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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

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REPORT NUMBER: ITL85165

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ISSUE DATE: 09/07/15

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: S12-LED-ID-DCO-4ft-3E-V-V-8-35-FTO

LUMINAIRE: FABRICATED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH, WHITE PAINTED FLAT METAL END CAPS, 2 FORMED WHITE PAINTED METAL OUTBOARD REFLECTORS/DRIVER COVERS, FORMED WHITE PAINTED METAL CENTER REFLECTOR/CIRCUIT BOARD MOUNT, 3 WHITE CIRCUIT BOARDS EACH WITH 80 LEDS, FROSTED HOLOGRAPHIC FLAT TOP LENS, TRANSLUCENT WHITE HOLOGRAPHIC BOTTOM LENS. TOP LENS FROSTED SIDE UP.

LAMPS: TWO HUNDRED FORTY WHITE LIGHT EMITTING DIODES (LEDS), 160 AIMED 12-DEGREES ABOVE THE HORIZON, 80 VERTICAL BASE-UP POSITION.

INPUT ELECTRICAL: 277.0 VOLTS, 59.4 WATTS, 0.228 AMPS

TOTAL REFLECTANCE OF PAINT = 92.7 %

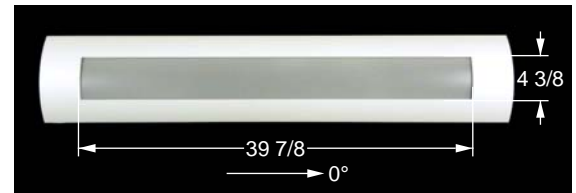
MOUNTING: SUSPENDED

LED DRIVER: OSRAM OT50W/PRG1400C/UNV/DIM/L, CLIENT STATES DRIVER PROGRAMMED FOR 700mA OUTPUT (160 AIMED LEDS). OSRAM OT30W/PRG1050C/UNV/DIM/L, CLIENT STATES DRIVER PROGRAMMED FOR 700mA OUTPUT (80 BASE-UP LEDS). DRIVERS HAVE MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (277VAC, 60Hz) TO THE DRIVERS.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET



CANDELA DISTRIBUTION

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 | FLUX |
|-----|------|------|------|------|------|------|
| 0 | 749 | 749 | 749 | 749 | 749 | |
| 5 | 744 | 745 | 745 | 745 | 745 | 71 |
| 15 | 713 | 709 | 714 | 714 | 713 | 201 |
| 25 | 649 | 645 | 651 | 653 | 654 | 299 |
| 35 | 561 | 560 | 567 | 570 | 568 | 354 |
| 45 | 461 | 460 | 466 | 467 | 467 | 358 |
| 55 | 352 | 353 | 355 | 358 | 358 | 318 |
| 65 | 237 | 239 | 243 | 244 | 243 | 239 |
| 75 | 123 | 127 | 131 | 138 | 139 | 140 |
| 85 | 26 | 32 | 45 | 55 | 57 | 50 |
| 90 | 0 | 9 | 23 | 34 | 38 | |
| 95 | 69 | 78 | 95 | 108 | 114 | 107 |
| 105 | 254 | 281 | 330 | 366 | 380 | 344 |
| 115 | 480 | 532 | 629 | 696 | 719 | 607 |
| 125 | 717 | 786 | 917 | 1013 | 1044 | 802 |
| 135 | 936 | 1005 | 1143 | 1244 | 1275 | 866 |
| 145 | 1118 | 1166 | 1280 | 1362 | 1387 | 791 |
| 155 | 1245 | 1270 | 1342 | 1396 | 1412 | 616 |
| 165 | 1322 | 1330 | 1362 | 1384 | 1393 | 385 |
| 175 | 1357 | 1359 | 1362 | 1365 | 1366 | 130 |
| 180 | 1362 | 1362 | 1362 | 1362 | 1362 | |

ZONAL LUMEN SUMMARY

| ZONE | LUMENS | %FIXT |
|--------|--------|-------|
| 0- 30 | 571 | 8.6 |
| 0- 40 | 925 | 13.8 |
| 0- 60 | 1600 | 24.0 |
| 0- 90 | 2030 | 30.4 |
| 90-120 | 1059 | 15.9 |
| 90-130 | 1861 | 27.9 |
| 90-150 | 3517 | 52.7 |
| 90-180 | 4648 | 69.6 |
| 0-180 | 6677 | 100.0 |

