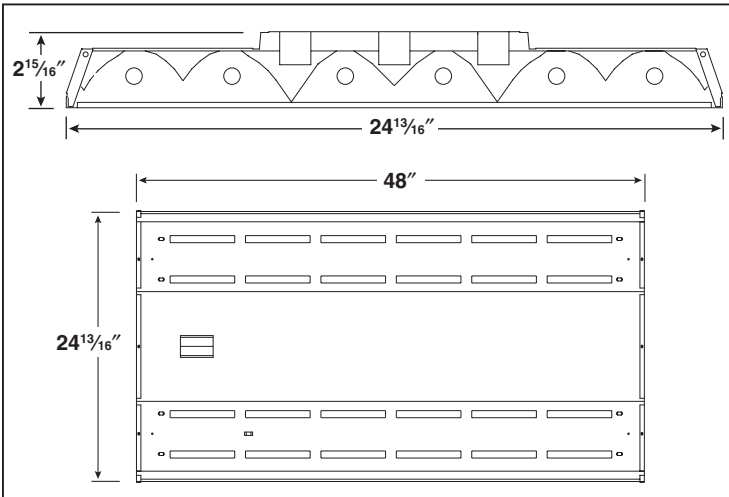
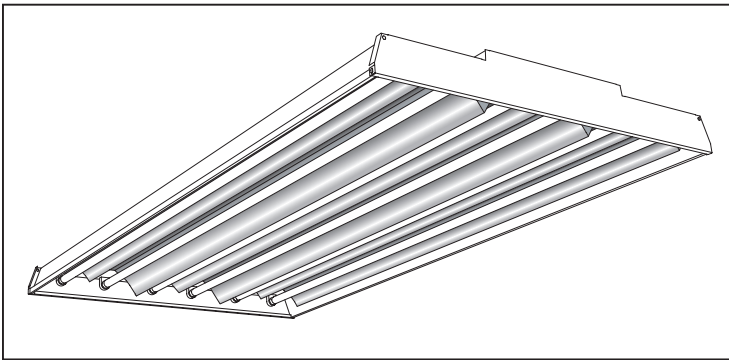


# LHR4-654

## Linear Fluorescent Hi-Bay 6 Lamp T5 or T5 HO

Type: \_\_\_\_\_

Job Description: \_\_\_\_\_



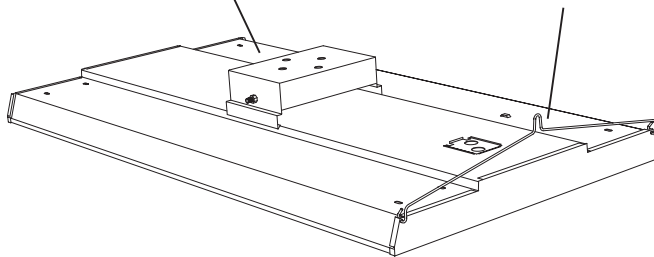
### Features

- Extremely efficient fluorescent luminaire replaces HID in retail and industrial applications.
  - Energy savings up to 20%
  - Excellent lumen maintenance (94% versus ~65% for typical metal halide)
  - Higher maintained lumens per watt (62, versus 40 for typical metal halide hi-bay)
  - Instant restrike
  - Consistent color
  - Superior color rendering (82 CRI, versus 65-70 for metal halide)
  - Wide choice of lamp color
- Highly specular contoured reflectors drive light down to provide excellent vertical footcandles.
- Choice of upright options.
- Battery pack option (-EL) provides instant-on emergency illumination.
- Tool-free access to lamps and ballasts.
- Rounded edges and corners for safe handling and installation.

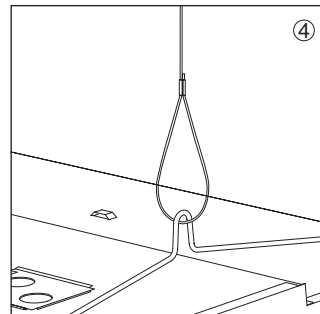
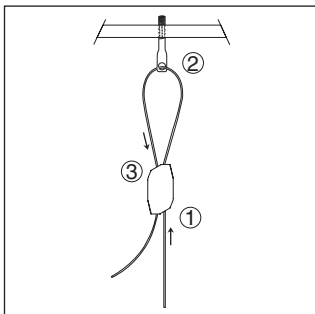
### Optional Hanger Brackets

LHSH Metal Strut Hanger

LHHB Universal Hanger Bracket  
Suspends fixture with standard jack chain or GLH5 cable hanger.



### GLH Adjustable Cable Kit



1. Pass free end through grip fastener.
2. Feed free end around beam or through lag screw or eye bolt.
3. Return free end through grip fastener and adjust to desired length.
4. Slip loop over LHHB bracket.

### Construction

Riveted code gauge steel construction. Die-embossed for rigidity.

### Reflector

Multi-faceted specular aluminum reflector provides precise control and excellent efficiency. Also available in 95% reflectance MIRO 4 finish or white powder coat for broad light distribution. Optional upright may be specified at 4% or 8%. Retained with quarter-turn fasteners for tool-free ballast access.

