



EDL Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014

Prepared By



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Prepared For Studio d'Armes

148 chemin Watchorn
Morin-Heights, QC J0R 1H0
Canada

Test Date

2022-03-01

Prepared By

Josh Mitchell, TechnicianA

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.
This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



EDL Photometric Test Report

Luminaire Description: Formed glass housing, frosted lens enclosure
Lamp: White LEDs
Mounting: Pendant
Ballast/Driver: One ERP ESS015W-0350-42 Driver

Luminaire



Luminaire Characteristics

Luminous Length: 12.00i n.
Luminous Width: 12.00i n.
Luminous Height: 10.00i n.

Summary of Results

Total Luminaire Output: 1103 Lumens
Luminaire Efficacy: 8 2.9 lm/w
Maximum Candela: 231 Candela

Test Conditions

Test Temperature: 25.0 °C
Voltage: 120.1 VAC
Current: 0.1126 A
Power: 13.31 W
Power Factor: 0.984
Frequency: 60 Hz
Current THD: 14.9 %

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



EDL Photometric Test Report

Distribution - Goniophotometer

Distribution Test Conditions

| Temperature | Voltage | Current | Power | Power Factor | Frequency | Current THD |
|-------------|-----------|----------|---------|--------------|-----------|-------------|
| 25.0 °C | 120.1 VAC | 0.1126 A | 13.31 W | 0.984 | 60 Hz | 4.9 % |

Summary of Results

Spacing Criteria

0-180: 1.63

90-270: 1.30

Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1)

Crosswise: 18.9

Total Lumen Output:

1103 Lumens

Luminaire Efficacy:

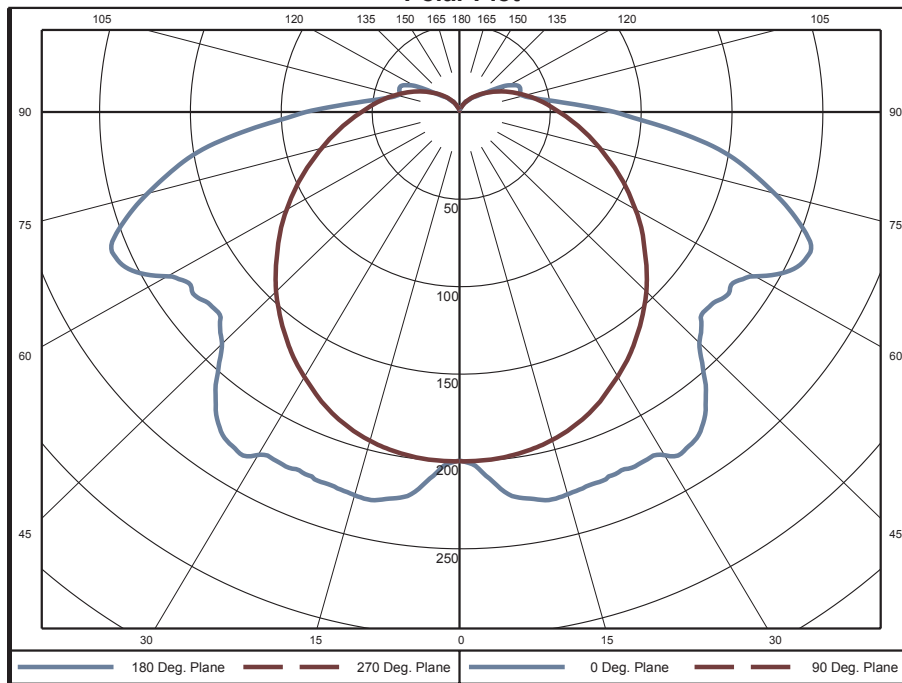
82.9 lm/w

Maximum Candela:

