

## Tech-Lock Series

Table of Contents

Certified for ISO-5, Class 100 Cleanspaces

| Product Number       | Installation Type | Page |
|----------------------|-------------------|------|
| TL-S-1x4 / 2x2 / 2x4 | Surface           | SL01 |
| TL-F-1x4 / 2x2 / 2x4 | Flange            | SL02 |
| TL-G-1x4 / 2x2 / 2x4 | Grid              | SL03 |



In 1944, the Republic Aviation company completed the designs for the P-47 "Thunderbolt". This aircraft was designed to be more heavily armored and faster than any enemy fighter-bomber in the air. Extra power to the engine was gained by an innovative design including a turbo-supercharger mounted aft of the engine. The P-47 was conceptualized as an interceptor and a low-level bomber, a "tunnel buster".

High tolerance metal parts were required for the turbo-supercharger, and at a high rate of production to bring the new aircraft into the front lines. The USAF brought the concept of mass production of high tolerance parts to 1420 South Talman. Here the company's staff was committed to winning the war of production. Soon the company's mass production was devoted to rapid deployment of the metal parts needed.

The new plane soon proved its value in both the European and Asian theatres of war. Its kill-rate of enemy fighters, due to its unprecedented maneuverability and speed, and its ability to protect its pilot with heavy armor plate, made it one of the most highly valued weapons in the Air Force arsenal.

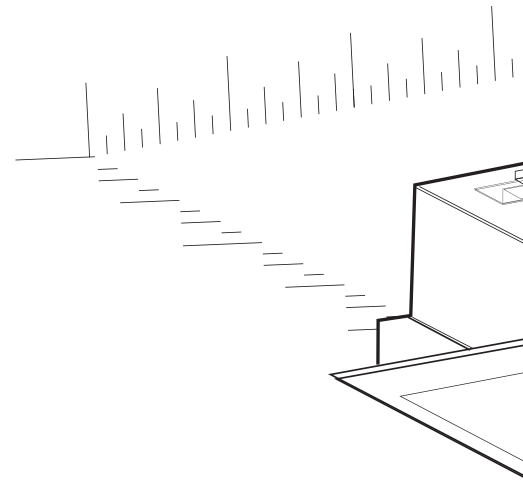
By the end of WWII, the company had helped to manufacture some 15,000 of the P47, making it the most highly produced aircraft of the war.



Tech-Lock



**Highest Efficiency 82.9% Cleanroom Troffer\***  
**1700PSI Washdown Sealed**  
**IP65 Tested.**  
**NSF Listed.**  
**Cleanroom Classified ISO-5**  
**Room for up to Six T5HO Lamps.**

