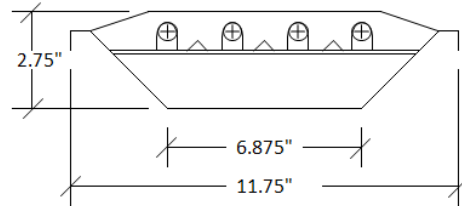




CROSS SECTION



FEATURES

- **Fixture Warranty:** 1 Year
- **Construction:** Rigid Low-Profile Steel Housing 22 Gauge Prime Cold Rolled Steel
- **Environment:** Suitable for Damp Locations
- **Finished:** Multistage Iron Phosphate Pretreatment, Reflector White Baked Enamel Finish
- **Frame:** Die Formed, Heavy Gauge
- **Lens Options:** Wire Guard or Lens Cover
- **Certifications:** ETL Listed

APPLICATIONS

- Industrial / Warehouse / Factory Floors
- Garage / Parking Lots
- Cold Storage Facilities
- Retail Store / Shopping Malls / Big Box Stores
- Corridors / General Lighting

MOUNTING OPTIONS

- Suspension Mounting
 - V-Hooks (Included)
 - Chain
 - Air Craft Cables

LAMP CONFIGURATION OPTIONS

- T8 Fluorescent Lamps
- 4-Lamp T8 32 Watt
- T5 Fluorescent Lamps
- 4-Lamp T5 54 Watt

ORDERING MATRIX

| Series: | Lamp QTY & Wattage | Voltage | Ballast Type | Ballast Factor | Control |
|-----------------------|------------------------|-----------------|-------------------|----------------|---|
| HBA = New Earth | 432 = 4-lamp 32w T8 | U = 120-277 VAC | P = Program Start | N = .88 BF | N = Non-Dimming |
| Alpha Series High Bay | 454 = 4-lamp 54w T5 HO | | I = Instant Start | H = 1.2 BF | S = Stepped Dimming D = Continuous Dimming |

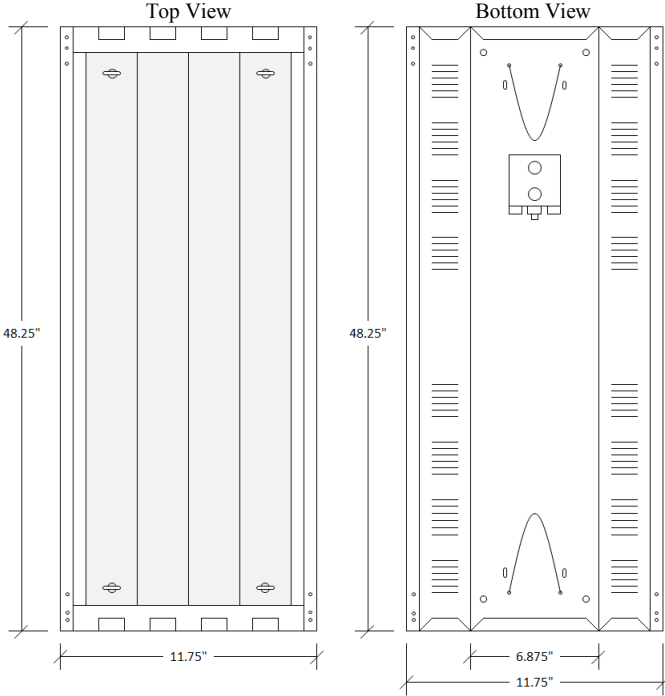
OPTIONS & ACCESSORIES

| <u>OCCUPANCY SENSOR</u> | <u>SUFFIX</u> | <u>WIRING OPTIONS</u> | <u>SUFFIX</u> | <u>ELECTRICAL OPTIONS</u> | <u>SUFFIX</u> |
|-------------------------|---------------|-------------------------|---------------|--|---------------|
| External Sensor | | Pre-Wired | | Emergency Battery Pack | |
| • Espen Sensor | O | • 6' S/O Cord 3-Wire | C | • 500 Lumens | E1 |
| • Watt Stopper | W | • 10' Metal Flex 3-Wire | M | • 700 Lumens | E2* |
| Integral Sensor | | | | • 1300 Lumens | E3 |
| • Watt Stopper | F | | | *Note: T5 EM only 700 Lumen Option Available | |

SPECIFICATIONS

- **TYPE** High Bay Industrial for Pendant or Chain Mounting.
- **CONSTRUCTION** 24 ga. Cold Rolled Steel Housing. Quarter turn fasteners. Rotary Locking Lamp Holders
- **REFLECTOR** Enhanced Aluminum Reflectors, 95% Reflectance/
- **WIRING** 120v 60Hz., 277V 60Hz, UNV (universal voltage 120v thru 277v.) or as otherwise specified
- **LABELS** U.L. or ETL Listed. Compatible with UL Fire-Rated Ceiling Assemblies

