CERTIFICATE NUMBER
18-HS1714275-PDA

DATE
01 Mar 2018

ABS TECHNICAL OFFICE
Houston ESD - Electrical

CERTIFICATE OF
Design Assessment

This is to certify that a representative of this Bureau did, at the request of

APPLETON GROUP

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.

Product: **Lighting Fixtures, LED, Hazardous Area**
Model: **AMLH Series**

This Product Design Assessment (PDA) Certificate 18-HS1714275-PDA, dated 01/Mar/2018 remains valid until 28/Feb/2023 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING

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Tier: 2 - PDA Issued

Product: **Lighting Fixtures, LED, Hazardous Area**
Model: **AMLH Series**
Intended Service:
Marine and Offshore Installations, Hazardous Locations.

Description:
Areamaster™ Generation II LED high lumen floodlights for hazardous locations (Class I, Division 2 or Zone 2).
Construction: Copper-free aluminum housing and lens door, clear or frosted glass lens, silicone rubber gasket, zinc plated HR steel yoke.

Rating:
Hazardous Area Classification: Class I, Div. 2, Group A, B, C, D; Class I, Zone 2, Group IIC;
Enclosure: NEMA type 3R, 4, 4X, IP66/67;
Ambient Temperature Range: -40°C to +65°C (-40°F to +149°F);
Input Voltage: 120-277Vac, 50/60Hz and 170Vdc-300Vdc; 347-480Vac, 50/60Hz;
Nominal Output: 24,000, 30,000 or 38,000 lumens
See attached document for additional details

Service Restriction:
Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:
The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
See attached document for additional details

Notes/Drawing/Documentation:
Brochure, Areamaster Generation 2 HL (High Lumen) LED Luminaire Floodlight for Hazardous Locations;
Certificate No. 70073613, CSA Certificate of Compliance, Date issued: 2016-11-18;
Report 70073613, CSA Descriptive Report & Test Results for Areamaster Series AMLH and Baymaster Series BHL;
Test Report TR-20161002-2, test for compliance with the Moisture Resistance requirements in accordance with UL 1598A, Section 16. (Dated 2016-10-02)

Terms of Validity:
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STANDARDS

APPLETON GROUP
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ABS Rules:
2018 Steel Vessel Rules 1-1-4/7.7, 1-1-Appendix 3, 1-1-Appendix 4, 4-8-3/1.3, 4-8-3/1.7, 4-8-3/1.9, 4-8-3/1.11.1, 4-8-3/1.17.1, 4-8-3/13.3.2, 4-8-3/13.3.3;
2018 MODU Rules 1-1-4/9.7, 1-1-Appendix 2, 1-1-Appendix 3, 4-3-1/9, 4-3-1/11, 4-3-1/15, 4-3-1/17, 4-3-3/9.1.2, 4-3-3/9.1.3

National:
UL Standards:
UL 844:2015 - Luminaires for Use in Hazardous Locations, Thirteenth Edition;
UL 1598:2012 - Luminaires, Third Edition;
UL 1598A:2014 - Luminaires for Installation on Marine Vessels, First Edition;
UL 8750:2015 - LED Equipment for Use in Lighting Products, Second Edition
CSA Standards:
CSA C22.2 No. 250:2013 - Luminaires;
CSA C22.2 No. 137-M1981:2014 - Luminaires for Use in Hazardous Locations

International:
NA

Government:
NA

EUMED:
NA

OTHERS:
NA