

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: LUMARK

Report Number: P393783

Luminaire Tested: **NFFLD-C70-D-UNV-66-VS**

Issue Date: 3/31/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393783  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P130632)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 3/31/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NFFLD-C70-D-UNV-66-VS  
Description: FLOODLIGHT WITH VANDAL SHIELD  
Light Source: (2) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

|                   |                                  |                      |                   |
|-------------------|----------------------------------|----------------------|-------------------|
| Lumens per Lamp:  | N/A                              | NEMA Type:           | 6H x 6V           |
| Luminaire Lumens: | 21894 lumens                     | Max Intensity:       | 12080.8 candela   |
| Efficiency:       | N/A                              | Max Intensity Angle: | 0°H x 29°V        |
| Efficacy:         | 119.0 lumens/watt                |                      |                   |
| Luminous Opening: | (L: 1.33 ' x W: 0 ' x H: 0.67 ') |                      |                   |
| Beam Angle (50%): | 101.4°H x 77°V                   | Field Angle (10%):   | 124.2°H x 111.9°V |
| Beam Lumens:      | 15822.7 lumens                   | Field Lumens:        | 21187.2 lumens    |
| Beam Efficiency:  | 72.3%                            | Field Efficiency:    | 96.8%             |

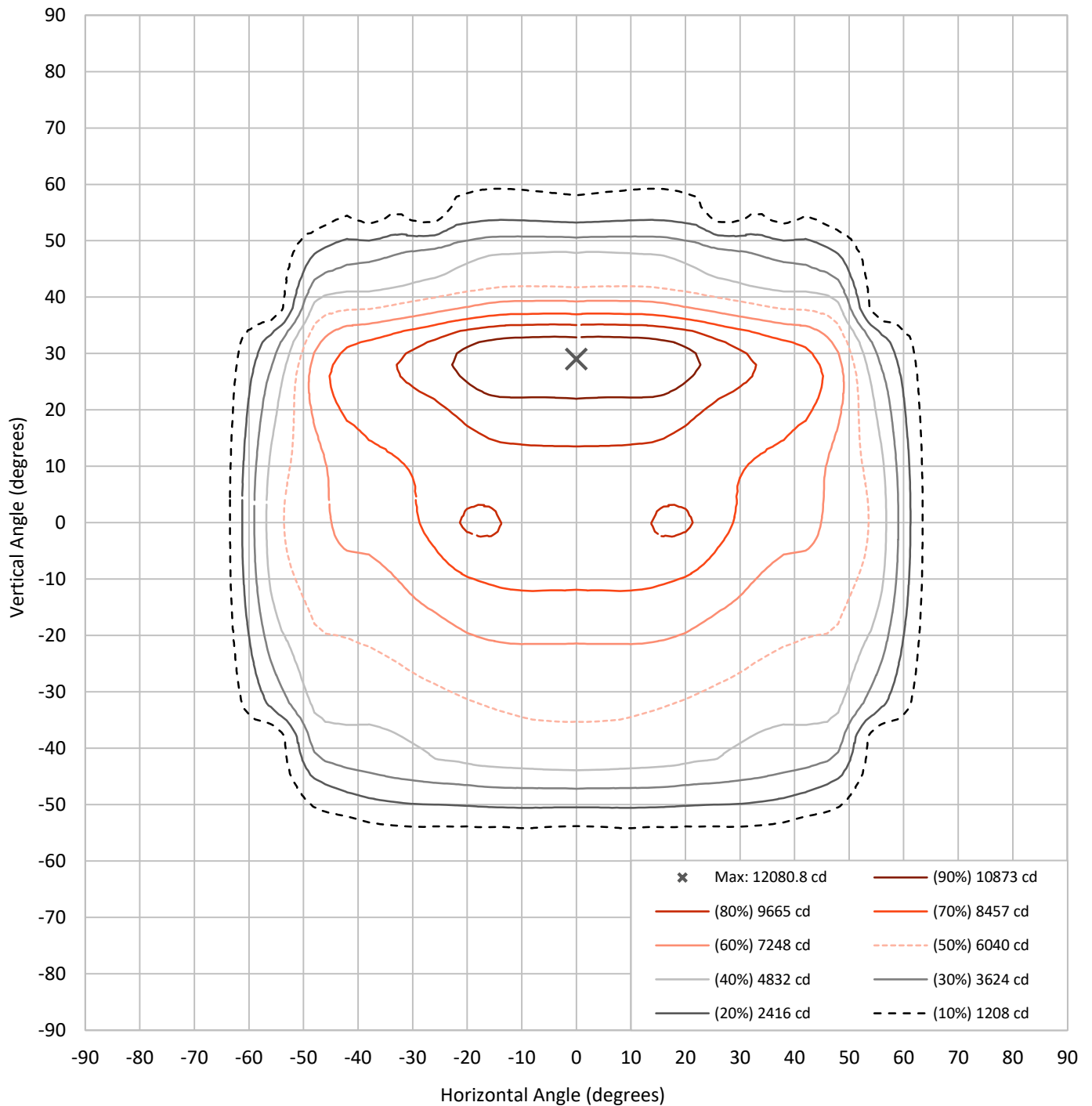
Input Watts (W): 184  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Candela Plot

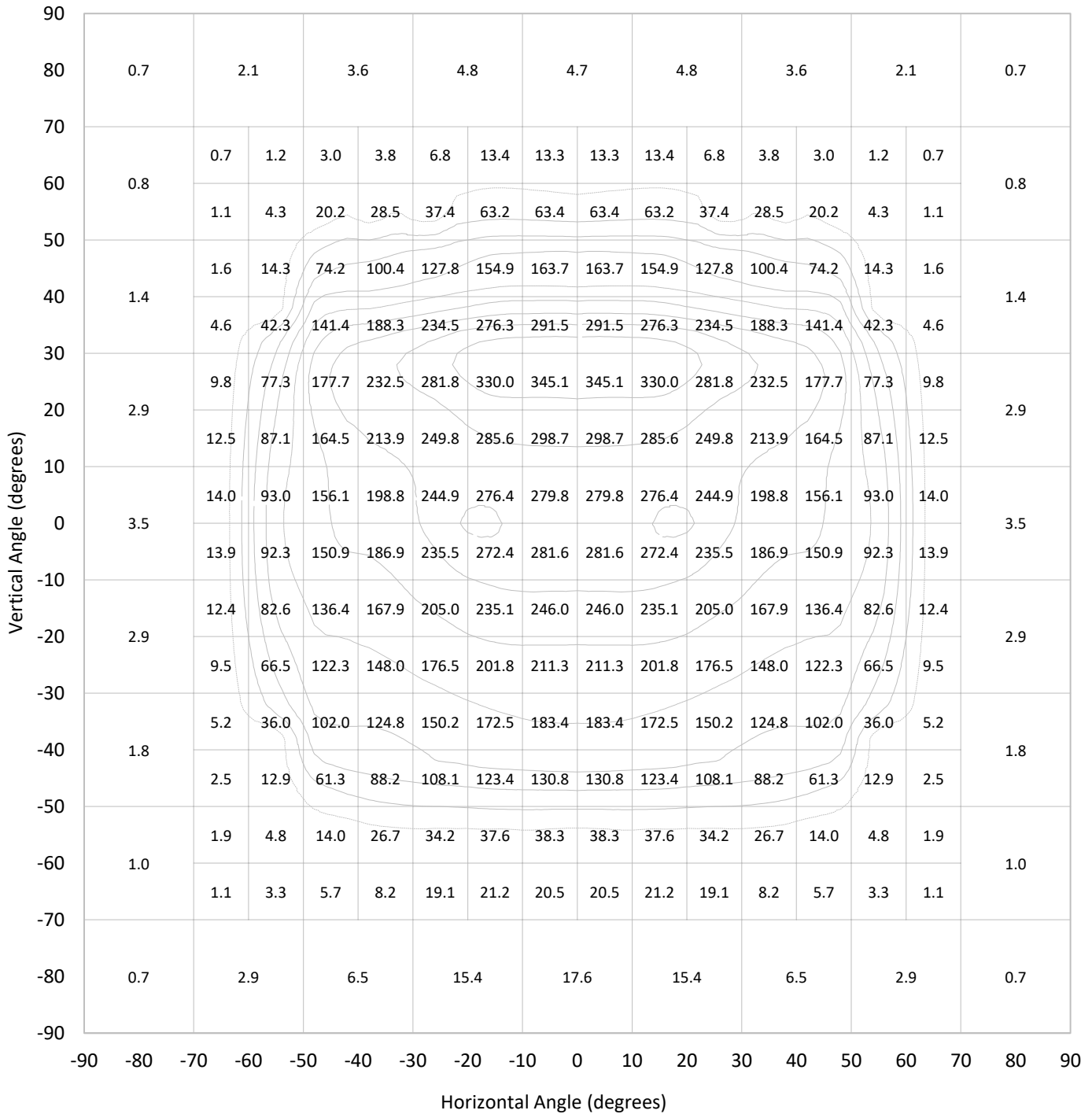




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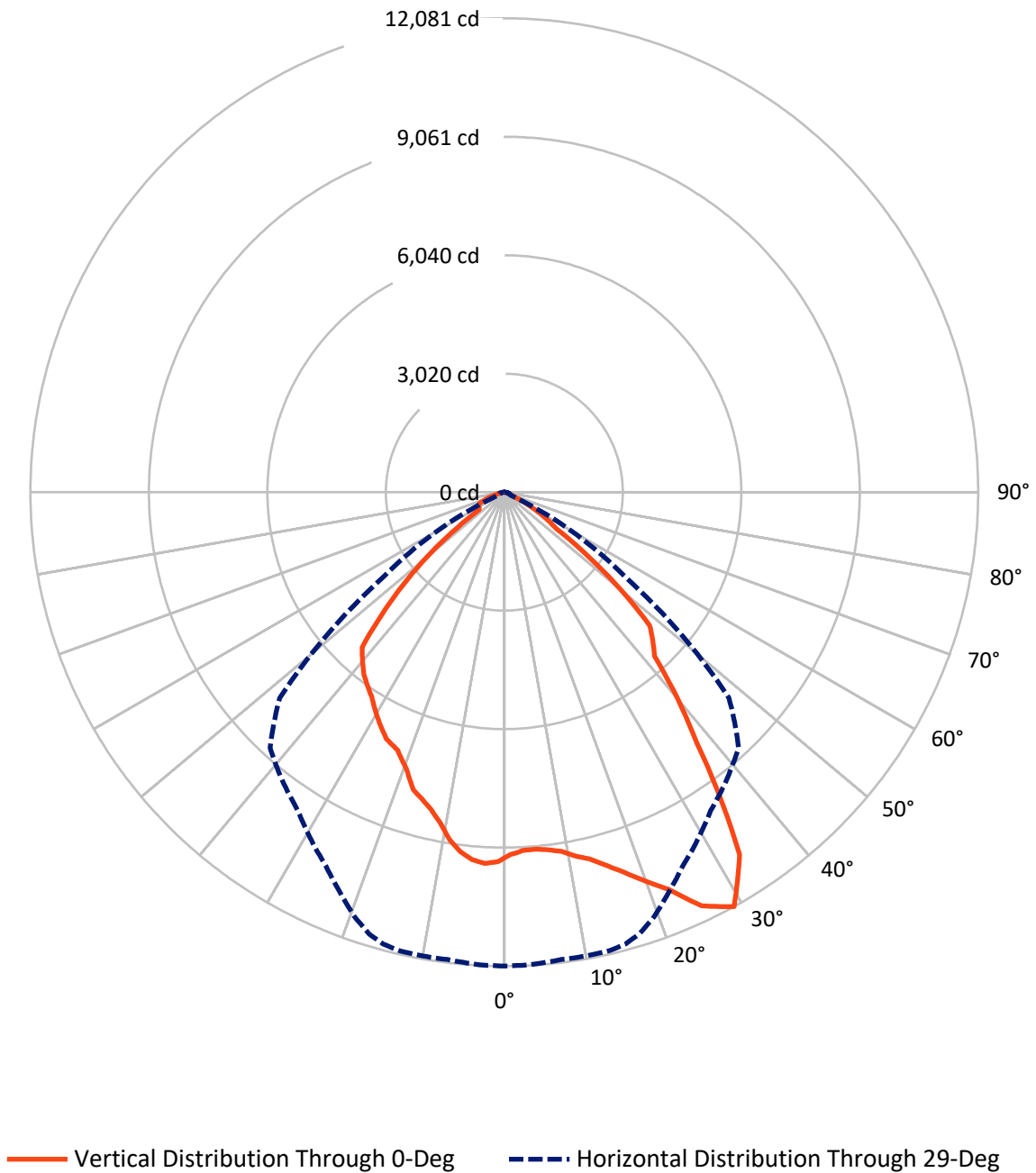
### Lumen Table



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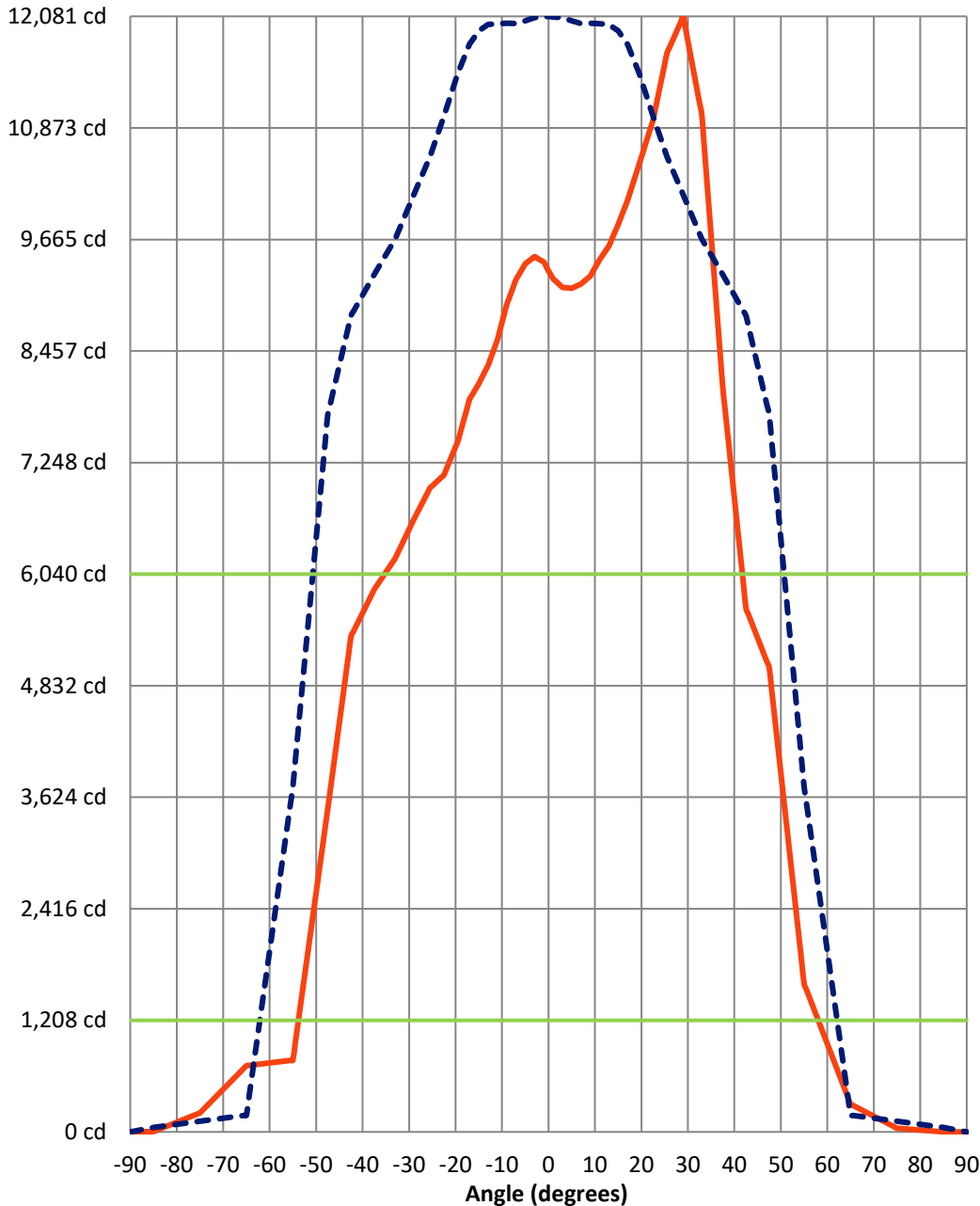
### Luminous Intensity Polar Plot



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### Luminous Intensity Plot



**Beam:**  
 H Angle: 101.4°  
 V Angle: 77°  
 Lumens: 15822.7  
 Efficiency: 72.3%

**Field:**  
 H Angle: 124.2°  
 V Angle: 111.9°  
 Lumens: 21187.2  
 Efficiency: 96.8%

**Spill:**  
 Lumens: 706.8  
 Efficiency: 3.2%

— Vertical Distribution through 0-Deg  
 - - - Horizontal Distribution through 29-Deg



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FIELD  
 BEAM

**CANDELA DISTRIBUTION:**

|        | 0°      | 1°      | 3°      | 5°      | 7°      | 9°      | 11°     | 13°     | 15°     | 17°     | 19.5°   |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 90°    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 85°    | 0.0     | 5.2     | 12.2    | 13.7    | 17.4    | 22.6    | 27.8    | 34.5    | 36.3    | 38.1    | 39.9    |
| 75°    | 39.9    | 39.9    | 38.1    | 34.5    | 30.9    | 34.5    | 36.3    | 36.3    | 34.5    | 27.8    | 24.1    |
| 65°    | 300.6   | 300.6   | 302.4   | 297.2   | 285.3   | 278.3   | 271.3   | 281.7   | 302.4   | 319.8   | 298.8   |
| 55°    | 1607.2  | 1648.4  | 1646.9  | 1724.7  | 1755.8  | 1812.6  | 1862.9  | 1878.5  | 1881.9  | 1830.0  | 1714.3  |
| 47.5°  | 5027.0  | 5068.5  | 5054.5  | 5059.7  | 5025.2  | 5007.8  | 4974.9  | 4952.6  | 4938.8  | 4873.0  | 4636.4  |
| 42.5°  | 5671.5  | 5702.6  | 5726.7  | 5754.5  | 5768.2  | 5775.2  | 5773.4  | 5745.7  | 5669.7  | 5529.9  | 5396.6  |
| 37.5°  | 8063.2  | 8142.6  | 8146.0  | 8147.8  | 8111.5  | 8085.8  | 8101.1  | 8052.6  | 7976.9  | 7848.8  | 7624.2  |
| 33°    | 11011.3 | 11023.2 | 11064.7 | 11061.3 | 11064.7 | 10988.7 | 11006.1 | 10938.7 | 10819.4 | 10681.1 | 10468.7 |
| 29°    | 12080.8 | 12073.8 | 12067.1 | 12032.6 | 12003.0 | 12006.4 | 12001.2 | 11992.7 | 11923.7 | 11778.4 | 11465.7 |
| 25.5°  | 11681.7 | 11655.8 | 11645.4 | 11586.8 | 11557.2 | 11595.3 | 11610.9 | 11595.3 | 11534.9 | 11370.7 | 11064.7 |
| 22.5°  | 10957.6 | 10938.7 | 10921.3 | 10898.7 | 10893.8 | 10909.4 | 10910.9 | 10910.9 | 10879.8 | 10762.3 | 10508.4 |
| 19.5°  | 10477.0 | 10465.1 | 10458.3 | 10435.8 | 10435.8 | 10446.2 | 10434.0 | 10397.7 | 10346.0 | 10259.4 | 10054.0 |
| 17°    | 10086.7 | 10076.3 | 10065.9 | 10057.1 | 10043.6 | 10043.6 | 10048.6 | 10012.5 | 9962.2  | 9874.0  | 9683.9  |
| 15°    | 9827.3  | 9815.4  | 9820.6  | 9805.0  | 9808.7  | 9792.8  | 9784.3  | 9762.0  | 9713.5  | 9604.6  | 9428.2  |
| 13°    | 9594.2  | 9589.0  | 9597.8  | 9587.2  | 9590.8  | 9575.0  | 9556.3  | 9543.9  | 9506.0  | 9404.1  | 9245.1  |
| 11°    | 9445.6  | 9438.6  | 9434.9  | 9438.6  | 9437.0  | 9434.9  | 9414.5  | 9388.5  | 9338.5  | 9231.4  | 9091.3  |
| 9°     | 9269.2  | 9262.2  | 9265.8  | 9271.0  | 9269.2  | 9267.7  | 9253.9  | 9236.5  | 9196.9  | 9112.1  | 9001.3  |
| 7°     | 9182.9  | 9188.0  | 9182.9  | 9189.6  | 9189.6  | 9191.7  | 9205.4  | 9217.3  | 9236.5  | 9234.7  | 9138.0  |
| 5°     | 9136.2  | 9138.0  | 9138.0  | 9146.5  | 9155.1  | 9177.7  | 9229.5  | 9298.5  | 9390.3  | 9464.8  | 9380.0  |
| 3°     | 9146.5  | 9144.7  | 9155.1  | 9172.5  | 9200.2  | 9246.9  | 9340.3  | 9464.8  | 9630.5  | 9729.0  | 9651.2  |
| 1°     | 9239.9  | 9245.1  | 9278.0  | 9312.5  | 9353.8  | 9398.9  | 9478.5  | 9582.0  | 9763.5  | 9872.5  | 9964.0  |
| 0°     | 9324.7  | 9336.7  | 9350.7  | 9395.5  | 9424.8  | 9464.8  | 9514.6  | 9597.8  | 9762.0  | 9860.3  | 10000.1 |
| -1°    | 9419.6  | 9409.3  | 9433.6  | 9454.4  | 9473.1  | 9502.6  | 9531.9  | 9592.4  | 9729.0  | 9806.9  | 9877.7  |
| -3°    | 9478.5  | 9487.1  | 9490.4  | 9492.3  | 9514.6  | 9514.6  | 9516.4  | 9559.7  | 9632.3  | 9654.6  | 9513.0  |
| -5°    | 9400.5  | 9404.1  | 9397.3  | 9398.9  | 9414.5  | 9411.1  | 9383.3  | 9404.1  | 9397.3  | 9328.1  | 9179.5  |
| -7°    | 9229.5  | 9234.7  | 9224.4  | 9219.2  | 9229.5  | 9181.3  | 9132.8  | 9115.4  | 9049.8  | 8977.4  | 8863.1  |
| -9°    | 8956.4  | 8978.7  | 8947.9  | 8944.3  | 8921.9  | 8880.5  | 8821.8  | 8795.6  | 8731.8  | 8669.6  | 8574.7  |
| -11°   | 8576.5  | 8607.4  | 8588.4  | 8598.8  | 8595.4  | 8595.4  | 8562.5  | 8542.0  | 8476.1  | 8394.9  | 8294.6  |
| -13°   | 8301.6  | 8320.8  | 8313.8  | 8317.1  | 8331.1  | 8353.4  | 8329.1  | 8312.0  | 8244.5  | 8160.0  | 8063.2  |
| -15°   | 8102.9  | 8125.2  | 8123.4  | 8121.8  | 8135.6  | 8153.0  | 8134.0  | 8113.3  | 8045.9  | 7959.5  | 7848.8  |
| -17°   | 7931.7  | 7943.9  | 7949.1  | 7943.9  | 7942.1  | 7942.1  | 7921.4  | 7899.1  | 7833.2  | 7739.8  | 7615.6  |
| -19.5° | 7478.9  | 7496.3  | 7499.9  | 7496.3  | 7492.9  | 7494.5  | 7501.5  | 7473.7  | 7430.7  | 7372.1  | 7282.1  |
| -22.5° | 7114.5  | 7117.9  | 7121.3  | 7124.9  | 7124.9  | 7128.3  | 7126.7  | 7105.7  | 7071.2  | 7029.7  | 6931.2  |
| -25.5° | 6972.9  | 6974.5  | 6976.0  | 6977.8  | 6969.3  | 6967.5  | 6946.7  | 6917.4  | 6872.6  | 6831.1  | 6732.5  |
| -29°   | 6630.6  | 6639.1  | 6641.0  | 6633.9  | 6632.4  | 6615.0  | 6583.9  | 6539.0  | 6494.2  | 6454.5  | 6357.5  |
| -33°   | 6210.7  | 6219.2  | 6217.4  | 6201.9  | 6200.3  | 6172.6  | 6134.7  | 6084.6  | 6030.7  | 5960.2  | 5849.7  |
| -37.5° | 5873.8  | 5875.3  | 5873.8  | 5861.6  | 5852.8  | 5830.5  | 5792.4  | 5740.7  | 5673.3  | 5595.5  | 5490.0  |
| -42.5° | 5365.7  | 5365.7  | 5339.5  | 5315.4  | 5293.1  | 5242.8  | 5218.7  | 5182.6  | 5149.7  | 5123.7  | 5002.6  |
| -47.5° | 3497.4  | 3489.1  | 3456.1  | 3475.0  | 3466.5  | 3452.5  | 3462.9  | 3449.4  | 3418.0  | 3381.7  | 3309.1  |
| -55°   | 777.5   | 779.4   | 798.3   | 843.4   | 881.5   | 902.0   | 895.3   | 848.6   | 850.2   | 889.8   | 833.0   |
| -65°   | 717.1   | 718.9   | 722.3   | 727.5   | 727.5   | 729.3   | 746.4   | 767.2   | 779.4   | 801.9   | 820.8   |
| -75°   | 205.7   | 209.0   | 210.9   | 207.2   | 204.1   | 209.0   | 216.0   | 210.9   | 212.4   | 212.4   | 193.5   |
| -85°   | 3.6     | 8.6     | 17.4    | 24.1    | 29.3    | 36.3    | 41.2    | 46.7    | 48.2    | 48.2    | 48.2    |
| -90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



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CATALOG NUMBER: NFFLD-C70-D-UNV-66-VS

**CANDELA DISTRIBUTION (continued):**

|        | 22.5°   | 25.5°   | 29°     | 33°    | 37.5°  | 42.5°  | 47.5°  | 55°    | 65°   | 75°   | 85°  |
|--------|---------|---------|---------|--------|--------|--------|--------|--------|-------|-------|------|
| 90°    | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0   | 0.0  |
| 85°    | 39.9    | 39.9    | 39.9    | 39.9   | 39.9   | 39.9   | 38.1   | 38.1   | 38.1  | 38.1  | 38.1 |
| 75°    | 24.1    | 27.8    | 32.9    | 46.7   | 48.2   | 46.7   | 34.5   | 36.3   | 38.1  | 36.3  | 38.1 |
| 65°    | 235.0   | 148.6   | 95.2    | 74.4   | 62.2   | 74.4   | 69.0   | 58.6   | 50.3  | 36.3  | 36.3 |
| 55°    | 1556.9  | 378.4   | 364.6   | 1202.6 | 362.8  | 1064.6 | 285.3  | 169.4  | 79.4  | 36.3  | 38.1 |
| 47.5°  | 4429.2  | 4190.6  | 3970.9  | 3703.3 | 3433.6 | 3259.0 | 2628.5 | 295.7  | 100.1 | 43.3  | 39.9 |
| 42.5°  | 5210.1  | 4947.4  | 4812.5  | 4558.6 | 4259.6 | 4268.4 | 4007.5 | 328.3  | 107.1 | 58.6  | 41.2 |
| 37.5°  | 7385.5  | 7116.1  | 6808.8  | 6513.1 | 6188.1 | 6117.3 | 5681.9 | 368.3  | 115.7 | 77.8  | 43.3 |
| 33°    | 10155.9 | 9661.6  | 9231.4  | 8847.8 | 8376.0 | 8037.3 | 6974.5 | 2981.0 | 146.8 | 96.7  | 44.9 |
| 29°    | 11000.9 | 10561.8 | 10147.1 | 9668.6 | 9284.8 | 8839.0 | 7766.0 | 3741.4 | 181.5 | 115.7 | 48.2 |
| 25.5°  | 10668.9 | 10318.3 | 9965.6  | 9573.4 | 9304.0 | 9003.1 | 8061.4 | 4261.4 | 214.5 | 133.0 | 51.9 |
| 22.5°  | 10135.2 | 9791.3  | 9506.0  | 9236.5 | 9069.0 | 8840.8 | 7890.2 | 4591.6 | 241.7 | 148.6 | 53.4 |
| 19.5°  | 9687.6  | 9376.3  | 9132.8  | 8937.5 | 8861.5 | 8588.4 | 7601.8 | 4850.6 | 273.1 | 162.4 | 57.1 |
| 17°    | 9357.4  | 9080.9  | 8878.9  | 8768.2 | 8693.7 | 8305.0 | 7391.0 | 5052.9 | 300.6 | 172.7 | 58.6 |
| 15°    | 9139.8  | 8896.0  | 8740.7  | 8659.2 | 8543.6 | 8071.8 | 7243.9 | 5204.9 | 324.7 | 179.7 | 58.6 |
| 13°    | 9003.1  | 8813.0  | 8697.3  | 8560.7 | 8351.6 | 7847.2 | 7123.1 | 5348.3 | 345.7 | 184.9 | 60.7 |
| 11°    | 8907.9  | 8770.0  | 8659.2  | 8424.3 | 8130.7 | 7696.8 | 7047.1 | 5474.6 | 361.0 | 188.3 | 60.7 |
| 9°     | 8854.5  | 8716.3  | 8560.7  | 8258.5 | 7961.1 | 7594.8 | 7021.2 | 5593.7 | 373.2 | 191.9 | 62.2 |
| 7°     | 8932.3  | 8742.2  | 8510.6  | 8167.0 | 7847.2 | 7565.5 | 7022.7 | 5685.5 | 380.2 | 193.5 | 62.2 |
| 5°     | 9070.6  | 8807.8  | 8512.4  | 8078.8 | 7760.6 | 7546.3 | 7026.3 | 5754.5 | 380.2 | 195.3 | 62.2 |
| 3°     | 9241.5  | 8877.1  | 8514.2  | 7990.6 | 7686.4 | 7524.0 | 7029.7 | 5797.8 | 381.8 | 195.3 | 62.2 |
| 1°     | 9438.6  | 8875.3  | 8479.5  | 7911.0 | 7617.4 | 7489.5 | 7016.0 | 5813.1 | 375.0 | 191.9 | 62.2 |
| 0°     | 9459.3  | 8839.0  | 8436.4  | 7869.5 | 7579.3 | 7466.7 | 7003.8 | 5815.2 | 373.2 | 190.1 | 62.2 |
| -1°    | 9414.5  | 8778.5  | 8386.1  | 7828.3 | 7537.8 | 7441.1 | 6993.4 | 5813.1 | 373.2 | 188.3 | 62.2 |
| -3°    | 9069.0  | 8624.7  | 8261.9  | 7738.3 | 7435.9 | 7370.2 | 6969.3 | 5787.4 | 373.2 | 183.1 | 62.2 |
| -5°    | 8816.7  | 8457.2  | 8114.8  | 7615.6 | 7302.8 | 7249.1 | 6921.1 | 5737.1 | 375.0 | 179.7 | 60.7 |
| -7°    | 8583.2  | 8265.3  | 7935.4  | 7461.8 | 7156.0 | 7095.3 | 6839.6 | 5662.9 | 373.2 | 177.9 | 60.7 |
| -9°    | 8348.3  | 8068.4  | 7736.5  | 7302.8 | 7003.8 | 6907.0 | 6732.5 | 5557.4 | 368.3 | 174.5 | 60.7 |
| -11°   | 8111.5  | 7852.4  | 7532.6  | 7136.8 | 6860.4 | 6732.5 | 6602.8 | 5424.3 | 361.0 | 172.7 | 58.6 |
| -13°   | 7892.1  | 7634.5  | 7332.1  | 6984.9 | 6720.3 | 6571.7 | 6468.2 | 5267.2 | 352.5 | 169.4 | 57.1 |
| -15°   | 7653.7  | 7394.4  | 7131.6  | 6834.4 | 6592.5 | 6411.2 | 6333.1 | 5089.3 | 338.7 | 167.5 | 55.2 |
| -17°   | 7397.7  | 7136.8  | 6901.9  | 6665.1 | 6447.5 | 6264.1 | 6195.1 | 4888.8 | 324.7 | 166.0 | 55.2 |
| -19.5° | 7067.8  | 6836.2  | 6641.0  | 6459.4 | 6251.9 | 6084.6 | 6025.8 | 4601.9 | 302.4 | 160.5 | 53.4 |
| -22.5° | 6713.6  | 6482.0  | 6326.4  | 6188.1 | 6010.2 | 5890.9 | 5885.7 | 4251.0 | 271.3 | 155.6 | 50.3 |
| -25.5° | 6533.8  | 6340.4  | 6181.1  | 5989.5 | 5806.1 | 5749.3 | 5740.7 | 3876.0 | 243.8 | 146.8 | 48.2 |
| -29°   | 6186.6  | 6029.1  | 5884.2  | 5668.1 | 5504.0 | 5512.5 | 5521.1 | 3374.9 | 222.8 | 136.4 | 44.9 |
| -33°   | 5699.0  | 5569.6  | 5421.0  | 5217.1 | 5106.4 | 5130.7 | 5106.4 | 2726.8 | 214.5 | 119.3 | 43.3 |
| -37.5° | 5351.7  | 5206.5  | 5028.8  | 4818.0 | 4660.5 | 4664.2 | 4530.9 | 376.8  | 205.7 | 98.6  | 41.2 |
| -42.5° | 4847.3  | 4804.0  | 4570.8  | 4391.1 | 4125.0 | 3908.7 | 3478.7 | 368.3  | 198.7 | 74.4  | 39.9 |
| -47.5° | 3247.1  | 3195.2  | 3141.8  | 3027.7 | 2818.4 | 2462.5 | 1883.4 | 321.3  | 188.3 | 50.3  | 39.9 |
| -55°   | 859.0   | 839.8   | 898.7   | 838.0  | 727.5  | 356.1  | 340.5  | 193.5  | 157.4 | 38.1  | 38.1 |
| -65°   | 848.6   | 817.2   | 582.2   | 306.0  | 222.8  | 245.3  | 314.3  | 198.7  | 74.4  | 38.1  | 38.1 |
| -75°   | 141.9   | 86.4    | 51.9    | 57.1   | 70.8   | 105.3  | 101.9  | 51.9   | 41.2  | 38.1  | 38.1 |
| -85°   | 48.2    | 46.7    | 46.7    | 44.9   | 43.3   | 43.3   | 41.2   | 39.9   | 39.9  | 38.1  | 38.1 |
| -90°   | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0   | 0.0  |





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**CANDELA DISTRIBUTION (continued):**

|        | 90° |
|--------|-----|
| 90°    | 0.0 |
| 85°    | 0.0 |
| 75°    | 0.0 |
| 65°    | 0.0 |
| 55°    | 0.0 |
| 47.5°  | 0.0 |
| 42.5°  | 0.0 |
| 37.5°  | 0.0 |
| 33°    | 0.0 |
| 29°    | 0.0 |
| 25.5°  | 0.0 |
| 22.5°  | 0.0 |
| 19.5°  | 0.0 |
| 17°    | 0.0 |
| 15°    | 0.0 |
| 13°    | 0.0 |
| 11°    | 0.0 |
| 9°     | 0.0 |
| 7°     | 0.0 |
| 5°     | 0.0 |
| 3°     | 0.0 |
| 1°     | 0.0 |
| 0°     | 0.0 |
| -1°    | 0.0 |
| -3°    | 0.0 |
| -5°    | 0.0 |
| -7°    | 0.0 |
| -9°    | 0.0 |
| -11°   | 0.0 |
| -13°   | 0.0 |
| -15°   | 0.0 |
| -17°   | 0.0 |
| -19.5° | 0.0 |
| -22.5° | 0.0 |
| -25.5° | 0.0 |
| -29°   | 0.0 |
| -33°   | 0.0 |
| -37.5° | 0.0 |
| -42.5° | 0.0 |
| -47.5° | 0.0 |
| -55°   | 0.0 |
| -65°   | 0.0 |
| -75°   | 0.0 |
| -85°   | 0.0 |
| -90°   | 0.0 |

(END OF REPORT)