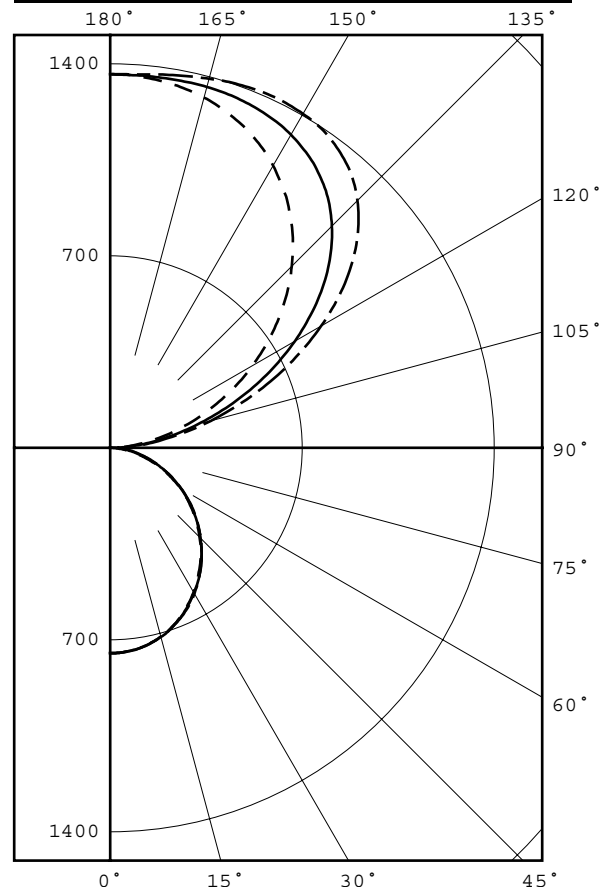
EFFICACY (277V) = 112.4 lm/W

EFFICACY (120V) = 117.1 lm/W **

** THE EFFICACY AT 120 VOLTS IS BASED ON THE LUMENS FROM THIS REPORT AND THE WATTAGE MEASURED AT 120 VOLTS FROM ITL REPORT NUMBER ITL85165-THD.

CIE TYPE - SEMI-INDIRECT

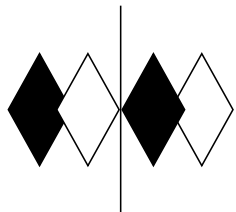
THIS REPORT IS BASED ON PUBLISHED INDUSTRY PROCEDURES. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.



LEGEND:

0-deg -----
45-deg =====
90-deg -----

Checked M KLOPF
Approved R BEATTIE
Lighting Engineer



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| LUMINANCE DATA IN CANDELA/SQ M | | | | |
|--------------------------------|---------|---------|---------|--|
| ANGLE | AVERAGE | AVERAGE | AVERAGE | |
| IN DEG | 0-DEG | 45-DEG | 90-DEG | |
| 45 | 5791. | 5853. | 5866. | |
| 55 | 5451. | 5497. | 5543. | |
| 65 | 4984. | 5111. | 5111. | |
| 75 | 4218. | 4492. | 4694. | |
| 85 | 2651. | 3577. | 3760. | |



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CANDELA DISTRIBUTION LATERAL ANGLE

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|-------|------|------|------|------|------|
| 0.0 | 749 | 749 | 749 | 749 | 749 |
| 5.0 | 744 | 745 | 745 | 745 | 745 |
| 10.0 | 733 | 732 | 734 | 734 | 733 |
| 15.0 | 713 | 709 | 714 | 714 | 713 |
| 20.0 | 685 | 680 | 686 | 687 | 686 |
| 25.0 | 649 | 645 | 651 | 653 | 654 |
| 30.0 | 608 | 605 | 610 | 615 | 614 |
| 35.0 | 561 | 560 | 567 | 570 | 568 |
| 40.0 | 513 | 512 | 518 | 520 | 519 |
| 45.0 | 461 | 460 | 466 | 467 | 467 |
| 50.0 | 407 | 407 | 411 | 413 | 413 |
| 55.0 | 352 | 353 | 355 | 358 | 358 |
| 60.0 | 295 | 296 | 299 | 302 | 301 |
| 65.0 | 237 | 239 | 243 | 244 | 243 |
| 70.0 | 179 | 182 | 186 | 188 | 189 |
| 75.0 | 123 | 127 | 131 | 138 | 139 |
| 80.0 | 70 | 75 | 83 | 91 | 93 |
| 85.0 | 26 | 32 | 45 | 55 | 57 |
| 90.0 | 0 | 9 | 23 | 34 | 38 |
| 95.0 | 69 | 78 | 95 | 108 | 114 |
| 100.0 | 153 | 170 | 200 | 220 | 229 |
| 105.0 | 254 | 281 | 330 | 366 | 380 |
| 110.0 | 365 | 404 | 476 | 529 | 545 |
| 115.0 | 480 | 532 | 629 | 696 | 719 |
| 120.0 | 599 | 662 | 778 | 862 | 888 |
| 125.0 | 717 | 786 | 917 | 1013 | 1044 |
| 130.0 | 830 | 902 | 1041 | 1142 | 1174 |
| 135.0 | 936 | 1005 | 1143 | 1244 | 1275 |
| 140.0 | 1033 | 1094 | 1223 | 1316 | 1345 |
| 145.0 | 1118 | 1166 | 1280 | 1362 | 1387 |
| 150.0 | 1188 | 1224 | 1318 | 1386 | 1406 |
| 155.0 | 1245 | 1270 | 1342 | 1396 | 1412 |
| 160.0 | 1289 | 1305 | 1356 | 1392 | 1406 |
| 165.0 | 1322 | 1330 | 1362 | 1384 | 1393 |
| 170.0 | 1344 | 1348 | 1362 | 1373 | 1379 |
| 175.0 | 1357 | 1359 | 1362 | 1365 | 1366 |
| 180.0 | 1362 | 1362 | 1362 | 1362 | 1362 |