DIMENSIONS



PHOTOMETRICS



HBA-632

(2) Electronic Ballast, High BF

(6) F32/T8/TL835 32W T8 lamps, 3100 lumens

Spacing Criterion:

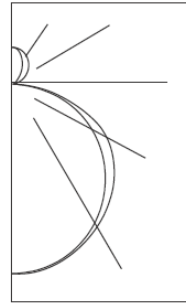
(H) 1.3 x mounting height,

(L) 1.3 x mounting height

Efficiency 95.9%

Candlepower

| Angle | Along H | 45° | Across L |
|-------|---------|------|----------|
| 0 | 4685 | 4685 | 4685 |
| 5 | 4663 | 4674 | 4692 |
| 10 | 4608 | 4631 | 4654 |
| 15 | 4512 | 4555 | 4594 |
| 20 | 4380 | 4446 | 4503 |
| 25 | 4209 | 4303 | 4374 |
| 30 | 4000 | 4121 | 4203 |
| 35 | 3762 | 3909 | 4000 |
| 40 | 3492 | 3658 | 3774 |
| 45 | 3195 | 3377 | 3562 |
| 50 | 2870 | 3081 | 3354 |
| 55 | 2527 | 2785 | 3150 |
| 60 | 2165 | 2500 | 2962 |
| 65 | 1781 | 2230 | 2707 |
| 70 | 1384 | 1985 | 2246 |
| 75 | 975 | 1569 | 1685 |
| 80 | 569 | 1025 | 1107 |
| 85 | 200 | 500 | 566 |
| 90 | 3 | 111 | 177 |



HBA-654

(2) Electronic Ballast, High BF

(6) F54T5/841HO 54W T5 lamps, 4400 lumens

Spacing criterion: (H) 1.3 x mounting height, (L) 1.3 x mounting height

Efficiency 93.3%

Candlepower

| Angle | Along H | 45° | Across L |
|-------|---------|------|----------|
| 0 | 6850 | 6850 | 6850 |
| 5 | 6814 | 6836 | 6863 |
| 10 | 6739 | 6770 | 6796 |
| 15 | 6607 | 6648 | 6668 |
| 20 | 6418 | 6461 | 6487 |
| 25 | 6179 | 6222 | 6278 |
| 30 | 5891 | 5945 | 6049 |
| 35 | 5558 | 5637 | 5792 |
| 40 | 5183 | 5301 | 5498 |
| 45 | 4773 | 4929 | 5187 |
| 50 | 4335 | 4526 | 4827 |
| 55 | 3866 | 4100 | 4434 |
| 60 | 3370 | 3638 | 3997 |
| 65 | 2843 | 3159 | 3437 |
| 70 | 2283 | 2630 | 2685 |
| 75 | 1672 | 1932 | 1941 |
| 80 | 1012 | 1216 | 1267 |
| 85 | 348 | 548 | 548 |
| 90 | 4 | 37 | 50 |

Coefficients of Utilization

| rc | Effective floor cavity reflectance | | | | | | | | | | | | | | | | | |
|----|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|----|----|----|----|
| | 80% | | | | 70% | | | | 50% | | | | 30% | | | | | |
| rw | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| CR | 0 | 113 | 113 | 113 | 110 | 110 | 110 | 110 | 104 | 104 | 104 | 99 | 99 | 99 | 94 | 94 | 94 | 92 |
| 1 | 103 | 98 | 93 | 89 | 100 | 95 | 91 | 88 | 90 | 87 | 84 | 86 | 83 | 81 | 82 | 80 | 78 | 75 |
| 2 | 93 | 85 | 78 | 72 | 90 | 82 | 76 | 71 | 78 | 73 | 69 | 75 | 70 | 66 | 71 | 68 | 64 | 62 |
| 3 | 85 | 74 | 66 | 60 | 82 | 72 | 65 | 59 | 69 | 62 | 57 | 66 | 60 | 56 | 63 | 58 | 54 | 52 |
| 4 | 77 | 66 | 57 | 50 | 75 | 64 | 56 | 50 | 61 | 54 | 49 | 58 | 52 | 47 | 56 | 51 | 46 | 44 |
| 5 | 71 | 58 | 50 | 43 | 69 | 57 | 49 | 43 | 55 | 47 | 42 | 52 | 46 | 41 | 50 | 45 | 40 | 38 |
| 6 | 66 | 53 | 44 | 38 | 64 | 52 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 45 | 40 | 35 | 33 |
| 7 | 61 | 48 | 39 | 33 | 59 | 47 | 39 | 33 | 45 | 38 | 33 | 43 | 37 | 32 | 42 | 36 | 31 | 29 |
| 8 | 57 | 44 | 35 | 30 | 55 | 43 | 35 | 30 | 41 | 34 | 29 | 40 | 33 | 29 | 38 | 33 | 28 | 26 |
| 9 | 53 | 40 | 32 | 27 | 51 | 39 | 32 | 27 | 38 | 31 | 26 | 37 | 30 | 26 | 35 | 30 | 26 | 24 |
| 10 | 50 | 37 | 29 | 24 | 48 | 36 | 29 | 24 | 35 | 28 | 24 | 34 | 28 | 24 | 33 | 27 | 23 | 22 |