231 Candela

Endwise: 15.9

Polar Plot



Zonal Lumen Summary

| Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire |
|-------|--------|----------------|---------|--------|----------------|---------|--------|----------------|
| 0-5 | 4.85 | 0.4% | 60-65 | 69.296 | .3%1 | 120-125 | 10.79 | .0% |
| 5-10 | 15.16 | 1.4% | 65-70 | 6.80 | 6.1% | 125-130 | 7.93 | 0.7% |
| 10-15 | 25.74 | 2.3% | 70-75 | 61.55 | 5.6% | 130-135 | 5.92 | 0.5% |
| 15-20 | 35.80 | 3.2% | 75-80 | 54.95 | 5.0% | 135-140 | 4.28 | 0.4% |
| 20-25 | 44.94 | 4.1% | 80-85 | 47.72 | 4.3% | 140-145 | 2.95 | 0.3% |
| 25-30 | 53.07 | 4.8% | 85-90 | 40.18 | 3.6% | 145-150 | 2.03 | 0.2% |
| 30-35 | 60.67 | 5.5% | 90-95 | 33.55 | 3.0% | 150-155 | 1.31 | 0.1% |
| 35-40 | 66.59 | 6.0% | 95-100 | 27.99 | 2.5% | 155-160 | 0.81 | 0.1% |
| 40-45 | 69.37 | 6.3% | 100-105 | 23.80 | 2.2% | 160-165 | 0.49 | 0.0% |
| 45-50 | 70.53 | 6.4% | 105-110 | 20.57 | 1.9% | 165-170 | 0.27 | 0.0% |
| 50-55 | 70.95 | 6.4% | 110-115 | 17.60 | 1.6% | 170-175 | 0.13 | 0.0% |
| 55-60 | 70.386 | .4%1 | 115-120 | 4.19 | 1.3% | 175-180 | 0.03 | 0.0% |

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-40 | 307 | 27.8% |
| 0-60 | 588 | 53.3% |
| 0-90 | 929 | 84.2% |
| 90-180 | 175 | 15.8% |



