

### 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 | BALLAST | VOLTAGE     | OPTIONS   |  |
| LHS Slim Body Linear High Bay  | 4 Four<br>6 Six               | 32 4', T8: 32, 30, 28, or 25 Watt<br>54 4', T5HO: 54, 51, or 49 Watt | 4 4' | T8      | U 120V-277V | F3CS 3-Conductor Cord<br>F4CS 4-Conductor Cord<br>C8TL15 8' Cord and Twist-Lock™ Plug 15A (Add Voltage: 1=120, 2=277)<br>C8P151 8' Cord and Straight Blade Plug 15A<br>EL Emergency Battery Pack, T8 1100-1200 Lumens, 1 Lamp or T5HO 1150 Lumens, 1 Lamp<br>WG Cage Type Wire Guard<br>NYC NYC Compliant |  |
| REFLECTOR  |                               |  |      |         |             | LAMPS INSTALLED   |  |
| M4R Aluminum 95% Reflective, Specular Silver (Narrow Beam)<br>GW Gloss White (Wide Beam)                                   |                               |  |      |         |             | T8<br>F0841 85 CRI, 4100K<br>F0850 85 CRI, 5000K<br>T5HO<br>F5841 85 CRI, 4100K<br>F5850 85 CRI, 5000K  |  |
| <b>ACCESSORIES (ORDER SEPARATELY)</b>  |                               |  |      |         |             |   |  |
| 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<br>Linear Fluorescent<br>High Bay Industrial<br>17" x 48", 6-lamp<br>T8 with specular<br>reflectors |
| Ballast                  | (2) GE-332-MAX-H/<br>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<br>Width: 1.33<br>Height: 0.00  |

### AVG. LUMINANCE (Candela/Sq. M.)

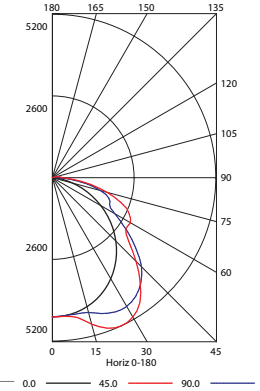
| Average Luminance Angle | 0.0  | 22.5  | 45.0  | 67.5  | 90.0  |
|-------------------------|------|-------|-------|-------|-------|
| 0                       | 8963 | 8963  | 8963  | 8963  | 8963  |
| 30                      | 8675 | 9289  | 11051 | 11787 | 11955 |
| 40                      | 8373 | 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 |   |

Test 19448 Test Date 04/13/09

### INDOOR CANDELA PLOT



### 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<br>Linear Fluorescent<br>High Bay Industrial<br>12" x 48", 4-lamp<br>T5HO with specular<br>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<br>Width: 0.92<br>Height: 0.00   |

### AVG. LUMINANCE (Candela/Sq. M.)

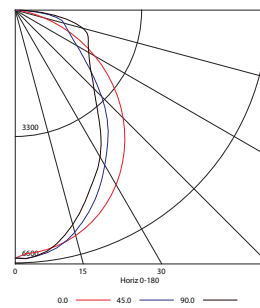
| Average Luminance Angle | 0.0   | 22.5  | 45.0  | 67.5  | 90.0  |
|-------------------------|-------|-------|-------|-------|-------|
| 0                       | 18928 | 18928 | 18928 | 18928 | 18928 |
| 30                      | 17776 | 17104 | 15776 | 15178 | 14966 |
| 40                      | 16991 | 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 |   |

