

FEATURES

- Used in high and low bay, aisle and task lighting applications
- Ideal for mounting heights ranging 8 to 40 feet
- Rugged 22 gauge riveted full body steel housing
- 95% specular aluminum reflectors for precise control or finished white reflectors available for wide light distribution
- Tool-less ballast access for easy service
- V-hangers included for chain hanging
- Five year warranty (Terms and Conditions apply)

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

HOUSING

22 gauge riveted steel housing

REFLECTOR

Choice of 95% specular aluminum or finished white aluminum.

BALLASTS

Energy efficient, thermally protected, automatic resetting, Class P, high power factor, sound rated A, unless otherwise specified. CEE NEMA Premium compliant.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard.

ELECTRICAL

Standard class "P," thermally protected, auto-resetting HPF ballast, sound rated A. CEE NEMA Premium compliant. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

WARRANTY

Five year warranty (Terms and Conditions apply).

FINISH

Painted parts are treated with a five stage phosphate bonding process and finished with a high reflectance baked white enamel. End caps are painted after fabrication as standard.

ORDERING INFORMATION

EXAMPLE LHS4-454-M4R-4EPU

| LHS | | 4 - | | - | | U - | |
|--------------------------------|--|--|------|--|--|--|--|
| MODEL | NO. OF LAMPS IN CROSS SECTION | LAMP TYPE | SIZE | REFLECTOR | BALLAST | VOLTAGE | OPTIONS |
| LHS Slim Body Linear High Bay | 4 Four 6 Six | 32 4', T8: 32, 30, 28, or 25 Watt 54 4', T5HO: 54, 51, or 49 Watt | 4 4' | M4R Aluminum 95% Reflective, Specular Silver (Narrow Beam) GW Gloss White (Wide Beam) | T8 4EHL (1) 4-Lamp Electronic T8 High Light Output, Instant Start 3EHL (2) 3-Lamp Electronic T8 High Light Output, Instant Start 4EPHL (1) 4-Lamp Electronic T8 High Light Output, Programmed Start 3EPHL (2) 3-Lamp Electronic T8 High Light Output, Programmed Start T5HO 4EP (1) 4-Lamp Electronic T5HO, Programmed Start 24EP (1) 4-Lamp and (1) 2-Lamp Electronic T5HO, Programmed Start | U 120V-277V LAMPS INSTALLED T8 F0841 85 CRI, 4100K F0850 85 CRI, 5000K T5HO F5841 85 CRI, 4100K F5850 85 CRI, 5000K | F3CS 3-Conductor Cord F4CS 4-Conductor Cord C8TL15 8' Cord and Twist-Lock™ Plug 15A (Add Voltage: 1=120, 2=277) C8P151 8' Cord and Straight Blade Plug 15A EL Emergency Battery Pack, T8 1100-1200 Lumens, 1 Lamp or T5HO 1150 Lumens, 1 Lamp WG Cage Type Wire Guard NYC NYC Compliant NYCU NYC Compliant, Union Label |
| ACCESSORIES (ORDER SEPARATELY) | | | | | | | |
| LHTG5 | Y-Fit Toggle Hanger, 5' Adjustable, Pair | | | | | | |
| LHTG10 | Y-Fit Toggle Hanger, 10' Adjustable, Pair | | | | | | |
| LHS432WGK | Wire Guard for 4-Lamp T8 Fixture | | | | | | |
| LHS454WGK | Wire Guard for 4-Lamp T5HO Fixture | | | | | | |
| LHS632WGK | Wire Guard for 6-Lamp T8 Fixture | | | | | | |
| LHS654WGK | Wire Guard for 6-Lamp T5HO Fixture | | | | | | |
| GLH5 | 5', Adjustable Cable Kit | | | | | | |
| GLH10 | 10', Adjustable Cable Kit | | | | | | |
| GLH15 | 15', Adjustable Cable Kit | | | | | | |
| OS1360K | Occupancy/Daylight sensor kit, 120/277/347V, one relay, 360 Lens, snap on drop down adaptor, quick connect wiring* | | | | | | |
| OS2360K | Occupancy/Daylight sensor kit, 120/277/347V, two relay, 360 Lens, snap on drop down adaptor, quick connect wiring* | | | | | | |

*Use programmed start ballast. Not recommended for use with an instant start. For more occupancy/daylight harvesting sensor accessories contact your Columbia Lighting representative.

