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Floodlight Distribution Test Report

Relevant Standards

IES LM-79-2008, ANSI C82.77-2002, IES LM-35-2002 (Withdrawn)

Prepared For

Kichler Lighting

7711 E Pleasant Walley Rd
Cleveland, OH 44131-8010
United States

Catalog Number

16016AZT27 - high

Order Number

11906661

Test Number

11906661.09

Test Date

2017-08-24

Prepared By

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Approved By

Justin Benner, Project Handler

The results contained in this report pertain only to the tested sample.

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Luminaire Description: Brown formed aluminum housing, semi-specular internal reflector, clear glass lens enclosure
Lamp: One white LED
Mounting: Pole/Arm
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Diameter: 1.75 in.
Luminous Height: 1.000 in.

Summary of Results

| | |
|-------------------------|--------------|
| Total Luminaire Output: | 273.9 Lumens |
| Luminaire Efficacy: | 48.1 lm/w |
| Maximum Candela: | 957 Candela |

Test Conditions

| | |
|-------------------|-----------|
| Test Temperature: | 25.3 °C |
| Voltage: | 12.02 VAC |
| Current: | 0.7078 A |
| Power: | 5.692 W |
| Power Factor: | 0.669 |
| Frequency: | 60 Hz |
| Current THD: | 100.0 % |

