

REPORT NUMBER: ITL90148-GONIOPHOTOMETRY

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ISSUE DATE: 01/19/18

PREPARED FOR: LITELAB CORPORATION

CATALOG NUMBER: A01-L1800-9230-735-A-DY-P

| DEG | CANDELA | LUMENS |
|-----|---------|--------|
| 0 | 29584 | |
| 5 | 15732 | 1014 |
| 15 | 442 | 169 |
| 25 | 84 | 42 |
| 35 | 30 | 19 |
| 45 | 10 | 9 |
| 55 | 4 | 4 |
| 65 | 1 | 1 |
| 75 | 1 | 1 |
| 85 | 0 | 0 |
| 90 | 0 | |

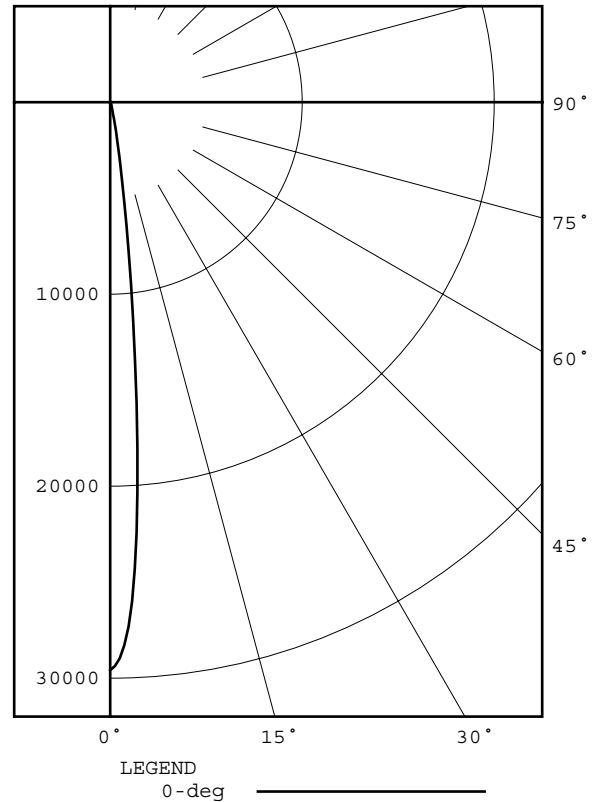
ZONAL LUMEN SUMMARY

| ZONE | LUMENS | %FIXT |
|--------|--------|-------|
| 0- 30 | 1226 | 97.3 |
| 0- 40 | 1245 | 98.8 |
| 0- 60 | 1257 | 99.8 |
| 0- 90 | 1259 | 100.0 |
| 90-180 | 0 | 0.0 |
| 0-180 | 1259 | 100.0 |

EFFICACY = 57.2 lm/W
 CIE TYPE - DIRECT
 SPACING CRITERION: 0.18
 BEAM ANGLE (50%) : 10.4 DEGREES
 FIELD ANGLE (10%) : 19.0 DEGREES
 LUMINOUS DIAMETER: 2.875

LUMINANCE DATA IN CANDELA/SQ M

| ANGLE | AVERAGE |
|--------|---------|
| IN DEG | |
| 45 | 3377. |
| 55 | 1665. |
| 65 | 565. |
| 75 | 923. |
| 85 | 0. |





INDEPENDENT TESTING LABORATORIES, INC.
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CANDELA DISTRIBUTION

| | | | |
|------|-------|------|---|
| 0.0 | 29584 | 82.5 | 0 |
| 0.5 | 29369 | 85.0 | 0 |
| 1.0 | 28956 | 87.5 | 0 |
| 1.5 | 28287 | 90.0 | 0 |
| 2.0 | 27316 | | |
| 2.5 | 26041 | | |
| 3.0 | 24366 | | |
| 3.5 | 22479 | | |
| 4.0 | 20304 | | |
| 4.5 | 18050 | | |
| 5.0 | 15732 | | |
| 5.5 | 13517 | | |
| 6.0 | 11417 | | |
| 6.5 | 9510 | | |
| 7.0 | 7825 | | |
| 7.5 | 6455 | | |
| 8.0 | 5291 | | |
| 8.5 | 4336 | | |
| 9.0 | 3560 | | |
| 9.5 | 2934 | | |
| 10.0 | 2418 | | |
| 10.5 | 2000 | | |
| 11.0 | 1653 | | |
| 11.5 | 1373 | | |
| 12.0 | 1140 | | |
| 12.5 | 951 | | |
| 13.0 | 801 | | |
| 13.5 | 681 | | |
| 14.0 | 583 | | |
| 14.5 | 506 | | |
| 15.0 | 442 | | |
| 16.0 | 348 | | |
| 17.0 | 283 | | |
| 18.0 | 238 | | |
| 19.0 | 204 | | |
| 20.0 | 178 | | |
| 22.5 | 125 | | |
| 25.0 | 84 | | |
| 27.5 | 60 | | |
| 30.0 | 45 | | |
| 32.5 | 35 | | |
| 35.0 | 30 | | |
| 37.5 | 25 | | |
| 40.0 | 21 | | |
| 42.5 | 15 | | |
| 45.0 | 10 | | |
| 47.5 | 7 | | |
| 50.0 | 6 | | |
| 52.5 | 5 | | |
| 55.0 | 4 | | |
| 57.5 | 3 | | |
| 60.0 | 2 | | |
| 62.5 | 2 | | |
| 65.0 | 1 | | |
| 67.5 | 1 | | |
| 70.0 | 1 | | |
| 72.5 | 1 | | |
| 75.0 | 1 | | |
| 77.5 | 1 | | |
| 80.0 | 0 | | |



