[1] # TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

[3] Type Examination Certificate Number: **UL 21 ATEX 2508X Rev. 0**

[4] Product: **LED Luminaires, Model HLS28**

[5] Manufacturer: **Banner Engineering Corp.**

[6] Address: **9714 10th Ave. North, Minneapolis, MN 55441 USA**

[7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential report no. **US/UL/ExTR21.0007/00.**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0:2018** **EN IEC 60079-7: 2015 +A1:2018**

except in respect of those requirements listed at item 18 of the Schedule.

[10] If the sign "**X**" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.

[12] The marking of the product shall include the following:

**II 3 G Ex ec IIC T4 Gc**

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**Certification Manager**
Jan-Erik Storgaard



This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

**Date of issue:** 2021-10-25

**Certification Body** UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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BANNER P/N
2223 Rev. -


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# Schedule
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[15] Description of Product

Luminaire models HLS28 Series are linear LED luminaires intended for adjustable wall or ceiling mounting. The luminaires are provided in different lengths and different LED colors. Mounting brackets are provided for proper installation.

Nomenclature:

Single Color Models

| | |
|---|---|
| I. | Series Designation:<br><br>HLS28 – Basic series designation for single color luminaires |
| II. | Cascadable<br><br>C - Cascadable<br>X – Non-cascadable |
| III. | LED Color<br><br>W = Cool White<br>WW = Warm White<br>R = Red<br>G = Green<br>B = Blue<br>Y = Yellow |
| IV. | Luminaire Length<br><br>145 = 145mm<br>285 = 285mm<br>430 = 430mm<br>570 = 570mm<br>710 = 710mm<br>850 = 850mm<br>990 = 990mm<br>1130 = 1130mm |
| V. | Window<br><br>Blank = Clear plastic<br>D = Diffused plastic |
| VI. | Construction<br><br>X = Not sealed<br>S = Sealed |
| VII. | Control<br>Blank = None<br>M = Motion switch |
| VIII. | Connector<br><br>Blank = 2m integral cable<br>Q = Integral 4-pin M12 QD<br>W/XX = cabled unit with length XX feet |
| IX | -xxxxxxx = All models may have prefixes and/or suffixes of up to seven alphanumeric characters not impacting hardware or emission profile, or product safety approval. |

Three to five color models

| | |
|---|---|
| I. | Series Designation:<br><br>HLS28 – Basic series designation for three to five color luminaires |
| II. | Cascadable<br><br>C - Cascadable<br>X – Non-cascadable |
| III. | LED Color 1-5 and Control<br><br>WGRXX3 = White, Green, and Red with override control<br>GYRXX3 = Green, Yellow, and Red with override control<br>WYRXX3 = White, Yellow, and Red with override control<br>WGRYB5 = White, Green, Red, Yellow, and Blue with binary control<br>WGRXX6 = White, Green, and Red with I/O Block control<br>WYRXX6 = White, Yellow, and Red with I/O Block control<br>GYRXX6 = Green, Yellow, and Red with I/O Block control |


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| | |
|---|---|
| IV. | Luminaire Length<br><br>0285 = 285mm<br>0570 = 570mm<br>0850 = 850mm<br>1130 = 1130mm |
| V. | Window<br><br>Blank = Clear plastic<br>D = Diffused plastic |
| VI. | Construction<br><br>X = Not sealed<br>S = Sealed |
| VII. | Voltage<br><br>24 = 24V |
| VIII. | Connector<br><br>Blank = 2m integral cable<br>Q = Integral 4-pin M12/Euro-style quick disconnect<br>W/XX = cabled unit with length XX feet |
| IX | -xxxxxxx = All models may have prefixes and/or suffixes of up to seven alphanumeric characters not impacting hardware or emission profile, or product safety approval. |

Performance testing

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 2) to the scope of EN 60079-28:2015 .

Temperature range

The relation between the ambient temperature and the assigned temperature class is as follows:

| **Ambient temperature range** | **Temperature Class** |
|---|---|
| -20 °C ≤ Ta ≤ +60 °C (for models with motion sensor) | T4 |
| -20 °C ≤ Ta ≤ +70 °C (for all other models) | T4 |

Electrical Ratings

HLS28 Series:

| | Voltage | | Voltage | | Voltage | |
|---|---|---|---|---|---|---|
| | 12 Vdc | | 24 Vdc | | 30 Vdc | |
| Light Length mm | Current A | Watt W | Current A | Watt W | Current A | Watt W |
| 145 | 0.5 (0.366) | 6 (4.392) | 0.25 (0.198) | 6 (4.75) | 0.2 (0.164) | 6 (4.92) |
| 285 | 0.75 | 9 | 0.375 | 9 | 0.3 | 9 |
| 430 | 1.25 | 15 | 0.625 | 15 | 0.5 | 15 |
| 570 | 1.5 | 18 | 0.75 | 18 | 0.6 | 18 |
| 710 | 2 | 24 | 1 | 24 | 0.8 | 24 |
| 850 | 2.25 | 27 | 1.125 | 27 | 0.9 | 27 |
| 990 | 2.75 | 33 | 1.375 | 33 | 1.1 | 33 |
| 1130 | 3 (2.546) | 36 (30.55) | 1.5 (1.223) | 36 (29.35) | 1.2 (0.998) | 36 (29.98) |

Note - Measured value in parenthesis.

HLS28-2 Single Color Series:

| Light Length mm | Rated Voltage (V dc) | Maximum Rated Current (A) |
|---|---|---|
| 145 | 12-30 Vdc | 0.4 A |
| 285 | | 0.8 A |
| 430 | | 1.2 A |
| 570 | | 1.6 A |
| 710 | | 2.0 A |
| 850 | | 2.4 A |
| 990 | | 2.8 A |
| 1130 | | 3.2 A |


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HLS28 (three-five color) Series:

| Light Length mm | Voltage | | | |
|---|---|---|---|---|
| | 12 Vdc | | 24 Vdc | |
| | Current A | Watt W | Current A | Watt W |
| 0145 | 0.4 | 4.8 | 0.2 | 4.8 |
| 0285 | 0.8 | 9.6 | 0.4 | 9.6 |
| 0430 | 1.2 | 14.4 | 0.6 | 14.4 |
| 0570 | 1.6 | 19.2 | 0.8 | 19.2 |
| 0710 | 2.0 | 24.0 | 1.0 | 24.0 |
| 0850 | 2.4 | 28.8 | 1.2 | 28.8 |
| 0990 | 2.8 | 33.6 | 1.4 | 33.6 |
| 1130 | 3.2 | 38.4 | 1.6 | 38.4 |

Routine tests
None

[16] Descriptive Documents
The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this EU-Type Examination Certificate.

[17] Specific conditions of use:

- Must be installed within an enclosure only accessible with a tool, such as a key, and appropriately rated for the application and the environment.
- The luminaires shall be installed in an enclosure that provides a degree of protection not less than IP54 in accordance with EN 60079-0.

[18] Essential Health and Safety Requirements
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9

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The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.


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