

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: INVUE

Report Number: P173832

Luminaire Tested: **ENV-FXX-LED-E1-BL2-ULG-BBB**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P173832  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P20107) AND DOWNLIGHT  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-FXX-LED-E1-BL2-ULG-BBB  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT, EMERGENCY MODE  
LIGHTBARS WITH AccuLED OPTICS - TYPE 2  
Light Source: (14) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1565.8 lumens  
Efficiency: N/A  
Efficacy: 284.7 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U3 - G1

Input Watts (W): 5.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



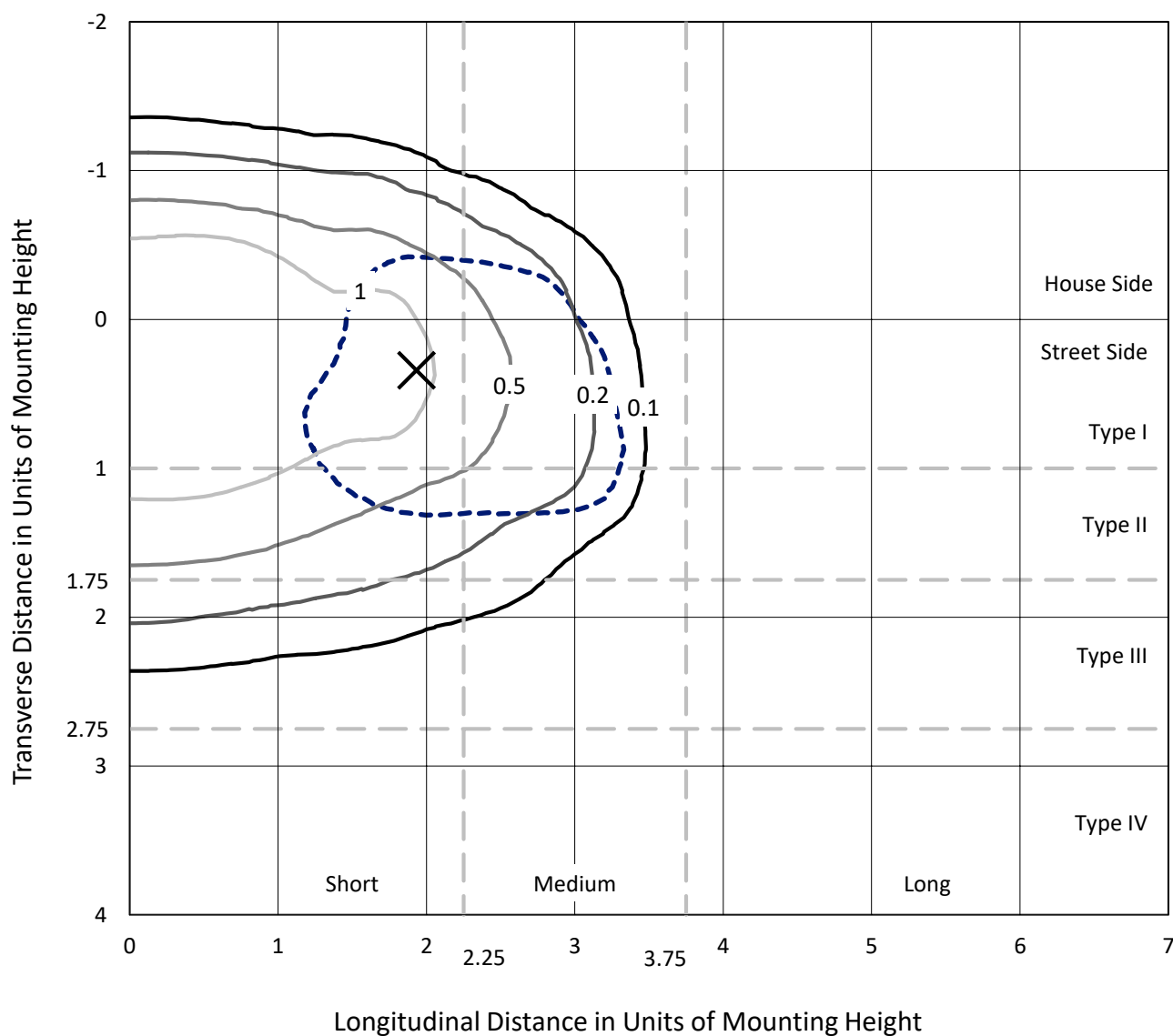
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