PHOTOMETRIC DATA

LUMINAIRE DATA

| | |
|--------------------------|--|
| Luminaire | LHS4-632-M4R-3EU Linear Fluorescent High Bay Industrial 17" x 48", 6-lamp T8 with specular reflectors |
| Ballast | (2) GE-332-MAX-H/ ULTRA |
| Ballast Factor | 1.18 |
| Lamp | F32T8 |
| Lumens per Lamp | 2950 |
| Watts | 217 |
| Mounting | Suspended |
| Shielding Angle | 0° = 0 90° = 0 |
| Spacing Criterion | 0° = 1.24 90° = 1.57 |
| Luminous Opening in Feet | Length: 4.00 Width: 1.33 Height: 0.00 |

AVG. LUMINANCE (Candela/Sq. M.)

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|----|------|-------|-------|-------|-------|
| 0 | 8963 | 8963 | 8963 | 8963 | 8963 |
| 30 | 8675 | 9289 | 11051 | 11787 | 11955 |
| 40 | 8373 | 9910 | 11558 | 11637 | 11471 |
| 45 | 8166 | 10184 | 11463 | 10988 | 10762 |
| 50 | 7913 | 10353 | 10866 | 10205 | 10013 |
| 55 | 7595 | 10392 | 10085 | 9694 | 10050 |
| 60 | 7203 | 10197 | 9263 | 10687 | 11602 |
| 65 | 6712 | 9532 | 9604 | 12203 | 12874 |
| 70 | 6081 | 8359 | 11287 | 13358 | 13754 |
| 75 | 5261 | 7622 | 12399 | 13743 | 14079 |
| 80 | 4125 | 9496 | 12607 | 13854 | 14262 |
| 85 | 2577 | 9704 | 13024 | 15346 | 16112 |

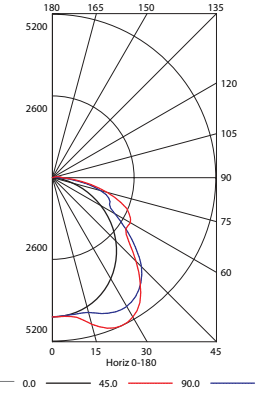
COEFFICIENTS OF UTILIZATION (%)

| RC | 80 | | | | 70 | | | | 50 | | | | 0 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| | RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 1 | 98 | 94 | 89 | 85 | 96 | 91 | 87 | 84 | 87 | 84 | 81 | 74 | |
| 2 | 89 | 81 | 74 | 68 | 86 | 79 | 73 | 67 | 75 | 70 | 66 | 60 | |
| 3 | 81 | 70 | 62 | 56 | 78 | 69 | 61 | 55 | 66 | 60 | 54 | 50 | |
| 4 | 74 | 62 | 54 | 47 | 71 | 61 | 53 | 47 | 58 | 51 | 46 | 42 | |
| 5 | 68 | 55 | 47 | 40 | 65 | 54 | 46 | 40 | 52 | 45 | 39 | 36 | |
| 6 | 62 | 49 | 41 | 35 | 60 | 49 | 40 | 35 | 47 | 40 | 34 | 31 | |
| 7 | 58 | 45 | 36 | 31 | 56 | 44 | 36 | 30 | 42 | 35 | 30 | 28 | |
| 8 | 54 | 41 | 33 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 24 | |
| 9 | 50 | 37 | 29 | 24 | 49 | 37 | 29 | 24 | 35 | 29 | 24 | 22 | |
| 10 | 47 | 34 | 27 | 22 | 45 | 34 | 27 | 22 | 33 | 26 | 22 | 20 | |

