

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: P393776

Luminaire Tested: **NFFLD-C70-D-UNV-66-7050-VG**

Issue Date: 3/31/2020

Test Information

Test Method: LM-79-08
Report Number: P393776
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P130630)
Test Lab: INNOVATIONS CENTER
Issue Date: 3/31/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NFFLD-C70-D-UNV-66-7050-VG
Description: FLOODLIGHT WITH WIRE GUARD
Light Source: (2) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

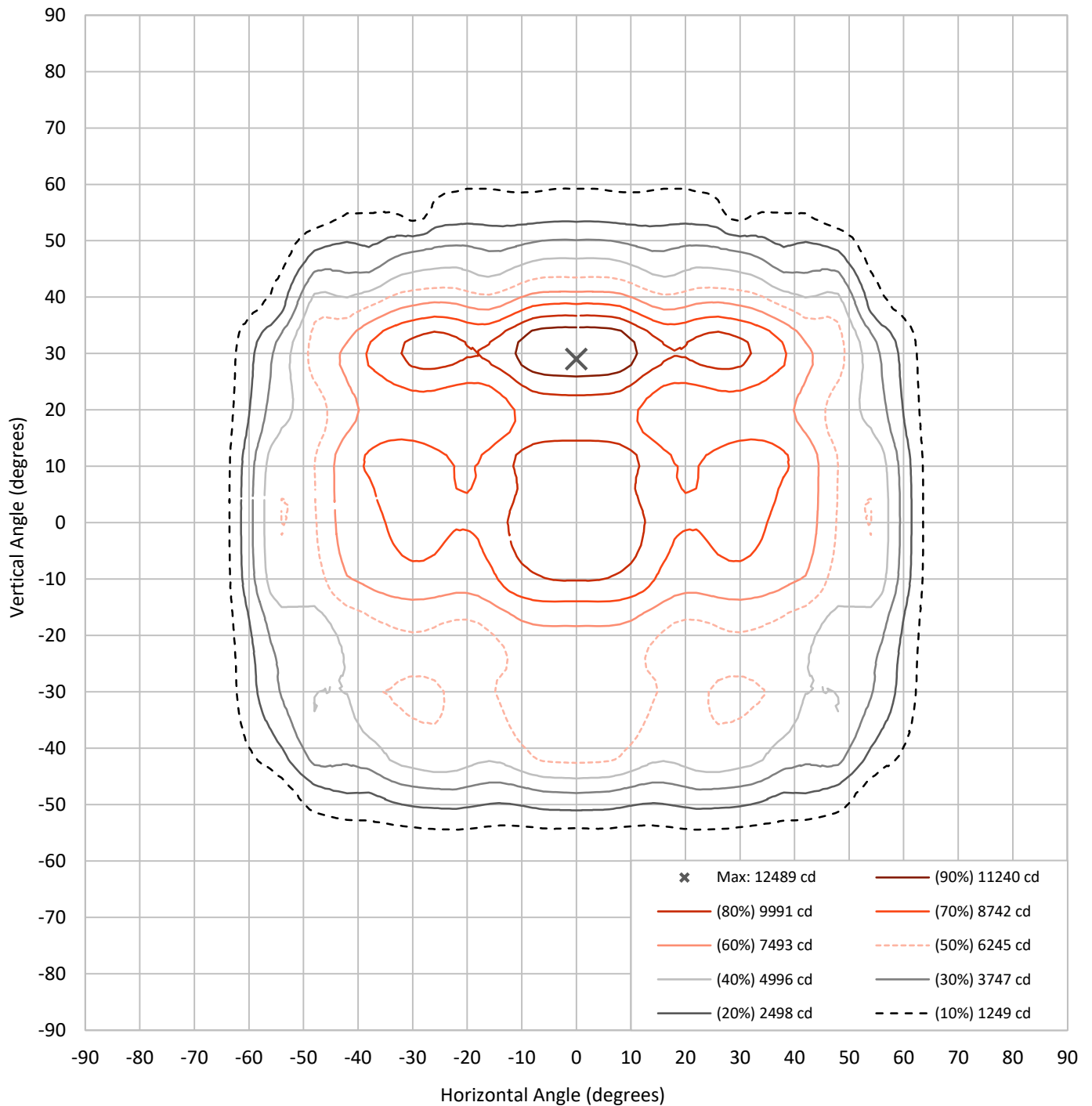
| | | | |
|-----------------------------------|----------------------------------|----------------------|-----------------|
