

# 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: ITL59494

DATE: 11/14/07

PREPARED FOR: B-K LIGHTING

CATALOG NUMBER: CD-SSL-MR-6-C

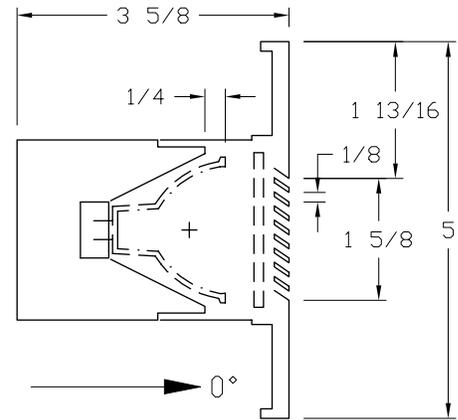
LUMINAIRE: MACHINED BLACK PAINTED METAL HOUSING AND FACEPLATE MOUNTING RING, CLEAR FLAT LINEAR PRISMATIC GLASS LENS IN CAST WHITE PAINTED LOUVERED METAL FACEPLATE, LENS PRISMS OUT AND VERTICAL.

LAMP: ONE 50-WATT MR-16 HALOGEN INCANDESCENT, EYE 12V50WEXT JR1501, HORIZONTAL POSITION.

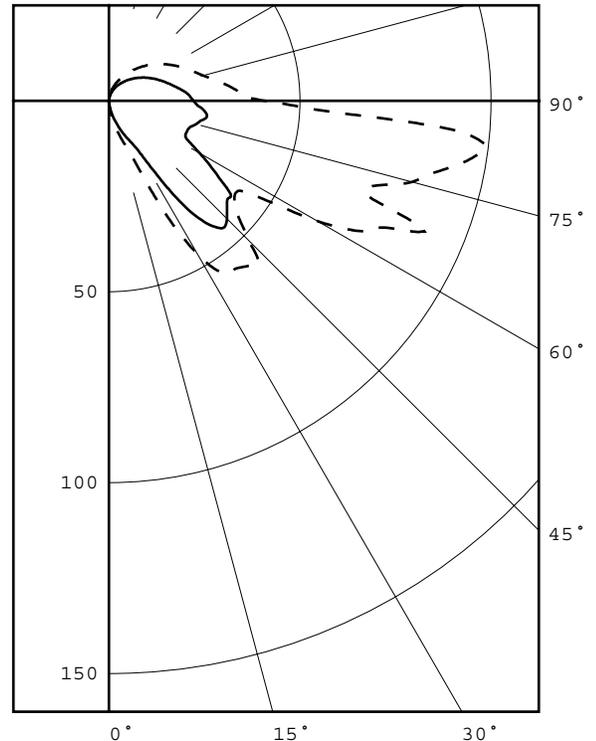
MOUNTING: RECESSED

NOTE: THIS IS A RELATIVE PHOTOMETRIC REPORT BASED ON THE ACTUAL ABSOLUTE FLUX OUTPUT OF THE LAMP AT RATED INPUT VOLTAGE (12VAC) TO THE LAMP.

REPORT IS BASED ON 827 LUMENS PER LAMP.



| CANDELA DISTRIBUTION |     |      |      |       |       | FLUX |
|----------------------|-----|------|------|-------|-------|------|
|                      | 0.0 | 45.0 | 90.0 | 135.0 | 180.0 |      |
| 0                    | 0   | 0    | 0    | 0     | 0     | 0    |
| 5                    | 1   | 0    | 0    | 0     | 0     | 0    |
| 15                   | 8   | 5    | 0    | 0     | 0     | 1    |
| 25                   | 25  | 10   | 0    | 0     | 0     | 3    |
| 35                   | 55  | 32   | 0    | 0     | 0     | 9    |
| 45                   | 52  | 44   | 0    | 0     | 0     | 13   |
| 55                   | 41  | 35   | 0    | 0     | 0     | 12   |
| 65                   | 79  | 22   | 0    | 0     | 0     | 16   |
| 75                   | 82  | 24   | 0    | 0     | 0     | 18   |
| 85                   | 92  | 25   | 0    | 0     | 0     | 20   |
| 90                   | 34  | 22   | 0    | 0     | 0     |      |
| 95                   | 33  | 21   | 0    | 0     | 0     | 11   |
| 105                  | 26  | 17   | 0    | 0     | 0     | 8    |
| 115                  | 21  | 14   | 0    | 0     | 0     | 6    |
| 125                  | 17  | 11   | 0    | 0     | 0     | 4    |
| 135                  | 13  | 8    | 0    | 0     | 0     | 3    |
| 145                  | 9   | 6    | 0    | 0     | 0     | 2    |
| 155                  | 6   | 4    | 0    | 0     | 0     | 1    |
| 165                  | 3   | 2    | 0    | 0     | 0     | 0    |
| 175                  | 0   | 0    | 0    | 0     | 0     | 0    |
| 180                  | 0   | 0    | 0    | 0     | 0     | 0    |



