HBLHA SERIES HIGH AMBIENT LED HIGH BAY



| CAT.# | | APPROVALS |
|-------|------|-----------|
| JOB | TYPE | |

SPECIFICATIONS

Applications

The Hubbell LED High Bay is designed to efficiently light any large interior space such as heavy industrial settings, warehouses, gyms, churches, swimming pools/natatorium and shopping malls

Construction -

- High performance LED design delivering up to 100 lumens per watt
- Specialized thermal management allows up to 65°C ambient temperature rating
- LED count ranges from 72 to 60 to 48 and all three LED counts are driven at 700 mA
- Minimum operating temperature of -40-C
- Fixture weight: 30 lbs. Shipped weight: 36 lbs.

Optics/Electrical System -

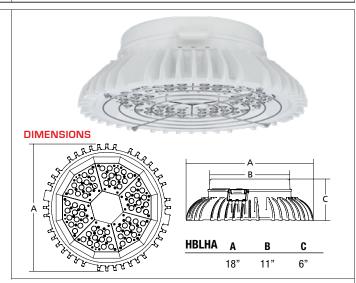
- Custom engineered LED optics providing optimally controlled and evenly distributed light
- · Three distinct distributions: aisle, narrow and wide
- · Sealed optic for long life and durability

LED Light Engine -

- · High output LEDs
- 60,000 hours, long life at L70
- 2700-5000°K Color Temperature See ordering logic for more information
- Surge protection is included standard

LED Driver -

- Circuit Loading Information
- 1.50 amps @ 120v 60 Hz
- 0.75 amps @ 240v 60 Hz
- 0.65 amps @ 277v 60 Hz
- Power factor greater than 0.90
- FCC 47CFR Part 15 Class B Compliant



Thermal Performance -

- 48 LED units @ -40-C TO 65-C
- 60 LED units @ -40-C TO 65-C
- 72 LED units @ -40-C TO 65°C

Listings -

- UL Sanitation Certified per NSF Standards
- CSA tested to UL1598 Wet Location, IP56
- IP66 with factory installed ENCG option

Warranty -

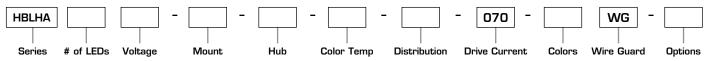
Five years from date of purchase





ORDERING INFORMATION

ORDERING EXAMPLE: HBLHA-72L-U-A-2-5K-N-070-WH



SERIES

721

| HBLHA | High Bay HBLHA Series | |
|-------|-----------------------|--|
| | | |

48L 48 High Performance LEDs 60L 60 High Performance LEDs

NUMBER OF LEDS

| Note: -72L configurations must be mounted at least |
|----------------------------------------------------------|
| 6" below the finished ceiling for proper thermal perfor- |
| mance48L and -60L configurations are approved for a |
| available mounting configurations. Mounting restrictions |
| are not applicable when the fixture is used in a cooler |
| or freezer. |

72 High Performance LEDs

VOLTAGE

| U | 120 - 277V | |
|---------|-----------------------------------------|--|
| 1 | 120V | |
| 2 | 208V | |
| 3 | 240V | |
| 4 | 277V | |
| Note: \ | oltage must be specified for Fusing and | |
| Occupa | ncy Sensor compatibility. | |

MOUNT

| Α | Pendant |
|---|--------------------|
| С | Cone |
| S | Straight stanchion |
| Х | Ceiling |
| Υ | Yoke |

HUB

| 2 | 3/4" |
|----------|----------------------------|
| Availabl | e with A, C, X and Y Mount |
| 3 | 1" |
| Availabl | e with A, C, X Mount |
| 4 | 1 1⁄4" |
| 5 | 1 ½" |
| Availabl | e with S Mount |

COLOR TEMPERATURE

| 27K | 2700° Kelvin | |
|-----|--------------|--|
| 3K | 3000° Kelvin | |
| 35K | 3500° Kelvin | |

| 4K 4000° Kelvin | |
|-----------------|---------------------------------------------|
| 5K | 5000° Kelvin |
| Note: Se | e Color Temperature De-Rating factors table |
| on pg.2 | |