| Lumens per Lamp: | N/A | NEMA Type: | 6H x 6V |
| Luminaire Lumens: | 22253 lumens | Max Intensity: | 12489 candela |
| Efficiency: | N/A | Max Intensity Angle: | 0°H x 29°V |
| Efficacy: | 120.9 lumens/watt | | |
| Luminous Opening: | (L: 1.33 ' x W: 0 ' x H: 0.67 ') | | |
| Beam Angle (50%): | 98.6°H x 86.3°V | Field Angle (10%): | 125°H x 113.3°V |
| Beam Lumens: | 14738.3 lumens | Field Lumens: | 21305.6 lumens |
| Beam Efficiency: | 66.2% | Field Efficiency: | 95.7% |
| Input Watts (W): | 184 | | |
| 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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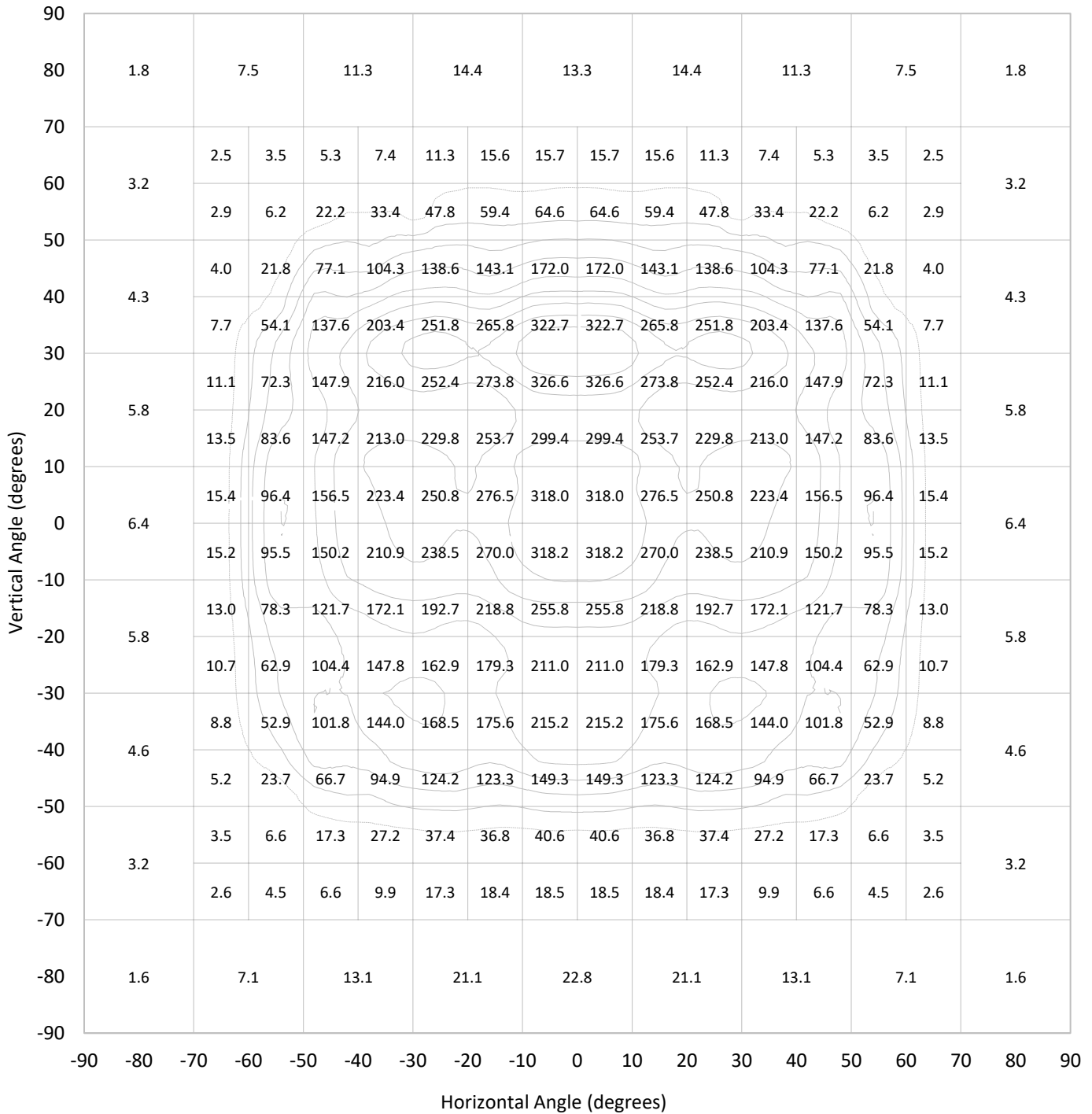
Iso-Candela Plot