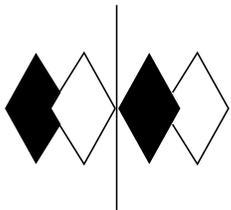
LEGEND:  
0-deg: - - - - -  
45-deg: = = = = =  
90-deg: - - - - -

| ZONAL LUMEN ZONE | SUMMARY LUMENS | %LAMP | %FIXT |
|------------------|----------------|-------|-------|
| 0- 30            | 3              | 0.4   | 2.8   |
| 0- 40            | 12             | 1.5   | 9.9   |
| 0- 60            | 37             | 4.5   | 29.7  |
| 0- 90            | 91             | 11.0  | 72.4  |
| 90-120           | 25             | 3.0   | 19.7  |
| 90-130           | 29             | 3.5   | 23.1  |
| 90-150           | 34             | 4.1   | 26.7  |
| 90-180           | 35             | 4.2   | 27.6  |
| 0-180            | 126            | 15.2  | 100.0 |

TOTAL LUMINAIRE EFFICIENCY = 15.2 %

CIE TYPE - SEMI-DIRECT

Checked N.WHITE  
Approved R.BEATTIE



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CANDELA DISTRIBUTION

|       | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 | 112.5 | 135.0 | 157.5 | 180.0 |
|-------|-----|------|------|------|------|-------|-------|-------|-------|
| 0.0   | 0   | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| 5.0   | 1   | 1    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| 10.0  | 4   | 4    | 2    | 1    | 0    | 0     | 0     | 0     | 0     |
| 15.0  | 8   | 7    | 5    | 2    | 0    | 0     | 0     | 0     | 0     |
| 20.0  | 12  | 11   | 7    | 3    | 0    | 0     | 0     | 0     | 0     |
| 25.0  | 25  | 18   | 10   | 4    | 0    | 0     | 0     | 0     | 0     |
| 30.0  | 46  | 37   | 14   | 5    | 0    | 0     | 0     | 0     | 0     |
| 35.0  | 55  | 51   | 32   | 7    | 0    | 0     | 0     | 0     | 0     |
| 40.0  | 57  | 54   | 43   | 8    | 0    | 0     | 0     | 0     | 0     |
| 45.0  | 52  | 56   | 44   | 10   | 0    | 0     | 0     | 0     | 0     |
| 50.0  | 43  | 44   | 40   | 12   | 0    | 0     | 0     | 0     | 0     |
| 55.0  | 41  | 37   | 35   | 13   | 0    | 0     | 0     | 0     | 0     |
| 60.0  | 63  | 40   | 27   | 14   | 0    | 0     | 0     | 0     | 0     |
| 65.0  | 79  | 46   | 22   | 16   | 0    | 0     | 0     | 0     | 0     |
| 70.0  | 72  | 46   | 22   | 13   | 0    | 0     | 0     | 0     | 0     |
| 75.0  | 82  | 60   | 24   | 8    | 0    | 0     | 0     | 0     | 0     |
| 80.0  | 94  | 82   | 26   | 7    | 0    | 0     | 0     | 0     | 0     |
| 85.0  | 92  | 94   | 25   | 9    | 0    | 0     | 0     | 0     | 0     |
| 90.0  | 34  | 33   | 22   | 11   | 0    | 0     | 0     | 0     | 0     |
| 95.0  | 33  | 32   | 21   | 10   | 0    | 0     | 0     | 0     | 0     |
| 100.0 | 29  | 27   | 19   | 9    | 0    | 0     | 0     | 0     | 0     |
| 105.0 | 26  | 24   | 17   | 7    | 0    | 0     | 0     | 0     | 0     |
| 110.0 | 23  | 21   | 15   | 7    | 0    | 0     | 0     | 0     | 0     |
| 115.0 | 21  | 19   | 14   | 6    | 0    | 0     | 0     | 0     | 0     |
| 120.0 | 19  | 17   | 12   | 5    | 0    | 0     | 0     | 0     | 0     |
| 125.0 | 17  | 15   | 11   | 5    | 0    | 0     | 0     | 0     | 0     |
| 130.0 | 15  | 13   | 9    | 4    | 0    | 0     | 0     | 0     | 0     |
| 135.0 | 13  | 12   | 8    | 4    | 0    | 0     | 0     | 0     | 0     |
| 140.0 | 11  | 10   | 7    | 3    | 0    | 0     | 0     | 0     | 0     |
| 145.0 | 9   | 8    | 6    | 3    | 0    | 0     | 0     | 0     | 0     |
| 150.0 | 7   | 7    | 5    | 2    | 0    | 0     | 0     | 0     | 0     |
| 155.0 | 6   | 5    | 4    | 2    | 0    | 0     | 0     | 0     | 0     |
| 160.0 | 4   | 4    | 3    | 1    | 0    | 0     | 0     | 0     | 0     |
| 165.0 | 3   | 3    | 2    | 1    | 0    | 0     | 0     | 0     | 0     |
| 170.0 | 2   | 2    | 1    | 0    | 0    | 0     | 0     | 0     | 0     |
| 175.0 | 0   | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| 180.0 | 0   | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |



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ZONAL LUMEN SUMMARY

|         |     |
|---------|-----|
| 0- 5    | 0.  |
| 5- 10   | 0.  |
| 10- 15  | 0.  |
| 15- 20  | 0.  |
| 20- 25  | 1.  |
| 25- 30  | 2.  |
| 30- 35  | 4.  |
| 35- 40  | 5.  |
| 40- 45  | 6.  |
| 45- 50  | 6.  |
| 50- 55  | 6.  |
| 55- 60  | 6.  |
| 60- 65  | 7.  |
| 65- 70  | 8.  |
| 70- 75  | 8.  |
| 75- 80  | 10. |
| 80- 85  | 12. |
| 85- 90  | 8.  |
| 90- 95  | 6.  |
| 95-100  | 5.  |
| 100-105 | 4.  |
| 105-110 | 4.  |
| 110-115 | 3.  |
| 115-120 | 3.  |
| 120-125 | 2.  |
| 125-130 | 2.  |
| 130-135 | 2.  |
| 135-140 | 1.  |
| 140-145 | 1.  |
| 145-150 | 1.  |
| 150-155 | 0.  |
| 155-160 | 0.  |
| 160-165 | 0.  |
| 165-170 | 0.  |
| 170-175 | 0.  |
| 175-180 | 0.  |



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

| RC | 80 |    |    |    | 70 |    |    |    | 50 |    |    | 30 |    |    | 10 |    |    | 0  |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|    | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| 0  | 17 | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 15 | 15 | 15 | 13 | 13 | 13 | 12 | 12 | 12 | 11 |
| 1  | 15 | 13 | 12 | 11 | 14 | 13 | 12 | 11 | 11 | 10 | 10 | 10 | 9  | 9  | 9  | 8  | 8  | 7  |
| 2  | 13 | 11 | 10 | 8  | 12 | 10 | 9  | 8  | 9  | 8  | 7  | 8  | 7  | 6  | 7  | 6  | 5  | 5  |
| 3  | 11 | 9  | 8  | 6  | 11 | 9  | 7  | 6  | 8  | 6  | 5  | 7  | 6  | 5  | 6  | 5  | 4  | 4  |
| 4  | 10 | 8  | 6  | 5  | 10 | 8  | 6  | 5  | 7  | 5  | 4  | 6  | 5  | 4  | 5  | 4  | 3  | 3  |
| 5  | 9  | 7  | 5  | 4  | 9  | 7  | 5  | 4  | 6  | 4  | 3  | 5  | 4  | 3  | 4  | 3  | 3  | 2  |
| 6  | 9  | 6  | 5  | 3  | 8  | 6  | 4  | 3  | 5  | 4  | 3  | 4  | 3  | 3  | 4  | 3  | 2  | 2  |
| 7  | 8  | 5  | 4  | 3  | 7  | 5  | 4  | 3  | 5  | 3  | 2  | 4  | 3  | 2  | 3  | 2  | 2  | 1  |
| 8  | 7  | 5  | 3  | 2  | 7  | 5  | 3  | 2  | 4  | 3  | 2  | 4  | 3  | 2  | 3  | 2  | 2  | 1  |
| 9  | 7  | 4  | 3  | 2  | 6  | 4  | 3  | 2  | 4  | 3  | 2  | 3  | 2  | 2  | 3  | 2  | 1  | 1  |
| 10 | 6  | 4  | 3  | 2  | 6  | 4  | 3  | 2  | 3  | 2  | 2  | 3  | 2  | 1  | 3  | 2  | 1  | 1  |

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON RELATIVE PHOTOMETRY WHICH ASSUMES A BALLAST FACTOR OF 1.000. ANY CALCULATIONS PREPARED FROM THESE DATA SHOULD INCLUDE AN APPROPRIATE BALLAST FACTOR.

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.