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## Indoor Distribution Test Report

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

Prepared For  
**Mercury Lighting**  
Stephen Bambush  
20 Audrey Pl  
Fairfield, NJ 07004-3416

Catalog Number  
**LR14-14G-6200-35K-U55-UNI-XXXX**  
Order Number  
10742397  
Test Number  
1020032

Test Date

2015-04-15

Prepared By

Dane Hernandez-Adams, Technician

Approved By

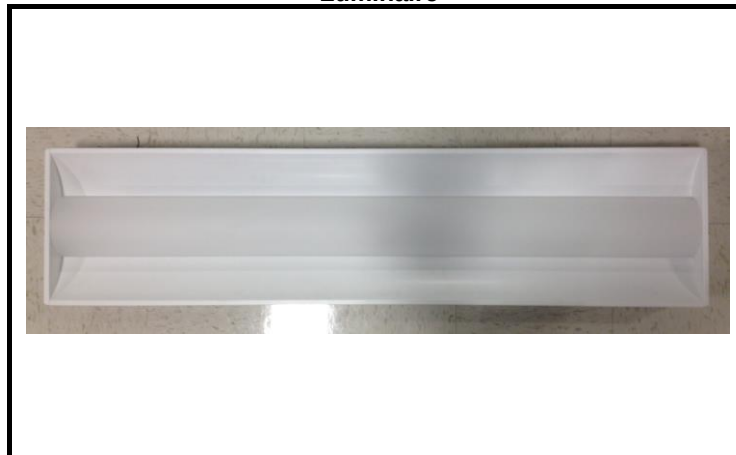
Kyle Spaziani, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** White steel housing / reflector, frosted plastic lens enclosure  
**Lamp:** 144 white LEDs  
**Mounting:** Recessed  
**Ballast/Driver:** One Universal Everline D15CC55UNVTZ-C (@1500mA)

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 47.00 in.  
Luminous Width: 11.00 in.

**Summary of Results**

|                         |              |
|-------------------------|--------------|
| Total Luminaire Output: | 5928 Lumens  |
| Luminaire Efficacy:     | 93.6 lm/w    |
| Maximum Candela:        | 2049 Candela |

**Electrical Data**

|                   |           |
|-------------------|-----------|
| Test Temperature: | 24.5 °C   |
| Voltage:          | 120.0 VAC |
| Current:          | 0.5281 A  |
| Power:            | 63.34 W   |
| Power Factor:     | 0.999     |
| Frequency:        | 60 Hz     |
| Current THD:      | 3.51 %    |

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 |
|-------------|-----------|----------|---------|--------------|-----------|-------------|
| 24.5 °C     | 120.0 VAC | 0.5281 A | 63.34 W | 0.999        | 60 Hz     | 3.51 %      |

### Summary of Results

#### Spacing Criteria

0-180: 1.20  
90-270: 1.30

#### Total Lumen Output:

5928 Lumens

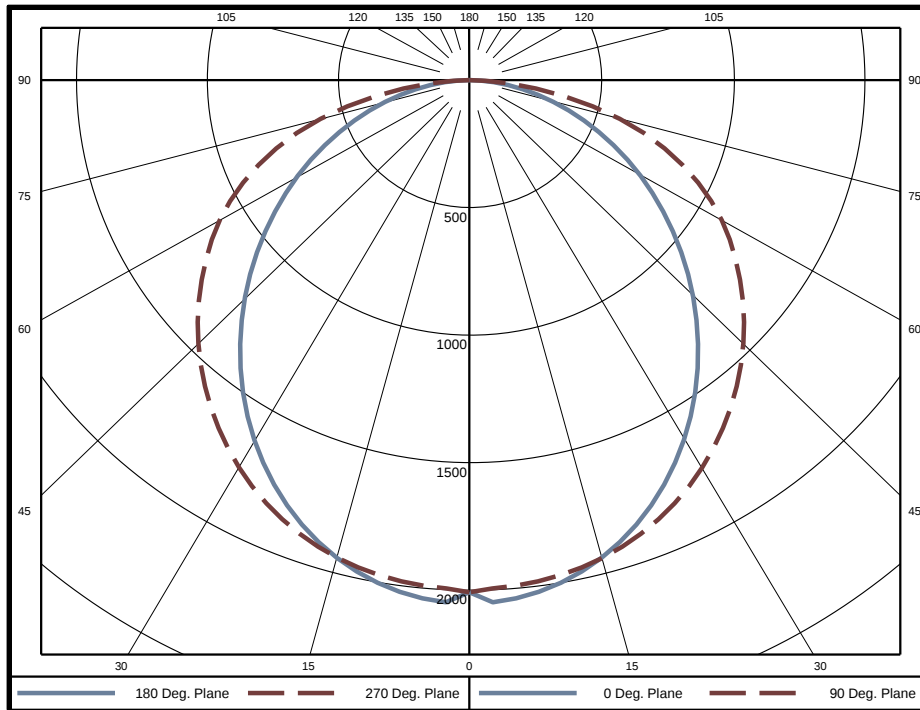
#### Luminaire Efficacy:

93.6 lm/w

#### Maximum Candela:

2049 Candela

### Polar Plot



### Zonal Lumen Summary

| Zone  | Lumens | % of Luminaire | Zone    | Lumens | % of Luminaire | Zone    | Lumens | % of Luminaire |
|-------|--------|----------------|---------|--------|----------------|---------|--------|----------------|
| 0-5   | 50.9   | 0.9%           | 60-65   | 412.0  | 6.9%           | 120-125 | 0.0    | 0.0%           |
| 5-10  | 141.9  | 2.4%           | 65-70   | 356.5  | 6.0%           | 125-130 | 0.0    | 0.0%           |
| 10-15 | 230.9  | 3.9%           | 70-75   | 289.7  | 4.9%           | 130-135 | 0.0    | 0.0%           |
| 15-20 | 311.7  | 5.3%           | 75-80   | 211.0  | 3.6%           | 135-140 | 0.0    | 0.0%           |
| 20-25 | 381.3  | 6.4%           | 80-85   | 122.6  | 2.1%           | 140-145 | 0.0    | 0.0%           |
| 25-30 | 437.5  | 7.4%           | 85-90   | 36.4   | 0.6%           | 145-150 | 0.0    | 0.0%           |
| 30-35 | 478.7  | 8.1%           | 90-95   | 0.0    | 0.0%           | 150-155 | 0.0    | 0.0%           |
| 35-40 | 503.8  | 8.5%           | 95-100  | 0.0    | 0.0%           | 155-160 | 0.0    | 0.0%           |
| 40-45 | 513.1  | 8.7%           | 100-105 | 0.0    | 0.0%           | 160-165 | 0.0    | 0.0%           |
| 45-50 | 507.3  | 8.6%           | 105-110 | 0.0    | 0.0%           | 165-170 | 0.0    | 0.0%           |
| 50-55 | 487.3  | 8.2%           | 110-115 | 0.0    | 0.0%           | 170-175 | 0.0    | 0.0%           |
| 55-60 | 455.4  | 7.7%           | 115-120 | 0.0    | 0.0%           | 175-180 | 0.0    | 0.0%           |

| Zone   | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-40   | 2536.6 | 42.8%          |
| 0-60   | 4499.7 | 75.9%          |
| 0-90   | 5927.9 | 100.0%         |
| 90-180 | 0.0    | 0.0%           |



**Candela Tabulation**  
Horizontal Angle (Degrees)

| Vertical 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   | 2008 | 2008 | 2008 | 2008 | 2008 | 2008  | 2008 | 2008  | 2008 | 2008  | 2008 | 2008  | 2008 | 2008  | 2008 | 2008  |
|                          | 5   | 2040 | 2004 | 1986 | 1990 | 1990 | 1990  | 1986 | 2004  | 2040 | 2004  | 1986 | 1990  | 1990 | 1990  | 1986 | 2004  |
|                          | 10  | 2001 | 1969 | 1958 | 1968 | 1971 | 1968  | 1958 | 1969  | 2001 | 1969  | 1958 | 1968  | 1971 | 1968  | 1958 | 1969  |
|                          | 15  | 1939 | 1913 | 1913 | 1933 | 1939 | 1933  | 1913 | 1913  | 1939 | 1913  | 1913 | 1933  | 1939 | 1933  | 1913 | 1913  |
|                          | 20  | 1855 | 1836 | 1851 | 1881 | 1892 | 1881  | 1851 | 1836  | 1855 | 1836  | 1851 | 1881  | 1892 | 1881  | 1851 | 1836  |
|                          | 25  | 1750 | 1741 | 1771 | 1813 | 1831 | 1813  | 1771 | 1741  | 1750 | 1741  | 1771 | 1813  | 1831 | 1813  | 1771 | 1741  |
|                          | 30  | 1629 | 1629 | 1675 | 1731 | 1754 | 1731  | 1675 | 1629  | 1629 | 1629  | 1675 | 1731  | 1754 | 1731  | 1675 | 1629  |
|                          | 35  | 1495 | 1505 | 1566 | 1636 | 1666 | 1636  | 1566 | 1505  | 1495 | 1505  | 1566 | 1636  | 1666 | 1636  | 1566 | 1505  |
|                          | 40  | 1351 | 1368 | 1445 | 1531 | 1567 | 1531  | 1445 | 1368  | 1351 | 1368  | 1445 | 1531  | 1567 | 1531  | 1445 | 1368  |
|                          | 45  | 1202 | 1227 | 1317 | 1418 | 1460 | 1418  | 1317 | 1227  | 1202 | 1227  | 1317 | 1418  | 1460 | 1418  | 1317 | 1227  |
|                          | 50  | 1050 | 1081 | 1183 | 1298 | 1346 | 1298  | 1183 | 1081  | 1050 | 1081  | 1183 | 1298  | 1346 | 1298  | 1183 | 1081  |
|                          | 55  | 898  | 935  | 1047 | 1173 | 1224 | 1173  | 1047 | 935   | 898  | 935   | 1047 | 1173  | 1224 | 1173  | 1047 | 935   |
|                          | 60  | 751  | 792  | 911  | 1045 | 1098 | 1045  | 911  | 792   | 751  | 792   | 911  | 1045  | 1098 | 1045  | 911  | 792   |
|                          | 65  | 604  | 650  | 777  | 905  | 951  | 905   | 777  | 650   | 604  | 650   | 777  | 905   | 951  | 905   | 777  | 650   |
|                          | 70  | 464  | 514  | 640  | 748  | 783  | 748   | 640  | 514   | 464  | 514   | 640  | 748   | 783  | 748   | 640  | 514   |
|                          | 75  | 330  | 385  | 496  | 569  | 587  | 569   | 496  | 385   | 330  | 385   | 496  | 569   | 587  | 569   | 496  | 385   |
|                          | 80  | 206  | 261  | 334  | 363  | 362  | 363   | 334  | 261   | 206  | 261   | 334  | 363   | 362  | 363   | 334  | 261   |
|                          | 85  | 94   | 133  | 155  | 156  | 153  | 156   | 155  | 133   | 94   | 133   | 155  | 156   | 153  | 156   | 155  | 133   |
|                          | 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     |