Test 22716 Test Date 04/13/09

### INDOOR CANDELA PLOT



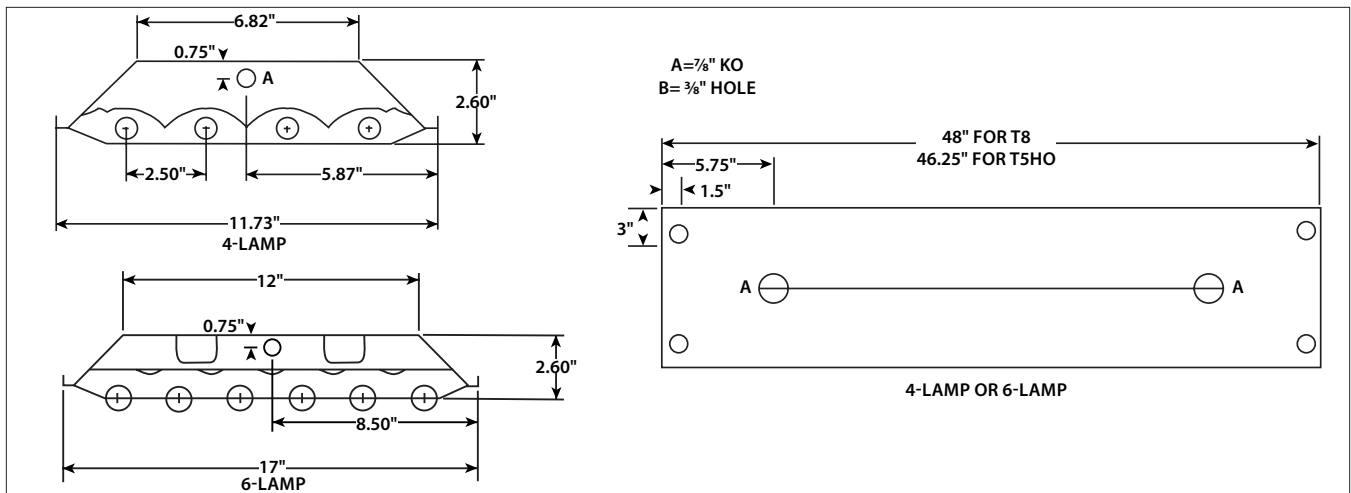
### ZONAL LUMEN SUMMARY

| 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 |

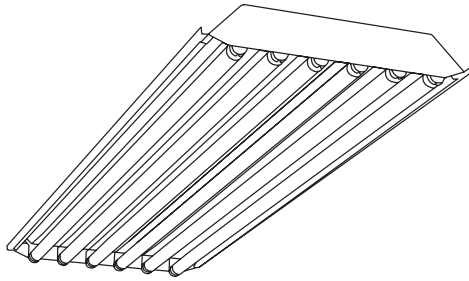
### ENERGY DATA

|   |  |
|---|--|
| 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.



### 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   | BALLAST  | VOLTAGE  | OPTIONS   |  |
| LHS Slim Body Linear High Bay  | 4 Four<br>6 Six  | 32 4', T8: 32, 30, 28, or 25 Watt<br>54 4', T5HO: 54, 51, or 49 Watt | 4 4'   | T8   | U 120V-277V  | F3CS 3-Conductor Cord<br>F4CS 4-Conductor Cord<br>C8TL15 8' Cord and Twist-Lock™ Plug 15A (Add Voltage: 1=120, 2=277)<br>C8P151 8' Cord and Straight Blade Plug 15A<br>EL Emergency Battery Pack, T8 1100-1200 Lumens, 1 Lamp or T5HO 1150 Lumens, 1 Lamp<br>WG Cage Type Wire Guard<br>NYC NYC Compliant |  |
|                                |  |  | REFLECTOR  | 4EHL (1) 4-Lamp Electronic T8 High Light Output, Instant Start<br>3EHL (2) 3-Lamp Electronic T8 High Light Output, Instant Start<br>4EPHL (1) 4-Lamp Electronic T8 High Light Output, Programmed Start<br>3EPHL (2) 3-Lamp Electronic T8 High Light Output, Programmed Start<br>T5HO<br>4EP (1) 4-Lamp Electronic T5HO, Programmed Start<br>24EP (1) 4-Lamp and (1) 2-Lamp Electronic T5HO, Programmed Start | LAMPS INSTALLED  |   |  |
|                                |  |  | M4R Aluminum 95% Reflective, Specular Silver (Narrow Beam)<br>GW Gloss White (Wide Beam) |  | T8<br>F0841 85 CRI, 4100K<br>F0850 85 CRI, 5000K<br>T5HO<br>F5841 85 CRI, 4100K<br>F5850 85 CRI, 5000K |   |  |
| 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<br>Linear Fluorescent<br>High Bay Industrial<br>17" x 48", 6-lamp<br>T8 with specular<br>reflectors |
| Ballast                  | (2) GE-332-MAX-H/<br>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<br>Width: 1.33<br>Height: 0.00  |

