



# itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.  
3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL59286

DATE: 09/30/07

PREPARED FOR: AMERICAN LIGHTING, LLC

CATALOG NUMBER: LED-4WR-CW

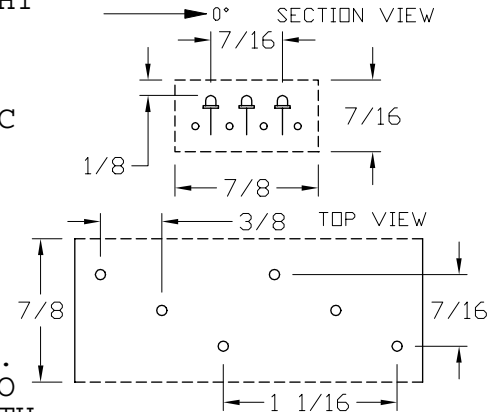
LUMINAIRE: ONE 39" LED "LIGHT ROPE" CONTAINING THREE STRIPS OF 36 LEDS  
ENCASED IN A CLEAR RECTANGULAR FLEXIBLE PVC HOUSING.

LAMPS: ONE HUNDRED EIGHT .066-WATT WHITE LIGHT  
EMITTING DIODES (LEDs), VERTICAL  
BASE-DOWN POSITION.

TOTAL INPUT WATTS= 8.7 AT 120.0 VOLTS

LED DRIVER: UNKNOWN MANUFACTURER INLINE AC/DC  
CONVERTER

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE  
PROVIDED AT RATED INPUT VOLTAGE  
(120VAC) TO THE INLINE CONVERTER. A  
33" POWER CORD EXTENDS FROM THE INLINE  
CONVERTER TO THE LED ASSEMBLY. LAMP  
INFORMATION PROVIDED BY CLIENT. THIS  
"LIGHT ROPE" WAS TESTED AIMED AT NADIR.  
THE DATA WAS THEN TILTED 180-DEGREES TO  
REPRESENT LUMINAIRE AIMED TOWARDS ZENITH.

