

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: McGRAW-EDISON

Report Number: P821440

Luminaire Tested: **TT-D1-830-12VDC-WQ**

Issue Date: 2/18/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P821440  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1908-473-14)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 2/18/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TT-D1-830-12VDC-WQ  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE  
3000K, 80 CRI LEDS AND WIDE DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

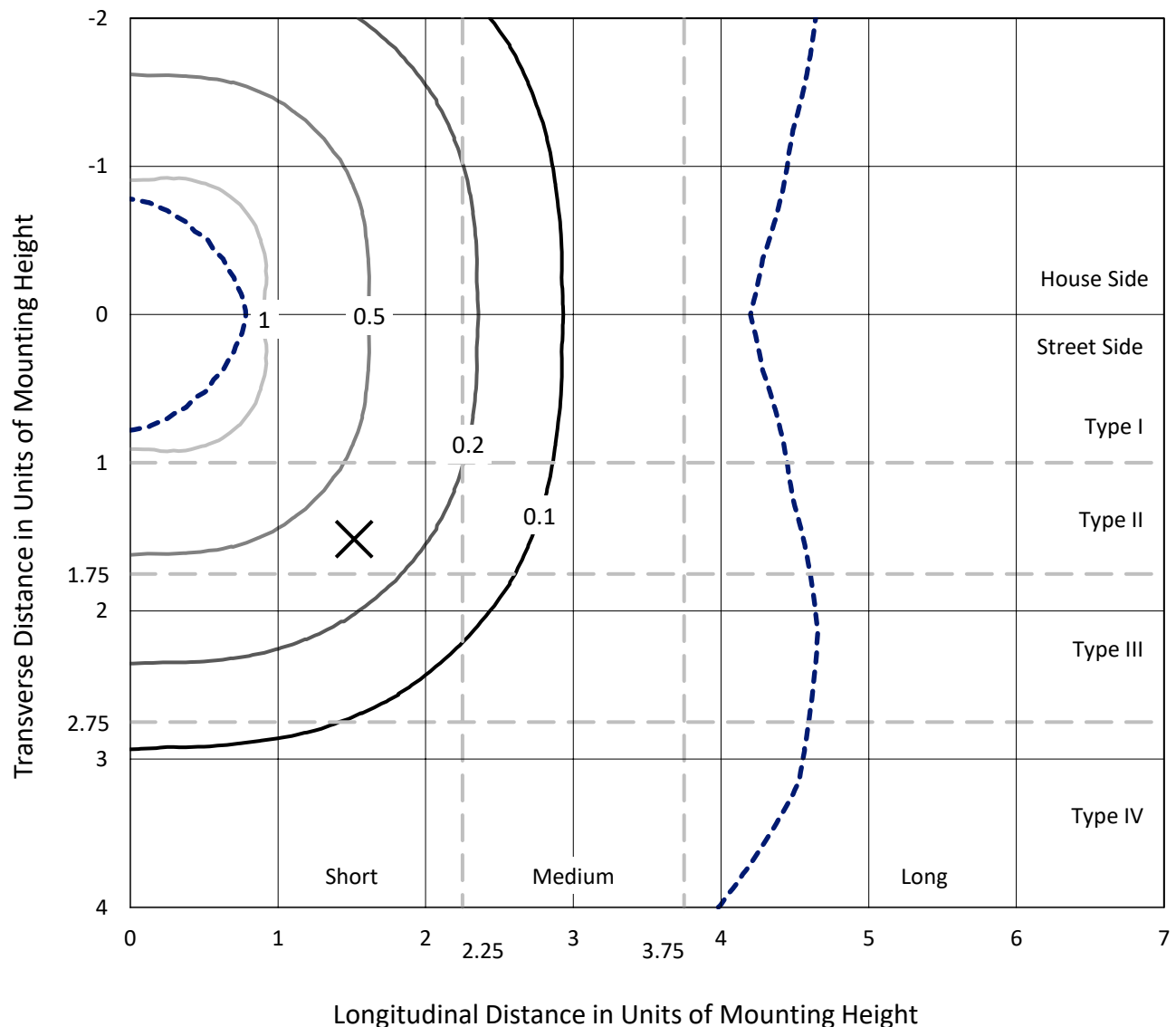
Lumens per Lamp: N/A  
Luminaire Lumens: 3449 lumens  
Efficiency: N/A  
Efficacy: 123.2 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B2 - U0 - G1

Input Watts (W): 28  
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

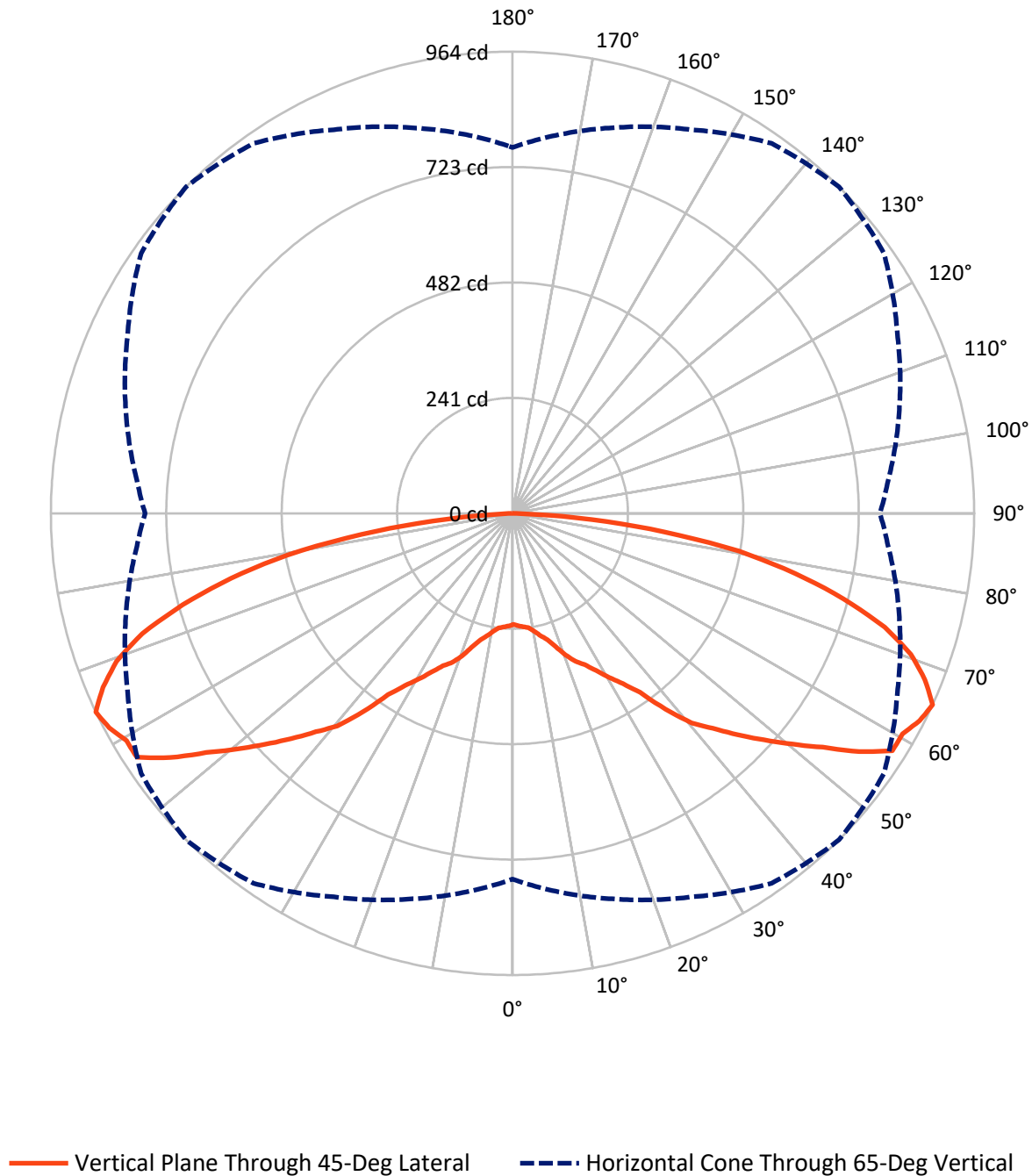
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.2 fc  
 Type V - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1724.5   | 0.0    | 1724.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 1724.5   | 0.0    | 1724.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 3449.0   | 0.0    | 3449.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 23.1   | 0.7       |
| 10°-20°   | 79.6   | 2.3       |
| 20°-30°   | 163.5  | 4.7       |
| 30°-40°   | 290.4  | 8.4       |
| 40°-50°   | 489.6  | 14.2      |
| 50°-60°   | 722.2  | 20.9      |
| 60°-70°   | 847.6  | 24.6      |
| 70°-80°   | 660.3  | 19.1      |
| 80°-90°   | 172.6  | 5.0       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-90°    | 3449.0 | 100.0     |
| 0°-180°   | 3449.0 | 100.0     |

**Coefficient of Utilization**



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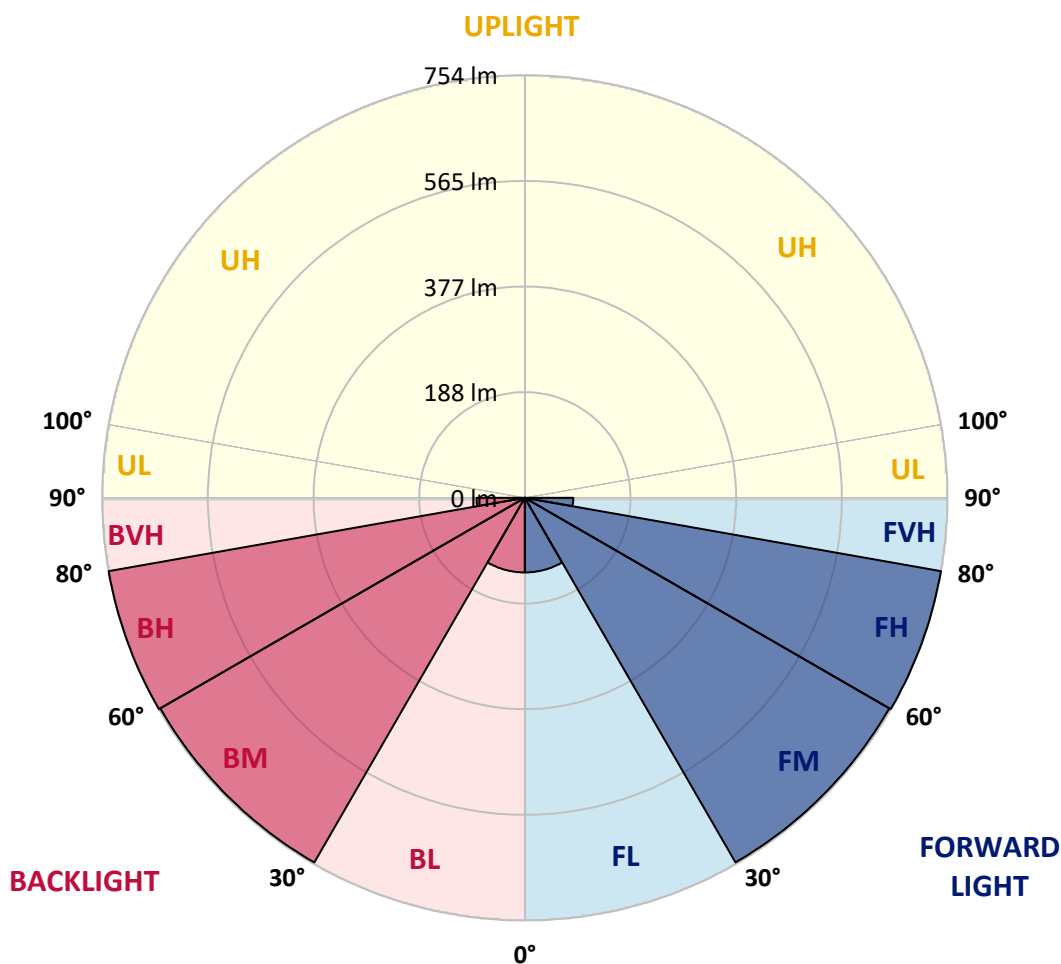
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 133.1  | 3.9       |                         |      |         |
| FM   | (30°-60°)   | 751.1  | 21.8      |                         |      |         |
| FH   | (60°-80°)   | 754.0  | 21.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 86.3   | 2.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 133.1  | 3.9       | B1/500                  |      |         |
| BM   | (30°-60°)   | 751.1  | 21.8      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 754.0  | 21.9      | B2/1000                 |      | G1/1800 |
| BVH  | (80°-90°)   | 86.3   | 2.5       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 232.1 | 232.1 | 232.1 | 232.1 | 232.1 | 232.1 | 232.1 | 232.1 | 232.1 | 232.1 | 232.1 |
| 2.5°  | 235.9 | 235.9 | 235.9 | 235.4 | 235.4 | 235.4 | 235.4 | 235.9 | 235.9 | 235.9 | 235.9 |
| 5°    | 241.3 | 241.3 | 240.3 | 239.2 | 238.1 | 238.1 | 238.6 | 239.2 | 239.7 | 240.8 | 240.8 |
| 7.5°  | 244.6 | 244.6 | 244.1 | 243.0 | 241.3 | 241.3 | 241.9 | 243.0 | 243.5 | 243.5 | 243.0 |
| 10°   | 248.9 | 249.5 | 251.1 | 251.7 | 250.6 | 250.6 | 251.1 | 251.7 | 250.6 | 248.9 | 248.9 |
| 12.5° | 259.2 | 259.8 | 262.0 | 263.6 | 263.6 | 262.5 | 263.0 | 264.1 | 261.4 | 258.7 | 259.2 |
| 15°   | 273.9 | 273.9 | 274.4 | 276.1 | 275.0 | 273.9 | 275.0 | 275.5 | 273.9 | 273.3 | 274.4 |
| 17.5° | 293.4 | 293.4 | 290.2 | 292.9 | 293.4 | 292.9 | 294.0 | 291.2 | 289.6 | 291.8 | 292.9 |
| 20°   | 314.6 | 312.4 | 310.8 | 312.9 | 317.3 | 315.7 | 317.8 | 311.9 | 310.2 | 311.3 | 311.9 |
| 22.5° | 328.1 | 329.8 | 330.8 | 331.9 | 337.9 | 335.7 | 337.9 | 331.4 | 330.3 | 328.1 | 326.5 |
| 25°   | 344.4 | 346.0 | 352.5 | 349.3 | 353.1 | 349.8 | 352.5 | 348.7 | 350.9 | 344.4 | 344.4 |
| 27.5° | 362.8 | 366.1 | 369.9 | 368.3 | 373.1 | 371.5 | 373.1 | 367.7 | 368.3 | 365.5 | 364.5 |
| 30°   | 387.8 | 387.8 | 386.7 | 390.0 | 398.6 | 397.5 | 398.1 | 391.0 | 386.2 | 386.7 | 388.9 |
| 32.5° | 412.7 | 409.5 | 411.1 | 420.9 | 426.3 | 424.1 | 425.2 | 422.0 | 411.1 | 408.9 | 410.6 |
| 35°   | 436.1 | 440.9 | 444.7 | 452.9 | 460.5 | 459.4 | 458.8 | 453.4 | 446.4 | 437.7 | 435.0 |
| 37.5° | 472.4 | 477.8 | 488.1 | 502.8 | 516.3 | 519.0 | 512.0 | 504.9 | 488.7 | 476.2 | 469.7 |
| 40°   | 520.1 | 520.7 | 532.6 | 560.8 | 573.3 | 575.4 | 571.6 | 559.7 | 534.8 | 520.7 | 520.1 |
| 42.5° | 561.9 | 558.1 | 577.6 | 601.5 | 612.9 | 613.9 | 611.2 | 601.5 | 577.6 | 557.5 | 561.3 |
| 45°   | 594.4 | 594.4 | 617.7 | 636.7 | 655.2 | 659.5 | 654.6 | 634.0 | 618.3 | 595.0 | 593.3 |
| 47.5° | 624.3 | 632.4 | 651.9 | 675.2 | 701.3 | 707.2 | 701.3 | 676.9 | 650.3 | 632.9 | 623.7 |
| 50°   | 660.0 | 669.8 | 683.9 | 720.2 | 749.5 | 757.7 | 749.0 | 722.4 | 683.9 | 669.3 | 663.8 |
| 52.5° | 701.8 | 709.9 | 732.2 | 777.7 | 799.4 | 811.4 | 804.3 | 778.8 | 733.3 | 711.0 | 706.7 |
| 55°   | 751.7 | 744.1 | 778.8 | 822.8 | 862.9 | 878.6 | 864.5 | 823.8 | 784.2 | 744.1 | 751.7 |
| 57.5° | 777.2 | 768.5 | 817.3 | 859.1 | 915.0 | 935.6 | 918.2 | 862.3 | 817.3 | 771.2 | 776.7 |
| 60°   | 779.4 | 783.2 | 820.0 | 888.4 | 926.9 | 935.6 | 930.1 | 893.3 | 821.7 | 786.4 | 776.1 |
| 62.5° | 772.9 | 796.2 | 827.6 | 898.1 | 932.9 | 954.0 | 935.6 | 899.2 | 830.9 | 800.0 | 773.4 |
| 65°   | 764.2 | 787.5 | 834.1 | 884.0 | 943.2 | 964.3 | 947.0 | 886.8 | 836.3 | 787.5 | 767.4 |
| 67.5° | 749.0 | 740.9 | 798.3 | 865.1 | 916.6 | 929.1 | 918.2 | 866.1 | 797.8 | 739.8 | 750.6 |
| 70°   | 700.7 | 693.7 | 743.0 | 816.2 | 865.6 | 883.0 | 869.9 | 817.3 | 744.1 | 695.3 | 701.8 |
| 72.5° | 629.1 | 631.3 | 679.0 | 749.0 | 802.1 | 813.0 | 805.9 | 748.5 | 681.7 | 634.0 | 625.3 |
| 75°   | 545.6 | 551.0 | 596.6 | 660.0 | 708.3 | 714.8 | 707.8 | 662.8 | 596.0 | 554.3 | 542.9 |
| 77.5° | 448.5 | 456.7 | 493.5 | 557.0 | 589.0 | 603.6 | 592.3 | 558.6 | 496.3 | 458.8 | 447.4 |
| 80°   | 347.7 | 350.4 | 376.4 | 427.4 | 469.7 | 479.4 | 468.6 | 429.0 | 379.6 | 351.4 | 343.3 |
| 82.5° | 227.8 | 232.1 | 255.4 | 294.5 | 322.2 | 319.4 | 322.2 | 291.2 | 258.2 | 231.0 | 217.5 |
| 85°   | 101.4 | 110.1 | 125.8 | 144.3 | 162.2 | 167.0 | 162.2 | 146.4 | 125.8 | 107.9 | 105.8 |
| 87.5° | 7.1   | 8.1   | 9.8   | 10.3  | 11.4  | 8.7   | 8.7   | 8.7   | 7.6   | 8.7   | 7.1   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)