



LUMINAIRE TESTING LABORATORY, INC.

SUSTAINING
MEMBER
of the
IESNA

905 Harrison Street · Allentown, PA 18103 · 610-770-1044 · Fax 610-770-8912 · www.LuminaireTesting.com

LTL NUMBER: 04704

DATE: 6-28-1999

PREPARED FOR: EB FLUORESCENT CO., INC.

CATALOG NUMBER: GR2X4 432

LUMINAIRE: FORMED STEEL 2X4 HOUSING, FORMED WHITE ENAMEL REFLECTOR,
CLEAR ACRYLIC PRISMATIC LENS.

BALLAST: ONE ADVANCE REL-4P32-RH-TP

LAMPS: FOUR PHILIPS F32T8/TL841 RATED AT 2850 LUMENS EACH.

MOUNTING: RECESSED

LUMEN TO CANDELA RATIO USED = 9.18

TOTAL INPUT WATTS = 111.0 AT 120.0 VOLTS

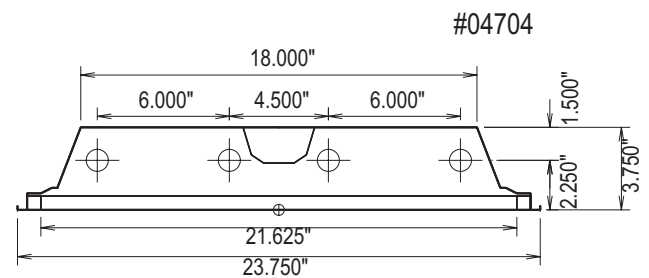
THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

CANDELA DISTRIBUTION

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|----|------|------|------|------|------|
| 0 | 3627 | 3627 | 3627 | 3627 | 3627 |
| 5 | 3599 | 3617 | 3613 | 3625 | 3619 |
| 15 | 3467 | 3498 | 3515 | 3547 | 3550 |
| 25 | 3182 | 3231 | 3293 | 3346 | 3358 |
| 35 | 2698 | 2760 | 2847 | 2925 | 2950 |
| 45 | 1967 | 2035 | 2136 | 2236 | 2276 |
| 55 | 1236 | 1291 | 1373 | 1460 | 1475 |
| 65 | 701 | 644 | 594 | 678 | 758 |
| 75 | 454 | 353 | 312 | 366 | 469 |
| 85 | 148 | 144 | 128 | 153 | 171 |
| 90 | 4 | 13 | 13 | 23 | 25 |

FLUX

| |
|------|
| 344 |
| 994 |
| 1513 |
| 1771 |
| 1646 |
| 1222 |
| 671 |
| 393 |
| 158 |



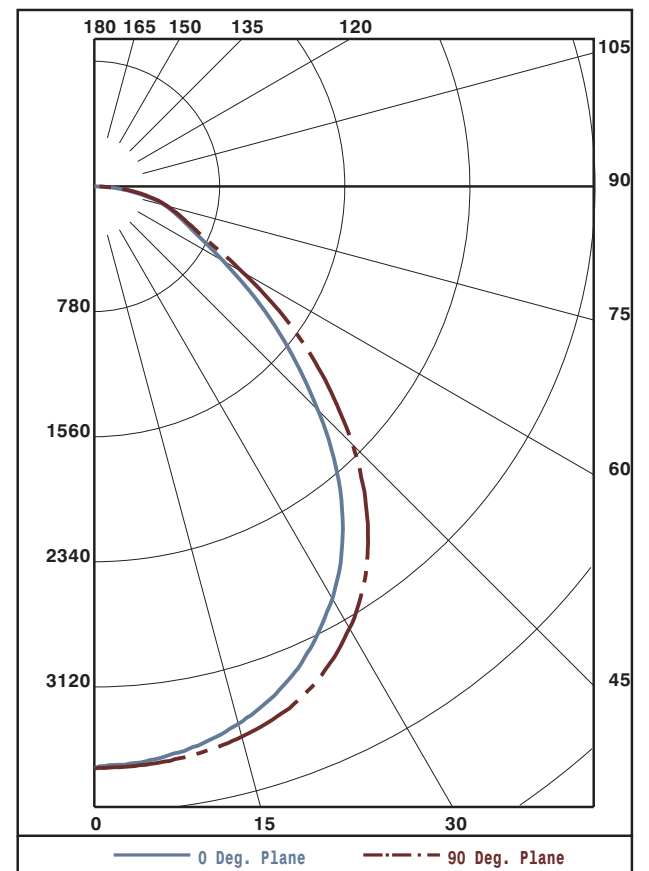
ZONAL LUMEN SUMMARY

| ZONE | LUMENS | %LAMP | %FIXT |
|--------|--------|-------|-------|
| 0- 30 | 2852 | 25.0 | 32.7 |
| 0- 40 | 4623 | 40.6 | 53.1 |
| 0- 60 | 7490 | 65.7 | 86.0 |
| 0- 90 | 8712 | 76.4 | 100.0 |
| 90-180 | 0 | 0.0 | 0.0 |
| 0-180 | 8712 | 76.4 | 100.0 |

TOTAL LUMINAIRE EFFICIENCY: 76.4%
 TOTAL REFLECTANCE OF PAINT: 87.9%
 CIE TYPE: DIRECT
 PLANE: 0-DEG 90-DEG
 SPACING CRITERIA: 1.2 1.3
 LUMINOUS LENGTH: 45.375 21.625

LUMINANCE IN CANDELA PER SQUARE METER

| ANGLE IN DEG | AVERAGE 0-DEG | AVERAGE 45-DEG | AVERAGE 90-DEG |
|--------------|---------------|----------------|----------------|
| 0 | 5729. | 5729. | 5729. |
| 45 | 4394. | 4771. | 5084. |
| 55 | 3404. | 3781. | 4062. |
| 65 | 2620. | 2220. | 2833. |
| 75 | 2771. | 1904. | 2862. |
| 85 | 2682. | 2320. | 3099. |



Approved By: _____



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

Table with 17 columns (RC, RW, 80, 70, 50, 30, 10, 0) and 11 rows of utilization coefficients.

CANDELA DISTRIBUTION

Table with 6 columns showing candela values for various angles from 0 to 90 degrees.

ZONAL LUMEN SUMMARY

Table with 3 columns showing lumen values for various zones from 0-5 to 85-90 degrees.

THIS TEST WAS CONDUCTED USING RELATIVE PHOTOMETRY TECHNIQUES ACCORDING TO STANDARD IESNA PROCEDURES. THE USER MUST THEREFORE USE CAUTION IN THE FOLLOWING SITUATIONS: 1) THIS TEST WAS PERFORMED USING A SPECIFIC BALLAST/LAMP COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER BALLAST/LAMP COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. 2) ACCORDING TO IESNA PROCEDURES, THE BALLAST(S) AND LAMP(S) ARE PRESUMED TO PRODUCE 100% OF RATED OUTPUT. AN APPROPRIATE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATINGS AND LUMINOUS INTENSITY VALUES GIVEN. 3) THIS TEST WAS CONDUCTED IN A CONTROLLED LABORATORY ENVIRONMENT WHERE THE AMBIENT TEMPERATURE WAS HELD AT 25°C ±1°C. FIELD PERFORMANCE MAY DIFFER PARTICULARLY IN REGARDS TO CHANGE IN LUMINOUS OUTPUT AS A RESULT OF DIFFERENCE IN AMBIENT TEMPERATURE AND METHOD OF MOUNTING THE LUMINAIRE.