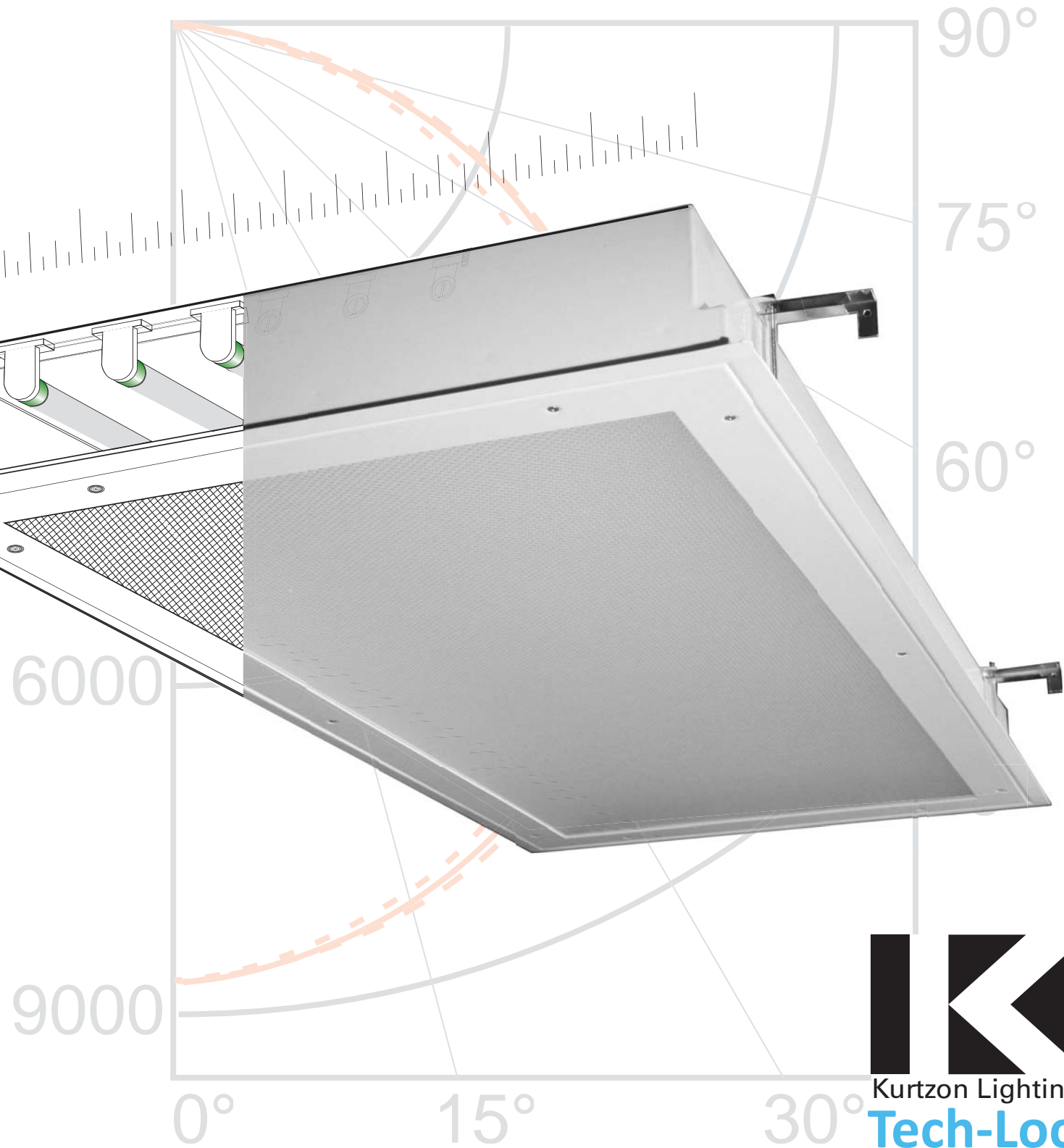


**In other words,**  
**We improved the important stuff.**

We've made the cleanroom troffer more capable by engineering in some really big ideas. Efficient ideas, like a reflector system that returns 82.9 percent\*\* of the lamp lumens to the space allowing you to use less fixtures and power. Versatile ideas, like 1700 psi washdown resistance and NSF Food Zone listing making it useful in more places. Powerful ideas like engineering it specifically for up to six T5HO lamps that provide more than 21100 lumens and 7700 CBCP.

\*According to published competitors data gathered on 3/16/2010. Efficiency results are compared with competitive 2x4 cleanroom troffers using two to four lamps. Request a copy of our independent laboratory test results. \*\* Peak efficiency is based on the two T8 lamp 2x4 model. Three and four lamp models are 82.4% and 80.9% efficient. 1700 PSI washdown is based on the HD1700 standard test of a sharp stream of 2.1 GPM at 5 feet distance. Contact technical support for more details.

**We've measured and found the Seal-Lock the best 2 x 4 x far.**



Kurtzon Lighting  
**Tech-Lock**

# Tech-Lock Series

1x4, 2x2 and 2x4 Surface Luminaires for ISO-5+ and Class 100 Installations

TL01

## Specifications:

**Housing:** True One piece, seam welded, hole free 20-gauge CRS, stainless steel or aluminum construction. Fully white powder coated.

**Door Frame:** 20-gauge CRS, aluminum or type 304 stainless steel one piece inset door frame hinged to housing with two stainless steel cables. Secured by captive stainless steel screws. See Options for 1700 PSI rating (HD-1700).

**Gaskets:** NSF listed closed microcellular extruded gasket located at interface of door to housing. NSF Listed silicone seals the door to the lens.

**Reflector:** Die formed metal with high reflectance white polyester powder coat finish. (minimum reflectivity 88%)

**Lens:** High durability .135" thick virgin acrylic with P12 prismatic pattern inverted (smooth side out). See "Options" for other choices.

**Lamps:** Select lamp options listed below. Lamps supplied by others.

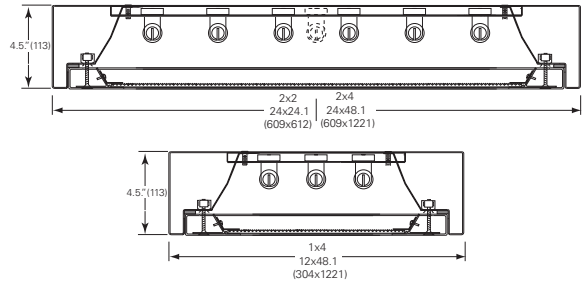
**Electrical:** Standard ballast - Electronic less than 10% THD high performance instant start universal voltage (120-277 volt). See options for other choices.

**Finish:** Gloss white high reflectance 1000 hr. salt spray polyester powder coat finish standard for all housings. Stainless steel doorframes are satin polished unless option WHT is chosen. Consult factory for satin polished housings.

**Surface Installation:** Four .312" holes for surface mounting. Two flattened and silicone sealed 1/2 inch trade size knockouts for wiring located on gasketed access plate. See below for mounting options. Suitable for through wiring.

**Listings:** UL and CUL Listed for Wet Locations. Cleanroom ISO14644-1 Class 5 (Fed Std-209E Class 100) Optional NSF Food Zone, Non-contact. NSF-49, IP-65 dust and water jet resistance. IBEW Union Label. CCEA, Biosafety Level-1 & 2.

Project: \_\_\_\_\_  
 Fixture Type: \_\_\_\_\_



## Ordering Information:

TL - - - - -

| Series              | Installation Type | Material  | Size | Lamps    | Voltage                       | Options  |
|---------------------|-------------------|---|------|----------|-------------------------------|--|
| TL                  | S = Surface       | 1 = CRS Hsg. & CRS Door<br>2 = CRS Hsg. & SS Door<br>3 = SS Hsg. & SS Door<br>4 = AL Hsg. & SS Door<br>5 = AL Hsg. & AL Door<br>6 = CRS Hsg. & AL Door            |      | Qty/Type | 120V<br>277V<br>347V*<br>UNV* | FF = Fuse & Holder<br>FD = Two Fuses & Holders<br>2/EB = Two Ballasts, (Two Circuits)*<br>EBL = -20°F Electronic Ballast*<br>EBPRS = Program Rapid Start Ballast*<br>1/EM = 1 Lamp Battery Pack (700L)*<br>2/EM = 1 or 2 Lamp Battery Pack (1300L)*<br>TP = Stainless Steel Tamperproof Fasteners<br>HD1700 = 1700 P.S.I. Hosedown<br>SSP = Satin Polished SS Housing<br>WHT = White Finished SS Doorframe<br>LEX = .125" Prismatic Polycarbonate<br>A19 = Prismatic P19 Pattern Clear Acrylic<br>HIA = High Impact P12 Pattern Acrylic<br>TG = Prismatic (C73) Tempered Glass |
| 1x4 = 1'x4' Housing |                   | 1, 2 or 3/T8 = F32T8 32W T8 (G13)<br>1, 2 or 3/T5 = F28WT5 28W T5 (G5)*<br>1 or 2/T5HO = F54WT5 54W T5HO (G5)*  |      |          |                               |  |
| 2x2 = 2'x2' Housing |                   | 2, 3, 4 or 6/T8 = F17T8 17W T8 (G13)<br>1 or 2/T8U6 = F32T8/U/6 (6" U-Lamp, G13)<br>2 or 3/T8U1 = F31T8/U (1.625" U-Lamp, G13)<br>2 or 3/BX = 40-Watt Biax (2G11) |      |          |                               |  |
| 2x4 = 2'x4' Housing |                   | 2, 3, 4 or 6/T8 = F32T8 32W T8 (G13)<br>2, 3, 4 or 6/T5 = F28WT5 28W T5 (G5)*<br>2, 3, 4 or 6/T5HO = F54WT5 54W T5HO (G5)*  |      |          |                               |  |

\* Note: Not all options are compatible with every option. Ex: EBPRS is not Compatible with EBL. Consult factory for multiple options marked "\*\*".

