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Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

Prepared For
Jesco Lighting Group LLC

15 Harbor Park Dr
Port Washington, NY 11050
United States

Catalog Number
RLET-P351AB-15-3590-M-HZWH

Order Number
11642482
Test Number
11642482.05

Test Date

2017-02-23

Prepared By

Derek Smarr, Technician

Approved By

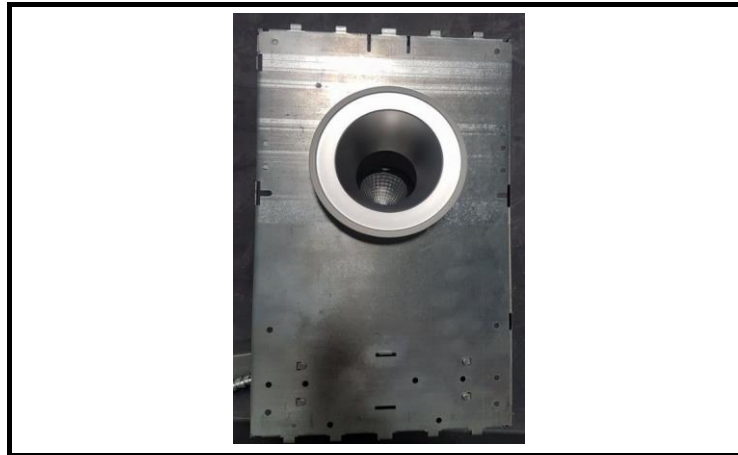
Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Formed steel housing, formed aluminum heatsink, white plastic internal reflector, frosted plastic lens enclosure, semi-specular external reflector
Lamp: One white LED
Mounting: Recessed
Ballast/Driver: One ERP ESM040W-0800-42

Luminaire



Luminaire Characteristics

Luminous Diameter: 3.00 in.

Summary of Results

| | |
|-------------------------|--------------|
| Total Luminaire Output: | 896.8 Lumens |
| Luminaire Efficacy: | 64.1 lm/w |
| Maximum Candela: | 4977 Candela |

Test Conditions

| | |
|-------------------|-----------|
| Test Temperature: | 24.7 °C |
| Voltage: | 120.0 VAC |
| Current: | 0.1180 A |
| Power: | 13.98 W |
| Power Factor: | 0.988 |
| Frequency: | 60 Hz |
| Current THD: | 13.0 % |

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



Distribution - Goniophotometer

Distribution Test Conditions

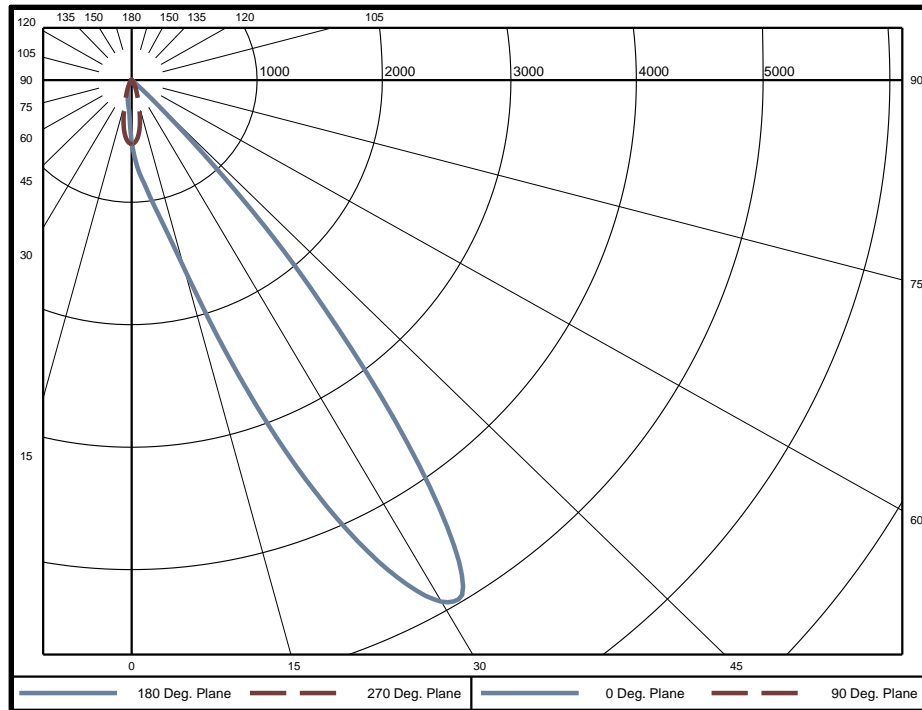
| Temperature | Voltage | Current | Power | Power Factor | Frequency | Current THD |
|-------------|-----------|----------|---------|--------------|-----------|-------------|
| 24.7 °C | 120.0 VAC | 0.1180 A | 13.98 W | 0.988 | 60 Hz | 13.0 % |