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5-DEGREE
ZONAL LUMEN SUMMARY

| | |
|--------|-----|
| 0- 5 | 537 |
| 5- 10 | 477 |
| 10- 15 | 125 |
| 15- 20 | 45 |
| 20- 25 | 27 |
| 25- 30 | 16 |
| 30- 35 | 11 |
| 35- 40 | 8 |
| 40- 45 | 6 |
| 45- 50 | 3 |
| 50- 55 | 2 |
| 55- 60 | 1 |
| 60- 65 | 1 |
| 65- 70 | 1 |
| 70- 75 | 1 |
| 75- 80 | 0 |
| 80- 85 | 0 |
| 85- 90 | 0 |

10-DEGREE
ZONAL LUMEN SUMMARY

| | |
|-------|------|
| 0- 10 | 1014 |
| 0- 20 | 1183 |
| 0- 30 | 1226 |
| 0- 40 | 1245 |
| 0- 50 | 1253 |
| 0- 60 | 1257 |
| 0- 70 | 1258 |
| 0- 80 | 1259 |
| 0- 90 | 1259 |



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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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 116 | 114 | 113 | 112 | 114 | 112 | 111 | 110 | 108 | 107 | 107 | 105 | 105 | 104 | 103 | 102 | 101 | 100 | 99 |
| 2 | 114 | 111 | 109 | 107 | 112 | 109 | 107 | 106 | 106 | 105 | 103 | 103 | 102 | 101 | 101 | 101 | 100 | 99 | 98 |
| 3 | 111 | 108 | 105 | 103 | 110 | 107 | 104 | 102 | 104 | 102 | 101 | 102 | 101 | 99 | 100 | 99 | 98 | 98 | 97 |
| 4 | 109 | 106 | 103 | 101 | 108 | 105 | 102 | 100 | 103 | 101 | 99 | 101 | 99 | 98 | 100 | 98 | 97 | 99 | 96 |
| 5 | 108 | 104 | 101 | 99 | 106 | 103 | 100 | 98 | 101 | 99 | 97 | 100 | 98 | 97 | 100 | 98 | 97 | 99 | 95 |
| 6 | 106 | 102 | 99 | 97 | 105 | 101 | 99 | 97 | 100 | 98 | 96 | 99 | 97 | 96 | 99 | 97 | 96 | 98 | 94 |
| 7 | 105 | 100 | 98 | 96 | 104 | 100 | 97 | 96 | 99 | 97 | 95 | 98 | 96 | 95 | 98 | 96 | 95 | 97 | 94 |
| 8 | 103 | 99 | 97 | 95 | 103 | 99 | 96 | 94 | 98 | 96 | 94 | 97 | 95 | 94 | 97 | 95 | 94 | 97 | 93 |
| 9 | 102 | 98 | 95 | 94 | 102 | 98 | 95 | 94 | 97 | 95 | 93 | 96 | 95 | 93 | 96 | 94 | 93 | 96 | 92 |
| 10 | 101 | 97 | 95 | 93 | 101 | 97 | 94 | 93 | 96 | 94 | 93 | 96 | 94 | 92 | 95 | 94 | 92 | 95 | 92 |

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.

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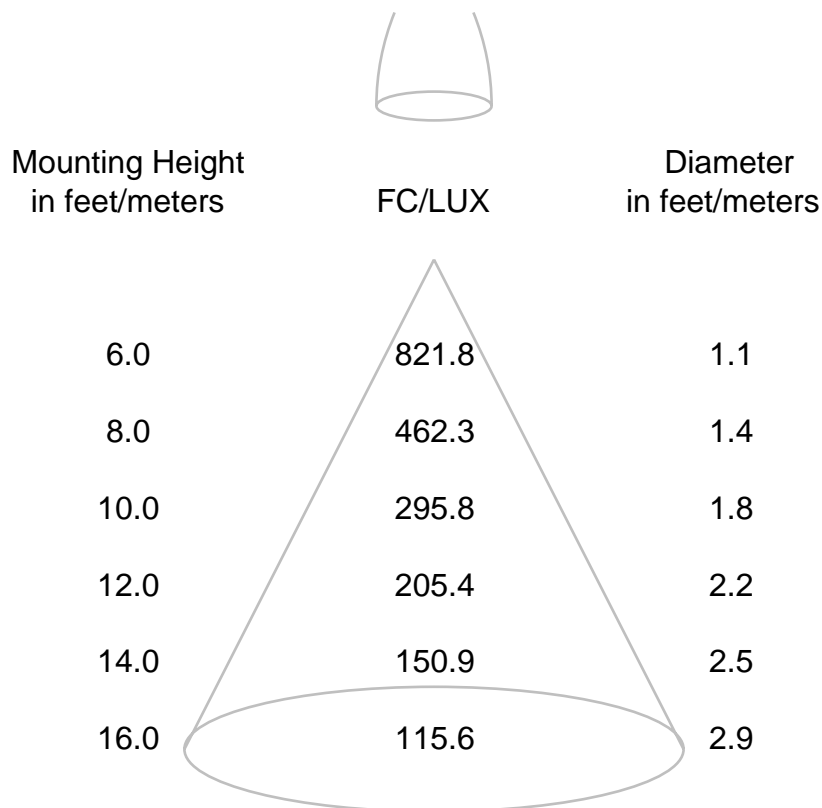
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CONE OF LIGHT DIAGRAM

(diameter shown is where fc/lux value is half the fc/lux at nadir)



If distances are feet, results are footcandles.
If distances are meters, results are lux.