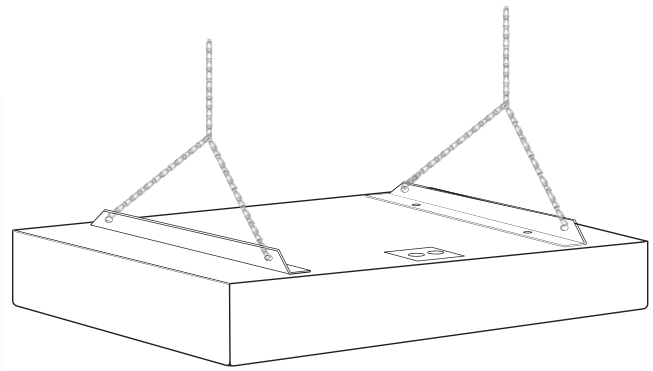
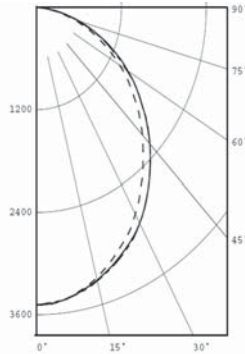
**Photometrics**

CATALOG #: TL-x-1-2X4-4/T8  
 LAMPS: FOUR 32-WATT T-8 FO32/841 2950 LUMENS  
 LUMINAIRE: CLEANROOM TROFFER ISO CLASS 3 2' X 4' 4 LAMP T8 INVERTED A12 LENS INSET DOOR  
 INPUT WATTS: 107 SPACING/HM: 1.2  
 TOTAL EFFICIENCY = 80.9

| 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  | 96 | 96 | 96 | 96 | 94 | 94 | 94 | 94 | 90 | 90 | 90 | 86 | 86 | 86 | 83 | 83 | 83 | 81 |
| 1  | 88 | 84 | 81 | 78 | 86 | 83 | 79 | 77 | 79 | 77 | 74 | 76 | 74 | 72 | 73 | 71 | 70 | 68 |
| 2  | 80 | 74 | 68 | 63 | 78 | 72 | 67 | 63 | 69 | 65 | 61 | 67 | 63 | 60 | 64 | 61 | 59 | 57 |
| 3  | 73 | 65 | 58 | 53 | 71 | 63 | 57 | 52 | 61 | 56 | 51 | 59 | 54 | 51 | 57 | 53 | 50 | 48 |
| 4  | 67 | 57 | 50 | 45 | 65 | 56 | 50 | 44 | 54 | 48 | 44 | 52 | 47 | 43 | 51 | 46 | 43 | 41 |
| 5  | 62 | 51 | 44 | 39 | 60 | 50 | 43 | 38 | 49 | 43 | 38 | 47 | 42 | 38 | 45 | 41 | 37 | 35 |
| 6  | 57 | 46 | 39 | 34 | 55 | 45 | 38 | 34 | 44 | 38 | 33 | 42 | 37 | 33 | 41 | 36 | 33 | 31 |
| 7  | 53 | 42 | 35 | 30 | 51 | 41 | 34 | 30 | 40 | 34 | 29 | 39 | 33 | 29 | 38 | 33 | 29 | 27 |
| 8  | 49 | 38 | 31 | 27 | 48 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 35 | 30 | 26 | 24 |
| 9  | 46 | 35 | 28 | 24 | 45 | 35 | 28 | 24 | 34 | 28 | 24 | 33 | 27 | 24 | 32 | 27 | 23 | 22 |
| 10 | 43 | 32 | 26 | 22 | 42 | 32 | 26 | 22 | 31 | 25 | 22 | 30 | 25 | 21 | 30 | 25 | 21 | 20 |

**ZONAL LUMEN SUMMARY**

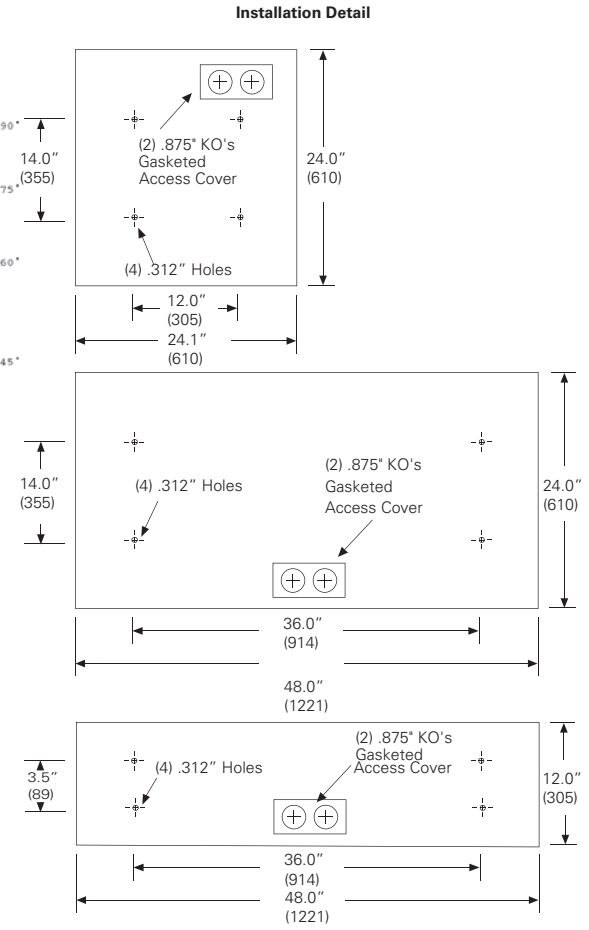
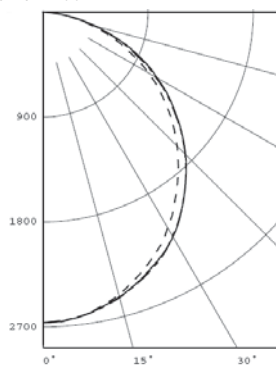
| ZONE   | LUMENS | %LAMP | %FIXT |
|--------|--------|-------|-------|
| 0-30   | 2669.0 | 22.6  | 28.0  |
| 0-40   | 4347.0 | 36.8  | 45.5  |
| 0-60   | 7612.0 | 64.5  | 79.7  |
| 0-90   | 9547.0 | 80.9  | 100.0 |
| 90-180 | 0.0    | 0.0   | 0.0   |
| 0-180  | 9547.0 | 80.9  | 100.0 |