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

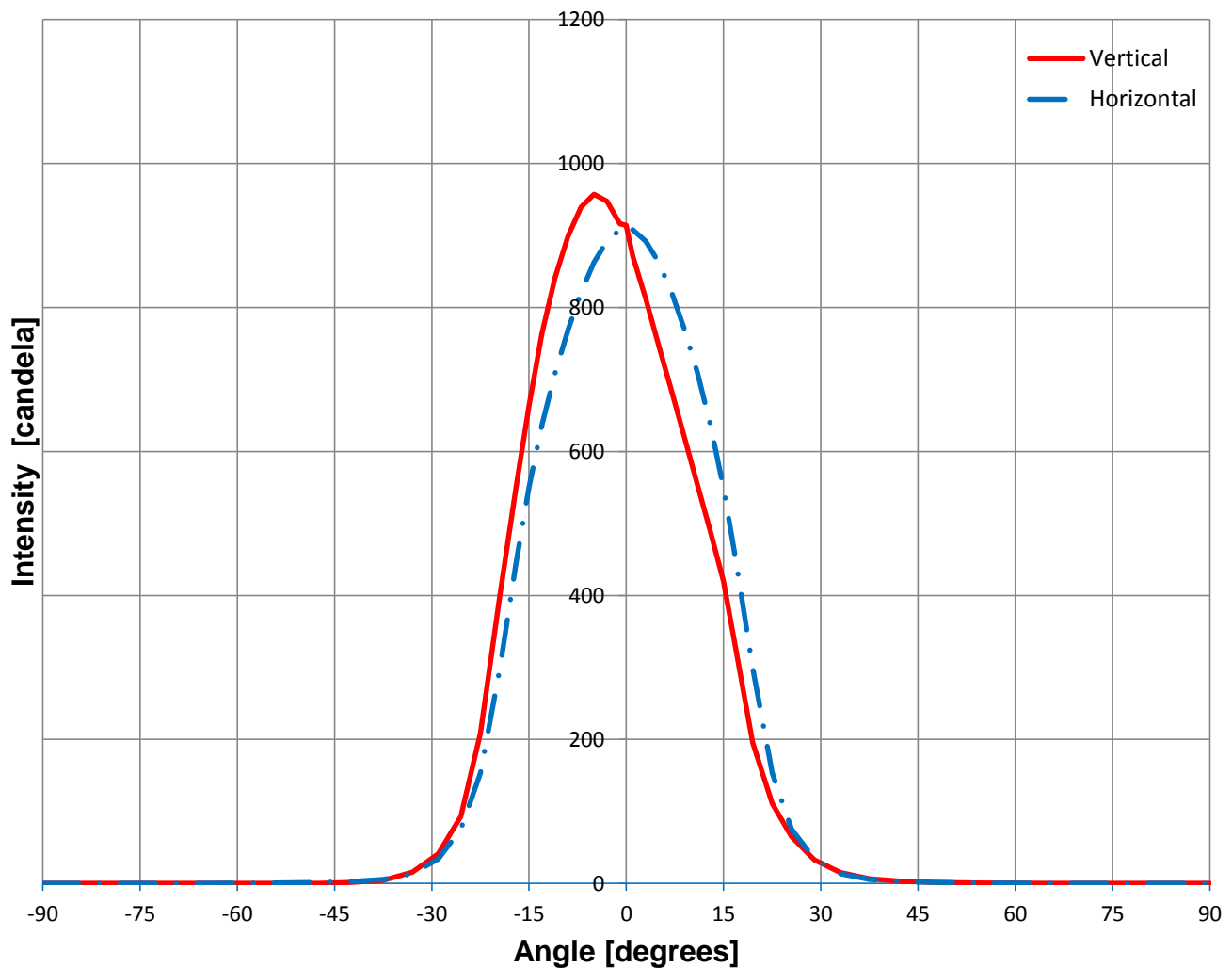
Distribution Test Conditions

| Temperature | Voltage | Current | Power | Power Factor | Frequency | Current THD |
|-------------|-----------|----------|---------|--------------|-----------|-------------|
| 25.3 °C | 12.02 VAC | 0.7078 A | 5.692 W | 0.669 | 60 Hz | 100.0 % |

Summary of Results

| | | | |
|---------------------|------------------|------------------|-----------------|
| Total Lumen Output: | 273.9 Lumens | Maximum Candela: | 957.4 Candela |
| Luminaire Efficacy: | 48.1 Lumens/Watt | Maximum Angle: | 0 H -5 V |
| Field Lumens: | 249.4 Lumens | Field Angle : | 48.4 H X 48.9 V |
| Beam Lumens: | 166.0 Lumens | Beam Angle : | 31.5 H X 31.5 V |
| Spill Light Lumens: | 24.5 Lumens | IESNA Type: | 4 H X 4 V |

Maximum Candlepower Plot





Candela Tabulation
Lateral Angle (Degrees)

| Vertical Angle (Degrees) | Lateral Angle (Degrees) | | | | | | | | | | |
|--------------------------|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| | 0 | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19.5 |
| 85.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 75.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 65.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 55.0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 47.5 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 |
| 42.5 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 2 |
| 37.5 | 7 | 7 | 9 | 8 | 8 | 7 | 7 | 6 | 6 | 5 | 4 |
| 33.0 | 15 | 18 | 21 | 20 | 19 | 17 | 16 | 14 | 12 | 10 | 8 |
| 29.0 | 33 | 39 | 46 | 44 | 41 | 37 | 33 | 28 | 24 | 19 | 15 |
| 25.5 | 65 | 77 | 88 | 84 | 77 | 69 | 61 | 52 | 43 | 35 | 26 |
| 22.5 | 111 | 134 | 152 | 144 | 132 | 116 | 100 | 85 | 70 | 56 | 41 |
| 19.5 | 196 | 241 | 266 | 253 | 230 | 202 | 169 | 137 | 109 | 85 | 61 |
| 17.0 | 321 | 366 | 380 | 365 | 339 | 302 | 256 | 207 | 161 | 120 | 83 |
| 15.0 | 420 | 457 | 460 | 444 | 417 | 382 | 334 | 276 | 214 | 158 | 104 |
| 13.0 | 488 | 527 | 525 | 511 | 488 | 454 | 407 | 346 | 274 | 204 | 131 |
| 11.0 | 553 | 597 | 589 | 572 | 549 | 517 | 471 | 411 | 339 | 255 | 163 |
| 9.0 | 619 | 661 | 651 | 633 | 608 | 574 | 528 | 471 | 397 | 308 | 198 |
| 7.0 | 684 | 725 | 712 | 692 | 665 | 627 | 579 | 521 | 448 | 355 | 230 |
| 5.0 | 747 | 788 | 770 | 748 | 716 | 674 | 625 | 564 | 490 | 393 | 260 |
| 3.0 | 812 | 846 | 825 | 799 | 763 | 718 | 665 | 600 | 522 | 423 | 284 |
| 1.0 | 871 | 890 | 872 | 844 | 804 | 755 | 697 | 626 | 543 | 440 | 297 |
| 0.0 | 914 | 908 | 892 | 863 | 821 | 769 | 709 | 636 | 550 | 444 | 300 |
| -1.0 | 916 | 927 | 908 | 876 | 833 | 779 | 715 | 639 | 550 | 444 | 298 |
| -3.0 | 948 | 952 | 928 | 895 | 849 | 790 | 718 | 635 | 541 | 433 | 287 |
| -5.0 | 957 | 945 | 924 | 890 | 841 | 779 | 702 | 615 | 519 | 408 | 264 |
| -7.0 | 939 | 909 | 891 | 854 | 802 | 736 | 661 | 575 | 478 | 371 | 234 |
| -9.0 | 899 | 851 | 832 | 796 | 742 | 674 | 598 | 519 | 423 | 320 | 196 |
| -11.0 | 842 | 774 | 754 | 717 | 664 | 598 | 527 | 443 | 353 | 258 | 156 |
| -13.0 | 764 | 688 | 660 | 625 | 574 | 512 | 440 | 359 | 277 | 195 | 120 |
| -15.0 | 663 | 591 | 552 | 522 | 473 | 414 | 345 | 273 | 201 | 143 | 89 |
| -17.0 | 549 | 481 | 432 | 404 | 361 | 310 | 251 | 192 | 141 | 99 | 64 |
| -19.5 | 401 | 338 | 283 | 257 | 224 | 188 | 149 | 115 | 84 | 63 | 43 |
| -22.5 | 209 | 176 | 140 | 126 | 110 | 91 | 74 | 59 | 47 | 36 | 25 |
| -25.5 | 93 | 81 | 65 | 60 | 54 | 46 | 39 | 32 | 25 | 20 | 14 |
| -29.0 | 41 | 36 | 29 | 26 | 24 | 21 | 18 | 15 | 12 | 10 | 7 |
| -33.0 | 15 | 14 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 |
| -37.5 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 |
| -42.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| -47.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -55.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -65.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -75.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -85.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Candela Tabulation
Lateral Angle (Degrees)