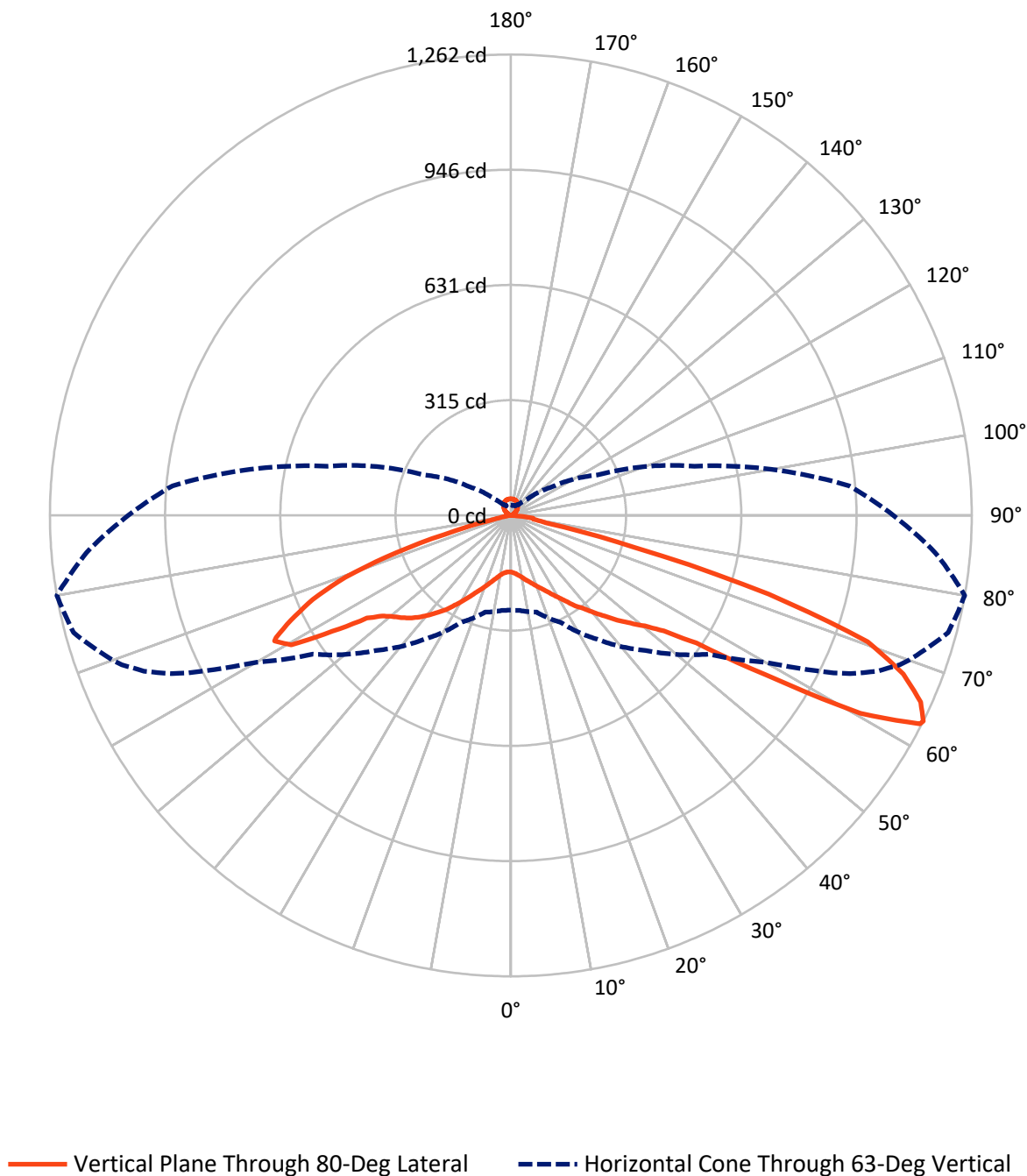


Based on 10 foot mounting height. Maximum calculated value = 1.9 fc  
 Type II - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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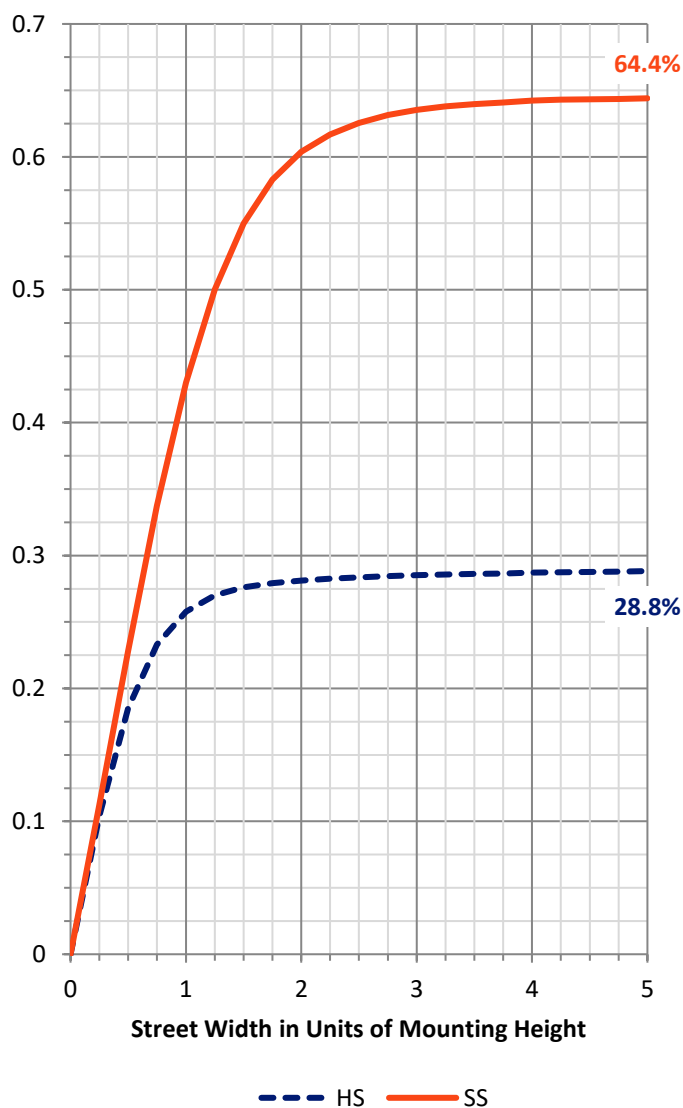
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 455.8    | 51.1   | 506.9  |
|                    | % Fixture | 29.1     | 3.3    | 32.4   |
| <b>Street Side</b> | Lumens    | 1007.8   | 51.1   | 1058.9 |
|                    | % Fixture | 64.4     | 3.3    | 67.6   |
| <b>Total</b>       | Lumens    | 1463.7   | 102.1  | 1565.8 |
|                    | % Fixture | 93.5     | 6.5    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 15.5   | 1.0       |
| 10°-20°   | 53.3   | 3.4       |