Zonal Lumen Summary

| Zone | Lumen s | %Lam p | %Fix ture |
|------|---------|--------|-----------|
| 0-30 | 4562 | 24.5 | 25.6 |
| 0-40 | 7330 | 39.4 | 41.1 |
| 0-60 | 12827 | 69.0 | 71.9 |
| 0-90 | 17094 | 91.9 | 95.8 |
| 180 | 17837 | 95.9 | 100.0 |

Luminance Data

| Angle in Deg | Average 0-Deg cd/s m | Average 45-Deg cd/s m | Average 90-Deg cd/s m |
|--------------|----------------------|-----------------------|-----------------------|
| 5 | 10283 | 8782 | 8691 |
| 5 | 9860 | 8372 | 8802 |
| 5 | 9142 | 8470 | 10454 |
| 5 | 7699 | 10076 | 10592 |
| 5 | 3898 | 10123 | 11480 |

Coefficients of Utilization

| rc | Effective floor cavity reflectance | | | | | | | | | | | | | | | | | |
|-----|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|-----|----|----|----|----|----|
| | 80% | | | | 70% | | | | 50% | | | | 30% | | | | | |
| rw | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | 0 | 109 | 109 | 109 | 105 | 105 | 105 | 105 | 98 | 98 | 98 | 92 | 92 | 92 | 86 | 86 | 86 | 84 |
| 1 | 99 | 94 | 90 | 86 | 95 | 91 | 87 | 84 | 85 | 82 | 79 | 80 | 77 | 75 | 75 | 73 | 71 | 68 |
| 2 | 89 | 81 | 74 | 69 | 86 | 78 | 72 | 67 | 74 | 69 | 64 | 69 | 65 | 61 | 65 | 62 | 59 | 56 |
| 3 | 81 | 71 | 63 | 57 | 78 | 68 | 61 | 55 | 64 | 58 | 53 | 60 | 55 | 51 | 57 | 53 | 49 | 46 |
| 4 | 74 | 62 | 54 | 47 | 71 | 60 | 53 | 47 | 57 | 50 | 45 | 53 | 48 | 43 | 50 | 46 | 42 | 39 |
| 5 | 68 | 55 | 47 | 40 | 65 | 54 | 46 | 40 | 51 | 44 | 38 | 48 | 42 | 37 | 45 | 40 | 36 | 34 |
| 6 | 62 | 50 | 41 | 35 | 60 | 48 | 40 | 34 | 46 | 39 | 33 | 43 | 37 | 32 | 41 | 35 | 31 | 29 |
| 7 | 58 | 45 | 37 | 31 | 55 | 44 | 36 | 30 | 41 | 34 | 29 | 39 | 33 | 29 | 37 | 32 | 28 | 26 |
| 8 | 54 | 41 | 33 | 27 | 52 | 40 | 32 | 27 | 38 | 31 | 26 | 36 | 30 | 25 | 34 | 29 | 25 | 23 |
| 9 | 50 | 37 | 30 | 24 | 48 | 36 | 29 | 24 | 35 | 28 | 23 | 33 | 27 | 23 | 31 | 26 | 22 | 20 |
| 10 | 47 | 34 | 27 | 22 | 45 | 34 | 26 | 22 | 32 | 26 | 21 | 30 | 25 | 21 | 29 | 24 | 20 | 18 |

Zonal Lumen Summary

| Zone | Lumen s | %Lam p | %Fix ture |
|-------|---------|--------|-----------|
| 0-30 | 5401 | 20.5 | 21.9 |
| 0-40 | 8947 | 33.9 | 36.3 |
| 0-60 | 16453 | 62.3 | 66.8 |
| 0-90 | 22065 | 83.6 | 89.6 |
| 0-180 | 24626 | 93.3 | 100.0 |

Luminance Data

| Angle in Deg | Average 0-Deg cd/s m | Average 45-Deg cd/s m | Average 90-Deg cd/s m |
|--------------|----------------------|-----------------------|-----------------------|
| 45 | 11468 | 11843 | 12463 |
| 55 | 11451 | 12144 | 13134 |
| 65 | 11429 | 12699 | 13817 |
| 75 | 10975 | 12682 | 12741 |
| 85 | 6784 | 10682 | 10682 |