### AVG. LUMINANCE (Candela/Sq. M.)

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

### COEFFICIENTS OF UTILIZATION (%)

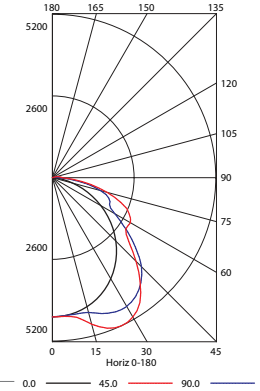
| RC | 80 |    |    |    | 70 |    |    |    | 50 |    |    |    | 0 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
|    | RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 1  | 98 | 94 | 89 | 85 | 96 | 91 | 87 | 84 | 87 | 84 | 81 | 74 |   |
| 2  | 89 | 81 | 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

Test 19448 Test Date 04/13/09

### INDOOR CANDELA PLOT



### 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<br>Linear Fluorescent<br>High Bay Industrial<br>12" x 48", 4-lamp<br>T5HO with specular<br>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<br>Width: 0.92<br>Height: 0.00   |

### AVG. LUMINANCE (Candela/Sq. M.)

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

### COEFFICIENTS OF UTILIZATION (%)

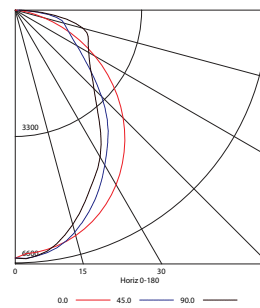
| RC | 80 |    |    |    | 70 |    |    |    | 50 |    |    |    | 0 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
|    | RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 1  | 94 | 90 | 86 | 82 | 92 | 88 | 84 | 81 | 84 | 81 | 79 | 72 |   |
| 2  | 86 | 78 | 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

Test 22716 Test Date 04/13/09

### INDOOR CANDELA PLOT



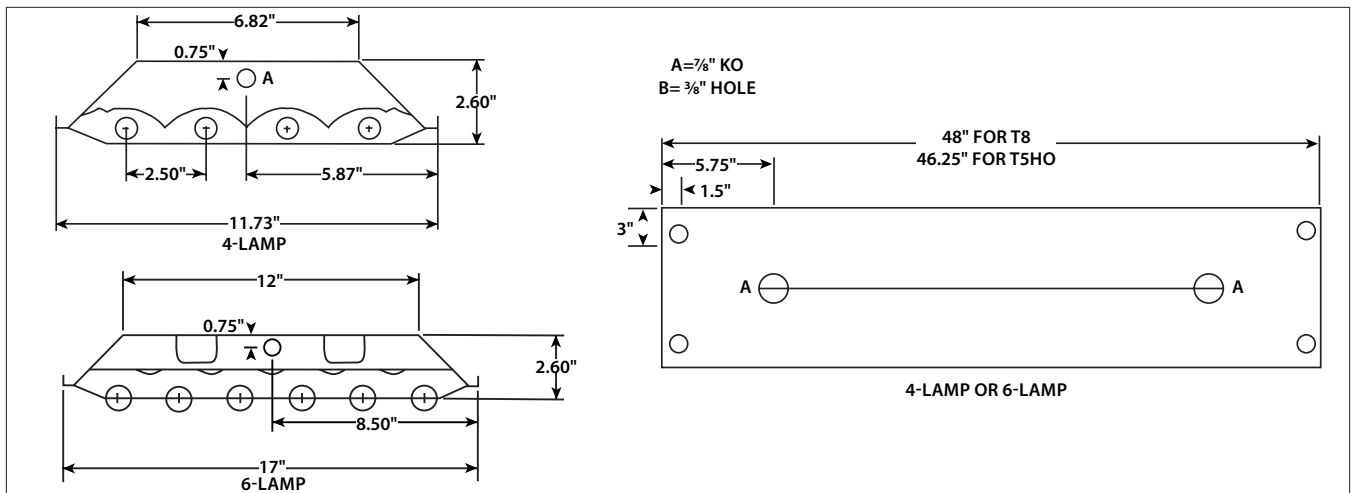
### ZONAL LUMEN SUMMARY

| 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.