| 20°-30°   | 100.1  | 6.4       |
| 30°-40°   | 158.9  | 10.1      |
| 40°-50°   | 239.9  | 15.3      |
| 50°-60°   | 337.2  | 21.5      |
| 60°-70°   | 393.4  | 25.1      |
| 70°-80°   | 152.1  | 9.7       |
| 80°-90°   | 13.2   | 0.8       |
| 90°-100°  | 0.4    | 0.0       |
| 100°-110° | 4.0    | 0.3       |
| 110°-120° | 8.2    | 0.5       |
| 120°-130° | 13.9   | 0.9       |
| 130°-140° | 19.4   | 1.2       |
| 140°-150° | 21.2   | 1.4       |
| 150°-160° | 18.4   | 1.2       |
| 160°-170° | 12.4   | 0.8       |
| 170°-180° | 4.3    | 0.3       |
| 0°-90°    | 1463.7 | 93.5      |
| 0°-180°   | 1565.8 | 100.0     |

**Coefficient of Utilization**



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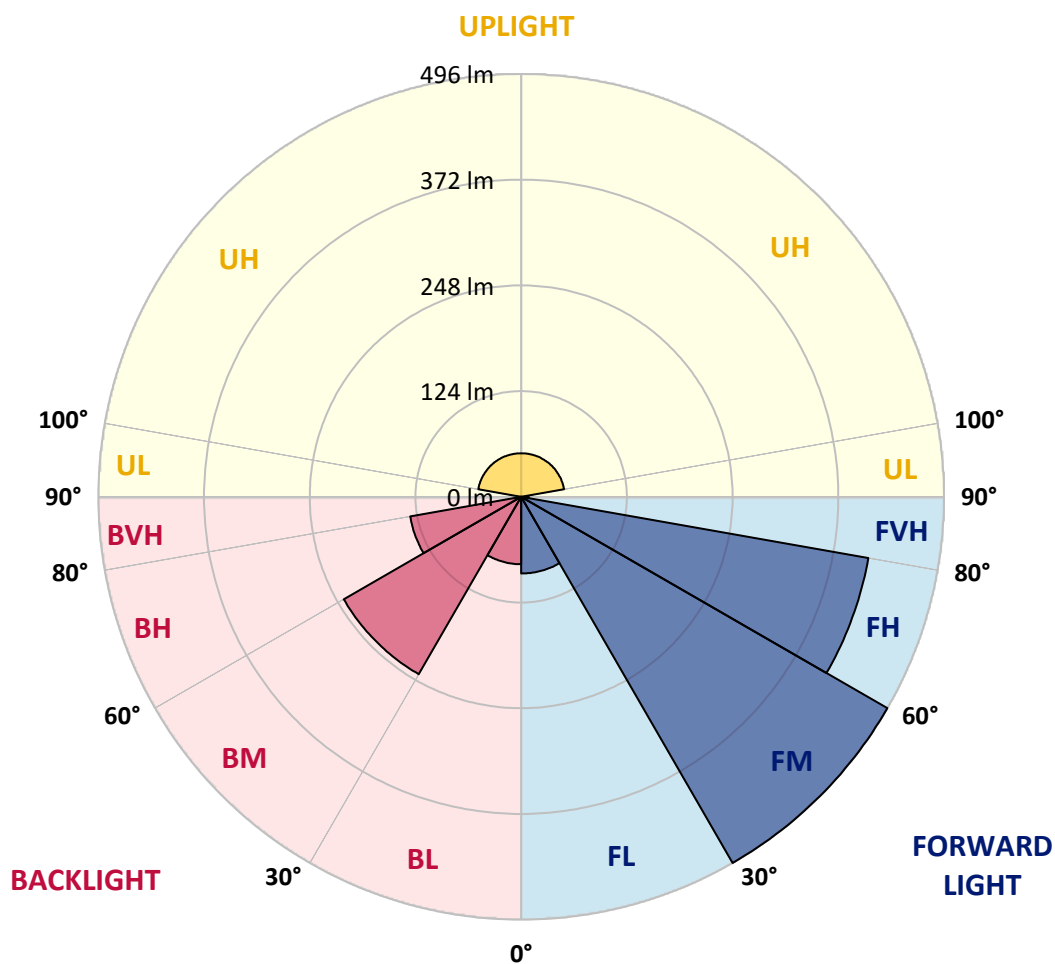
CATALOG NUMBER: ENV-FXX-LED-E1-BL2-ULG-BBB