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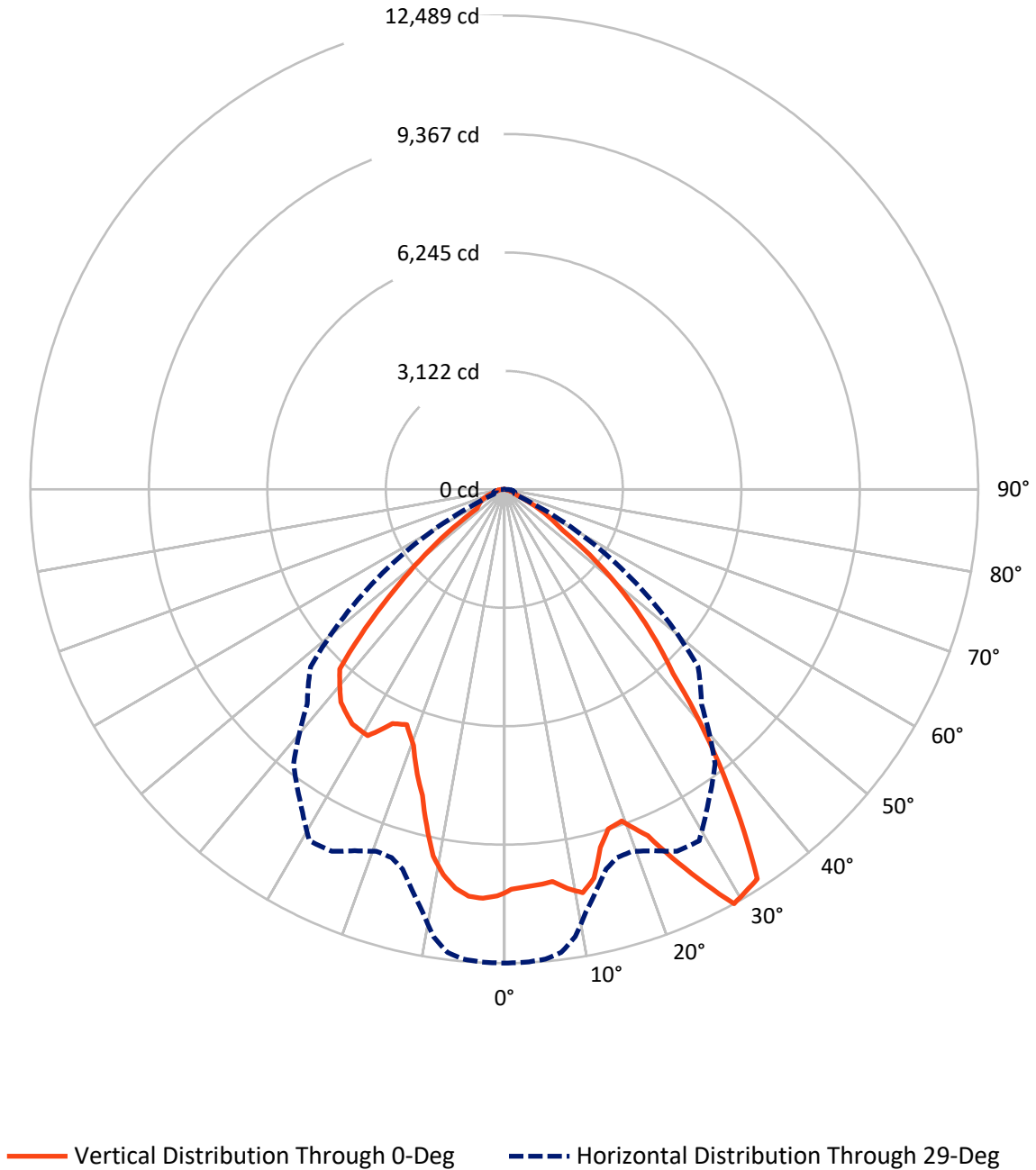
Lumen Table