Chain Mount Brackets (CMB option)

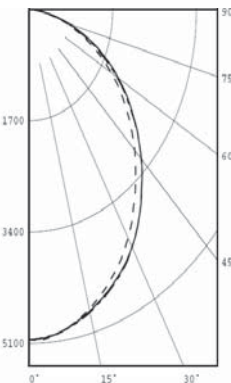
CATALOG #: TL-x-1-2X4-3/T8  
 LAMPS: THREE 32-WATT T-8 FO32/841 2950 LUMENS  
 LUMINAIRE: CLEANROOM TROFFER ISO CLASS 3 2' X 4' 3 LAMP T8 INVERTED A12 LENS INSET DOOR  
 INPUT WATTS: 88.9 SPACING/HM: 1.2  
 TOTAL EFFICIENCY = 82.4

| 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  | 98 | 98 | 98 | 98 | 96 | 96 | 96 | 96 | 92 | 92 | 92 | 88 | 88 | 88 | 84 | 84 | 84 | 82 |
| 1  | 90 | 86 | 82 | 79 | 87 | 84 | 81 | 78 | 80 | 78 | 76 | 77 | 75 | 73 | 74 | 73 | 71 | 69 |
| 2  | 82 | 75 | 69 | 65 | 79 | 73 | 68 | 64 | 70 | 66 | 62 | 68 | 64 | 61 | 65 | 62 | 60 | 58 |
| 3  | 74 | 66 | 59 | 54 | 72 | 64 | 58 | 53 | 62 | 57 | 52 | 60 | 55 | 51 | 58 | 54 | 49 | 47 |
| 4  | 68 | 58 | 51 | 46 | 66 | 57 | 50 | 45 | 55 | 49 | 45 | 53 | 48 | 44 | 51 | 47 | 43 | 42 |
| 5  | 63 | 52 | 45 | 39 | 61 | 51 | 44 | 39 | 49 | 43 | 39 | 48 | 42 | 38 | 46 | 42 | 38 | 36 |
| 6  | 58 | 47 | 40 | 34 | 56 | 46 | 39 | 34 | 45 | 38 | 34 | 43 | 38 | 34 | 42 | 37 | 33 | 32 |
| 7  | 54 | 43 | 35 | 30 | 52 | 42 | 35 | 30 | 41 | 34 | 30 | 39 | 34 | 30 | 38 | 33 | 30 | 28 |
| 8  | 50 | 39 | 32 | 27 | 49 | 38 | 32 | 27 | 37 | 31 | 27 | 36 | 31 | 27 | 35 | 30 | 26 | 25 |
| 9  | 47 | 36 | 29 | 24 | 46 | 35 | 29 | 24 | 34 | 28 | 24 | 33 | 28 | 24 | 32 | 28 | 24 | 22 |
| 10 | 44 | 33 | 26 | 22 | 43 | 32 | 26 | 22 | 32 | 26 | 22 | 31 | 26 | 22 | 30 | 25 | 22 | 20 |



CATALOG #: TL-x-1-2X4-6/T8  
 LAMPS: SIX 32-WATT T-8 FO32/841 2950 LUMENS  
 LUMINAIRE: CLEANROOM TROFFER ISO CLASS 3 2' X 4' 6 LAMP T8 INVERTED A12 LENS INSET DOOR  
 INPUT WATTS: 155.9 SPACING/HM: 1.2  
 TOTAL EFFICIENCY = 76.6

| 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  | 91 | 91 | 91 | 91 | 89 | 89 | 89 | 89 | 85 | 85 | 85 | 82 | 82 | 82 | 78 | 78 | 78 | 77 |
| 1  | 84 | 80 | 77 | 74 | 82 | 78 | 75 | 73 | 75 | 73 | 70 | 72 | 70 | 68 | 69 | 68 | 66 | 65 |
| 2  | 76 | 70 | 65 | 60 | 74 | 68 | 64 | 60 | 66 | 62 | 58 | 63 | 60 | 57 | 61 | 58 | 56 | 54 |
| 3  | 69 | 61 | 55 | 50 | 68 | 60 | 55 | 50 | 58 | 53 | 49 | 56 | 52 | 48 | 54 | 50 | 47 | 46 |
| 4  | 64 | 54 | 48 | 43 | 62 | 53 | 47 | 42 | 52 | 46 | 42 | 50 | 45 | 41 | 48 | 44 | 41 | 39 |
| 5  | 59 | 49 | 42 | 37 | 57 | 48 | 41 | 37 | 46 | 41 | 36 | 45 | 40 | 36 | 43 | 39 | 35 | 34 |
| 6  | 54 | 44 | 37 | 32 | 53 | 43 | 37 | 32 | 42 | 36 | 32 | 40 | 35 | 31 | 39 | 35 | 31 | 30 |
| 7  | 50 | 40 | 33 | 28 | 49 | 39 | 33 | 28 | 38 | 32 | 28 | 37 | 32 | 28 | 36 | 31 | 28 | 26 |
| 8  | 47 | 36 | 30 | 25 | 45 | 36 | 30 | 25 | 35 | 29 | 25 | 34 | 29 | 25 | 33 | 28 | 25 | 23 |
| 9  | 44 | 33 | 27 | 23 | 43 | 33 | 27 | 23 | 32 | 27 | 23 | 31 | 26 | 23 | 30 | 26 | 22 | 21 |
| 10 | 41 | 31 | 25 | 21 | 40 | 30 | 25 | 21 | 30 | 24 | 21 | 29 | 24 | 21 | 28 | 24 | 20 | 19 |