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |        |        |
|------|-------------|--------|-----------|-------------------------|--------|--------|
|      |             |        |           | B                       | U      | G      |
| FL   | (0°-30°)    | 89.9   | 5.7       |                         |        |        |
| FM   | (30°-60°)   | 495.8  | 31.7      |                         |        |        |
| FH   | (60°-80°)   | 413.3  | 26.4      |                         |        | G0/660 |
| FVH  | (80°-90°)   | 8.8    | 0.6       |                         |        | G0/10  |
| BL   | (0°-30°)    | 79.1   | 5.0       | B0/110                  |        |        |
| BM   | (30°-60°)   | 240.2  | 15.3      | B1/1000                 |        |        |
| BH   | (60°-80°)   | 132.1  | 8.4       | B1/500                  |        | G1/500 |
| BVH  | (80°-90°)   | 4.4    | 0.3       |                         |        | G0/10  |
| UL   | (90°-100°)  | 0.4    | 0.0       |                         | U1/10  |        |
| UH   | (100°-180°) | 51.1   | 3.3       |                         | U3/500 |        |

**BUG Rating: B1-U3-G1**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 60°   | 61°   | 62°   | 64°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 |
| 2.5°   | 162.8 | 162.2 | 162.5 | 162.2 | 162.2 | 161.7 | 160.1 | 160.1 | 159.8 | 160.1 | 159.6 |
| 5°     | 171.6 | 171.3 | 171.0 | 170.5 | 170.5 | 169.5 | 166.8 | 166.3 | 166.5 | 166.0 | 164.9 |
| 7.5°   | 181.5 | 181.2 | 180.7 | 179.6 | 179.1 | 177.5 | 173.7 | 173.2 | 172.9 | 172.4 | 171.6 |
| 10°    | 191.4 | 191.1 | 190.3 | 188.9 | 187.6 | 185.2 | 181.5 | 180.1 | 179.9 | 179.6 | 178.8 |
| 12.5°  | 201.5 | 200.7 | 201.0 | 198.6 | 196.5 | 193.5 | 189.2 | 187.9 | 187.6 | 187.4 | 187.1 |
| 15°    | 212.7 | 212.5 | 211.9 | 208.7 | 204.7 | 200.7 | 196.5 | 194.8 | 193.8 | 194.0 | 193.8 |
| 17.5°  | 223.4 | 223.2 | 221.3 | 216.8 | 211.4 | 206.9 | 201.5 | 200.4 | 200.4 | 200.2 | 200.2 |
| 20°    | 231.2 | 230.9 | 229.1 | 223.4 | 216.5 | 211.4 | 207.1 | 207.1 | 206.9 | 207.1 | 207.4 |
| 22.5°  | 234.7 | 234.7 | 232.3 | 226.1 | 218.6 | 214.9 | 213.6 | 214.4 | 214.6 | 214.9 | 215.4 |
| 25°    | 236.0 | 236.0 | 233.6 | 226.4 | 219.4 | 220.0 | 221.6 | 222.9 | 223.4 | 223.4 | 225.3 |
| 27.5°  | 238.4 | 238.7 | 235.5 | 227.7 | 222.1 | 227.2 | 231.2 | 233.1 | 233.9 | 234.4 | 236.8 |
| 30°    | 245.6 | 245.3 | 242.7 | 234.4 | 230.1 | 237.4 | 244.6 | 246.4 | 248.3 | 248.3 | 251.0 |
| 32.5°  | 256.3 | 256.1 | 254.4 | 248.0 | 246.2 | 255.3 | 261.7 | 265.7 | 265.4 | 265.9 | 267.8 |
| 35°    | 270.5 | 270.8 | 271.8 | 270.2 | 271.8 | 280.9 | 288.1 | 289.7 | 290.0 | 290.3 | 290.5 |
| 37.5°  | 286.5 | 286.8 | 292.6 | 297.7 | 305.0 | 318.3 | 322.6 | 323.4 | 321.5 | 321.5 | 321.0 |
| 40°    | 298.5 | 299.9 | 313.0 | 326.4 | 341.6 | 359.8 | 366.2 | 364.6 | 363.2 | 362.2 | 359.0 |
| 42.5°  | 323.1 | 323.9 | 337.8 | 357.1 | 378.4 | 403.6 | 414.8 | 409.5 | 409.2 | 404.4 | 402.0 |
| 45°    | 347.7 | 349.9 | 364.8 | 386.5 | 412.1 | 446.9 | 463.5 | 458.9 | 458.1 | 456.0 | 449.3 |
| 47.5°  | 367.2 | 370.2 | 386.7 | 412.4 | 441.8 | 481.9 | 511.6 | 514.8 | 512.9 | 510.5 | 505.1 |
| 50°    | 383.8 | 386.2 | 403.1 | 431.1 | 464.8 | 508.6 | 551.1 | 562.6 | 564.2 | 563.2 | 561.8 |
| 52.5°  | 394.5 | 396.9 | 413.5 | 443.4 | 478.2 | 528.4 | 580.5 | 603.2 | 608.1 | 607.8 | 613.4 |
| 55°    | 394.8 | 397.5 | 414.5 | 447.4 | 485.6 | 542.0 | 607.8 | 643.6 | 649.5 | 656.7 | 668.7 |
| 57.5°  | 380.1 | 382.8 | 404.1 | 442.1 | 487.8 | 552.7 | 634.3 | 697.3 | 713.3 | 727.5 | 760.6 |
| 60°    | 339.2 | 340.2 | 363.7 | 414.5 | 477.6 | 550.3 | 654.3 | 743.6 | 766.3 | 797.0 | 850.5 |