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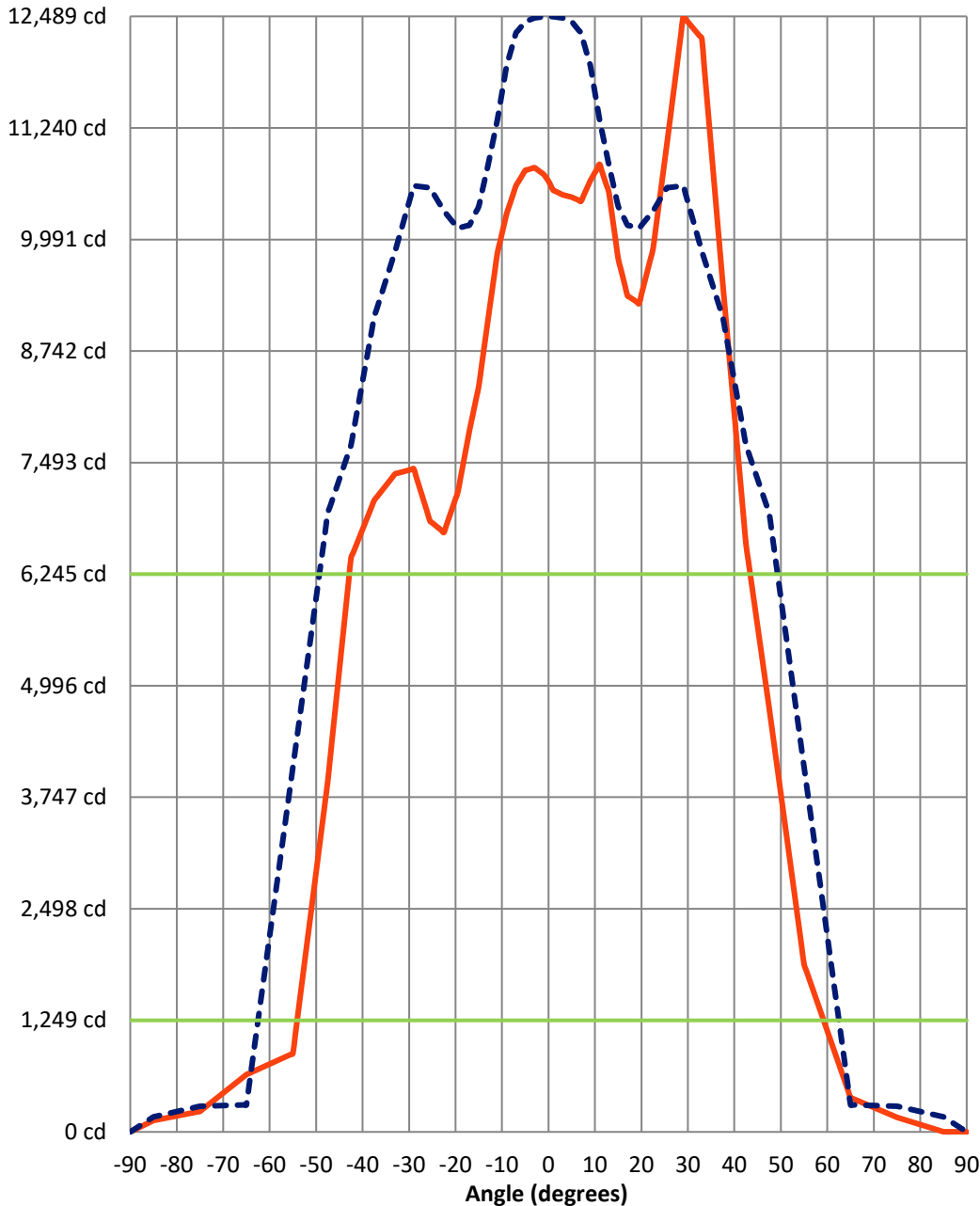
CATALOG NUMBER: NFFLD-C70-D-UNV-66-7050-VG