DISTRIBUTION

| N | Narrow | |
|---|--------|--|
| w | Wide | |
| A | Aisle | |

DRIVE CURRENT

| DITIVE | COMMENT | |
|--------|---------|--|
| 070 | 700 MA | |

COLORS

| 0020110 | |
|---------|-------|
| BL | Black |
| GR | Grey |
| WH | White |
| | |

WIRE GUARD

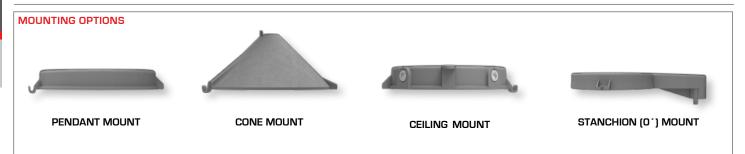
| • • • • • | |
|-----------|------------------------|
| ٧G | Mandantory Zinc Plated |
| Vire | Guard |
| | |

OPTIONS

| TLRX | Top Luminaire Retainer |
|-----------|------------------------------------|
| F(x) | Fusing (replace "x" with voltage) |
| | - Refer to pg.3 for more info. |
| ENCA | Acrylic Protective Lens |
| ENCG | Glass Protective Lens |
| Notes:1.0 | CS unavailable with ENCA or ENCG2. |

ACCESSORIES (order as separate part #)

| TLRX | Top Luminaire Retainer |
|------------|------------------------|
| HOOK/LOOP | Fixture Mounting Hook |
| BLA-C4HLPX | Cord and Plug Set |



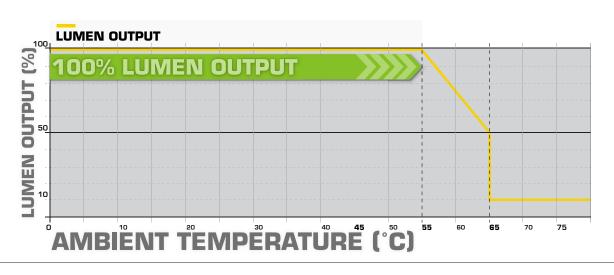
LED SYSTEM INFORMATION

| CATALOG NUMBER | NUMBER OF LED's | COLOR TEMPERATURE | INPUT WATTS | TOTAL LUMENS | LUMENS PER WATT | CRI | AMBIENT TEMPERATURE |
|------------------------|-----------------|----------------------|-------------|--------------|-----------------|-----|------------------------|
| HBLHA-48LU-5K-N-070-WH | | | | 11206 | 100 | | |
| HBLHA-48LU-5K-W-070-WH | 48 | | 112 | 10778 | 96 | | 65°C |
| HBLHA-48LU-5K-A-070-WH | | | | 10213 | 91 | | |
| HBLHA-60LU-5K-N-070-WH | | | | 14007 | 101 | | |
| HBLHA-60LU-5K-W-070-WH | 60 | 5000°K | 139 | 13472 | 97 | 68 | 65°C |
| HBLHA-60LU-5K-A-070-WH | | | | 12776 | 92 | | |
| HBLHA-72LU-5K-N-070-WH | | | | 16808 | 99 | | |
| HBLHA-72LU-5K-W-070-WH | 72 | | 169 | 16166 | 96 | | 65°C |
| HBLHA-72LU-5K-A-070-WH | | | | 15319 | 91 | | |

COLOR TEMPERATURE DE-RATING FACTORS

| NUMBER OF LEDS | 5000K | CRI | 4000K | CRI | 3500K | CRI | 3000K | CRI | 2700K | CRI |
|----------------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| 48 | | | | | | | | | | |
| 60 | 1.00 | 68 | 0.74 | 80 | 0.77 | 80 | 0.74 | 80 | 0.72 | 80 |
| 72 | | | | | | | | | | |

THERMAL PERFORMANCE MATRIX



ORDERING INFORMATION

OPTIONS FOR HBLHA LED HIGH BAY SERIES

Factory installed – order with fixture by adding suffix.