| 62.5°  | 276.4 | 278.5 | 292.9 | 342.4 | 430.3 | 529.2 | 662.3 | 795.1 | 832.6 | 877.5 | 963.0 |
| 63°    | 259.0 | 260.9 | 274.2 | 323.1 | 414.3 | 522.5 | 662.0 | 803.4 | 844.6 | 890.8 | 983.0 |
| 65°    | 199.9 | 200.4 | 210.3 | 247.2 | 340.0 | 473.9 | 647.6 | 791.7 | 843.8 | 897.8 | 994.5 |
| 67.5°  | 161.2 | 163.0 | 172.9 | 198.9 | 268.6 | 398.0 | 582.9 | 685.8 | 721.4 | 774.6 | 889.8 |
| 70°    | 126.1 | 129.4 | 138.7 | 168.1 | 229.1 | 320.5 | 490.4 | 572.5 | 594.4 | 619.8 | 717.6 |
| 72.5°  | 83.4  | 84.2  | 85.8  | 102.1 | 159.8 | 249.4 | 408.1 | 464.0 | 472.5 | 490.7 | 538.5 |
| 75°    | 39.3  | 42.2  | 44.6  | 52.9  | 77.2  | 163.3 | 295.9 | 329.6 | 339.7 | 358.7 | 376.0 |
| 77.5°  | 17.1  | 16.8  | 17.9  | 24.3  | 40.6  | 72.7  | 184.2 | 243.5 | 247.0 | 242.7 | 235.2 |
| 80°    | 5.3   | 5.6   | 5.9   | 6.4   | 12.8  | 34.7  | 79.6  | 163.6 | 180.7 | 192.2 | 188.9 |
| 82.5°  | 0.6   | 0.3   | 0.8   | 1.6   | 2.7   | 5.1   | 29.9  | 76.7  | 96.5  | 118.4 | 146.5 |
| 85°    | 0.0   | 0.0   | 0.3   | 0.3   | 0.6   | 1.1   | 1.9   | 8.0   | 13.4  | 15.5  | 30.7  |
| 87.5°  | 0.0   | 0.0   | 0.3   | 0.3   | 0.6   | 0.8   | 0.8   | 1.1   | 1.1   | 1.1   | 1.1   |
| 90°    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 92.5°  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 95°    | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   |
| 97.5°  | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   |
| 100°   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   |
| 102.5° | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   |
| 105°   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   |
| 107.5° | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°   | 5°   | 15°  | 25°  | 35°  | 45°  | 55°  | 60°  | 61°  | 62°  | 64°  |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| 110°   | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  |
| 112.5° | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  |
| 115°   | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  |
| 117.5° | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  |
| 120°   | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 |
| 122.5° | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 |
| 125°   | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 |
| 127.5° | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 |
| 130°   | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 |
| 132.5° | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 |
| 135°   | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 |
| 137.5° | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 |
| 140°   | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 |
| 142.5° | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 |
| 145°   | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| 147.5° | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 |
| 150°   | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 |
| 152.5° | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 |
| 155°   | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| 157.5° | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 |
| 160°   | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 |
| 162.5° | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 |
| 165°   | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 |
| 167.5° | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 |
| 170°   | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 |
| 172.5° | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 |
| 175°   | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 |
| 177.5° | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 |
| 180°   | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 |