| | 22.5 | 25.5 | 29 | 33 | 37.5 | 42.5 | 47.5 | 55 | 65 | 75 | 85 |
|-------|------|------|----|----|------|------|------|----|----|----|----|
| 85.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 75.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 65.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 55.0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 47.5 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 42.5 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 37.5 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 33.0 | 6 | 5 | 3 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| 29.0 | 11 | 8 | 5 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| 25.5 | 18 | 12 | 7 | 4 | 3 | 1 | 1 | 0 | 0 | 0 | 0 |
| 22.5 | 27 | 17 | 10 | 6 | 3 | 2 | 1 | 0 | 0 | 0 | 0 |
| 19.5 | 39 | 24 | 13 | 7 | 4 | 2 | 1 | 1 | 0 | 0 | 0 |
| 17.0 | 52 | 31 | 16 | 8 | 4 | 2 | 1 | 1 | 0 | 0 | 0 |
| 15.0 | 64 | 37 | 19 | 9 | 4 | 2 | 1 | 1 | 0 | 0 | 0 |
| 13.0 | 77 | 44 | 22 | 10 | 5 | 2 | 1 | 1 | 0 | 0 | 0 |
| 11.0 | 90 | 51 | 25 | 11 | 5 | 2 | 1 | 1 | 0 | 0 | 0 |
| 9.0 | 105 | 58 | 28 | 12 | 5 | 2 | 1 | 1 | 0 | 0 | 0 |
| 7.0 | 121 | 65 | 31 | 13 | 5 | 2 | 1 | 1 | 0 | 0 | 0 |
| 5.0 | 136 | 70 | 33 | 13 | 6 | 3 | 1 | 1 | 0 | 0 | 0 |
| 3.0 | 147 | 73 | 34 | 14 | 6 | 3 | 1 | 1 | 0 | 0 | 0 |
| 1.0 | 153 | 75 | 34 | 14 | 6 | 3 | 1 | 1 | 0 | 0 | 0 |
| 0.0 | 153 | 75 | 34 | 14 | 6 | 3 | 1 | 0 | 0 | 0 | 0 |
| -1.0 | 152 | 75 | 34 | 13 | 5 | 2 | 1 | 0 | 0 | 0 | 0 |
| -3.0 | 145 | 72 | 32 | 13 | 5 | 2 | 1 | 0 | 0 | 0 | 0 |
| -5.0 | 133 | 67 | 30 | 12 | 5 | 2 | 1 | 0 | 0 | 0 | 0 |
| -7.0 | 117 | 60 | 27 | 11 | 5 | 2 | 1 | 0 | 0 | 0 | 0 |
| -9.0 | 98 | 51 | 23 | 10 | 4 | 2 | 1 | 0 | 0 | 0 | 0 |
| -11.0 | 80 | 43 | 20 | 9 | 4 | 2 | 1 | 0 | 0 | 0 | 0 |
| -13.0 | 64 | 34 | 16 | 7 | 3 | 2 | 1 | 0 | 0 | 0 | 0 |
| -15.0 | 50 | 27 | 13 | 6 | 3 | 2 | 1 | 0 | 0 | 0 | 0 |
| -17.0 | 38 | 21 | 11 | 5 | 3 | 1 | 1 | 0 | 0 | 0 | 0 |
| -19.5 | 26 | 15 | 8 | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| -22.5 | 16 | 10 | 6 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| -25.5 | 10 | 6 | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| -29.0 | 5 | 4 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| -33.0 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| -37.5 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -42.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -47.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -55.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -65.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -75.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -85.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Vertical Angle (Degrees)



Isocandela Diagram (Percent of Maximum Intensity)