**ZONAL LUMEN SUMMARY**

| ZONE   | LUMENS | %LAMP | %FIXT |
|--------|--------|-------|-------|
| 0-30   | 3847   | 21.7  | 28.4  |
| 0-40   | 6254   | 35.3  | 46.1  |
| 0-60   | 10894  | 61.5  | 80.3  |
| 0-90   | 13565  | 76.6  | 100   |
| 90-180 | 0      | 0     | 0     |
| 0-180  | 13565  | 76.6  | 100   |

# Tech-Lock Series

1x4, 2x2 and 2x4 Flanged Luminaires for ISO-5+ and Class 100 Installations

TL02

## Specifications:

**Housing:** True One piece, seam welded, hole free 20-gauge CRS, stainless steel or aluminum construction. Fully white powder coated.

**Door Frame:** 20-gauge CRS, aluminum or type 304 stainless steel one piece inset door frame hinged to housing with two stainless steel cables. Secured by captive stainless steel screws. See Options for 85 PSI rating (HD-85).

**Gaskets:** NSF listed closed microcellular extruded gasket located at interface of door to housing. NSF Listed silicone seals the door to the lens.

**Reflector:** Die formed metal with high reflectance white polyester powder coat finish. (minimum reflectivity 88%)

**Lens:** High durability .135" thick virgin acrylic with P12 prismatic pattern inverted (smooth side out). See "Options" for other choices.

**Lamps:** Select lamp options listed below. Lamps supplied by others.

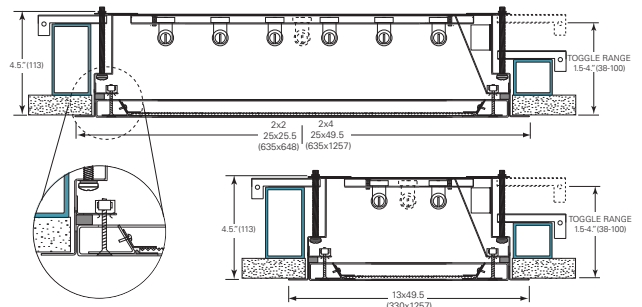
**Electrical:** Standard ballast - Electronic less than 10% THD high performance instant start universal voltage (120-277 volt). See options for other choices.

**Finish:** Gloss white high reflectance 1000 hr. salt spray polyester powder coat finish standard for all housings. Stainless steel doorframes are satin polished unless option WHT is chosen. Consult factory for satin polished housings.

**Flanged Installation:** Four toggle arms provided allow up to 4 inch thick ceiling. Four flattened and silicone sealed 1/2 inch trade size knockouts for wiring.

**Listings:** UL and CUL Listed for Wet Locations. Cleanroom ISO14644-1 Class 5 (Fed Std-209E Class 100) Optional NSF Food Zone, Non-contact. NSF-49, IP-65 dust and water jet resistance. IBEW Union Label. CCEA, Biosafety Level-1 & 2.

Project: \_\_\_\_\_  
 Fixture Type: \_\_\_\_\_



DAMP LOCATION



IEC 60529



C-2 FOOD ZONE



ISO 14644-1 CLASS 5

## Ordering Information:

TL - - - - -

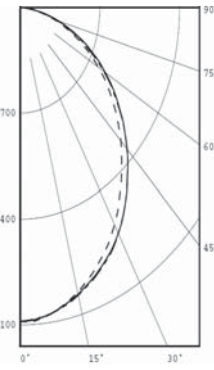
| Series              | Installation Type | Material  | Size | Lamps    | Voltage                       | Options   |
|---------------------|-------------------|---|------|----------|-------------------------------|---|
| TL                  | F = Flange        | 1 = CRS Hsg. & CRS Door<br>2 = CRS Hsg. & SS Door<br>3 = SS Hsg. & SS Door<br>4 = AL Hsg. & SS Door<br>5 = AL Hsg. & AL Door<br>6 = CRS Hsg. & AL Door            |      | Qty/Type | 120V<br>277V<br>347V*<br>UNV* | FF = Fuse & Holder<br>FD = Two Fuses & Holders<br>2/EB = Two Ballasts, (Two Circuits)*<br>EBL = -20°F Electronic Ballast*<br>EBPRS= Program Rapid Start Ballast*<br>1/EM = 1 Lamp Battery Pack (700L)*<br>2/EM = 1 or 2 Lamp Battery Pack (1300L)*<br>TP = Stainless Steel Tamperproof Fasteners<br>HD1700 = 1700 P.S.I. Hosedown<br>SSP = Satin Polished SS Housing<br>WHT= White Finished SS Doorframe<br>LEX = .125" Prismatic Polycarbonate<br>A19= Prismatic P19 Pattern Clear Acrylic<br>HIA= High Impact P12 Pattern Acrylic<br>TG= Prismatic (C73) Tempered Glass |
| 1x4 = 1'x4' Housing |                   | 1, 2 or 3/T8 = F32T8 32W T8 (G13)<br>1, 2 or 3/T5 = F28WT5 28W T5 (G5)*<br>1 or 2/T5HO = F54WT5 54W T5HO (G5)*  |      |          |                               |   |
| 2x2 = 2'x2' Housing |                   | 2, 3, 4 or 6/T8 = F17T8 17W T8 (G13)<br>1 or 2/T8U6 = F32T8/U/6 (6" U-Lamp, G13)<br>2 or 3/T8U1 = F31T8/U (1.625" U-Lamp, G13)<br>2 or 3/BX = 40-Watt Biax (2G11) |      |          |                               |   |
| 2x4 = 2'x4' Housing |                   | 2, 3, 4 or 6/T8 = F32T8 32W T8 (G13)<br>2, 3, 4 or 6/T5 = F28WT5 28W T5 (G5)*<br>2, 3, 4 or 6/T5HO = F54WT5 54W T5HO (G5)*  |      |          |                               |   |

\* Note: Not all options are compatible with every option. Ex: EBPRS is not Compatible with EBL. Consult factory for multiple options marked "\*\*".