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

INDOOR CANDELA PLOT



Test 19448 Test Date 04/13/09

ZONAL LUMEN SUMMARY

| Zone | Lumens | Lamp | Fixt. |
|-------|--------|------|-------|
| 0-30 | 3822 | 21.6 | 23.5 |
| 0-40 | 6549 | 37.0 | 40.3 |
| 0-60 | 11875 | 67.1 | 73.1 |
| 0-90 | 16051 | 90.7 | 98.8 |
| 0-180 | 16244 | 91.8 | 100.0 |

ENERGY DATA

| | |
|---|--|
| Total Luminaire Efficiency | 91.8% |
| Luminaire Efficacy Rating (LER) | 88 |
| IESNA RP-1-2004 Compliance | Non-Compliant |
| Comparative Yearly Lighting Energy Cost per 1000 Lumens | \$2.73 based on 3000 hrs. and \$0.08 per KWH |

LUMINAIRE DATA

| | |
|--------------------------|---|
| Luminaire | LHS4-454-M4R-4EPU Linear Fluorescent High Bay Industrial 12" x 48", 4-lamp T5HO with specular reflectors |
| Ballast | ICN-4554-90C-2LS-G |
| Ballast Factor | 1.00 |
| Lamp | F54T5HO |
| Lumens per Lamp | 4500 |
| Watts | 226 |
| Shielding Angle | 0° = 0 90° = 0 |
| Spacing Criterion | 0° = 1.21 90° = 1.05 |
| Luminous Opening in Feet | Length: 4.00 Width: 0.92 Height: 0.00 |

AVG. LUMINANCE (Candela/Sq. M.)

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|----|-------|-------|-------|-------|-------|
| 0 | 18928 | 18928 | 18928 | 18928 | 18928 |
| 30 | 17776 | 17104 | 15776 | 15178 | 14966 |
| 40 | 16991 | 15640 | 14273 | 13078 | 12677 |
| 45 | 16476 | 14747 | 13204 | 12124 | 12008 |
| 50 | 15840 | 13838 | 12004 | 11708 | 11827 |
| 55 | 15039 | 12948 | 11178 | 11647 | 12081 |
| 60 | 14046 | 11823 | 10869 | 12250 | 12958 |
| 65 | 12776 | 10319 | 11150 | 13531 | 14541 |
| 70 | 11066 | 8997 | 12315 | 15924 | 17318 |
| 75 | 8872 | 8487 | 14895 | 19416 | 20704 |
| 80 | 6232 | 9601 | 18495 | 22066 | 22993 |
| 85 | 3121 | 12518 | 19399 | 22386 | 23023 |

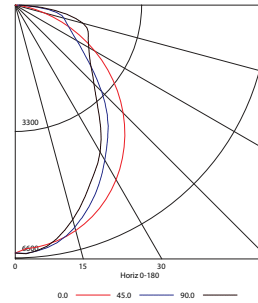
COEFFICIENTS OF UTILIZATION (%)

| RC | 80 | | | | 70 | | | | 50 | | | | 0 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| | RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 1 | 94 | 90 | 86 | 82 | 92 | 88 | 84 | 81 | 84 | 81 | 79 | 72 | |
| 2 | 86 | 78 | 72 | 67 | 83 | 77 | 71 | 66 | 74 | 69 | 65 | 60 | |
| 3 | 78 | 69 | 62 | 56 | 76 | 68 | 61 | 56 | 65 | 59 | 55 | 51 | |
| 4 | 72 | 61 | 54 | 48 | 70 | 60 | 53 | 47 | 58 | 52 | 47 | 44 | |
| 5 | 66 | 55 | 47 | 41 | 65 | 54 | 47 | 41 | 52 | 46 | 41 | 38 | |
| 6 | 61 | 50 | 42 | 36 | 60 | 49 | 42 | 36 | 47 | 41 | 36 | 34 | |
| 7 | 57 | 45 | 38 | 32 | 56 | 45 | 37 | 32 | 43 | 37 | 32 | 30 | |
| 8 | 53 | 42 | 34 | 29 | 52 | 41 | 34 | 29 | 40 | 33 | 29 | 27 | |
| 9 | 50 | 38 | 31 | 26 | 49 | 38 | 31 | 26 | 37 | 31 | 26 | 24 | |
| 10 | 47 | 35 | 29 | 24 | 46 | 35 | 28 | 24 | 34 | 28 | 24 | 22 | |