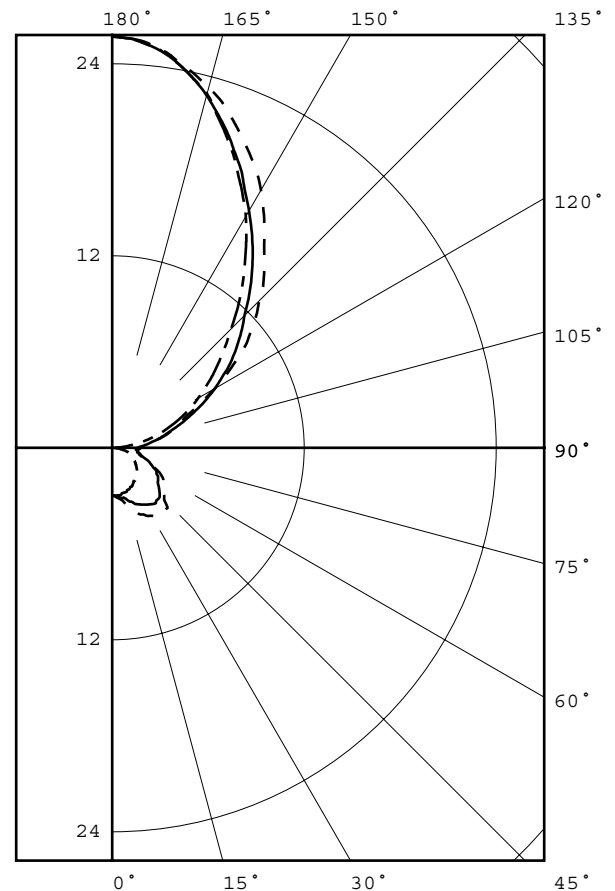


### CANDELA DISTRIBUTION

|     |      |      |      |      |      |
|-----|------|------|------|------|------|
|     | 0.0  | 22.5 | 45.0 | 67.5 | 90.0 |
| 0   | 3.0  | 3.0  | 3.0  | 3.0  | 3.0  |
| 5   | 3.1  | 3.1  | 3.1  | 3.0  | 3.0  |
| 15  | 3.8  | 3.6  | 3.3  | 3.1  | 2.9  |
| 25  | 4.6  | 4.5  | 3.9  | 3.1  | 2.7  |
| 35  | 5.0  | 4.9  | 4.3  | 3.1  | 2.5  |
| 45  | 4.6  | 4.5  | 4.2  | 2.9  | 2.2  |
| 55  | 3.9  | 3.7  | 3.5  | 2.6  | 1.8  |
| 65  | 2.9  | 2.9  | 2.8  | 2.2  | 1.4  |
| 75  | 1.8  | 1.9  | 1.9  | 1.6  | 1.0  |
| 85  | 1.6  | 1.6  | 1.5  | 1.1  | 0.3  |
| 90  | 1.8  | 1.7  | 1.6  | 1.0  | 0.2  |
| 95  | 2.1  | 2.0  | 2.1  | 1.4  | 0.7  |
| 105 | 3.7  | 3.5  | 3.6  | 3.3  | 2.7  |
| 115 | 5.6  | 5.8  | 6.0  | 5.8  | 5.0  |
| 125 | 9.4  | 9.3  | 8.9  | 8.1  | 7.5  |
| 135 | 13.0 | 12.6 | 11.7 | 10.8 | 10.5 |
| 145 | 16.6 | 16.1 | 15.3 | 14.6 | 14.5 |
| 155 | 20.3 | 19.9 | 19.1 | 18.6 | 18.7 |
| 165 | 23.3 | 23.1 | 22.8 | 22.7 | 22.9 |
| 175 | 25.3 | 25.2 | 25.3 | 25.4 | 25.4 |
| 180 | 25.7 | 25.7 | 25.7 | 25.7 | 25.7 |

### FLUX

|      |
|------|
| 0.0  |
| 1.0  |
| 2.0  |
| 3.0  |
| 3.0  |
| 2.0  |
| 2.0  |
| 1.0  |
| 2.0  |
| 1.0  |
| 0.3  |
| 0.2  |
| 0.7  |
| 2.0  |
| 4.0  |
| 6.0  |
| 8.0  |
| 9.0  |
| 10.0 |
| 9.0  |
| 6.0  |
| 2.0  |



LEGEND:  
0-deg: - - - - -  
45-deg: \_\_\_\_\_  
90-deg: . . . . .

### ZONAL LUMEN SUMMARY

| ZONE   | LUMENS | %FIXT |
|--------|--------|-------|
| 0- 30  | 3.0    | 4.2   |
| 0- 40  | 5.5    | 7.6   |
| 0- 60  | 11.3   | 15.6  |
| 0- 90  | 17.0   | 23.5  |
| 90-120 | 11.2   | 15.5  |
| 90-130 | 19.0   | 26.2  |
| 90-150 | 37.7   | 52.1  |
| 90-180 | 55.4   | 76.5  |
| 0-180  | 72.4   | 100.0 |