EDL Photometric Test Report

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 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 | 199.7 |
| 5 | 212.5 | 211.0 | 206.9 | 200.9 | 199.7 | 200.9 | 206.9 | 211.0 | 212.5 | 211.0 | 206.9 | 200.9 | 199.7 | 200.9 | 206.9 | 211.0 |
| 10 | 224.7 | 224.0 | 219.6 | 206.1 | 197.8 | 206.1 | 219.6 | 224.0 | 224.7 | 224.0 | 219.6 | 206.1 | 197.8 | 206.1 | 219.6 | 224.0 |
| 15 | 226.9 | 226.8 | 222.6 | 210.7 | 194.7 | 210.7 | 222.6 | 226.8 | 226.9 | 226.8 | 222.6 | 210.7 | 194.7 | 210.7 | 222.6 | 226.8 |
| 20 | 225.4 | 223.6 | 221.5 | 212.0 | 189.7 | 212.0 | 221.5 | 223.6 | 225.4 | 223.6 | 221.5 | 212.0 | 189.7 | 212.0 | 221.5 | 223.6 |
| 25 | 224.7 | 221.6 | 215.8 | 207.6 | 182.9 | 207.6 | 215.8 | 221.6 | 224.7 | 221.6 | 215.8 | 207.6 | 182.9 | 207.6 | 215.8 | 221.6 |
| 30 | 227.0 | 219.7 | 210.0 | 200.8 | 174.4 | 200.8 | 210.0 | 219.7 | 227.0 | 219.7 | 210.0 | 200.8 | 174.4 | 200.8 | 210.0 | 219.7 |
| 35 | 227.9 | 223.9 | 203.3 | 192.7 | 165.5 | 192.7 | 203.3 | 223.9 | 227.9 | 223.9 | 203.3 | 192.7 | 165.5 | 192.7 | 203.3 | 223.9 |
| 40 | 211.2 | 214.7 | 195.8 | 182.7 | 155.6 | 182.7 | 195.8 | 214.7 | 211.2 | 214.7 | 195.8 | 182.7 | 155.6 | 182.7 | 195.8 | 214.7 |
| 45 | 187.0 | 199.6 | 185.9 | 171.1 | 145.3 | 171.1 | 185.9 | 199.6 | 187.0 | 199.6 | 185.9 | 171.1 | 145.3 | 171.1 | 185.9 | 199.6 |
| 50 | 176.8 | 183.0 | 177.4 | 158.2 | 134.0 | 158.2 | 177.4 | 183.0 | 176.8 | 183.0 | 177.4 | 158.2 | 134.0 | 158.2 | 177.4 | 183.0 |
| 55 | 181.2 | 168.8 | 166.6 | 144.6 | 123.0 | 144.6 | 166.6 | 168.8 | 181.2 | 168.8 | 166.6 | 144.6 | 123.0 | 144.6 | 166.6 | 168.8 |
| 60 | 188.1 | 154.3 | 153.1 | 130.8 | 111.9 | 130.8 | 153.1 | 154.3 | 188.1 | 154.3 | 153.1 | 130.8 | 111.9 | 130.8 | 153.1 | 154.3 |
| 65 | 207.1 | 141.0 | 138.9 | 117.2 | 100.8 | 117.2 | 138.9 | 141.0 | 207.1 | 141.0 | 138.9 | 117.2 | 100.8 | 117.2 | 138.9 | 141.0 |
| 70 | 203.3 | 126.3 | 124.3 | 103.9 | 90.0 | 103.9 | 124.3 | 126.3 | 203.3 | 126.3 | 124.3 | 103.9 | 90.0 | 103.9 | 124.3 | 126.3 |
| 75 | 179.6 | 109.6 | 110.0 | 91.3 | 79.9 | 91.3 | 110.0 | 109.6 | 179.6 | 109.6 | 110.0 | 91.3 | 79.9 | 91.3 | 110.0 | 109.6 |
| 80 | 153.6 | 92.1 | 97.0 | 80.0 | 70.8 | 80.0 | 97.0 | 92.1 | 153.6 | 92.1 | 97.0 | 80.0 | 70.8 | 80.0 | 97.0 | 92.1 |
| 85 | 117.9 | 76.4 | 84.9 | 69.8 | 62.4 | 69.8 | 84.9 | 76.4 | 117.9 | 76.4 | 84.9 | 69.8 | 62.4 | 69.8 | 84.9 | 76.4 |
| 90 | 85.4 | 63.7 | 73.8 | 60.6 | 54.9 | 60.6 | 73.8 | 63.7 | 85.4 | 63.7 | 73.8 | 60.6 | 54.9 | 60.6 | 73.8 | 63.7 |
| 95 | 58.9 | 53.2 | 64.0 | 52.7 | 48.6 | 52.7 | 64.0 | 53.2 | 58.9 | 53.2 | 64.0 | 52.7 | 48.6 | 52.7 | 64.0 | 53.2 |
| 100 | 43.7 | 47.4 | 54.0 | 45.7 | 42.7 | 45.7 | 54.0 | 47.4 | 43.7 | 47.4 | 54.0 | 45.7 | 42.7 | 45.7 | 54.0 | 47.4 |
| 105 | 36.1 | 45.4 | 45.8 | 39.1 | 37.3 | 39.1 | 45.8 | 45.4 | 36.1 | 45.4 | 45.8 | 39.1 | 37.3 | 39.1 | 45.8 | 45.4 |
| 110 | 35.7 | 43.3 | 38.0 | 33.1 | 32.2 | 33.1 | 38.0 | 43.3 | 35.7 | 43.3 | 38.0 | 33.1 | 32.2 | 33.1 | 38.0 | 43.3 |
| 115 | 35.5 | 37.2 | 32.2 | 27.9 | 27.6 | 27.9 | 32.2 | 37.2 | 35.5 | 37.2 | 32.2 | 27.9 | 27.6 | 27.9 | 32.2 | 37.2 |
| 120 | 30.4 | 28.0 | 26.6 | 23.3 | 23.4 | 23.3 | 26.6 | 28.0 | 30.4 | 28.0 | 26.6 | 23.3 | 23.4 | 23.3 | 26.6 | 28.0 |
| 125 | 21.8 | 20.7 | 21.4 | 19.3 | 19.6 | 19.3 | 21.4 | 20.7 | 21.8 | 20.7 | 21.4 | 19.3 | 19.6 | 19.3 | 21.4 | 20.7 |
| 130 | 15.8 | 16.4 | 16.8 | 15.9 | 16.2 | 15.9 | 16.8 | 16.4 | 15.8 | 16.4 | 16.8 | 15.9 | 16.2 | 15.9 | 16.8 | 16.4 |
| 135 | 12.6 | 13.4 | 12.9 | 13.0 | 13.3 | 13.0 | 12.9 | 13.4 | 12.6 | 13.4 | 12.9 | 13.0 | 13.3 | 13.0 | 12.9 | 13.4 |
| 140 | 10.7 | 9.9 | 9.3 | 10.5 | 10.7 | 10.5 | 9.3 | 9.9 | 10.7 | 9.9 | 9.3 | 10.5 | 10.7 | 10.5 | 9.3 | 9.9 |
| 145 | 7.7 | 7.6 | 6.8 | 8.3 | 8.4 | 8.3 | 6.8 | 7.6 | 7.7 | 7.6 | 6.8 | 8.3 | 8.4 | 8.3 | 6.8 | 7.6 |
| 150 | 6.8 | 5.8 | 5.1 | 6.4 | 6.3 | 6.4 | 5.1 | 5.8 | 6.8 | 5.8 | 5.1 | 6.4 | 6.3 | 6.4 | 5.1 | 5.8 |
| 155 | 4.4 | 4.2 | 4.2 | 4.9 | 4.6 | 4.9 | 4.2 | 4.2 | 4.4 | 4.2 | 4.2 | 4.9 | 4.6 | 4.9 | 4.2 | 4.2 |
| 160 | 3.0 | 3.1 | 3.5 | 3.3 | 3.1 | 3.3 | 3.5 | 3.1 | 3.0 | 3.1 | 3.5 | 3.3 | 3.1 | 3.3 | 3.5 | 3.1 |
| 165 | 3.1 | 2.7 | 2.7 | 2.4 | 2.1 | 2.4 | 2.7 | 2.7 | 3.1 | 2.7 | 2.7 | 2.4 | 2.1 | 2.4 | 2.7 | 2.7 |
| 170 | 2.2 | 2.2 | 2.1 | 1.8 | 1.6 | 1.8 | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 1.8 | 1.6 | 1.8 | 2.1 | 2.2 |
| 175 | 1.6 | 1.5 | 1.5 | 1.3 | 1.1 | 1.3 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.3 | 1.1 | 1.3 | 1.5 | 1.5 |
| 180 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