Luminous Intensity Polar Plot



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Luminous Intensity Plot



Beam:
 H Angle: 98.6°
 V Angle: 86.3°
 Lumens: 14738.3
 Efficiency: 66.2%

Field:
 H Angle: 125°
 V Angle: 113.3°
 Lumens: 21305.6
 Efficiency: 95.7%

Spill:
 Lumens: 947.4
 Efficiency: 4.3%

— 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° | 1.8 | 8.7 | 43.9 | 54.2 | 57.9 | 65.0 | 78.9 | 89.2 | 101.5 | 112.1 | 119.2 |
| 75° | 162.8 | 162.8 | 162.8 | 162.8 | 157.8 | 154.4 | 157.8 | 148.9 | 150.7 | 148.9 | 142.1 |
| 65° | 383.8 | 383.8 | 373.6 | 352.3 | 333.0 | 336.5 | 348.8 | 368.0 | 406.7 | 382.2 | 376.7 |
| 55° | 1877.3 | 1896.5 | 1903.6 | 1866.8 | 1781.0 | 1759.9 | 1743.9 | 1768.6 | 1866.8 | 1870.2 | 1908.8 |
| 47.5° | 4741.6 | 4795.8 | 4790.5 | 4750.3 | 4710.0 | 4445.1 | 4273.3 | 3998.1 | 3877.4 | 3977.4 | 4233.3 |
| 42.5° | 6580.2 | 6602.8 | 6610.2 | 6611.8 | 6578.3 | 6322.6 | 6045.6 | 5610.8 | 5312.7 | 5228.8 | 5540.8 |
| 37.5° | 9498.4 | 9560.0 | 9567.1 | 9439.0 | 9395.0 | 9100.7 | 8562.4 | 8124.4 | 7693.2 | 7582.8 | 7774.0 |
| 33° | 12240.2 | 12240.2 | 12234.9 | 12182.3 | 12089.4 | 11675.6 | 11021.9 | 10538.1 | 9994.8 | 9710.7 | 9801.8 |
| 29° | 12489.0 | 12485.3 | 12471.4 | 12429.6 | 12301.5 | 11938.7 | 11330.5 | 10825.6 | 10362.9 | 10152.4 | 10117.4 |
| 25.5° | 11065.8 | 11050.0 | 11018.5 | 10969.3 | 10879.8 | 10590.7 | 10080.6 | 9628.4 | 9179.6 | 8953.6 | 8920.2 |
| 22.5° | 9884.4 | 9875.4 | 9880.7 | 9814.1 | 9772.0 | 9584.5 | 9197.2 | 8792.4 | 8401.4 | 8131.5 | 8022.9 |
| 19.5° | 9274.3 | 9281.1 | 9288.2 | 9272.7 | 9234.0 | 9092.0 | 8739.7 | 8343.6 | 7991.0 | 7705.3 | 7579.3 |
| 17° | 9361.9 | 9369.0 | 9365.6 | 9356.6 | 9316.4 | 9156.7 | 8813.1 | 8429.3 | 8078.9 | 7752.7 | 7595.1 |
| 15° | 9777.3 | 9791.5 | 9781.0 | 9754.4 | 9705.5 | 9521.6 | 9167.2 | 8753.7 | 8420.6 | 8033.4 | 7871.9 |
| 13° | 10517.0 | 10527.6 | 10517.0 | 10476.8 | 10402.9 | 10224.2 | 9873.8 | 9405.8 | 9048.1 | 8578.5 | 8369.9 |
| 11° | 10832.5 | 10834.3 | 10830.6 | 10790.4 | 10720.4 | 10557.3 | 10176.9 | 9707.3 | 9340.9 | 8871.0 | 8618.7 |
| 9° | 10648.6 | 10664.1 | 10653.8 | 10620.4 | 10573.1 | 10431.0 | 10073.5 | 9644.2 | 9307.7 | 8871.0 | 8659.0 |
| 7° | 10418.9 | 10429.4 | 10425.8 | 10410.2 | 10371.6 | 10255.8 | 9940.1 | 9528.4 | 9248.0 | 8822.1 | 8636.4 |
| 5° | 10464.4 | 10478.4 | 10476.8 | 10469.7 | 10429.4 | 10312.1 | 10017.5 | 9619.4 | 9388.2 | 8960.5 | 8751.8 |
| 3° | 10492.6 | 10504.9 | 10518.9 | 10509.9 | 10492.6 | 10418.9 | 10156.1 | 9793.1 | 9561.8 | 9107.5 | 8848.4 |
| 1° | 10543.6 | 10561.0 | 10583.6 | 10578.6 | 10585.4 | 10520.5 | 10266.3 | 9866.7 | 9595.0 | 9111.2 | 8927.3 |
| 0° | 10644.9 | 10655.4 | 10679.9 | 10665.9 | 10652.0 | 10583.6 | 10303.2 | 9893.0 | 9584.5 | 9086.7 | 8937.8 |
| -1° | 10718.6 | 10725.7 | 10725.7 | 10704.6 | 10669.4 | 10588.9 | 10291.1 | 9868.6 | 9532.1 | 9002.5 | 8760.8 |
| -3° | 10795.6 | 10804.6 | 10771.2 | 10704.6 | 10655.4 | 10553.9 | 10241.9 | 9791.5 | 9421.6 | 8855.5 | 8546.9 |
| -5° | 10764.3 | 10771.2 | 10757.2 | 10648.6 | 10569.7 | 10460.7 | 10138.5 | 9679.2 | 9284.8 | 8716.9 | 8399.6 |
| -7° | 10592.3 | 10606.2 | 10555.7 | 10482.1 | 10347.1 | 10219.0 | 9877.3 | 9409.3 | 9000.7 | 8478.5 | 8196.2 |
| -9° | 10280.5 | 10317.1 | 10249.0 | 10192.7 | 10022.7 | 9875.4 | 9542.6 | 9114.9 | 8737.9 | 8266.5 | 8001.6 |
| -11° | 9838.8 | 9875.4 | 9849.4 | 9847.3 | 9721.3 | 9600.5 | 9309.3 | 8907.8 | 8545.1 | 8087.6 | 7817.7 |
| -13° | 9099.1 | 9149.9 | 9137.8 | 9197.2 | 9084.9 | 9011.2 | 8732.6 | 8398.0 | 8077.1 | 7626.4 | 7414.6 |
| -15° | 8348.8 | 8305.1 | 8305.1 | 8333.0 | 8257.5 | 8180.4 | 7921.1 | 7635.4 | 7324.9 | 6937.7 | 6741.5 |
| -17° | 7852.7 | 7824.8 | 7828.2 | 7842.4 | 7777.2 | 7703.8 | 7465.4 | 7174.2 | 6834.3 | 6469.7 | 6252.4 |
| -19.5° | 7163.7 | 7156.8 | 7160.3 | 7197.1 | 7162.1 | 7114.7 | 6899.3 | 6622.3 | 6315.5 | 5994.6 | 5798.3 |
| -22.5° | 6711.5 | 6718.6 | 6741.5 | 6736.2 | 6720.4 | 6680.2 | 6475.0 | 6232.9 | 5928.0 | 5652.9 | 5454.8 |
| -25.5° | 6839.6 | 6832.5 | 6844.8 | 6814.8 | 6790.4 | 6676.5 | 6413.7 | 6182.4 | 5849.4 | 5642.3 | 5496.9 |
| -29° | 7423.3 | 7416.2 | 7423.3 | 7402.3 | 7383.1 | 7227.1 | 6904.6 | 6643.3 | 6240.3 | 6049.0 | 5901.7 |
| -33° | 7367.3 | 7365.5 | 7367.3 | 7351.5 | 7305.7 | 7097.4 | 6730.9 | 6382.1 | 5977.2 | 5761.5 | 5737.0 |
| -37.5° | 7070.8 | 7065.6 | 7069.2 | 7046.4 | 6972.7 | 6717.0 | 6352.1 | 5949.1 | 5628.4 | 5507.4 | 5617.9 |
| -42.5° | 6422.3 | 6401.3 | 6392.6 | 6343.7 | 6240.3 | 5903.6 | 5565.3 | 5179.6 | 5011.2 | 5027.3 | 5291.9 |
| -47.5° | 3924.5 | 3886.1 | 3847.4 | 3816.1 | 3728.2 | 3477.5 | 3365.5 | 3191.8 | 3198.9 | 3291.8 | 3453.1 |
| -55° | 878.1 | 886.8 | 915.0 | 920.2 | 899.2 | 871.3 | 828.9 | 815.0 | 843.1 | 936.0 | 962.3 |
| -65° | 641.6 | 648.5 | 660.8 | 636.1 | 592.4 | 585.3 | 608.2 | 652.2 | 666.1 | 657.4 | 672.9 |
| -75° | 229.7 | 233.1 | 238.3 | 231.5 | 217.6 | 229.7 | 236.8 | 226.0 | 222.6 | 219.1 | 222.6 |
| -85° | 127.9 | 129.7 | 129.7 | 124.7 | 131.5 | 127.9 | 122.6 | 126.3 | 129.7 | 140.2 | 136.8 |
| -90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P393776

CATALOG NUMBER: NFFLD-C70-D-UNV-66-7050-VG

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° | 124.7 | 121.0 | 106.8 | 100.0 | 106.8 | 121.0 | 122.6 | 115.8 | 96.5 | 71.8 | 54.2 |
| 75° | 138.4 | 145.5 | 152.3 | 157.8 | 162.8 | 152.3 | 154.4 | 166.5 | 162.8 | 131.5 | 73.7 |
| 65° | 355.9 | 268.1 | 208.6 | 191.0 | 180.5 | 180.5 | 177.0 | 199.9 | 194.7 | 161.3 | 92.9 |
| 55° | 1758.1 | 1723.1 | 382.2 | 1158.6 | 1179.6 | 1135.7 | 329.4 | 275.2 | 229.7 | 178.9 | 113.9 |
| 47.5° | 4333.0 | 4234.9 | 4068.4 | 3693.3 | 2755.4 | 3134.0 | 2899.3 | 362.8 | 236.8 | 198.1 | 129.7 |
| 42.5° | 5878.8 | 5837.0 | 5710.7 | 5437.1 | 4343.6 | 4100.0 | 4669.5 | 1132.5 | 234.9 | 219.1 | 140.2 |
| 37.5° | 8154.4 | 8317.2 | 8075.2 | 7644.0 | 6715.1 | 5717.8 | 6222.7 | 1731.8 | 247.3 | 243.6 | 150.7 |
| 33° | 10266.3 | 10464.4 | 10261.1 | 9719.4 | 8737.9 | 7223.4 | 6855.4 | 3598.5 | 277.0 | 268.1 | 159.7 |
| 29° | 10310.0 | 10569.7 | 10592.3 | 9859.6 | 9123.6 | 7688.0 | 6925.3 | 4084.2 | 303.1 | 287.5 | 168.4 |
| 25.5° | 9118.3 | 9374.0 | 9393.5 | 9002.5 | 8378.5 | 7428.6 | 6480.2 | 4154.2 | 325.9 | 303.1 | 173.4 |
| 22.5° | 8145.5 | 8404.8 | 8529.3 | 8299.6 | 7956.0 | 7188.4 | 5942.2 | 4324.4 | 350.7 | 315.4 | 178.9 |
| 19.5° | 7659.8 | 7907.1 | 8119.2 | 8017.6 | 7807.2 | 7091.9 | 5682.6 | 4550.3 | 376.7 | 324.4 | 184.1 |
| 17° | 7628.5 | 7884.2 | 8159.4 | 8208.6 | 7996.3 | 7241.0 | 5726.5 | 4806.3 | 398.0 | 329.4 | 187.6 |
| 15° | 7887.9 | 8180.4 | 8508.2 | 8634.5 | 8366.2 | 7553.0 | 5882.5 | 5158.8 | 404.9 | 334.9 | 189.4 |
| 13° | 8406.4 | 8804.5 | 9200.6 | 9330.3 | 8862.3 | 8022.9 | 6147.4 | 5633.7 | 410.1 | 341.7 | 191.0 |
| 11° | 8687.1 | 9144.6 | 9587.9 | 9600.5 | 9013.1 | 8262.8 | 6266.3 | 5947.2 | 411.7 | 350.7 | 192.8 |
| 9° | 8734.5 | 9163.8 | 9544.2 | 9461.9 | 8880.0 | 8266.5 | 6241.9 | 6099.8 | 413.8 | 357.5 | 194.7 |
| 7° | 8694.0 | 9102.5 | 9388.2 | 9275.9 | 8697.6 | 8241.7 | 6197.9 | 6173.5 | 413.8 | 362.8 | 194.7 |
| 5° | 8815.0 | 9223.5 | 9447.9 | 9248.0 | 8643.2 | 8256.0 | 6203.2 | 6243.5 | 410.1 | 366.2 | 196.3 |
| 3° | 8885.2 | 9279.6 | 9452.9 | 9156.7 | 8560.8 | 8226.2 | 6184.0 | 6273.4 | 406.7 | 364.6 | 196.3 |
| 1° | 8906.3 | 9242.7 | 9379.5 | 9041.2 | 8462.7 | 8173.6 | 6140.1 | 6276.9 | 401.2 | 357.5 | 196.3 |
| 0° | 8860.7 | 9197.2 | 9325.1 | 8993.9 | 8420.6 | 8145.5 | 6122.7 | 6276.9 | 411.7 | 354.1 | 196.3 |
| -1° | 8751.8 | 9127.2 | 9270.9 | 8955.2 | 8385.6 | 8119.2 | 6108.8 | 6276.9 | 404.9 | 348.8 | 196.3 |
| -3° | 8554.0 | 8962.3 | 9144.6 | 8872.9 | 8299.6 | 8040.2 | 6082.2 | 6262.9 | 404.9 | 341.7 | 196.3 |
| -5° | 8404.8 | 8797.3 | 8990.2 | 8746.8 | 8187.6 | 7907.1 | 6020.9 | 6224.3 | 403.3 | 338.3 | 194.7 |
| -7° | 8206.8 | 8560.8 | 8783.4 | 8585.3 | 8056.0 | 7733.5 | 5928.0 | 6149.0 | 398.0 | 338.3 | 194.7 |
| -9° | 7998.4 | 8313.6 | 8548.5 | 8378.5 | 7887.9 | 7512.8 | 5826.5 | 6043.8 | 394.3 | 338.3 | 192.8 |
| -11° | 7805.3 | 8080.7 | 8298.0 | 8140.2 | 7688.0 | 7251.5 | 5670.5 | 5840.4 | 389.1 | 334.9 | 191.0 |
| -13° | 7407.5 | 7600.4 | 7789.5 | 7653.0 | 7209.5 | 6753.8 | 5361.9 | 5449.5 | 383.8 | 331.2 | 189.4 |
| -15° | 6730.9 | 6888.8 | 7039.2 | 6941.4 | 6580.2 | 6075.4 | 4923.9 | 4963.9 | 378.6 | 325.9 | 185.7 |
| -17° | 6245.3 | 6434.4 | 6585.5 | 6485.5 | 6194.5 | 5625.0 | 4610.1 | 4604.5 | 375.1 | 320.7 | 184.1 |
| -19.5° | 5843.9 | 6084.3 | 6261.1 | 6154.3 | 5919.4 | 5269.0 | 4366.2 | 4292.8 | 369.9 | 317.3 | 180.5 |
| -22.5° | 5493.4 | 5738.9 | 5908.8 | 5845.7 | 5719.7 | 5041.2 | 4343.6 | 3996.6 | 357.5 | 313.8 | 175.2 |
| -25.5° | 5596.8 | 5829.9 | 5975.4 | 5929.9 | 5752.8 | 4944.9 | 4559.0 | 3810.6 | 347.0 | 310.4 | 171.8 |
| -29° | 6057.7 | 6376.8 | 6608.1 | 6313.7 | 6248.7 | 4997.3 | 5051.7 | 3742.4 | 338.3 | 303.1 | 164.7 |
| -33° | 6075.4 | 6388.9 | 6441.8 | 6227.9 | 6071.9 | 4595.8 | 5148.0 | 3342.8 | 331.2 | 289.4 | 157.8 |
| -37.5° | 5966.7 | 6155.9 | 6071.9 | 5807.0 | 5186.7 | 4285.7 | 5014.9 | 2611.5 | 318.8 | 266.5 | 148.9 |
| -42.5° | 5616.0 | 5768.6 | 5500.5 | 5218.3 | 4157.8 | 3836.9 | 4138.4 | 1665.2 | 312.0 | 238.3 | 138.4 |
| -47.5° | 3688.3 | 3589.9 | 3516.2 | 3239.2 | 2569.7 | 2636.2 | 2224.5 | 389.1 | 299.9 | 204.9 | 129.7 |
| -55° | 974.4 | 964.2 | 939.4 | 813.4 | 713.4 | 632.7 | 415.4 | 308.3 | 285.7 | 177.0 | 115.8 |
| -65° | 680.3 | 652.2 | 578.5 | 369.9 | 325.9 | 273.3 | 306.7 | 259.4 | 194.7 | 152.3 | 96.5 |
| -75° | 229.7 | 217.6 | 187.6 | 182.3 | 171.8 | 182.3 | 192.8 | 159.7 | 136.8 | 119.2 | 77.1 |
| -85° | 142.1 | 135.0 | 108.6 | 96.5 | 105.2 | 117.3 | 117.3 | 106.8 | 82.3 | 66.6 | 56.0 |
| -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)