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**CANDELA DISTRIBUTION (continued):**

|        | 65°    | 66°    | 67°    | 68°    | 69°    | 70°    | 75°    | 80°    | 85°    | 90°    | 95°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 0°     | 155.0  | 155.0  | 155.0  | 155.0  | 155.0  | 155.0  | 155.0  | 155.0  | 155.0  | 155.0  | 155.0 |
| 2.5°   | 159.3  | 159.3  | 158.8  | 159.0  | 158.8  | 158.8  | 158.2  | 157.7  | 157.4  | 156.1  | 155.3 |
| 5°     | 164.9  | 164.9  | 164.6  | 164.1  | 164.1  | 163.8  | 162.5  | 161.2  | 160.4  | 158.8  | 157.2 |
| 7.5°   | 171.3  | 171.0  | 170.5  | 170.0  | 170.0  | 169.7  | 167.8  | 166.5  | 164.9  | 162.5  | 160.6 |
| 10°    | 178.8  | 178.6  | 178.0  | 177.2  | 177.2  | 176.9  | 175.1  | 172.9  | 171.6  | 168.6  | 166.3 |
| 12.5°  | 186.8  | 186.0  | 185.7  | 185.2  | 184.7  | 184.7  | 183.1  | 181.0  | 179.9  | 176.7  | 174.2 |
| 15°    | 193.5  | 193.0  | 192.7  | 192.4  | 192.2  | 191.6  | 190.3  | 188.4  | 187.6  | 185.0  | 183.1 |
| 17.5°  | 199.9  | 199.9  | 200.2  | 199.7  | 199.4  | 198.9  | 198.0  | 197.5  | 196.7  | 194.3  | 193.3 |
| 20°    | 207.4  | 207.4  | 208.0  | 207.7  | 207.4  | 208.2  | 208.0  | 207.7  | 207.7  | 205.5  | 204.7 |
| 22.5°  | 216.2  | 215.9  | 216.8  | 216.5  | 216.8  | 217.6  | 218.6  | 218.1  | 219.2  | 217.8  | 217.3 |
| 25°    | 226.4  | 226.1  | 226.9  | 227.4  | 228.0  | 228.5  | 230.6  | 231.2  | 232.5  | 232.3  | 231.2 |
| 27.5°  | 237.9  | 238.1  | 238.4  | 239.7  | 240.6  | 241.1  | 244.0  | 245.6  | 248.3  | 247.2  | 248.3 |
| 30°    | 251.2  | 252.6  | 253.6  | 255.0  | 255.3  | 255.8  | 260.6  | 262.2  | 263.5  | 264.3  | 265.9 |
| 32.5°  | 269.7  | 270.5  | 270.8  | 272.3  | 272.9  | 273.7  | 278.8  | 280.9  | 282.8  | 283.0  | 286.0 |
| 35°    | 292.1  | 292.6  | 293.5  | 294.3  | 295.3  | 294.8  | 300.7  | 303.9  | 306.3  | 306.6  | 309.8 |
| 37.5°  | 321.8  | 319.9  | 320.7  | 319.7  | 318.1  | 318.1  | 319.9  | 323.1  | 325.8  | 327.9  | 331.1 |
| 40°    | 357.3  | 356.0  | 355.7  | 353.3  | 350.7  | 348.3  | 347.2  | 349.0  | 351.2  | 353.1  | 357.1 |
| 42.5°  | 398.0  | 396.6  | 392.1  | 390.5  | 386.0  | 383.3  | 376.0  | 376.9  | 380.6  | 381.7  | 384.1 |
| 45°    | 445.6  | 440.7  | 439.1  | 429.2  | 427.4  | 423.6  | 410.0  | 408.9  | 412.1  | 412.4  | 410.8 |
| 47.5°  | 499.8  | 496.3  | 492.6  | 485.6  | 478.4  | 472.3  | 451.4  | 440.5  | 443.9  | 443.7  | 435.9 |
| 50°    | 558.9  | 558.3  | 552.7  | 548.2  | 541.8  | 532.9  | 495.8  | 475.7  | 478.4  | 476.0  | 461.8 |
| 52.5°  | 615.3  | 613.7  | 613.4  | 609.9  | 607.5  | 604.6  | 559.4  | 524.9  | 518.8  | 513.7  | 495.5 |
| 55°    | 674.6  | 678.6  | 676.0  | 681.6  | 685.8  | 685.3  | 666.6  | 616.1  | 584.8  | 580.8  | 553.0 |
| 57.5°  | 773.5  | 783.1  | 795.9  | 796.5  | 808.0  | 824.5  | 858.2  | 821.9  | 743.6  | 728.0  | 690.9 |
| 60°    | 886.8  | 911.7  | 943.7  | 959.5  | 984.1  | 1009.7 | 1094.2 | 1099.8 | 990.3  | 930.4  | 862.2 |
| 62.5°  | 1000.7 | 1033.3 | 1071.2 | 1095.8 | 1126.3 | 1146.3 | 1235.6 | 1257.0 | 1157.0 | 1046.7 | 934.4 |
| 63°    | 1024.7 | 1058.2 | 1091.0 | 1115.1 | 1140.7 | 1159.2 | 1239.4 | 1261.8 | 1166.1 | 1046.9 | 929.8 |
| 65°    | 1037.3 | 1068.5 | 1094.2 | 1115.6 | 1132.7 | 1145.3 | 1208.6 | 1232.9 | 1154.1 | 1008.2 | 878.8 |
| 67.5°  | 941.9  | 992.1  | 1024.4 | 1050.4 | 1067.8 | 1085.1 | 1143.4 | 1158.6 | 1102.8 | 932.8  | 801.3 |
| 70°    | 779.7  | 837.6  | 888.7  | 929.0  | 959.0  | 985.4  | 1046.7 | 1036.2 | 988.1  | 810.6  | 679.7 |
| 72.5°  | 573.6  | 624.1  | 673.8  | 719.5  | 758.5  | 792.2  | 832.6  | 738.2  | 665.0  | 539.1  | 470.4 |
| 75°    | 385.7  | 396.6  | 419.3  | 442.1  | 456.2  | 465.9  | 441.0  | 351.5  | 285.5  | 256.1  | 224.0 |
| 77.5°  | 227.7  | 220.2  | 221.0  | 215.4  | 211.7  | 210.9  | 176.9  | 98.4   | 51.9   | 52.9   | 55.6  |
| 80°    | 181.8  | 173.5  | 164.6  | 154.8  | 148.3  | 141.4  | 115.2  | 63.1   | 22.4   | 18.2   | 19.0  |
| 82.5°  | 147.0  | 144.9  | 140.1  | 129.9  | 119.7  | 107.7  | 82.3   | 60.7   | 12.8   | 10.2   | 10.9  |
| 85°    | 28.6   | 32.1   | 28.9   | 31.5   | 23.5   | 22.2   | 13.1   | 14.2   | 5.1    | 4.5    | 5.6   |
| 87.5°  | 1.1    | 1.1    | 1.1    | 1.1    | 1.1    | 1.1    | 1.1    | 1.1    | 1.1    | 1.1    | 2.1   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   |
| 95°    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2   |
| 97.5°  | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5   |
| 100°   | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6   |
| 102.5° | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8   |
| 105°   | 3.8    | 3.8    | 3.8    | 3.8    | 3.8    | 3.8    | 3.8    | 3.8    | 3.8    | 3.8    | 3.8   |
| 107.5° | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8   |

