



CERTIFICATE NUMBER

DATE

07-LD219463-PDA

08 March 2007

ABS TECHNICAL OFFICE

London Ship Engineering

# CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of  
**Hadar Lighting Ltd**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Lighting, Hazardous Location Fluorescent Fixture

MODEL: HDL100; 2 x 18W, 2 x 36W, 2 x 58W  
HDL100S - standard version  
HDL100E - version with integral battery

ABS RULE: Steel Vessel Rules (2007) 1-1-4/7.7, 4-8-3/1 and 4-8-3/13

OTHER STANDARD: EN 60079-0, EN 60079-7, EN 60079-18, ATEX Directive 94/9/EC - Certificate numbers 06ATEX3079X and IEC Ex SIR 06.0026X issued by SIRA;

AMERICAN BUREAU OF SHIPPING

Jean-Claude G. Dennemont

Engineering Type Approval Co-ordinator

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**Product:** Lighting, Hazardous Location Fluorescent Fixture

**Model:** HDL100; 2 x 18W, 2 x 36W, 2 x 58W  
HDL100S - standard version  
HDL100E - version with integral battery

**Intended Service:**

Fluorescent luminaires intended for use in Non-hazardous and Hazardous Areas Zone 1 Gas and Dust

**Description:**

Enclosure protection: IP 66/67,  
Rated voltage: 220-254 V, 47/63 Hz, 110-130 V 47/63 Hz (2 x 18W/ 2 x 36W only),  
Ambient temperature: -30 to +55 C,  
Ex emb II T5 (-30 to +32 C), Ex emb II T4 (-30 to +55 C); 2 x 18W & 2 x 36W,  
Ex emb II T4 (-30 to +53 C); 2 x 58W

**Ratings:**

Not Applicable

**Service Restrictions:**

Unit Certification is not required for this product.

**Comments:**

Installation in Hazardous Areas is to be in accordance with 4-8-4/27 and 5-1-7/31 of our Rules.

**Notes/Documentation:**

This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

**Term of Validity:**

This Design Assessment Certificate number 07-LD219463-PDA, dated 08/Mar/2007 will expire on 07/Mar/2012 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2008, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

**STANDARDS**

**ABS Rules:**

Steel Vessel Rules (2007) 1-1-4/7.7, 4-8-3/1 and 4-8-3/13

**International:**

EN 60079-0, EN 60079-7, EN 60079-18, ATEX Directive 94/9/EC - Certificate numbers 06ATEX3079X and IEC Ex SIR 06.0026X issued by SIRA