**Average Luminance (cd/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

| Vertical Angle (Degrees) | 0  | 45   | 90   |
|--------------------------|----|------|------|
|                          | 0  | 6020 | 6020 |
|                          | 45 | 5096 | 5582 |
|                          | 55 | 4696 | 5474 |
|                          | 65 | 4286 | 5514 |
|                          | 75 | 3827 | 5744 |
|                          | 85 | 3247 | 5341 |



### 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                          | 7063                                                               | 7063 | 7063 | 7063 | 6899 | 6899 | 6899 | 6899 | 6592 | 6592 | 6592 | 6312 | 6312 | 6312 | 6054 | 6054 | 6054 | 5933 |
| 1                          | 6412                                                               | 6111 | 5842 | 5599 | 6248 | 5975 | 5730 | 5507 | 5721 | 5518 | 5332 | 5487 | 5321 | 5168 | 5272 | 5138 | 5013 | 4886 |
| 2                          | 5808                                                               | 5295 | 4871 | 4515 | 5649 | 5182 | 4791 | 4460 | 4969 | 4639 | 4355 | 4772 | 4496 | 4254 | 4590 | 4362 | 4158 | 4026 |
| 3                          | 5281                                                               | 4631 | 4128 | 3728 | 5130 | 4536 | 4069 | 3693 | 4357 | 3956 | 3626 | 4191 | 3849 | 3562 | 4037 | 3747 | 3499 | 3366 |
| 4                          | 4827                                                               | 4092 | 3554 | 3144 | 4688 | 4012 | 3510 | 3121 | 3861 | 3423 | 3076 | 3721 | 3341 | 3033 | 3590 | 3262 | 2991 | 2859 |
| 5                          | 4435                                                               | 3650 | 3103 | 2698 | 4307 | 3583 | 3068 | 2683 | 3455 | 3000 | 2652 | 3336 | 2936 | 2622 | 3225 | 2874 | 2593 | 2463 |
| 6                          | 4093                                                               | 3283 | 2740 | 2350 | 3977 | 3226 | 2712 | 2339 | 3117 | 2659 | 2317 | 3016 | 2607 | 2296 | 2921 | 2558 | 2275 | 2149 |
| 7                          | 3793                                                               | 2974 | 2444 | 2072 | 3688 | 2926 | 2422 | 2064 | 2833 | 2379 | 2048 | 2746 | 2337 | 2032 | 2664 | 2297 | 2016 | 1896 |
| 8                          | 3530                                                               | 2713 | 2199 | 1846 | 3436 | 2671 | 2181 | 1840 | 2592 | 2146 | 1828 | 2517 | 2112 | 1816 | 2446 | 2079 | 1804 | 1689 |
| 9                          | 3298                                                               | 2489 | 1994 | 1660 | 3213 | 2453 | 1979 | 1655 | 2385 | 1950 | 1646 | 2320 | 1922 | 1636 | 2259 | 1895 | 1627 | 1517 |
| 10                         | 3092                                                               | 2297 | 1821 | 1504 | 3015 | 2266 | 1808 | 1500 | 2206 | 1784 | 1493 | 2149 | 1760 | 1486 | 2096 | 1737 | 1479 | 1373 |

### Cone of Light Tabulation

| Mounting Height | Footcandles at Nadir | Diameter (Feet) |
|-----------------|----------------------|-----------------|
| 4.00            | 126                  | 4.98            |
| 6.00            | 55.8                 | 7.47            |
| 8.00            | 31.4                 | 9.96            |
| 10.0            | 20.1                 | 12.5            |
| 12.0            | 13.9                 | 14.9            |
| 14.0            | 10.2                 | 17.4            |
| 16.0            | 7.84                 | 19.9            |

### Cone of Light Plot