**Photometrics**

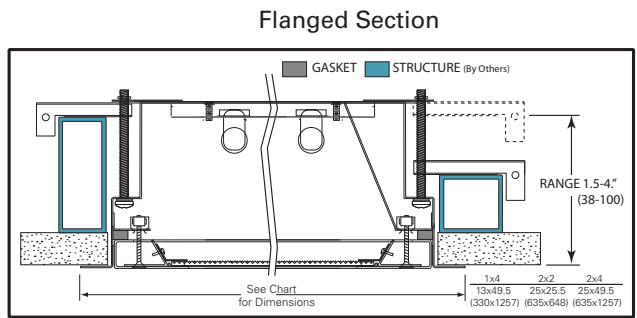
CATALOG #: TL-x-1-2X4-6/T8  
 LAMPS: SIX 32-WATT T-8 FO32/841 2950 LUMENS  
 LUMINAIRE: CLEANROOM TROFFER ISO CLASS 3 2' X 4' 6 LAMP T8 INVERTED A12 LENS INSET DOOR  
 INPUT WATTS: 155.9 SPACING/HM: 1.2  
 TOTAL EFFICIENCY = 76.6

| RC | 80 |    |    | 70 |    |    | 50 |    |    | 30 |    |    | 10 |    |    | 0  |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|    | RW | 70 | 50 | 30 | 10 | 0  | RW | 70 | 50 | 30 | 10 | 0  | RW | 70 | 50 | 30 | 10 | 0  |    |    |
| 0  | 91 | 91 | 91 | 91 | 89 | 89 | 89 | 89 | 85 | 85 | 85 | 85 | 82 | 82 | 82 | 82 | 78 | 78 | 78 | 77 |
| 1  | 84 | 80 | 77 | 74 | 82 | 78 | 75 | 73 | 75 | 73 | 70 | 72 | 70 | 68 | 69 | 68 | 66 | 65 | 65 | 65 |
| 2  | 76 | 70 | 65 | 60 | 74 | 68 | 64 | 60 | 66 | 62 | 58 | 63 | 60 | 57 | 61 | 58 | 56 | 54 | 54 | 54 |
| 3  | 69 | 61 | 55 | 50 | 68 | 60 | 55 | 50 | 58 | 53 | 49 | 56 | 52 | 48 | 54 | 50 | 47 | 46 | 46 | 46 |
| 4  | 64 | 54 | 48 | 43 | 62 | 53 | 47 | 42 | 52 | 46 | 42 | 50 | 45 | 41 | 48 | 44 | 41 | 39 | 39 | 39 |
| 5  | 59 | 49 | 42 | 37 | 57 | 48 | 41 | 37 | 46 | 41 | 36 | 45 | 40 | 36 | 43 | 39 | 35 | 34 | 34 | 34 |
| 6  | 54 | 44 | 37 | 32 | 53 | 43 | 37 | 32 | 42 | 36 | 32 | 40 | 35 | 31 | 39 | 35 | 31 | 30 | 30 | 30 |
| 7  | 50 | 40 | 33 | 28 | 49 | 39 | 33 | 28 | 38 | 32 | 28 | 37 | 32 | 28 | 36 | 31 | 28 | 26 | 26 | 26 |
| 8  | 47 | 36 | 30 | 25 | 45 | 36 | 30 | 25 | 35 | 29 | 25 | 34 | 29 | 25 | 33 | 28 | 25 | 23 | 23 | 23 |
| 9  | 44 | 33 | 27 | 23 | 43 | 33 | 27 | 23 | 32 | 27 | 23 | 31 | 26 | 23 | 30 | 26 | 22 | 21 | 21 | 21 |
| 10 | 41 | 31 | 25 | 21 | 40 | 30 | 25 | 21 | 30 | 24 | 21 | 29 | 24 | 21 | 28 | 24 | 20 | 19 | 19 | 19 |

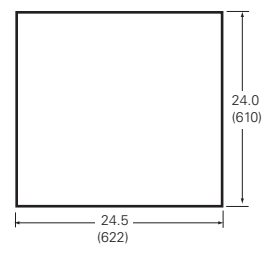
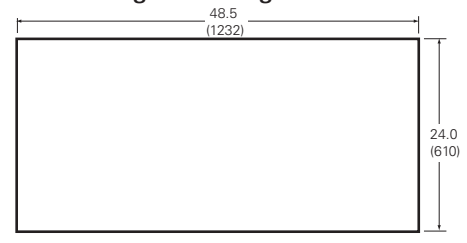


**ZONAL LUMEN SUMMARY**

| ZONE   | LUMENS | %LAMP | %FIXT |
|--------|--------|-------|-------|
| 0-30   | 3847   | 21.7  | 28.4  |
| 0-40   | 6254   | 35.3  | 46.1  |
| 0-60   | 10894  | 61.5  | 80.3  |
| 0-90   | 13565  | 76.6  | 100   |
| 90-180 | 0      | 0     | 0     |
| 0-180  | 13565  | 76.6  | 100   |

