placed over the vent opening and fastened to the roof deck at the pre-marked nail locations with No. 11 gage, corrosion-resistant roofing nails. The Deck-Air DA-4 is secured using minimum $2\frac{1}{2}$ -inch-long (64 mm) nails. Consecutive vents are installed with a gap of $\frac{1}{8}$ inch (3.18 mm) between sections to allow for thermal expansion. Underlayment is installed over the vent in such a manner as to ensure that the bottom edge is aligned with the shingle stop tabs on top of the DA-4. The starter and first course of shingles are installed in such a manner as to ensure that the bottom edges are aligned with the shingle stop tabs on top of the Deck-Air DA-4 intake/exhaust vent. The starter and first course of shingles should be installed with minimum $2\frac{1}{2}$ -inch-long (64 mm) nails. The ventilation louvers on top of the Deck-Air DA-4 intake/exhaust vent must not be covered.

4.4 Fire Classified Roof Coverings:

The Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4, OmniRidge OR-4, and TileRidge TRV-4 ridge vents, TileInTake IV-9 intake vent and Deck-Air DA-4 intake/exhaust vent are limited to installation with nonclassified roof coverings unless the following conditions are met:

- The vents must not be installed where roofs are required to have a fire-resistance rating unless the building is equipped throughout with an automatic sprinkler system in accordance with IBC Section 903.3.1.1.
- The maximum area of a continuous ridge vent is 100 square feet (9.29 m²) and the aggregate area of the vents and any light-transmitting roof panels must not exceed 25 percent of the floor area served.
- Individual vents must be separated from each other and any light-transmitting roof panels by a distance of not less than 4 feet (1.22 m) measured in the horizontal plane, unless the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the IBC.
- The vents must not be installed within 6 feet (1830 mm) of any exterior wall required by Section 705.8 of the IBC to have protected wall openings.

4.5 Wind Resistance:

Under the 2012 IBC the Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4, OmniRidge OR-4, TileRidge TRV-4 and Deck-Air DA-4 roofing vents, installed as described in Section 4.2, are permitted to be installed in areas having an ultimate design wind speed of 130 mph (209 km/hr) on structures having a mean roof height of 40 feet (12.2 m) or less in Exposure D areas.

Under the 2012 IRC, 2009 IBC and 2009 IRC the Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4, OmniRidge OR-4, TileRidge TRV-4 and Deck-Air DA-4 roofing vents, installed as described in Section 4.2, are permitted to be installed in areas having a maximum basic wind speed of 100 mph (161 km/h), on structures having a mean roof height of 40 feet (12.2 m) or less in Exposure D areas.

Under the 2012 IBC the TileInTake IV-9, installed as described in Section 4.2, is permitted to be installed in areas having an ultimate design wind speed of 130 mph (209 km/hr) on structures having a mean roof height of 40 feet (12.2 m) or less in Exposure B areas.

Under the 2012 IRC, 2009 IBC and 2009 IRC the TileInTake IV-9 intake vent, installed as described in Section 4.2, is permitted to be installed in areas having a maximum basic wind speed of 100 mph (161 km/hr) on structures having a mean roof height of 40 feet (12.2 m) or less in Exposure B areas.

5.0 CONDITIONS OF USE

The Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4, OmniRidge OR-4, TileRidge TRV-4 ridge vents, TileInTake IV-9 intake vent and Deck-Air DA-4 intake/exhaust vent described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The ridge vents, intake vent and intake/exhaust vent must be installed in accordance with this report and

the report holder's published installation instructions. The report holder's published installation instructions must be available on the jobsite at all times during construction. In the event of conflict between the report holder's published instructions and this report, this report governs.

- 5.2 The Lomanco roofing vents are limited to installation on roofs having a minimum slope of 3:12 (25 percent).
- 5.3 The Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4 OmniRidge OR-4 and TileRidge TRV-4 ridge vents, TileInTake IV-9 intake vent and Deck-Air DA-4 intake/exhaust vent are limited to installation with nonclassified roof coverings unless installed in accordance with Section 4.4.
- 5.4 Use of the Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4, OmniRidge OR-4, TileRidge TRV-4 ridge vents, TileInTake IV-9 intake vent and Deck-Air DA-4 intake/exhaust vent is not permitted in Groups H, I-2 and I-3 occupancies.
- 5.5 Where roof diaphragm continuity is affected by the installation of Lo-OmniRoll LOR-30, Lo-OmniRidge LOR9-4, OmniRidge OR-4, TileRidge TRV-4 ridge

vents, TileInTake IV-9 intake vent and Deck-Air DA-4 intake/exhaust vent, roof diaphragm nailing requirements must be addressed in accordance with the applicable code, and the vent installation must be approved by the code official.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Attic Vents (AC132), dated February 2010 (editorially revised May 2016).

7.0 IDENTIFICATION

Labels on the packages of these vents bear the report holder's name (Lomanco, Inc.) and address, the Lomanco product name, and the ICC-ES evaluation report number (ESR-3482). Each individual vent is identified with the report holder's name (Lomanco, Inc.) or logo, the ICC-ES evaluation report number (ESR-3482), and the net free ventilation area.

LOMANCO RIDGE VENTS

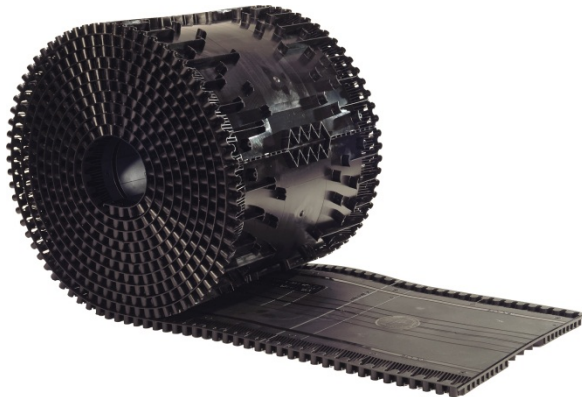


FIGURE 1—LO-OMNIROLL LOR-30



FIGURE 2—LO-OMNIRIDGE LOR9-4



FIGURE 3—OMNIRIDGE OR-4



FIGURE 4—TILERIDGE TRV-4

LOMANCO INTAKE AND EXHAUST VENTS



FIGURE 5—TILEINTAKE VENT IV-9



FIGURE 6—DECK-AIR DA-4