### Ballast and Electrical

Energy efficient electronic, thermally protected, automatic resetting, Class P, high power factor, CBM, sound rated A. Positive stop, anti-vibrational locking lampholders. All configurations have been heat tested to ensure reliable operation and performance under normal conditions.

### Finish

All steel surfaces are pre-painted with high gloss baked white enamel, applied over iron phosphate pre-treatment for maximum adhesion and rust resistance.

### Mounting

Choice of mounting hardware, including the fast and flexible GLH adjustable cable system for simplified mounting to wood, concrete or steel ceiling decks, or to beams, purlins or metal strut. Also available with hardware to mount with jack chain or directly to metal strut. Optional safety tether available.

### Certification

Fixtures bear a UL label. CSA certification available. Use suffix CSA.

11.2

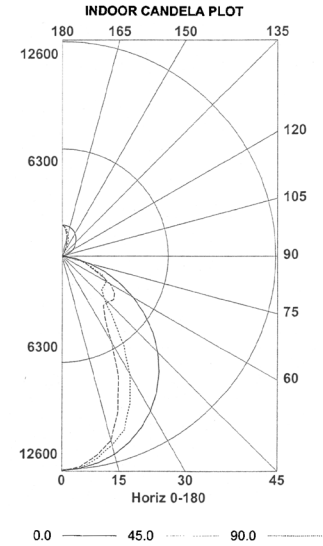
# Photometric Report

LUMINAIRE: LHR4-654-M4R-8-EB5  
 LHR Industrial  
 2' X 4' 6-LAMP WITH MIRO4 REFLECTOR AND 4ROWS UPLIGHT SLOTS  
 BALLAST: (3)ICN2S54  
 BALLAST FACTOR: 1.00  
 LAMP: F54T5  
 LUMENS PER LAMP: 4400  
 WATTS: 360  
 SHIELDING ANGLE: N/A

TEST #13376  
 DATE: 4/7/2003  
 TOTAL LUMINAIRE EFFICIENCY = 99.2%  
 LUMINAIRE EFFICACY RATING (LER) = 73  
 IESNA RP-1-1993 COMPLIANCE: NONCOMPLIANT  
 COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$3.29  
 BASED ON 3000 HRS. AND \$.08 PER KWH

SPACING CRITERION:  
 ALONG = 1.25, ACROSS = 0.90

| LUMINOUS OPENING IN FEET | ZONAL LUMENS |        |        | AVERAGE LUMINANCE |       |       | CANDELA/SQ M |       |       |       |
|--------------------------|--------------|--------|--------|-------------------|-------|-------|--------------|-------|-------|-------|
|                          | ZONE         | LUMENS | % LAMP | % FIXTURE         | ANGLE | 0.0   | 22.5         | 45.0  | 67.5  | 90.0  |
| LENGTH: 3.88             | 0-30         | 8855   | 33.5   | 33.8              | 0     | 24423 | 24423        | 24423 | 24423 | 24423 |
| WIDTH: 1.44              | 0-40         | 13140  | 49.8   | 50.2              | 30    | 23480 | 22003        | 17921 | 14259 | 13018 |
| HEIGHT: 0.00             | 0-60         | 20255  | 76.7   | 77.3              | 40    | 22576 | 19028        | 11717 | 9514  | 9589  |
|                          | 0-90         | 24437  | 92.6   | 93.3              | 45    | 21949 | 16827        | 9607  | 9874  | 10470 |
|                          | 90-120       | 165    | 0.6    | 0.6               | 50    | 21160 | 14189        | 9210  | 11248 | 12016 |
|                          | 90-130       | 292    | 1.1    | 1.1               | 55    | 20086 | 10930        | 10170 | 12451 | 12757 |
|                          | 90-150       | 788    | 3.0    | 3.0               | 60    | 18822 | 8669         | 11609 | 12773 | 12684 |
|                          | 90-180       | 1762   | 6.7    | 6.7               | 65    | 17209 | 8055         | 11980 | 11050 | 10672 |
|                          | 0-180        | 26199  | 99.2   | 100.0             | 70    | 15181 | 8934         | 10376 | 9739  | 9525  |
|                          |              |        |        |                   | 75    | 12587 | 9558         | 8880  | 9893  | 10399 |
|                          |              |        |        |                   | 80    | 9297  | 7622         | 9552  | 10052 | 8964  |
|                          |              |        |        |                   | 85    | 5173  | 7007         | 1680  | 1172  | 1172  |