Summary of Results

Spacing Criteria
 0-180: 1.92
 90-270: 0.14

Total Lumen Output: 896.8 Lumens
Luminaire Efficacy: 64.1 lm/w
Maximum Candela: 4977 Candela

Polar Plot



Zonal Lumen Summary

| Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire |
|-------|--------|----------------|---------|--------|----------------|---------|--------|----------------|
| 0-5 | 12.2 | 1.4% | 60-65 | 0.5 | 0.1% | 120-125 | 0 | 0.0% |
| 5-10 | 35.8 | 4.0% | 65-70 | 0.3 | 0.0% | 125-130 | 0 | 0.0% |
| 10-15 | 60.9 | 6.8% | 70-75 | 0.2 | 0.0% | 130-135 | 0 | 0.0% |
| 15-20 | 93.2 | 10.4% | 75-80 | 0.2 | 0.0% | 135-140 | 0 | 0.0% |
| 20-25 | 137.6 | 15.3% | 80-85 | 0.1 | 0.0% | 140-145 | 0 | 0.0% |
| 25-30 | 181.4 | 20.2% | 85-90 | 0.3 | 0.0% | 145-150 | 0 | 0.0% |
| 30-35 | 192.0 | 21.4% | 90-95 | 0 | 0.0% | 150-155 | 0 | 0.0% |
| 35-40 | 127.9 | 14.3% | 95-100 | 0 | 0.0% | 155-160 | 0 | 0.0% |
| 40-45 | 43.6 | 4.9% | 100-105 | 0 | 0.0% | 160-165 | 0 | 0.0% |
| 45-50 | 7.2 | 0.8% | 105-110 | 0 | 0.0% | 165-170 | 0 | 0.0% |
| 50-55 | 2.5 | 0.3% | 110-115 | 0 | 0.0% | 170-175 | 0 | 0.0% |
| 55-60 | 1.0 | 0.1% | 115-120 | 0 | 0.0% | 175-180 | 0 | 0.0% |

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-40 | 841 | 93.8% |
| 0-60 | 895 | 99.8% |
| 0-90 | 897 | 100.0% |
| 90-180 | 0 | 0.0% |



Candela Tabulation

Horizontal Angle (Degrees)

| | 0 | 22.5 | 45 | 67.5 | 90 | 112.5 | 135 | 157.5 | 180 | 202.5 | 225 | 247.5 | 270 | 292.5 | 315 | 337.5 |
|-----|------|------|-----|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 0 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 |
| 5 | 777 | 793 | 724 | 608 | 481 | 361 | 288 | 257 | 239 | 257 | 288 | 361 | 481 | 608 | 724 | 793 |
| 10 | 1047 | 1020 | 832 | 615 | 358 | 217 | 194 | 180 | 169 | 180 | 194 | 217 | 358 | 615 | 832 | 1020 |
| 15 | 1563 | 1358 | 889 | 533 | 208 | 149 | 131 | 121 | 113 | 121 | 131 | 149 | 208 | 533 | 889 | 1358 |
| 20 | 2707 | 1872 | 854 | 371 | 113 | 94 | 83 | 77 | 71 | 77 | 83 | 94 | 113 | 371 | 854 | 1872 |
| 25 | 4055 | 2348 | 767 | 195 | 66 | 56 | 50 | 48 | 44 | 48 | 50 | 56 | 66 | 195 | 767 | 2348 |
| 30 | 4921 | 2435 | 620 | 74 | 38 | 33 | 31 | 29 | 27 | 29 | 31 | 33 | 38 | 74 | 620 | 2435 |
| 35 | 4267 | 1786 | 319 | 31 | 22 | 20 | 19 | 18 | 17 | 18 | 19 | 20 | 22 | 31 | 319 | 1786 |
| 40 | 2207 | 675 | 34 | 18 | 13 | 13 | 13 | 12 | 11 | 12 | 13 | 13 | 13 | 18 | 34 | 675 |
| 45 | 396 | 51 | 18 | 9 | 8 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | 8 | 9 | 18 | 51 |
| 50 | 27 | 16 | 7 | 4 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 4 | 7 | 16 |
| 55 | 8 | 4 | 2 | 2 | 3 | 4 | 4 | 3 | 2 | 3 | 4 | 4 | 3 | 2 | 2 | 4 |
| 60 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 |
| 65 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| 70 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| 75 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 80 | 0 | 0 | 0 | 0 | 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 | 0 | 0 | 0 | 0 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Vertical Angle (Degrees)