| Vertical Angle (Degrees) | Horizontal Angle (Degrees) | | |
|--------------------------|----------------------------|------|------|
| | 0 | 45 | 90 |
| 0 | 2149 | 2149 | 2149 |
| 45 | 1552 | 1299 | 1206 |
| 55 | 1552 | 1165 | 1054 |
| 65 | 1892 | 1003 | 921 |
| 75 | 1817 | 847 | 808 |
| 85 | 1384 | 724 | 732 |



EDL Photometric Test Report

Coefficients of Utilization - 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 percent of total lumen output delivered to the task surface ** | | | | | | | | | | | | | | | | | |
| 0 | 115 | 115 | 115 | 115 | 111 | 111 | 111 | 111 | 102 | 102 | 102 | 95 | 95 | 95 | 88 | 88 | 88 | 84 |
| 1 | 102 | 95 | 90 | 85 | 97 | 92 | 87 | 82 | 84 | 80 | 77 | 78 | 74 | 71 | 71 | 69 | 66 | 63 |
| 2 | 91 | 81 | 73 | 66 | 87 | 78 | 71 | 64 | 72 | 66 | 60 | 66 | 61 | 57 | 61 | 57 | 53 | 50 |
| 3 | 82 | 70 | 61 | 54 | 78 | 67 | 59 | 52 | 62 | 55 | 49 | 57 | 51 | 46 | 52 | 48 | 43 | 40 |
| 4 | 75 | 61 | 52 | 44 | 71 | 59 | 50 | 43 | 54 | 47 | 41 | 50 | 44 | 39 | 46 | 41 | 36 | 34 |
| 5 | 68 | 54 | 45 | 38 | 65 | 52 | 43 | 37 | 48 | 41 | 35 | 45 | 38 | 33 | 41 | 36 | 31 | 28 |
| 6 | 63 | 49 | 39 | 32 | 60 | 47 | 38 | 31 | 43 | 36 | 30 | 40 | 33 | 28 | 37 | 31 | 27 | 24 |
| 7 | 58 | 44 | 35 | 28 | 55 | 42 | 34 | 27 | 39 | 32 | 26 | 36 | 30 | 25 | 34 | 28 | 24 | 21 |
| 8 | 54 | 40 | 31 | 25 | 51 | 38 | 30 | 24 | 36 | 28 | 23 | 33 | 27 | 22 | 31 | 25 | 21 | 19 |
| 9 | 50 | 36 | 28 | 22 | 48 | 35 | 27 | 22 | 33 | 26 | 21 | 31 | 24 | 20 | 28 | 23 | 19 | 17 |
| 10 | 47 | 33 | 25 | 20 | 45 | 32 | 25 | 19 | 30 | 23 | 19 | 28 | 22 | 18 | 26 | 21 | 17 | 15 |

Beam and Field Information

| | |
|-------------------------|---------------|
| CIE Type: | Semi-Direct |
| Center Beam Intensity: | 199.7 Candela |
| Central Cone Intensity: | 202 Candela |
| Beam Flux: | 808.5 Lumens |
| Beam Angle (0-180): | 174.8 Degrees |
| Beam Angle (90-270): | 130.9 Degrees |
| Field Angle (0-180): | 252.2 Degrees |
| Field Angle (90-270): | 248.9 Degrees |

Cone of Light Tabulation

| Mounting Height (Feet) | | Footcandles at Nadir | Diameter (Feet) |
|------------------------|--|----------------------|-----------------|
| 4.00 | | 12.5 | 6.14 |
| 6.00 | | 5.55 | 9.21 |
| 8.00 | | 3.12 | 12.3 |
| 10.0 | | 2.00 | 15.3 |
| 12.0 | | 1.39 | 18.4 |
| 14.0 | | 1.02 | 21.5 |
| 16.0 | | 0.780 | 24.5 |



ISOFootcandle Plot

Mounting Height - 8 Feet