## COEFFICIENTS OF UTILIZATION (%)

| RC | EFFECTIVE FLOOR CAVITY REFLECTANCE = 20% |     |     |     |     |     |     |     |     |     |     |     | ZONAL CAVITY METHOD |     |    |    |    |    |
|----|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|-----|----|----|----|----|
|    | 70%                                      | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30%                 | 10% | 0% |    |    |    |
| RW | 107                                      | 103 | 99  | 96  | 104 | 100 | 97  | 93  | 95  | 92  | 89  | 90  | 88                  | 85  | 83 | 82 | 79 |    |
| 1  | 98                                       | 91  | 85  | 79  | 95  | 88  | 83  | 78  | 84  | 79  | 75  | 80  | 76                  | 73  | 70 | 68 |    |    |
| 3  | 90                                       | 81  | 73  | 67  | 87  | 79  | 72  | 66  | 75  | 69  | 64  | 71  | 66                  | 62  | 68 | 64 | 61 | 58 |
| 4  | 83                                       | 72  | 64  | 58  | 81  | 71  | 63  | 57  | 67  | 61  | 56  | 64  | 59                  | 54  | 61 | 57 | 53 | 51 |
| R  | 77                                       | 65  | 57  | 51  | 75  | 64  | 56  | 50  | 61  | 54  | 49  | 58  | 53                  | 48  | 56 | 51 | 47 | 45 |
| C  | 72                                       | 59  | 51  | 45  | 69  | 58  | 50  | 45  | 56  | 49  | 44  | 53  | 47                  | 43  | 51 | 46 | 42 | 40 |
| R  | 67                                       | 54  | 46  | 40  | 65  | 53  | 45  | 40  | 51  | 44  | 39  | 49  | 43                  | 39  | 47 | 42 | 38 | 36 |
| 8  | 62                                       | 50  | 42  | 36  | 61  | 49  | 41  | 36  | 47  | 40  | 36  | 45  | 39                  | 35  | 44 | 38 | 34 | 33 |
| 9  | 59                                       | 46  | 38  | 33  | 57  | 45  | 38  | 33  | 44  | 37  | 32  | 42  | 36                  | 32  | 41 | 35 | 31 | 30 |
| 10 | 55                                       | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 30  | 39  | 33                  | 29  | 38 | 33 | 29 | 27 |

RCR = ROOM CAVITY RATIO RC = EFFECTIVE CEILING CAVITY REFLECTANCE RW = WALL REFLECTANCE

This photometric test was performed using a specific lamp/ballast combination. Extrapolation of these data for other lamp/ballast combinations may produce erroneous results. The ballast factor must be applied to the lumen output rating assigned to the lamp(s) or to the candela values shown. Luminaire efficacy rating (LER) per NEMA LE5-1993. This test is run in accordance with current I.E.S.N.A. published procedures.

## Ordering Information

### Model

LHR - Linear Hi-Bay

### Size

4 - 48" x 24<sup>13</sup>/<sub>16</sub>"

### No. of Lamps

6 - Six

### Lamp Type

28 - 4', 28 Watt, T5  
 54 - 4', 54 Watt, T5 HO

### Reflector

M4R - MIRO 4, 95% Reflectance (S/MH = 1.0)  
 LS - Specular Anodized Aluminum (S/MH = 1.0)  
 GW - Gloss White Powder Coat (S/MH = 1.4)

### Voltage

120 - 120V  
 277 - 277V  
 347 - 347V (HO only)  
 480 - 480V (HO only)  
 UNV - 120V/277V

### Ballast

EB5 - (3) 2-Lamp Electronic T5  
 3EB5 - (2) 3-Lamp Electronic T5 (NA 347V or 480V)  
 24EB5 - (1) 2-Lamp & (1) 4-Lamp Electronic T5 (NA 347V or 480V)

For a specific ballast vendor, show as option.

### Uplight

ST - Solid Top (No Uplight)  
 4 - 4% Uplight  
 8 - 8% Uplight

### Options

GLR - Fast Blow Fuse  
 EL - Emergency Battery Pack  
 F3C5 - 3-conductor 5' Feed Cord Wired to Fixture  
 F3C10 - 3-conductor 10' Feed Cord Wired to Fixture  
 F3C15 - 3-conductor 15' Feed Cord Wired to Fixture  
 F4C5 - 4-conductor 5' Feed Cord Wired to Fixture  
 F4C10 - 4-conductor 10' Feed Cord Wired to Fixture  
 F4C15 - 4-conductor 15' Feed Cord Wired to Fixture  
 C&P6 - 6' Cord and Plug (15A)  
 C6TL15 - 6' Cord and Twist-Lock™ Plug (15A) (NA 480V)  
 C6TL20 - 6' Cord and Twist-Lock™ Plug (20A)  
 F5830 - T5 or T5 HO Lamp Installed, 82CRI, 3000K\*  
 F5835 - T5 or T5 HO Lamp Installed, 82CRI, 3500K\*  
 F5841 - T5 or T5 HO Lamp Installed, 82CRI, 4100K\*  
 PAF - Paint After Fabrication

\*Lamp type in catalog number will determine lamp installed.

### Accessories

FSCA - Flush Steel Door with Clear, Smooth Acrylic Lens  
 LHTF - Fixture Safety Tether  
 LHHB - Universal Hanger Bracket Kit  
 LHSH - Metal Strut Hanger  
 GLH5 - 5' Adjustable Cable Kit\*  
 GLH10 - 10' Adjustable Cable Kit\*  
 GLH15 - 15' Adjustable Cable Kit\*  
 LHRWG654 - Wire Guard for LHR4-654  
 OS - Occupancy Sensor  
 \*Use with LHHB