CORD, HOOK/LOOP

| -C4HL | 4' Cord, Hook/Loop |
|--------|---------------------|
| -C6HL | 6' Cord, Hook/Loop |
| -C8HL | 8' Cord, Hook/Loop |
| -C10HL | 10' Cord, Hook/Loop |
| -C12HL | 12' Cord, Hook/Loop |

Note: plugs are twist-lock® type as manufactured by hubbell wiring devices

CORD, HOOK/LOOP & 20A PLUG

| | Length | x= | 120V | 208V | 240V | 277V | |
|-------------|--------|-----|------|------|------|------|--|
| -C4HLP (X) | 4' | 1 | 2 | 3 | 4 | | |
| -C6HLP (X) | 6' | 1 | 2 | 3 | 4 | | |
| -C8HLP (X) | 8' | 1 | 2 | 3 | 4 | | |
| -C10HLP (X) | | 10' | 1 | 2 | 3 | 4 | |
| -C12HLP (X) | | 12' | 1 | 2 | 3 | 4 | |

CORD, HOOK/LOOP & 15A PLUG

| Length | x= | 120V | 208V | 240V | 277V | | |
|----------------|----|------|------|------|------|---|--|
| -C4HLPx-15a 4' | | 1 | 2 | 3 | 4 | | |
| -C6HLPx-15a 6' | | 1 | 2 | 3 | 4 | | |
| -C8HLPx-15a 8' | | 1 | 2 | 3 | 4 | | |
| -C10HLPx-15a | | 10' | 1 | 2 | 3 | 4 | |
| -C12HLPx-15a | | 12' | 1 | 2 | 3 | 4 | |
| | | | | | | | |

| -C4HLP1-15a | 4' Cord, Hook/Loop & 15A 120V Plug | |
|--------------|-------------------------------------|--|
| -C6HLP1-15a | 6' Cord, Hook/Loop & 15A 12OV Plug | |
| -C8HLP1-15a | 8' Cord, Hook/Loop & 15A 120V Plug | |
| -C10HLP1-15a | 10' Cord, Hook/Loop & 15A 120V Plug | |
| -C12HLP1-15a | 12' Cord, Hook/Loop & 15A 12OV Plug | |
| -C4HLP4-15a | 4' Cord, Hook/Loop & 15A 277V Plug | |
| -C6HLP4-15a | 6' Cord, Hook/Loop & 15A 277V Plug | |
| -C8HLP4-15a | 8' Cord, Hook/Loop & 15A 277V Plug | |
| -C10HLP4-15a | 10' Cord, Hook/Loop & 15A 277V Plug | |
| | | |

-F(X) Fixture fuse. Replace X with voltage: 1-120V, 2-208V, 3-240V, 4-277V

WARNING: Improper selection, installation, operation, servicing, removal, and disposal of lighting products may create serious hazardous including fires, explosions, shock, burns, cuts, impaired vision, falling objects, and environmental contamination.

Reduce risks by using the guidance of licensed professionals throughout the product life cycle, and following individual product, component, and accessory sefety instructions and labels.

We offer this in the interest of safety for our customers, who may not be aware of the potentially high risk involved in the misuse of these products.

MOUNTING ACCESSORIES

(order separately)

| plugs are twist | plugs are twist-lock® type as manufactured by hubbell wiring devices. | | | |
|-----------------|-----------------------------------------------------------------------|------------------------------|--|--|
| bla-c4hlp-1 | 4' Cord, Hook/Loop and 120V 20A Twist-Lock | ® Plug | | |
| bla-c4hlp-4 | 4' Cord, Hook/Loop and 277V 20A Twist-Lock | ® Plug | | |
| bla-c4hlp1-1 | 5a 4' Cord, Hook/Loop and 120V 1 | 5A Twist-Lock® Plug | | |
| bla-c4hlp4-1 | 5a 4' Cord, Hook/Loop and 277V 1 | 5A Twist-Lock® Plug | | |
| HOOK/LOOK | P1 Hook - cast aluminum 3/4" NPS | male; includes safety screw; | | |
| | converts to Loop with strap inclu | ded | | |