REPORT NUMBER: P173832

CATALOG NUMBER: ENV-FXX-LED-E1-BL2-ULG-BBB

**CANDELA DISTRIBUTION (continued):**

|        | 65°  | 66°  | 67°  | 68°  | 69°  | 70°  | 75°  | 80°  | 85°  | 90°  | 95°  |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| 110°   | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  |
| 112.5° | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  |
| 115°   | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  |
| 117.5° | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  |
| 120°   | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 |
| 122.5° | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 |
| 125°   | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 |
| 127.5° | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 |
| 130°   | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 |
| 132.5° | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 |
| 135°   | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 |
| 137.5° | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 |
| 140°   | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 |
| 142.5° | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 |
| 145°   | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| 147.5° | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 |
| 150°   | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 |
| 152.5° | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 |
| 155°   | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| 157.5° | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 |
| 160°   | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 |
| 162.5° | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 |
| 165°   | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 |
| 167.5° | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 |
| 170°   | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 |
| 172.5° | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 |
| 175°   | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 |
| 177.5° | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 |
| 180°   | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 |

REPORT NUMBER: P173832

CATALOG NUMBER: ENV-FXX-LED-E1-BL2-ULG-BBB

**CANDELA DISTRIBUTION (continued):**

|        | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 | 155.0 |
| 2.5°   | 153.9 | 152.9 | 152.1 | 151.0 | 150.5 | 149.7 | 149.4 | 148.6 | 148.9 |
| 5°     | 154.5 | 152.6 | 151.0 | 149.4 | 148.3 | 147.8 | 147.3 | 146.7 | 146.7 |
| 7.5°   | 157.2 | 154.8 | 152.9 | 151.0 | 150.2 | 149.1 | 148.9 | 148.1 | 148.1 |
| 10°    | 162.8 | 160.1 | 157.7 | 155.6 | 154.5 | 153.1 | 152.6 | 151.8 | 151.8 |
| 12.5°  | 171.0 | 168.6 | 166.0 | 162.8 | 160.6 | 159.0 | 157.7 | 157.2 | 157.2 |
| 15°    | 180.4 | 178.6 | 176.4 | 172.1 | 168.6 | 165.7 | 163.0 | 162.0 | 161.7 |
| 17.5°  | 191.6 | 190.0 | 187.9 | 183.1 | 177.5 | 171.3 | 166.8 | 164.6 | 164.4 |
| 20°    | 205.3 | 203.6 | 200.4 | 193.8 | 185.0 | 175.3 | 168.1 | 164.9 | 164.6 |
| 22.5°  | 219.2 | 219.2 | 213.8 | 202.9 | 189.8 | 176.9 | 167.3 | 163.0 | 162.2 |
| 25°    | 234.4 | 235.2 | 227.2 | 210.1 | 192.4 | 176.1 | 163.8 | 158.5 | 157.4 |
| 27.5°  | 252.8 | 252.0 | 238.7 | 215.7 | 192.7 | 172.9 | 158.2 | 151.8 | 150.7 |
| 30°    | 273.2 | 267.8 | 248.0 | 218.9 | 190.8 | 167.1 | 150.7 | 143.5 | 142.7 |
| 32.5°  | 293.5 | 282.0 | 255.0 | 219.4 | 185.5 | 158.5 | 140.9 | 133.4 | 132.3 |
| 35°    | 315.1 | 294.5 | 259.3 | 216.5 | 176.7 | 147.0 | 128.6 | 121.3 | 120.3 |
| 37.5°  | 333.3 | 304.1 | 260.6 | 208.7 | 163.3 | 133.6 | 117.3 | 109.9 | 108.0 |
| 40°    | 349.9 | 311.1 | 258.2 | 196.2 | 148.3 | 120.5 | 105.6 | 99.2  | 98.6  |
| 42.5°  | 365.1 | 314.3 | 249.6 | 179.9 | 133.4 | 109.3 | 95.7  | 89.6  | 89.0  |
| 45°    | 376.9 | 312.2 | 235.2 | 162.0 | 121.1 | 99.7  | 86.9  | 81.3  | 80.2  |
| 47.5°  | 384.3 | 304.4 | 215.4 | 147.0 | 110.9 | 89.8  | 77.2  | 71.4  | 70.3  |
| 50°    | 390.2 | 292.9 | 195.4 | 135.5 | 101.0 | 79.6  | 67.3  | 62.0  | 61.2  |
| 52.5°  | 398.0 | 278.2 | 178.0 | 125.1 | 89.6  | 68.2  | 57.2  | 52.1  | 51.3  |