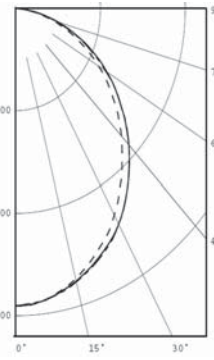


**Flanged Ceiling Cutouts**



CATALOG #: TL-x-1-2X4-4/T8  
 LAMPS: FOUR 32-WATT T-8 FO32/841 2950 LUMENS  
 LUMINAIRE: CLEANROOM TROFFER ISO CLASS 3 2' X 4' 4 LAMP T8 INVERTED A12 LENS INSET DOOR  
 INPUT WATTS: 107 SPACING/HM: 1.2  
 TOTAL EFFICIENCY = 80.9

| RC | 80 |    |    | 70 |    |    | 50 |    |    | 30 |    |    | 10 |    |    | 0  |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|    | RW | 70 | 50 | 30 | 10 | 0  | RW | 70 | 50 | 30 | 10 | 0  | RW | 70 | 50 | 30 | 10 | 0  |    |    |
| 0  | 96 | 96 | 96 | 96 | 94 | 94 | 94 | 94 | 90 | 90 | 90 | 86 | 86 | 86 | 83 | 83 | 83 | 81 | 81 | 81 |
| 1  | 88 | 84 | 81 | 78 | 86 | 83 | 79 | 77 | 79 | 77 | 74 | 76 | 74 | 72 | 73 | 71 | 70 | 68 | 68 | 68 |
| 2  | 80 | 74 | 68 | 63 | 78 | 72 | 67 | 63 | 69 | 65 | 61 | 67 | 63 | 60 | 64 | 61 | 59 | 57 | 57 | 57 |
| 3  | 73 | 65 | 58 | 53 | 71 | 63 | 57 | 52 | 61 | 56 | 51 | 59 | 54 | 51 | 57 | 53 | 50 | 48 | 48 | 48 |
| 4  | 67 | 57 | 50 | 45 | 65 | 56 | 50 | 44 | 54 | 48 | 44 | 52 | 47 | 43 | 51 | 46 | 43 | 41 | 41 | 41 |
| 5  | 62 | 51 | 44 | 39 | 60 | 50 | 43 | 38 | 49 | 43 | 38 | 47 | 42 | 38 | 45 | 41 | 37 | 35 | 35 | 35 |
| 6  | 57 | 46 | 39 | 34 | 55 | 45 | 38 | 34 | 44 | 38 | 33 | 42 | 37 | 33 | 41 | 36 | 33 | 31 | 31 | 31 |
| 7  | 53 | 42 | 35 | 30 | 51 | 41 | 34 | 30 | 40 | 34 | 29 | 39 | 33 | 29 | 38 | 33 | 29 | 27 | 27 | 27 |
| 8  | 49 | 38 | 31 | 27 | 48 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 35 | 30 | 26 | 24 | 24 | 24 |
| 9  | 46 | 35 | 28 | 24 | 45 | 35 | 28 | 24 | 34 | 28 | 24 | 33 | 27 | 24 | 32 | 27 | 23 | 22 | 22 | 22 |
| 10 | 43 | 32 | 26 | 22 | 42 | 32 | 26 | 22 | 31 | 25 | 22 | 30 | 25 | 21 | 30 | 25 | 21 | 20 | 20 | 20 |

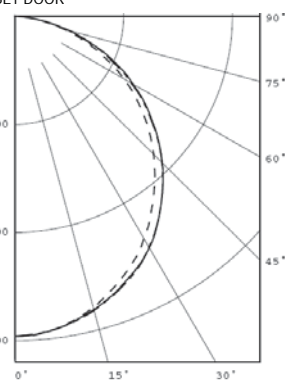


**ZONAL LUMEN SUMMARY**

| ZONE   | LUMENS | %LAMP | %FIXT |
|--------|--------|-------|-------|
| 0-30   | 2669.0 | 22.6  | 28.0  |
| 0-40   | 4347.0 | 36.8  | 45.5  |
| 0-60   | 7612.0 | 64.5  | 79.7  |
| 0-90   | 9547.0 | 80.9  | 100.0 |
| 90-180 | 0.0    | 0.0   | 0.0   |
| 0-180  | 9547.0 | 80.9  | 100.0 |

CATALOG #: TL-x-1-2X4-3/T8  
 LAMPS: THREE 32-WATT T-8 FO32/841 2950 LUMENS  
 LUMINAIRE: CLEANROOM TROFFER ISO CLASS 3 2' X 4' 3 LAMP T8 INVERTED A12 LENS INSET DOOR  
 INPUT WATTS: 88.9 SPACING/HM: 1.2  
 TOTAL EFFICIENCY = 82.4

| RC | 80 |    |    | 70 |    |    | 50 |    |    | 30 |    |    | 10 |    |    | 0  |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|    | RW | 70 | 50 | 30 | 10 | 0  | RW | 70 | 50 | 30 | 10 | 0  | RW | 70 | 50 | 30 | 10 | 0  |    |    |
| 0  | 98 | 98 | 98 | 98 | 96 | 96 | 96 | 96 | 92 | 92 | 92 | 88 | 88 | 88 | 84 | 84 | 84 | 82 | 82 | 82 |
| 1  | 90 | 86 | 82 | 79 | 87 | 84 | 81 | 78 | 80 | 78 | 76 | 77 | 75 | 73 | 74 | 73 | 71 | 69 | 69 | 69 |
| 2  | 82 | 75 | 69 | 65 | 79 | 73 | 68 | 64 | 70 | 66 | 62 | 68 | 64 | 61 | 65 | 62 | 60 | 58 | 58 | 58 |
| 3  | 74 | 66 | 59 | 54 | 72 | 64 | 58 | 53 | 62 | 57 | 52 | 60 | 55 | 51 | 58 | 54 | 51 | 49 | 49 | 49 |
| 4  | 68 | 58 | 51 | 46 | 66 | 57 | 50 | 45 | 55 | 49 | 45 | 53 | 48 | 44 | 51 | 47 | 43 | 42 | 42 | 42 |
| 5  | 63 | 52 | 45 | 39 | 61 | 51 | 44 | 39 | 49 | 43 | 39 | 48 | 42 | 38 | 46 | 42 | 38 | 36 | 36 | 36 |
| 6  | 58 | 47 | 40 | 34 | 56 | 46 | 39 | 34 | 45 | 38 | 34 | 43 | 38 | 34 | 42 | 37 | 33 | 32 | 32 | 32 |
| 7  | 54 | 43 | 35 | 30 | 52 | 42 | 35 | 30 | 41 | 34 | 30 | 39 | 34 | 30 | 38 | 33 | 30 | 28 | 28 | 28 |
| 8  | 50 | 39 | 32 | 27 | 49 | 38 | 32 | 27 | 37 | 31 | 27 | 36 | 31 | 27 | 35 | 30 | 26 | 25 | 25 | 25 |
| 9  | 47 | 36 | 29 | 24 | 46 | 35 | 29 | 24 | 34 | 28 | 24 | 33 | 28 | 24 | 32 | 28 | 24 | 22 | 22 | 22 |
| 10 | 44 | 33 | 26 | 22 | 43 | 32 | 26 | 22 | 32 | 26 | 22 | 31 | 26 | 22 | 30 | 25 | 22 | 20 | 20 | 20 |