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

| | 0 | 45 | 90 |
|----|--------|--------|--------|
| 0 | 116100 | 116100 | 116100 |
| 45 | 122900 | 5438 | 2496 |
| 55 | 3064 | 830 | 1141 |
| 65 | 140 | 220 | 399 |
| 75 | 8 | 65 | 258 |
| 85 | 81 | 244 | 317 |

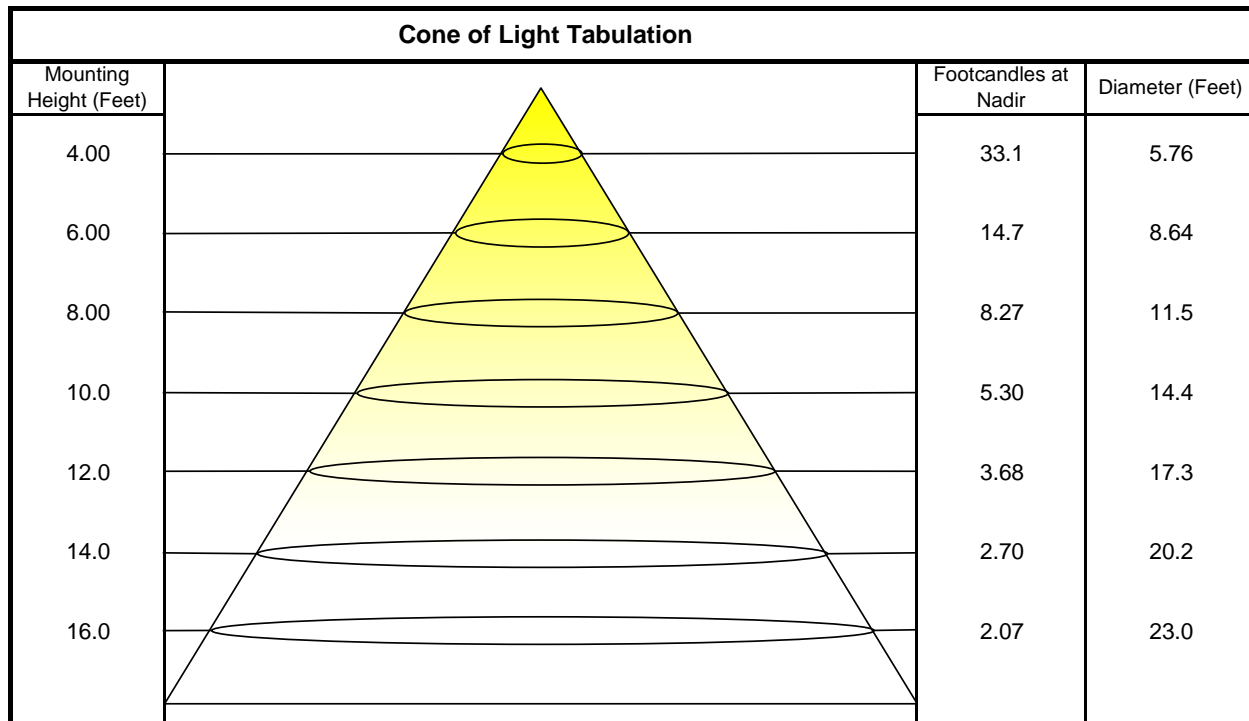
Vertical Angle (Degrees)



Utilization of Lumens - Zonal Cavity Method

| Effective Floor Cavity Reflectance 20% | | | | | | | | | | | | | | | | | | |
|--|--|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ceiling Cavity Reflectance | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
| Wall Reflectance | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| Room Cavity Ratio (RCR) | ** Values are expressed as Lumens delivered to the task surface ** | | | | | | | | | | | | | | | | | |
| 0 | 1068 | 1068 | 1068 | 1068 | 1043 | 1043 | 1043 | 1043 | 996 | 996 | 996 | 954 | 954 | 954 | 915 | 915 | 915 | 897 |
| 1 | 1014 | 988 | 964 | 943 | 992 | 968 | 947 | 928 | 932 | 915 | 899 | 898 | 885 | 872 | 867 | 857 | 847 | 831 |
| 2 | 959 | 912 | 873 | 841 | 939 | 897 | 861 | 831 | 867 | 838 | 813 | 840 | 817 | 796 | 815 | 796 | 779 | 764 |
| 3 | 905 | 843 | 795 | 757 | 887 | 830 | 786 | 750 | 806 | 769 | 738 | 784 | 753 | 726 | 764 | 738 | 715 | 700 |
| 4 | 853 | 780 | 726 | 685 | 836 | 769 | 719 | 681 | 749 | 706 | 672 | 731 | 694 | 664 | 714 | 683 | 657 | 642 |
| 5 | 804 | 722 | 665 | 623 | 788 | 713 | 660 | 620 | 697 | 650 | 614 | 681 | 641 | 609 | 667 | 632 | 603 | 589 |
| 6 | 757 | 669 | 611 | 569 | 743 | 662 | 607 | 567 | 648 | 599 | 563 | 635 | 592 | 559 | 623 | 585 | 555 | 541 |
| 7 | 713 | 622 | 563 | 521 | 700 | 615 | 559 | 520 | 603 | 553 | 517 | 592 | 547 | 514 | 582 | 542 | 511 | 497 |
| 8 | 672 | 578 | 519 | 479 | 660 | 573 | 517 | 478 | 563 | 512 | 476 | 553 | 507 | 473 | 544 | 502 | 471 | 458 |
| 9 | 634 | 539 | 481 | 441 | 623 | 534 | 478 | 440 | 525 | 474 | 439 | 517 | 470 | 437 | 509 | 466 | 435 | 422 |
| 10 | 599 | 503 | 446 | 408 | 589 | 499 | 444 | 407 | 491 | 441 | 406 | 484 | 437 | 404 | 477 | 434 | 403 | 390 |