| 55°    | 415.1 | 265.7 | 165.7 | 113.6 | 77.2  | 56.1  | 47.0  | 43.8  | 42.8  |
| 57.5°  | 473.1 | 270.0 | 158.0 | 99.7  | 63.1  | 45.2  | 39.0  | 37.1  | 36.9  |
| 60°    | 534.0 | 288.1 | 154.2 | 83.7  | 48.9  | 36.6  | 33.2  | 32.6  | 32.3  |
| 62.5°  | 530.8 | 271.8 | 138.7 | 65.8  | 37.7  | 30.2  | 28.6  | 28.9  | 28.9  |
| 63°    | 520.1 | 261.9 | 133.6 | 61.7  | 35.8  | 29.4  | 27.8  | 27.8  | 27.8  |
| 65°    | 455.4 | 222.1 | 108.5 | 46.8  | 29.9  | 26.2  | 24.9  | 25.1  | 25.4  |
| 67.5°  | 376.0 | 160.4 | 71.4  | 32.6  | 27.0  | 23.8  | 22.2  | 21.7  | 21.7  |
| 70°    | 287.6 | 108.0 | 42.2  | 28.3  | 26.7  | 22.2  | 19.5  | 19.0  | 19.0  |
| 72.5°  | 188.7 | 66.0  | 28.6  | 28.3  | 26.5  | 21.1  | 18.2  | 17.1  | 17.1  |
| 75°    | 86.6  | 32.6  | 23.8  | 27.3  | 25.1  | 19.5  | 16.0  | 14.7  | 14.4  |
| 77.5°  | 33.7  | 20.6  | 21.4  | 23.0  | 19.5  | 16.0  | 14.4  | 13.4  | 13.1  |
| 80°    | 19.5  | 16.6  | 18.7  | 16.6  | 14.2  | 12.3  | 12.3  | 11.5  | 11.2  |
| 82.5°  | 14.2  | 14.2  | 14.4  | 12.0  | 10.7  | 10.2  | 10.2  | 9.4   | 9.1   |
| 85°    | 10.2  | 10.4  | 12.0  | 9.6   | 8.3   | 7.2   | 6.7   | 6.7   | 6.4   |
| 87.5°  | 5.1   | 8.3   | 6.7   | 4.0   | 3.8   | 3.5   | 3.5   | 3.5   | 3.2   |
| 90°    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 92.5°  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 95°    | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   |
| 97.5°  | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   |
| 100°   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   | 1.6   |
| 102.5° | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   | 2.8   |
| 105°   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   | 3.8   |
| 107.5° | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   | 4.8   |

REPORT NUMBER: P173832

CATALOG NUMBER: ENV-FXX-LED-E1-BL2-ULG-BBB

**CANDELA DISTRIBUTION (continued):**

|        | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|--------|------|------|------|------|------|------|------|------|------|
| 110°   | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  | 5.8  |
| 112.5° | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  | 6.9  |
| 115°   | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  | 8.1  |
| 117.5° | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  | 9.6  |
| 120°   | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 |
| 122.5° | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 |
| 125°   | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 |
| 127.5° | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 |
| 130°   | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 |
| 132.5° | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 |
| 135°   | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 |
| 137.5° | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 |
| 140°   | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 |
| 142.5° | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 |
| 145°   | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| 147.5° | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 |
| 150°   | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 | 37.3 |
| 152.5° | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 | 38.8 |
| 155°   | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| 157.5° | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 | 41.1 |
| 160°   | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 |
| 162.5° | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 | 43.2 |
| 165°   | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 |
| 167.5° | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 | 44.4 |
| 170°   | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 | 44.5 |
| 172.5° | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 | 44.9 |
| 175°   | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 | 45.5 |
| 177.5° | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 | 45.7 |
| 180°   | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 |

(END OF REPORT)