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## CERTIFICATE OF CONFORMITY

To ICAO Annex 14 – Fifth edition Standards and recommended practices The CIE Publication n° 15, Colorimetry Cenelec ENV 50235 NATO STANAG 3316

The undersigned, Marc Ragoen, acting within the scope of the General Conditions of BUREAU VERITAS, certifies herewith the supply of

# Product: Guidance Signs type RPV

- was found in conformity with:

- the request of inspection from ADB/ZAVENTEM
- the catalogue sheet A.04.260 (PVL & RPV)

- Date of inspection: May 17th, 2011

and has been, upon request of:

ADB

Leuvensesteenweg, 585 B – 1930 ZAVENTEM/BELGIUM

- inspected in conformity with the applicable requirements of

- the ICAO Annex 14 Volume I Appendix 1- § 5.4 & Appendix 4
  - the CIE Publication n° 15, Colorimetry
  - The ICAO Aerodrome Design Manual Part 6
  - The FAA AC 150/5345-44 specification for frangibility Mode 2: 322 kph
  - Cenelec ENV 50235
  - OTAN STANAG 3316

Issued at Antwerp, May 17<sup>th</sup>, 2011

Marc Ragoen Surveyor BUREAU VERITAS ANTWERP

M. RAGOEN VERITAS

Particulars of inspection: detailed hereafter

This certificate is only valid for a period of 3 years from the issuance date, as far as no changes of production process, equipment characteristics nor of applicable requirements occur during this period of validity.



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### PHOTOMETRY and COLORIMETRY ACCORDING ICAO REQUIREMENTS

- Attendance of luminance tests on samples of RPV and PVL panels at the Laboratory premises of the manufacturer:
  - Examination of test equipment
  - o Attendance to photometric tests according to the applicable procedures
- Test results are detailed in the attached records, annexed herewith
- Details of the Colorimetry tests witnessed by Bureau Veritas per:
  - ICAO Annex 14 Volume 1, Edition 5 §5.4
  - ICAO Annex 14 Volume 1, Appendix 4
  - ICAO Annex 14 Volume 1, Appendix 1, §3 Fig.A1-10

#### FRANGIBILITY ACCORDING ICAO REQUIREMENTS

 Frangibility test using the Sand Bag procedure making sure that the sign and its footing does not collapse nor give way with a load of 6.21 kPa and making sure that the footing breaks neatly at the notched groove under a load of 8.96 kPa, leaving less than 50 mm of section above the pavement level. See the PVO-PVH-PVL CoCs and test reports he frangibility certification is limited to the afore mentioned ADB signs, for other makes the actual frangibility as designed by the OEM applies.

#### CONCLUSION

Taking into account the satisfactory results of examinations and assessments, it can be confirmed that the manufacturing and the test results for the above specified units are in conformity with applicable standards, specifications and data sheets.

(Details of standards and specifications are indicated on page 1 of this certificate and data sheet as per catalogue).

#### ENCLOSURE

Report of tests which have been attended, duly stamped for identification by BUREAU VERITAS:

- Luminance factors (day condition) of different colours for transilluminated signs following CIE Publication n° 15 and DIN5033 Part 7
- Luminance & color point test for night operation
- Frangibility per FAA AC 150/5345-44 Mode 2 & ICAO Aerodrome design Manual Part 6

RAGOEN

Marc Ragoen Surveyor

UVERITABUREAU VERITAS ANTWERP

- \* Red Background and White characters,
- \* Black Background and Yellow characters,
- \* Yellow Background and Black characters,

Chrominance measurement on the reference panels per attached test report

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