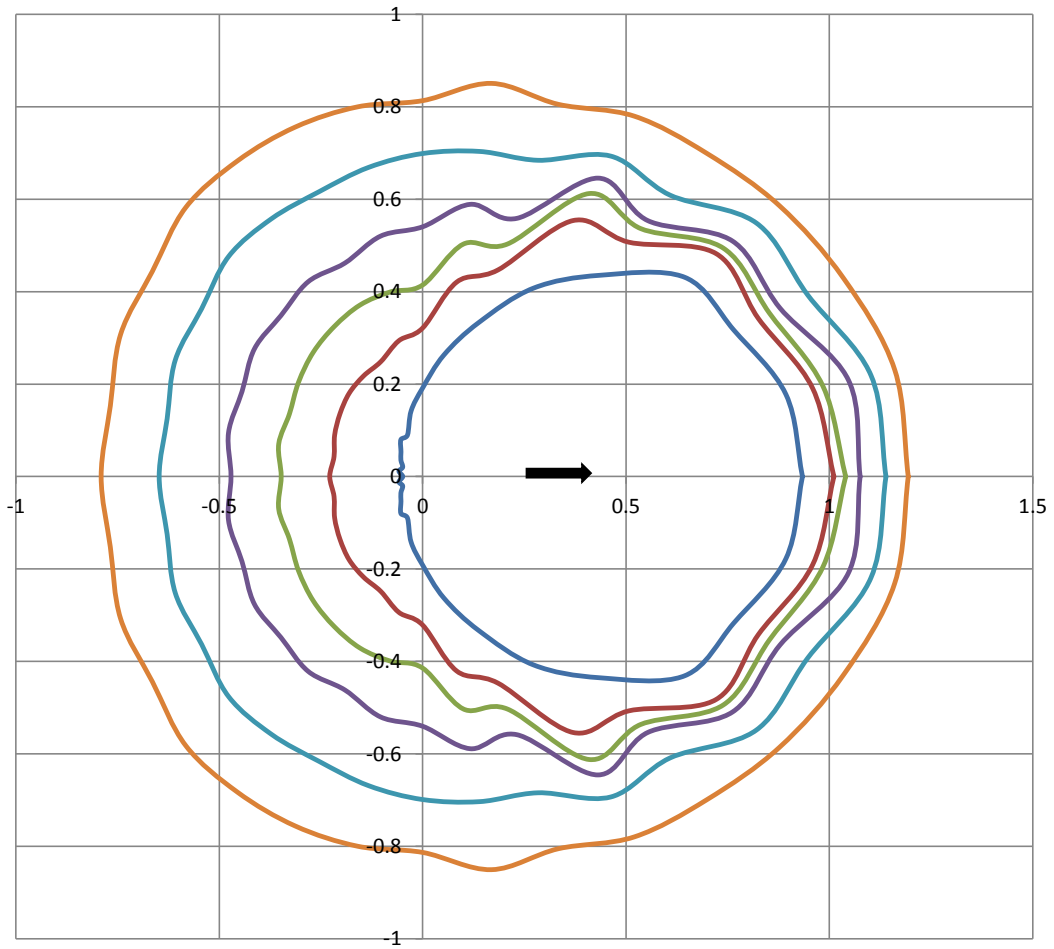
| Beam and Field Information | |
|----------------------------|--------------|
| CIE Type: | Direct |
| Center Beam Intensity: | 530 Candela |
| Central Cone Intensity: | 517 Candela |
| Beam Flux: | 817.0 Lumens |
| Beam Angle (0-180): | 49.8 Degrees |
| Beam Angle (90-270): | 25.9 Degrees |
| Field Angle (0-180): | 71.6 Degrees |
| Field Angle (90-270): | 54.0 Degrees |





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