# Tech-Lock Series

1x4, 2x2 and 2x4 T-Bar Grid Luminaires for ISO-5+ and Class 100 Installations

SL03

## Specifications:

**Housing:** True One piece, seam welded, hole free 20-gauge CRS, stainless steel or aluminum construction. Fully white powder coated.

**Door Frame:** 20-gauge CRS, aluminum or type 304 stainless steel one piece inset door frame hinged to housing with two stainless steel cables. Secured by captive stainless steel screws. See Options for 85 PSI rating (HD-85).

**Gaskets:** NSF listed closed microcellular extruded gasket located at interface of door to housing. NSF Listed silicone seals the door to the lens.

**Reflector:** Die formed metal with high reflectance white polyester powder coat finish. (minimum reflectivity 88%)

**Lens:** High durability .135" thick virgin acrylic with P12 prismatic pattern inverted (smooth side out). See "Options" for other choices.

**Lamps:** Select lamp options listed below. Lamps supplied by others.

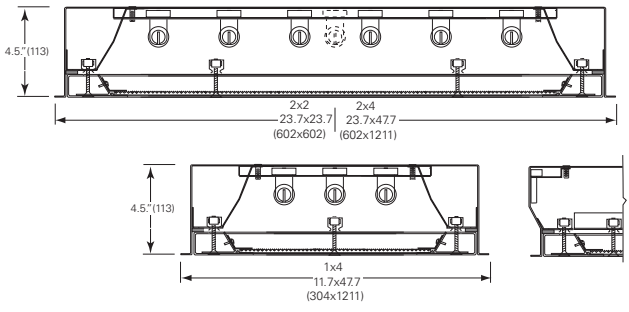
**Electrical:** Standard ballast - Electronic less than 10% THD high performance instant start universal voltage (120-277 volt). See options for other choices.

**Finish:** Gloss white high reflectance 1000 hr. salt spray polyester powder coat finish standard for all housings. Stainless steel doorframes are satin polished unless option WHT is chosen. Consult factory for satin polished housings.

**Grid Installation:** Four adjustable Z-brackets allow for seismic support. Four flattened and silicone sealed 1/2 inch trade size knockouts for wiring. Suitable for 1, 1.5 and some 2 inch T-bar widths. Fully compliant with NEMA LE-4 type G.

**Listings:** UL and CUL Listed for Wet Locations. Cleanroom ISO14644-1 Class 5 (Fed Std-209E Class 100) Optional NSF Food Zone, Non-contact. NSF-49, IP-65 dust and water jet resistance. IBEW Union Label. CCEA, Biosafety Level-1 & 2.

Project: \_\_\_\_\_  
 Fixture Type: \_\_\_\_\_



## Ordering Information:

TL - - - - -

| Series | Installation Type | Material   | Size | Lamps    | Voltage                       | Options |
|--------|-------------------|--|------|----------|-------------------------------|---------|
| TL     | G = Grid          | 1 = CRS Hsg. & CRS Door<br>2 = CRS Hsg. & SS Door<br>3 = SS Hsg. & SS Door<br>4 = AL Hsg. & SS Door<br>5 = AL Hsg. & AL Door<br>6 = CRS Hsg. & AL Door |      | Qty/Type | 120V<br>277V<br>347V*<br>UNV* |         |

|                     |   |
|---------------------|---|
| 1x4 = 1'x4' Housing | 1, 2 or 3/T8 = F32T8 32W T8 (G13)<br>1, 2 or 3/T5 = F28WT5 28W T5 (G5)*<br>1 or 2/T5HO = F54WT5 54W T5HO (G5)*  |
| 2x2 = 2'x2' Housing | 2, 3, 4 or 6/T8 = F17T8 17W T8 (G13)<br>1 or 2/T8U6 = F32T8/U/6 (6" U-Lamp, G13)<br>2 or 3/T8U1 = F31T8/U (1.625" U-Lamp, G13)<br>2 or 3/BX = 40-Watt Biax (2G11) |
| 2x4 = 2'x4' Housing | 2, 3, 4 or 6/T8 = F32T8 32W T8 (G13)<br>2, 3, 4 or 6/T5 = F28WT5 28W T5 (G5)*<br>2, 3, 4 or 6/T5HO = F54WT5 54W T5HO (G5)*  |

- FF = Fuse & Holder
- FD = Two Fuses & Holders
- 2/EB = Two Ballasts, (Two Circuits)\*
- EBL = -20°F Electronic Ballast\*
- EBPRS = Program Rapid Start Ballast\*
- 1/EM = 1 Lamp Battery Pack (700L)\*
- 2/EM = 1 or 2 Lamp Battery Pack (1300L)\*
- TP = Stainless Steel Tamperproof Fasteners
- HD1700 = 1700 P.S.I. Hosedown
- GG = NSF listed SealPro™ Gasket
- WHT = White Finished Stainless Steel
- LEX = .125" Prismatic Polycarbonate
- A19 = Prismatic P19 Pattern Clear Acrylic
- HIA = High Impact P12 Pattern Acrylic
- TG = Prismatic (C73) Tempered Glass

\* Note: Not all options are compatible with every option. Ex: EBPRS is not Compatible with EBL. Consult factory for multiple options marked "\*\*".