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

INDOOR CANDELA PLOT



Test 22716 Test Date 04/13/09

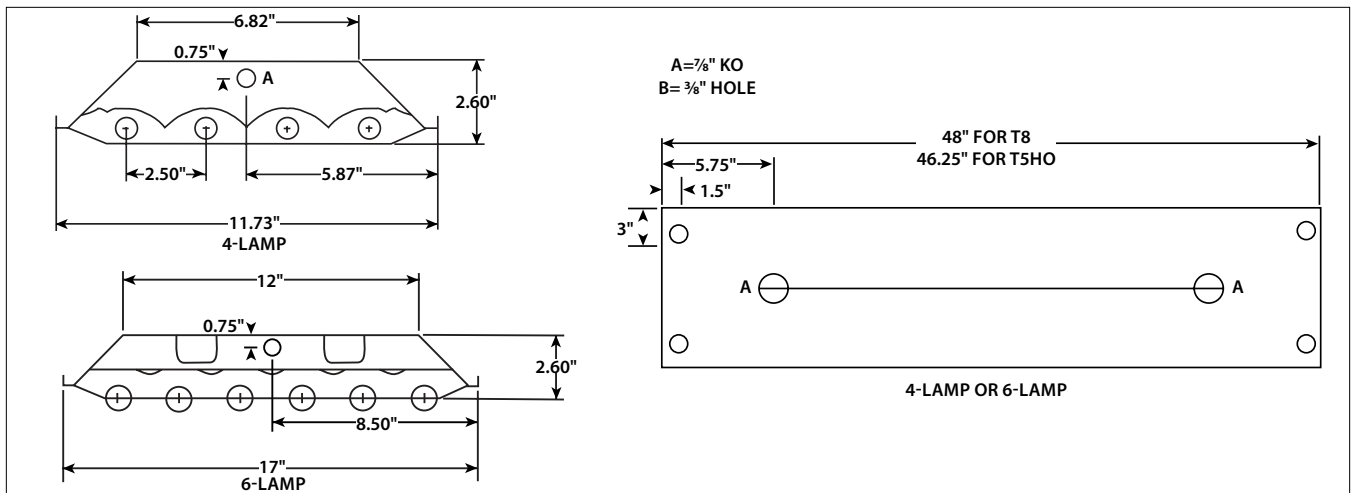
ZONAL LUMEN SUMMARY

| Zone | Lumens | Lamp | Fixt. |
|-------|--------|------|-------|
| 0-30 | 4687 | 26.0 | 29.8 |
| 0-40 | 7372 | 41.0 | 46.9 |
| 0-60 | 12087 | 67.1 | 76.9 |
| 0-90 | 15715 | 87.3 | 100.0 |
| 0-180 | 15715 | 87.3 | 100.0 |

ENERGY DATA

| | |
|---|--|
| Total Luminaire Efficiency | 87.3% |
| Luminaire Efficacy Rating (LER) | 70 |
| IESNA RP-1-2004 Compliance | Noncompliant |
| Comparative Yearly Lighting Energy Cost per 1000 Lumens | \$3.43 based on 3000 hrs. and \$0.08 per KWH |

DIMENSIONAL DATA



NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.