^{1.}Luminaire retainers/safety cables reduce risk of equipment falling

PHOTOMETRIC REPORT

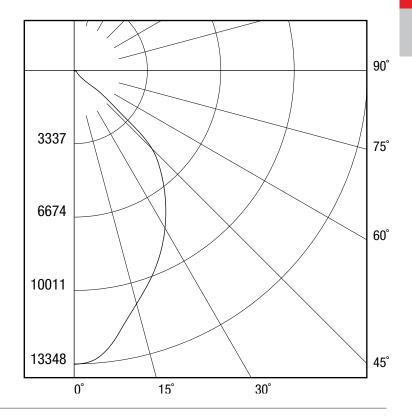
REPORT NUMBER: HBLHA72LU5KN070

LUMINANCE DATA (cd/sq.m)

| ANGLE IN DEGREES | AVERAGE O-DEG | AVERAGE 45-DEG | AVERAGE 90-DEG |
|---------------------|------------------|-------------------|-------------------|
| 45 | 124163 | 108788 | 108147 |
| 55 | 8759 | 10769 | 10159 |
| 65 | 4823 | 4239 | 6675 |
| 75 | 3500 | 4694 | 3898 |
| 85 | 4252 | 4489 | 4961 |
| | | | |

ZONAL LUMEN SUMMARY

| ZUNAL LUIVIEN SUIVIIVIARY | | | | | |
|---------------------------|----------|--------|--|--|--|
| ZONE | LUMENS | %FIXT | | | |
| 0-20 | 4305.42 | 25.60 | | | |
| 0-30 | 8502.49 | 50.50 | | | |
| 0-40 | 12880.45 | 76.50 | | | |
| 0-60 | 16619.62 | 98.70 | | | |
| 0-80 | 16809.51 | 99.80 | | | |
| 0-90 | 16841.06 | 100.00 | | | |
| 10-90 | 15624.82 | 92.80 | | | |
| 20-40 | 8575.03 | 50.90 | | | |
| 20-50 | 11872.07 | 70.50 | | | |
| 40-70 | 3847.18 | 22.80 | | | |
| 60-80 | 189.90 | 1.10 | | | |
| 70-80 | 81.88 | 0.50 | | | |
| 80-90 | 31.55 | 0.20 | | | |
| 0-180 | 16844.05 | 100.00 | | | |
| | | | | | |



COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

| RC | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 113 | 109 | 107 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 95 | 93 | 92 |
| 2 | 106 | 100 | 96 | 92 | 104 | 99 | 94 | 91 | 95 | 92 | 89 | 92 | 89 | 87 | 89 | 87 | 85 | 83 |
| 3 | 99 | 92 | 86 | 82 | 97 | 91 | 85 | 81 | 88 | 83 | 80 | 85 | 82 | 78 | 83 | 80 | 77 | 75 |
| 4 | 93 | 85 | 78 | 73 | 91 | 83 | 77 | 73 | 81 | 76 | 72 | 79 | 75 | 71 | 77 | 73 | 70 | 68 |
| 5 | 88 | 78 | 71 | 66 | 86 | 77 | 71 | 66 | 75 | 69 | 65 | 73 | 68 | 65 | 72 | 67 | 64 | 62 |
| 6 | 82 | 72 | 65 | 60 | 81 | 71 | 65 | 60 | 69 | 64 | 59 | 68 | 63 | 59 | 67 | 62 | 58 | 57 |
| 7 | 77 | 67 | 60 | 55 | 76 | 66 | 59 | 55 | 64 | 59 | 54 | 63 | 58 | 54 | 62 | 57 | 54 | 52 |
| 8 | 73 | 62 | 55 | 50 | 71 | 61 | 55 | 50 | 60 | 54 | 50 | 59 | 54 | 50 | 58 | 53 | 49 | 48 |
| 9 | 69 | 58 | 51 | 46 | 67 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 54 | 49 | 46 | 44 |
| 10 | 65 | 54 | 47 | 43 | 64 | 53 | 47 | 43 | 52 | 47 | 43 | 52 | 46 | 42 | 51 | 46 | 42 | 41 |

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY.

THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS LUMINAIRE SAMPLE.

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