CIE TYPE - SEMI-INDIRECT

Checked B.HYRE

Approved R.BEATTIE



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CANDELA DISTRIBUTION

|       | 0.0  | 22.5 | 45.0 | 67.5 | 90.0 | ZONAL LUMEN SUMMARY |
|-------|------|------|------|------|------|---------------------|
| 0.0   | 3.0  | 3.0  | 3.0  | 3.0  | 3.0  | 0- 5 0.             |
| 5.0   | 3.1  | 3.1  | 3.1  | 3.0  | 3.0  | 5- 10 0.            |
| 10.0  | 3.3  | 3.3  | 3.2  | 3.0  | 3.0  | 10- 15 0.           |
| 15.0  | 3.8  | 3.6  | 3.3  | 3.1  | 2.9  | 15- 20 1.           |
| 20.0  | 4.2  | 4.1  | 3.6  | 3.1  | 2.8  | 20- 25 1.           |
| 25.0  | 4.6  | 4.5  | 3.9  | 3.1  | 2.7  | 25- 30 1.           |
| 30.0  | 4.9  | 4.8  | 4.1  | 3.1  | 2.6  | 30- 35 1.           |
| 35.0  | 5.0  | 4.9  | 4.3  | 3.1  | 2.5  | 35- 40 1.           |
| 40.0  | 5.1  | 4.8  | 4.3  | 3.1  | 2.4  | 40- 45 1.           |
| 45.0  | 4.6  | 4.5  | 4.2  | 2.9  | 2.2  | 45- 50 1.           |
| 50.0  | 4.1  | 4.0  | 3.8  | 2.8  | 2.0  | 50- 55 1.           |
| 55.0  | 3.9  | 3.7  | 3.5  | 2.6  | 1.8  | 55- 60 1.           |
| 60.0  | 3.6  | 3.4  | 3.2  | 2.4  | 1.6  | 60- 65 1.           |
| 65.0  | 2.9  | 2.9  | 2.8  | 2.2  | 1.4  | 65- 70 1.           |
| 70.0  | 2.2  | 2.3  | 2.4  | 1.9  | 1.2  | 70- 75 1.           |
| 75.0  | 1.8  | 1.9  | 1.9  | 1.6  | 1.0  | 75- 80 1.           |
| 80.0  | 1.6  | 1.6  | 1.7  | 1.3  | 0.6  | 80- 85 1.           |
| 85.0  | 1.6  | 1.6  | 1.5  | 1.1  | 0.3  | 85- 90 1.           |
| 90.0  | 1.8  | 1.7  | 1.6  | 1.0  | 0.2  | 90- 95 1.           |
| 95.0  | 2.1  | 2.0  | 2.1  | 1.4  | 0.7  | 95-100 1.           |
| 100.0 | 2.8  | 2.7  | 2.8  | 2.2  | 1.6  | 100-105 2.          |
| 105.0 | 3.7  | 3.5  | 3.6  | 3.3  | 2.7  | 105-110 2.          |
| 110.0 | 4.5  | 4.4  | 4.7  | 4.6  | 3.8  | 110-115 3.          |
| 115.0 | 5.6  | 5.8  | 6.0  | 5.8  | 5.0  | 115-120 3.          |
| 120.0 | 7.4  | 7.5  | 7.4  | 7.0  | 6.2  | 120-125 4.          |
| 125.0 | 9.4  | 9.3  | 8.9  | 8.1  | 7.5  | 125-130 4.          |
| 130.0 | 11.3 | 11.0 | 10.3 | 9.3  | 8.9  | 130-135 4.          |
| 135.0 | 13.0 | 12.6 | 11.7 | 10.8 | 10.5 | 135-140 5.          |
| 140.0 | 14.8 | 14.1 | 13.5 | 12.6 | 12.5 | 140-145 5.          |
| 145.0 | 16.6 | 16.1 | 15.3 | 14.6 | 14.5 | 145-150 5.          |
| 150.0 | 18.6 | 18.0 | 17.1 | 16.5 | 16.7 | 150-155 5.          |
| 155.0 | 20.3 | 19.9 | 19.1 | 18.6 | 18.7 | 155-160 4.          |
| 160.0 | 21.9 | 21.5 | 21.0 | 20.7 | 20.8 | 160-165 4.          |
| 165.0 | 23.3 | 23.1 | 22.8 | 22.7 | 22.9 | 165-170 3.          |
| 170.0 | 24.4 | 24.3 | 24.3 | 24.3 | 24.3 | 170-175 2.          |
| 175.0 | 25.3 | 25.2 | 25.3 | 25.4 | 25.4 | 175-180 1.          |
| 180.0 | 25.7 | 25.7 | 25.7 | 25.7 | 25.7 |                     |



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

| 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  | 102 | 102 | 102 | 102 | 102 | 90 | 90 | 90 | 90 | 69 | 69 | 69 | 50 | 50 | 50 | 32 | 32 | 32 | 23 |
| 1  | 92  | 87  | 83  | 80  | 80  | 81 | 78 | 74 | 71 | 59 | 57 | 55 | 42 | 41 | 40 | 27 | 26 | 25 | 18 |
| 2  | 83  | 76  | 70  | 64  | 64  | 74 | 67 | 62 | 58 | 51 | 48 | 45 | 37 | 34 | 32 | 23 | 22 | 21 | 15 |
| 3  | 76  | 66  | 59  | 53  | 53  | 67 | 59 | 53 | 48 | 45 | 41 | 37 | 32 | 29 | 27 | 20 | 19 | 17 | 12 |
| 4  | 69  | 58  | 50  | 44  | 44  | 61 | 52 | 45 | 40 | 40 | 35 | 31 | 28 | 25 | 23 | 18 | 16 | 14 | 10 |
| 5  | 63  | 51  | 43  | 37  | 37  | 55 | 46 | 39 | 34 | 35 | 30 | 26 | 25 | 22 | 19 | 16 | 14 | 12 | 8  |
| 6  | 58  | 46  | 38  | 32  | 32  | 51 | 41 | 34 | 29 | 31 | 26 | 23 | 22 | 19 | 16 | 14 | 12 | 10 | 7  |
| 7  | 53  | 41  | 33  | 28  | 28  | 47 | 36 | 30 | 25 | 28 | 23 | 20 | 20 | 17 | 14 | 13 | 11 | 9  | 6  |
| 8  | 49  | 37  | 29  | 24  | 24  | 43 | 33 | 26 | 22 | 25 | 20 | 17 | 18 | 15 | 12 | 12 | 9  | 8  | 5  |
| 9  | 45  | 33  | 26  | 21  | 21  | 40 | 30 | 23 | 19 | 23 | 18 | 15 | 17 | 13 | 11 | 10 | 8  | 7  | 5  |
| 10 | 42  | 30  | 23  | 18  | 18  | 37 | 27 | 21 | 17 | 21 | 16 | 13 | 15 | 12 | 10 | 10 | 8  | 6  | 4  |

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY.