

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: P393780

Luminaire Tested: **NFFLD-C70-D-UNV-66-7060-VS**

Issue Date: 3/31/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393780  
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-66-7060-VS  
Description: FLOODLIGHT WITH VANDAL SHIELD  
Light Source: (2) 5700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

|                   |                                  |                      |                   |
|-------------------|----------------------------------|----------------------|-------------------|
| Lumens per Lamp:  | N/A                              | NEMA Type:           | 6H x 6V           |
| Luminaire Lumens: | 21237 lumens                     | Max Intensity:       | 11718.3 candela   |
| Efficiency:       | N/A                              | Max Intensity Angle: | 0°H x 29°V        |
| Efficacy:         | 115.4 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:      | 15347.9 lumens                   | Field Lumens:        | 20551.4 lumens    |
| Beam Efficiency:  | 72.3%                            | Field Efficiency:    | 96.8%             |

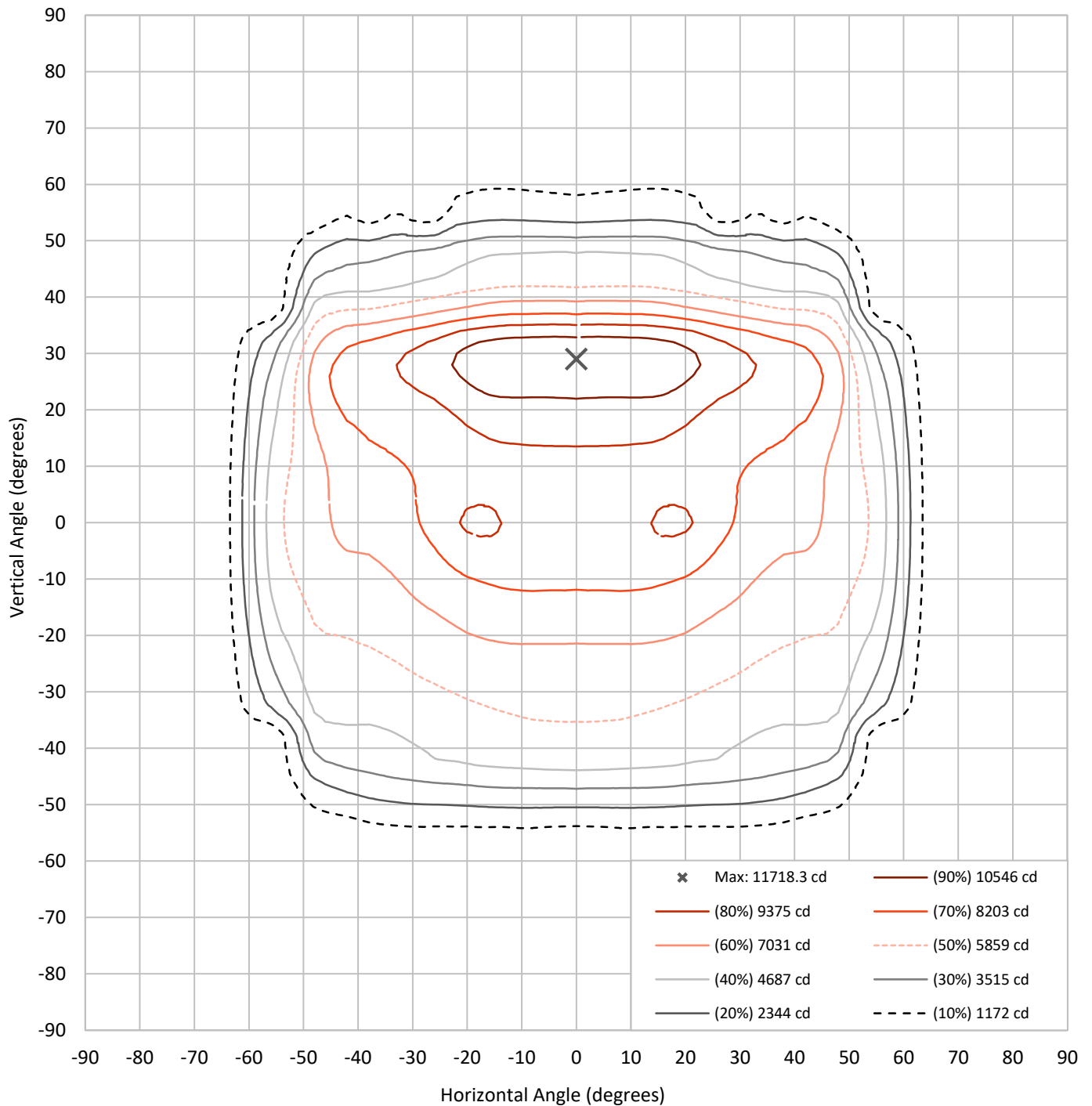
Input Watts (W): 184  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Candela Plot

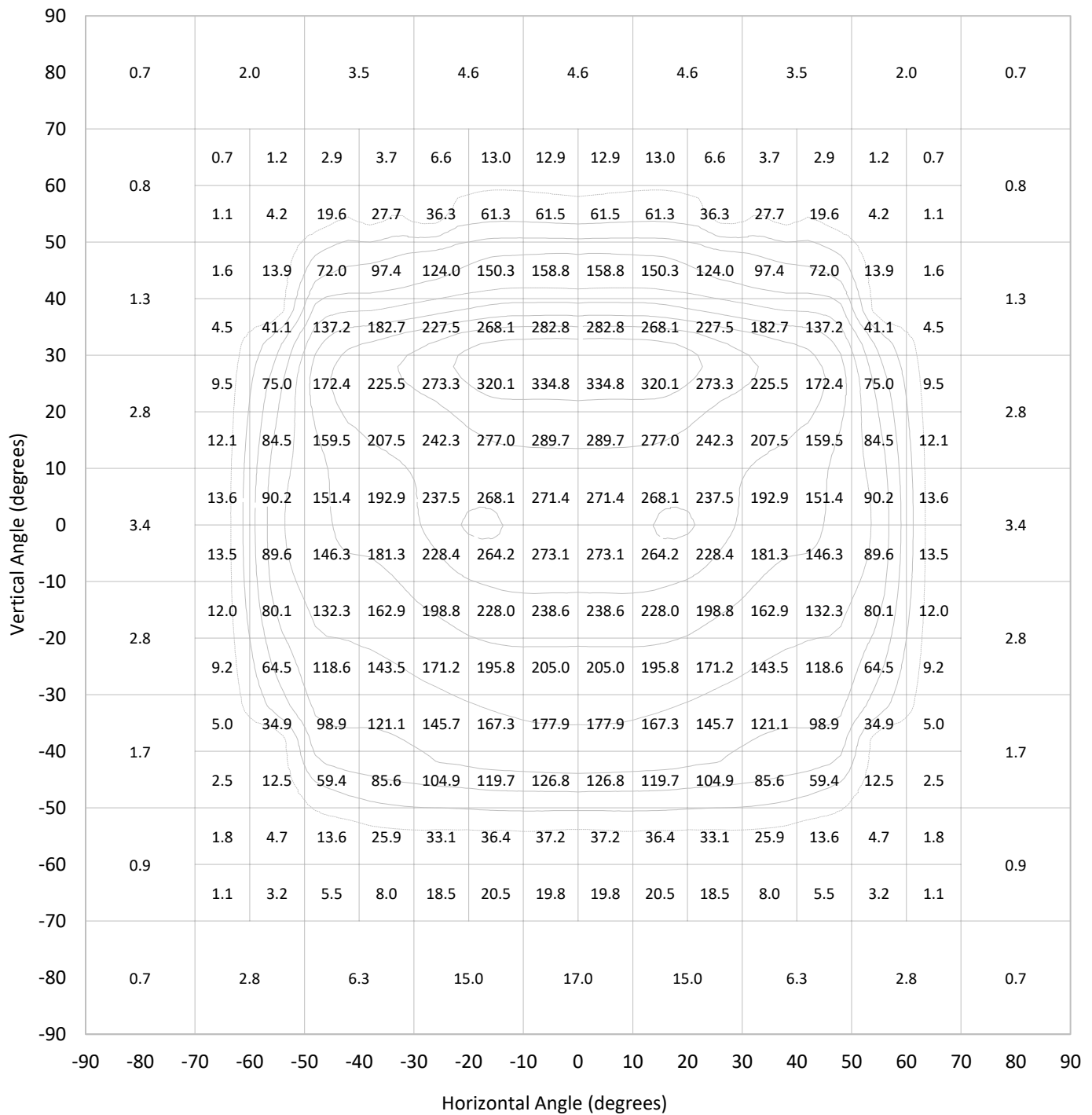




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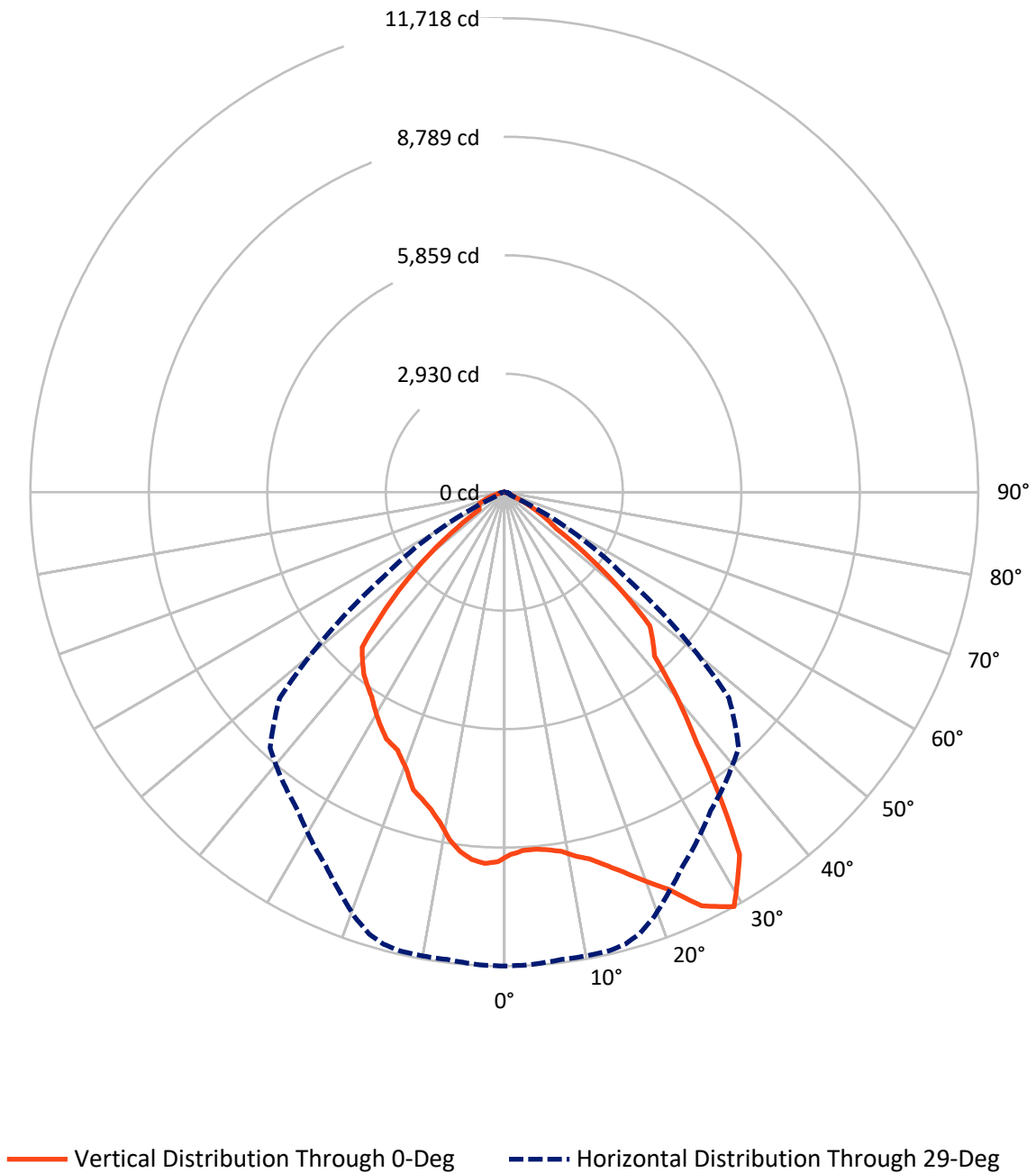
### Lumen Table



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### Luminous Intensity Polar Plot

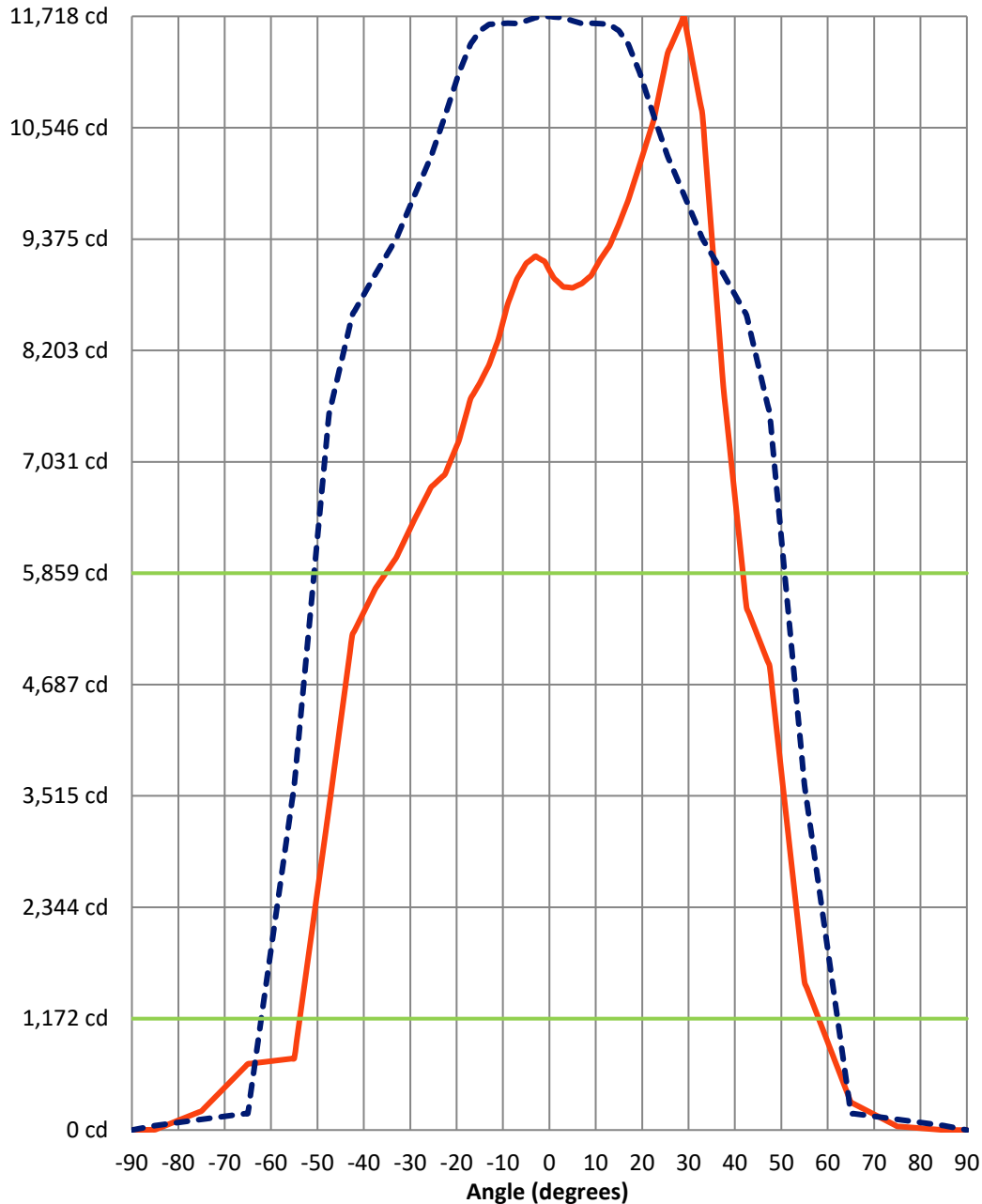




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### Luminous Intensity Plot



**Beam:**  
 H Angle: 101.4°  
 V Angle: 77°  
 Lumens: 15347.9  
 Efficiency: 72.3%

**Field:**  
 H Angle: 124.2°  
 V Angle: 111.9°  
 Lumens: 20551.4  
 Efficiency: 96.8%

**Spill:**  
 Lumens: 685.6  
 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     | 5.0     | 11.8    | 13.3    | 16.9    | 21.9    | 26.9    | 33.5    | 35.2    | 37.0    | 38.7    |
| 75°    | 38.7    | 38.7    | 37.0    | 33.5    | 29.9    | 33.5    | 35.2    | 35.2    | 33.5    | 26.9    | 23.4    |
| 65°    | 291.6   | 291.6   | 293.3   | 288.3   | 276.7   | 269.9   | 263.1   | 273.2   | 293.3   | 310.2   | 289.8   |
| 55°    | 1559.0  | 1599.0  | 1597.5  | 1672.9  | 1703.1  | 1758.2  | 1807.0  | 1822.1  | 1825.4  | 1775.1  | 1662.9  |
| 47.5°  | 4876.2  | 4916.4  | 4902.8  | 4907.9  | 4874.4  | 4857.5  | 4825.6  | 4804.0  | 4790.6  | 4726.7  | 4497.3  |
| 42.5°  | 5501.3  | 5531.5  | 5554.9  | 5581.8  | 5595.1  | 5601.9  | 5600.2  | 5573.3  | 5499.5  | 5363.9  | 5234.6  |
| 37.5°  | 7821.3  | 7898.3  | 7901.5  | 7903.3  | 7868.1  | 7843.2  | 7858.0  | 7811.0  | 7737.5  | 7613.2  | 7395.4  |
| 33°    | 10680.9 | 10692.4 | 10732.7 | 10729.4 | 10732.7 | 10659.0 | 10675.8 | 10610.4 | 10494.7 | 10360.6 | 10154.6 |
| 29°    | 11718.3 | 11711.5 | 11705.0 | 11671.5 | 11642.9 | 11646.1 | 11641.1 | 11632.8 | 11565.9 | 11425.0 | 11121.6 |
| 25.5°  | 11331.2 | 11306.0 | 11295.9 | 11239.1 | 11210.4 | 11247.4 | 11262.5 | 11247.4 | 11188.8 | 11029.5 | 10732.7 |
| 22.5°  | 10628.8 | 10610.4 | 10593.6 | 10571.7 | 10566.9 | 10582.0 | 10583.5 | 10583.5 | 10553.3 | 10439.3 | 10193.1 |
| 19.5°  | 10162.6 | 10151.0 | 10144.5 | 10122.6 | 10122.6 | 10132.7 | 10120.9 | 10085.6 | 10035.6 | 9951.6  | 9752.3  |
| 17°    | 9784.0  | 9773.9  | 9763.9  | 9755.3  | 9742.3  | 9742.3  | 9747.0  | 9712.1  | 9663.3  | 9577.7  | 9393.3  |
| 15°    | 9532.4  | 9520.9  | 9525.9  | 9510.8  | 9514.3  | 9499.0  | 9490.7  | 9469.0  | 9422.0  | 9316.3  | 9145.3  |
| 13°    | 9306.3  | 9301.3  | 9309.8  | 9299.5  | 9303.0  | 9287.7  | 9269.6  | 9257.5  | 9220.7  | 9121.9  | 8967.7  |
| 11°    | 9162.1  | 9155.3  | 9151.8  | 9155.3  | 9153.8  | 9151.8  | 9131.9  | 9106.8  | 9058.2  | 8954.3  | 8818.5  |
| 9°     | 8991.1  | 8984.3  | 8987.8  | 8992.8  | 8991.1  | 8989.6  | 8976.2  | 8959.4  | 8920.9  | 8838.6  | 8731.2  |
| 7°     | 8907.3  | 8912.3  | 8907.3  | 8913.8  | 8913.8  | 8915.8  | 8929.2  | 8940.8  | 8959.4  | 8957.6  | 8863.8  |
| 5°     | 8862.0  | 8863.8  | 8863.8  | 8872.1  | 8880.4  | 8902.3  | 8952.6  | 9019.5  | 9108.5  | 9180.7  | 9098.5  |
| 3°     | 8872.1  | 8870.3  | 8880.4  | 8897.2  | 8924.1  | 8969.4  | 9060.0  | 9180.7  | 9341.5  | 9437.1  | 9361.6  |
| 1°     | 8962.6  | 8967.7  | 8999.6  | 9033.1  | 9073.1  | 9116.9  | 9194.1  | 9294.5  | 9470.6  | 9576.2  | 9665.0  |
| 0°     | 9044.9  | 9056.5  | 9070.1  | 9113.6  | 9142.0  | 9180.7  | 9229.1  | 9309.8  | 9469.0  | 9564.4  | 9700.0  |
| -1°    | 9137.0  | 9126.9  | 9150.6  | 9170.7  | 9188.8  | 9217.5  | 9245.9  | 9304.5  | 9437.1  | 9512.6  | 9581.2  |
| -3°    | 9194.1  | 9202.4  | 9205.7  | 9207.4  | 9229.1  | 9229.1  | 9230.8  | 9272.8  | 9343.3  | 9364.9  | 9227.5  |
| -5°    | 9118.4  | 9121.9  | 9115.3  | 9116.9  | 9131.9  | 9128.7  | 9101.8  | 9121.9  | 9115.3  | 9048.2  | 8904.0  |
| -7°    | 8952.6  | 8957.6  | 8947.5  | 8942.5  | 8952.6  | 8905.8  | 8858.7  | 8841.9  | 8778.2  | 8708.1  | 8597.1  |
| -9°    | 8687.7  | 8709.3  | 8679.4  | 8675.9  | 8654.2  | 8614.0  | 8557.1  | 8531.7  | 8469.8  | 8409.4  | 8317.4  |
| -11°   | 8319.1  | 8349.1  | 8330.7  | 8340.8  | 8337.5  | 8337.5  | 8305.5  | 8285.7  | 8221.8  | 8143.0  | 8045.7  |
| -13°   | 8052.5  | 8071.1  | 8064.3  | 8067.6  | 8081.1  | 8102.8  | 8079.1  | 8062.5  | 7997.1  | 7915.1  | 7821.3  |
| -15°   | 7859.8  | 7881.4  | 7879.6  | 7878.1  | 7891.5  | 7908.3  | 7889.9  | 7869.8  | 7804.4  | 7720.6  | 7613.2  |
| -17°   | 7693.7  | 7705.5  | 7710.6  | 7705.5  | 7703.8  | 7703.8  | 7683.7  | 7662.0  | 7598.1  | 7507.6  | 7387.1  |
| -19.5° | 7254.5  | 7271.3  | 7274.9  | 7271.3  | 7268.1  | 7269.6  | 7276.4  | 7249.5  | 7207.7  | 7150.8  | 7063.5  |
| -22.5° | 6901.0  | 6904.3  | 6907.6  | 6911.1  | 6911.1  | 6914.4  | 6912.9  | 6892.5  | 6859.0  | 6818.8  | 6723.2  |
| -25.5° | 6763.7  | 6765.2  | 6766.7  | 6768.5  | 6760.2  | 6758.4  | 6738.3  | 6709.8  | 6666.3  | 6626.1  | 6530.5  |
| -29°   | 6431.6  | 6439.9  | 6441.7  | 6434.9  | 6433.4  | 6416.5  | 6386.3  | 6342.8  | 6299.3  | 6260.8  | 6166.7  |
| -33°   | 6024.3  | 6032.6  | 6030.9  | 6015.8  | 6014.3  | 5987.3  | 5950.6  | 5902.1  | 5849.7  | 5781.3  | 5674.1  |
| -37.5° | 5697.5  | 5699.0  | 5697.5  | 5685.7  | 5677.2  | 5655.5  | 5618.5  | 5568.5  | 5503.1  | 5427.6  | 5325.2  |
| -42.5° | 5204.7  | 5204.7  | 5179.3  | 5155.9  | 5134.3  | 5085.5  | 5062.1  | 5027.1  | 4995.1  | 4970.0  | 4852.5  |
| -47.5° | 3392.4  | 3384.4  | 3352.4  | 3370.8  | 3362.5  | 3348.9  | 3358.9  | 3345.9  | 3315.4  | 3280.2  | 3209.8  |
| -55°   | 754.2   | 756.0   | 774.3   | 818.1   | 855.1   | 875.0   | 868.4   | 823.1   | 824.6   | 863.1   | 808.0   |
| -65°   | 695.6   | 697.3   | 700.6   | 705.7   | 705.7   | 707.4   | 724.0   | 744.1   | 756.0   | 777.9   | 796.2   |
| -75°   | 199.5   | 202.8   | 204.5   | 201.0   | 198.0   | 202.8   | 209.6   | 204.5   | 206.0   | 206.0   | 187.7   |
| -85°   | 3.5     | 8.3     | 16.9    | 23.4    | 28.4    | 35.2    | 40.0    | 45.3    | 46.8    | 46.8    | 46.8    |
| -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-66-7060-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°    | 38.7    | 38.7    | 38.7   | 38.7   | 38.7   | 38.7   | 37.0   | 37.0   | 37.0  | 37.0  | 37.0 |
| 75°    | 23.4    | 26.9    | 31.9   | 45.3   | 46.8   | 45.3   | 33.5   | 35.2   | 37.0  | 35.2  | 37.0 |
| 65°    | 227.9   | 144.1   | 92.3   | 72.2   | 60.4   | 72.2   | 66.9   | 56.9   | 48.8  | 35.2  | 35.2 |
| 55°    | 1510.2  | 367.0   | 353.7  | 1166.5 | 351.9  | 1032.7 | 276.7  | 164.3  | 77.0  | 35.2  | 37.0 |
| 47.5°  | 4296.3  | 4064.8  | 3851.8 | 3592.1 | 3330.5 | 3161.2 | 2549.6 | 286.8  | 97.1  | 42.0  | 38.7 |
| 42.5°  | 5053.8  | 4798.9  | 4668.1 | 4421.8 | 4131.8 | 4140.3 | 3887.2 | 318.5  | 103.9 | 56.9  | 40.0 |
| 37.5°  | 7163.9  | 6902.5  | 6604.4 | 6317.6 | 6002.4 | 5933.8 | 5511.4 | 357.2  | 112.2 | 75.5  | 42.0 |
| 33°    | 9851.2  | 9371.7  | 8954.3 | 8582.3 | 8124.7 | 7796.1 | 6765.2 | 2891.5 | 142.4 | 93.8  | 43.5 |
| 29°    | 10670.8 | 10244.9 | 9842.6 | 9378.5 | 9006.2 | 8573.7 | 7533.0 | 3629.1 | 176.1 | 112.2 | 46.8 |
| 25.5°  | 10348.8 | 10008.7 | 9666.5 | 9286.2 | 9024.8 | 8733.0 | 7819.5 | 4133.5 | 208.0 | 129.1 | 50.3 |
| 22.5°  | 9831.1  | 9497.5  | 9220.7 | 8959.4 | 8796.9 | 8575.5 | 7653.5 | 4453.8 | 234.5 | 144.1 | 51.8 |
| 19.5°  | 9396.8  | 9095.0  | 8858.7 | 8669.3 | 8595.6 | 8330.7 | 7373.7 | 4705.1 | 264.9 | 157.5 | 55.3 |
| 17°    | 9076.6  | 8808.4  | 8612.5 | 8505.0 | 8432.8 | 8055.7 | 7169.2 | 4901.3 | 291.6 | 167.5 | 56.9 |
| 15°    | 8865.5  | 8629.1  | 8478.4 | 8399.4 | 8287.2 | 7829.6 | 7026.6 | 5048.7 | 315.0 | 174.3 | 56.9 |
| 13°    | 8733.0  | 8548.6  | 8436.4 | 8303.8 | 8101.0 | 7611.7 | 6909.3 | 5187.9 | 335.3 | 179.4 | 58.9 |
| 11°    | 8640.6  | 8506.8  | 8399.4 | 8171.5 | 7886.7 | 7465.8 | 6835.6 | 5310.4 | 350.2 | 182.6 | 58.9 |
| 9°     | 8588.8  | 8454.7  | 8303.8 | 8010.7 | 7722.2 | 7366.9 | 6810.5 | 5425.8 | 362.0 | 186.2 | 60.4 |
| 7°     | 8664.3  | 8479.9  | 8255.2 | 7921.9 | 7611.7 | 7338.5 | 6812.0 | 5514.9 | 368.8 | 187.7 | 60.4 |
| 5°     | 8798.4  | 8543.5  | 8257.0 | 7836.4 | 7527.7 | 7319.9 | 6815.5 | 5581.8 | 368.8 | 189.4 | 60.4 |
| 3°     | 8964.1  | 8610.7  | 8258.7 | 7750.8 | 7455.7 | 7298.3 | 6818.8 | 5623.8 | 370.3 | 189.4 | 60.4 |
| 1°     | 9155.3  | 8608.9  | 8225.0 | 7673.6 | 7388.8 | 7264.8 | 6805.4 | 5638.7 | 363.8 | 186.2 | 60.4 |
| 0°     | 9175.5  | 8573.7  | 8183.3 | 7633.3 | 7351.8 | 7242.7 | 6793.6 | 5640.7 | 362.0 | 184.4 | 60.4 |
| -1°    | 9131.9  | 8515.1  | 8134.5 | 7593.4 | 7311.6 | 7217.8 | 6783.6 | 5638.7 | 362.0 | 182.6 | 60.4 |
| -3°    | 8796.9  | 8365.9  | 8014.0 | 7506.1 | 7212.7 | 7149.1 | 6760.2 | 5613.8 | 362.0 | 177.6 | 60.4 |
| -5°    | 8552.1  | 8203.4  | 7871.3 | 7387.1 | 7083.7 | 7031.6 | 6713.4 | 5565.0 | 363.8 | 174.3 | 58.9 |
| -7°    | 8325.7  | 8017.2  | 7697.2 | 7237.9 | 6941.3 | 6882.4 | 6634.4 | 5493.0 | 362.0 | 172.6 | 58.9 |
| -9°    | 8097.7  | 7826.3  | 7504.3 | 7083.7 | 6793.6 | 6699.8 | 6530.5 | 5390.6 | 357.2 | 169.3 | 58.9 |
| -11°   | 7868.1  | 7616.7  | 7306.6 | 6922.7 | 6654.5 | 6530.5 | 6404.7 | 5261.6 | 350.2 | 167.5 | 56.9 |
| -13°   | 7655.2  | 7405.4  | 7112.1 | 6775.2 | 6518.6 | 6374.5 | 6274.1 | 5109.1 | 341.9 | 164.3 | 55.3 |
| -15°   | 7424.0  | 7172.5  | 6917.6 | 6629.3 | 6394.6 | 6218.8 | 6143.1 | 4936.5 | 328.5 | 162.5 | 53.6 |
| -17°   | 7175.7  | 6922.7  | 6694.7 | 6465.1 | 6254.0 | 6076.1 | 6009.2 | 4742.1 | 315.0 | 161.0 | 53.6 |
| -19.5° | 6855.8  | 6631.1  | 6441.7 | 6265.6 | 6064.3 | 5902.1 | 5844.9 | 4463.8 | 293.3 | 155.7 | 51.8 |
| -22.5° | 6512.1  | 6287.5  | 6136.5 | 6002.4 | 5829.9 | 5714.1 | 5709.1 | 4123.5 | 263.1 | 150.9 | 48.8 |
| -25.5° | 6337.8  | 6150.1  | 5995.6 | 5809.7 | 5631.9 | 5576.8 | 5568.5 | 3759.7 | 236.5 | 142.4 | 46.8 |
| -29°   | 6000.9  | 5848.2  | 5707.6 | 5498.0 | 5338.8 | 5347.1 | 5355.4 | 3273.7 | 216.1 | 132.3 | 43.5 |
| -33°   | 5528.0  | 5402.4  | 5258.3 | 5060.6 | 4953.1 | 4976.8 | 4953.1 | 2645.0 | 208.0 | 115.7 | 42.0 |
| -37.5° | 5191.1  | 5050.2  | 4877.9 | 4673.4 | 4520.7 | 4524.2 | 4394.9 | 365.5  | 199.5 | 95.6  | 40.0 |
| -42.5° | 4701.8  | 4659.8  | 4433.6 | 4259.3 | 4001.2 | 3791.4 | 3374.3 | 357.2  | 192.7 | 72.2  | 38.7 |
| -47.5° | 3149.6  | 3099.3  | 3047.5 | 2936.8 | 2733.8 | 2388.6 | 1826.9 | 311.7  | 182.6 | 48.8  | 38.7 |
| -55°   | 833.2   | 814.6   | 871.7  | 812.8  | 705.7  | 345.4  | 330.3  | 187.7  | 152.7 | 37.0  | 37.0 |
| -65°   | 823.1   | 792.7   | 564.8  | 296.9  | 216.1  | 238.0  | 304.9  | 192.7  | 72.2  | 37.0  | 37.0 |
| -75°   | 137.6   | 83.8    | 50.3   | 55.3   | 68.7   | 102.1  | 98.9   | 50.3   | 40.0  | 37.0  | 37.0 |
| -85°   | 46.8    | 45.3    | 45.3   | 43.5   | 42.0   | 42.0   | 40.0   | 38.7   | 38.7  | 37.0  | 37.0 |
| -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)