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5-DEGREE
ZONAL LUMEN SUMMARY

| | |
|---------|-----|
| 0- 5 | 18 |
| 5- 10 | 53 |
| 10- 15 | 86 |
| 15- 20 | 115 |
| 20- 25 | 140 |
| 25- 30 | 159 |
| 30- 35 | 173 |
| 35- 40 | 180 |
| 40- 45 | 182 |
| 45- 50 | 177 |
| 50- 55 | 166 |
| 55- 60 | 151 |
| 60- 65 | 131 |
| 65- 70 | 108 |
| 70- 75 | 83 |
| 75- 80 | 57 |
| 80- 85 | 34 |
| 85- 90 | 17 |
| 90- 95 | 30 |
| 95-100 | 77 |
| 100-105 | 138 |
| 105-110 | 206 |
| 110-115 | 273 |
| 115-120 | 334 |
| 120-125 | 384 |
| 125-130 | 418 |
| 130-135 | 434 |
| 135-140 | 432 |
| 140-145 | 412 |
| 145-150 | 379 |
| 150-155 | 334 |
| 155-160 | 282 |
| 160-165 | 223 |
| 165-170 | 161 |
| 170-175 | 97 |
| 175-180 | 33 |

10-DEGREE
ZONAL LUMEN SUMMARY

| | |
|-------|------|
| 0- 10 | 71 |
| 0- 20 | 272 |
| 0- 30 | 571 |
| 0- 40 | 925 |
| 0- 50 | 1283 |
| 0- 60 | 1600 |
| 0- 70 | 1840 |
| 0- 80 | 1979 |
| 0- 90 | 2030 |
| 0-100 | 2137 |
| 0-110 | 2481 |
| 0-120 | 3088 |
| 0-130 | 3890 |
| 0-140 | 4756 |
| 0-150 | 5547 |
| 0-160 | 6163 |
| 0-170 | 6547 |
| 0-180 | 6677 |



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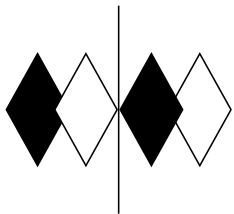
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 92 | 92 | 92 | 92 | 72 | 72 | 72 | 55 | 55 | 55 | 38 | 38 | 38 | 30 |
| 1 | 93 | 89 | 85 | 82 | 84 | 80 | 77 | 74 | 63 | 61 | 59 | 48 | 46 | 45 | 33 | 33 | 32 | 25 |
| 2 | 85 | 78 | 72 | 67 | 76 | 70 | 65 | 61 | 55 | 52 | 49 | 42 | 39 | 37 | 29 | 28 | 27 | 21 |
| 3 | 77 | 68 | 61 | 55 | 69 | 61 | 55 | 50 | 49 | 44 | 41 | 37 | 34 | 32 | 26 | 24 | 23 | 18 |
| 4 | 71 | 60 | 52 | 47 | 63 | 54 | 48 | 43 | 43 | 38 | 35 | 33 | 30 | 27 | 23 | 21 | 19 | 15 |
| 5 | 65 | 53 | 46 | 40 | 58 | 48 | 41 | 36 | 38 | 34 | 30 | 29 | 26 | 23 | 21 | 19 | 17 | 13 |
| 6 | 59 | 48 | 40 | 34 | 53 | 43 | 36 | 31 | 35 | 30 | 26 | 26 | 23 | 20 | 19 | 17 | 15 | 12 |
| 7 | 55 | 43 | 35 | 30 | 49 | 39 | 32 | 27 | 31 | 26 | 23 | 24 | 20 | 18 | 17 | 15 | 13 | 10 |
| 8 | 51 | 39 | 31 | 26 | 46 | 35 | 29 | 24 | 28 | 23 | 20 | 22 | 18 | 16 | 16 | 13 | 12 | 9 |
| 9 | 47 | 35 | 28 | 23 | 42 | 32 | 26 | 21 | 26 | 21 | 18 | 20 | 17 | 14 | 14 | 12 | 11 | 8 |
| 10 | 44 | 32 | 25 | 21 | 39 | 29 | 23 | 19 | 24 | 19 | 16 | 18 | 15 | 13 | 13 | 11 | 10 | 7 |

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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