

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: P591364

Luminaire Tested: **CTN-CA8-330-730-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591364  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-330-730-U-T2-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 34923 lumens  
Efficiency: N/A  
Efficacy: 105.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G4

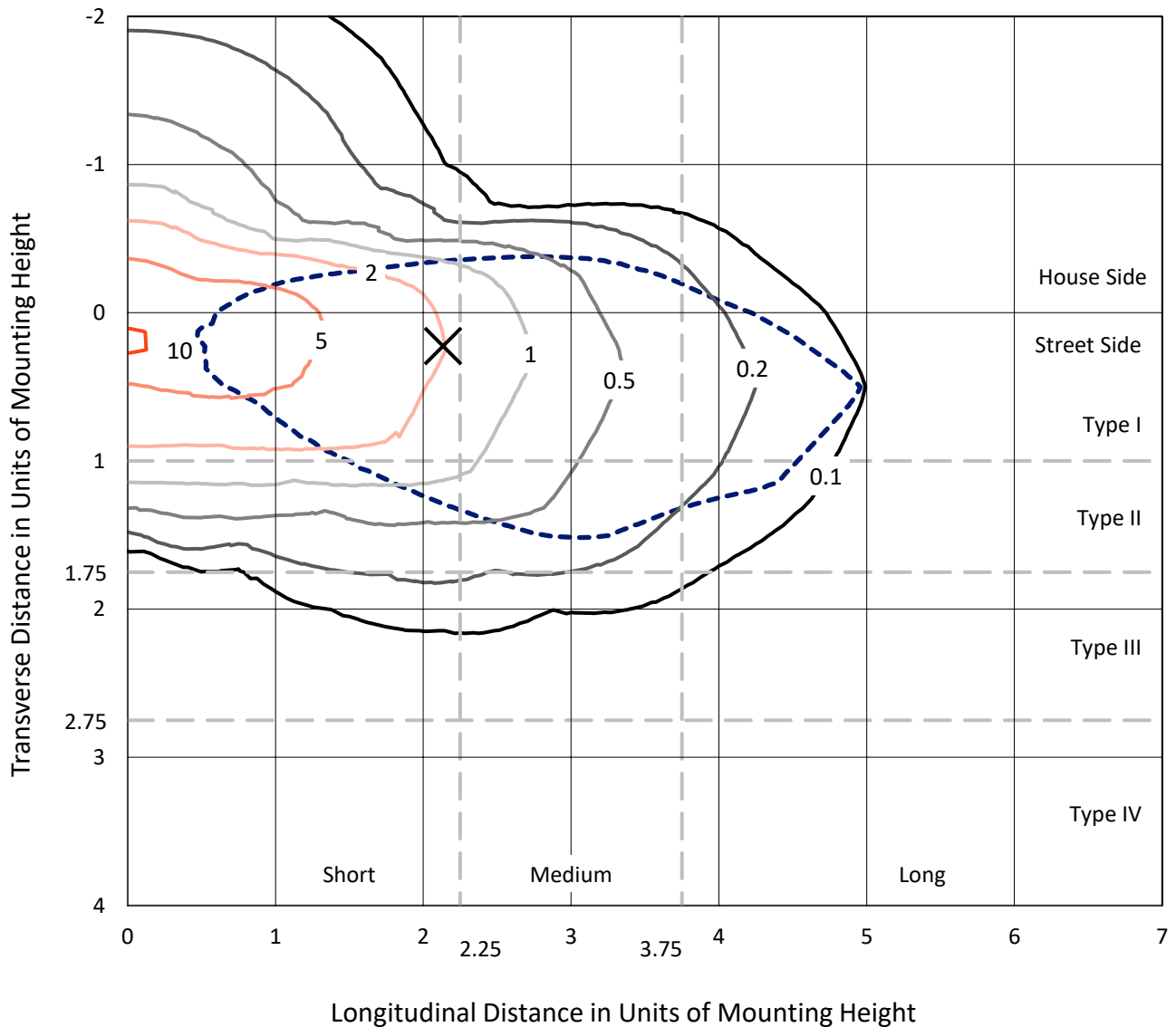
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

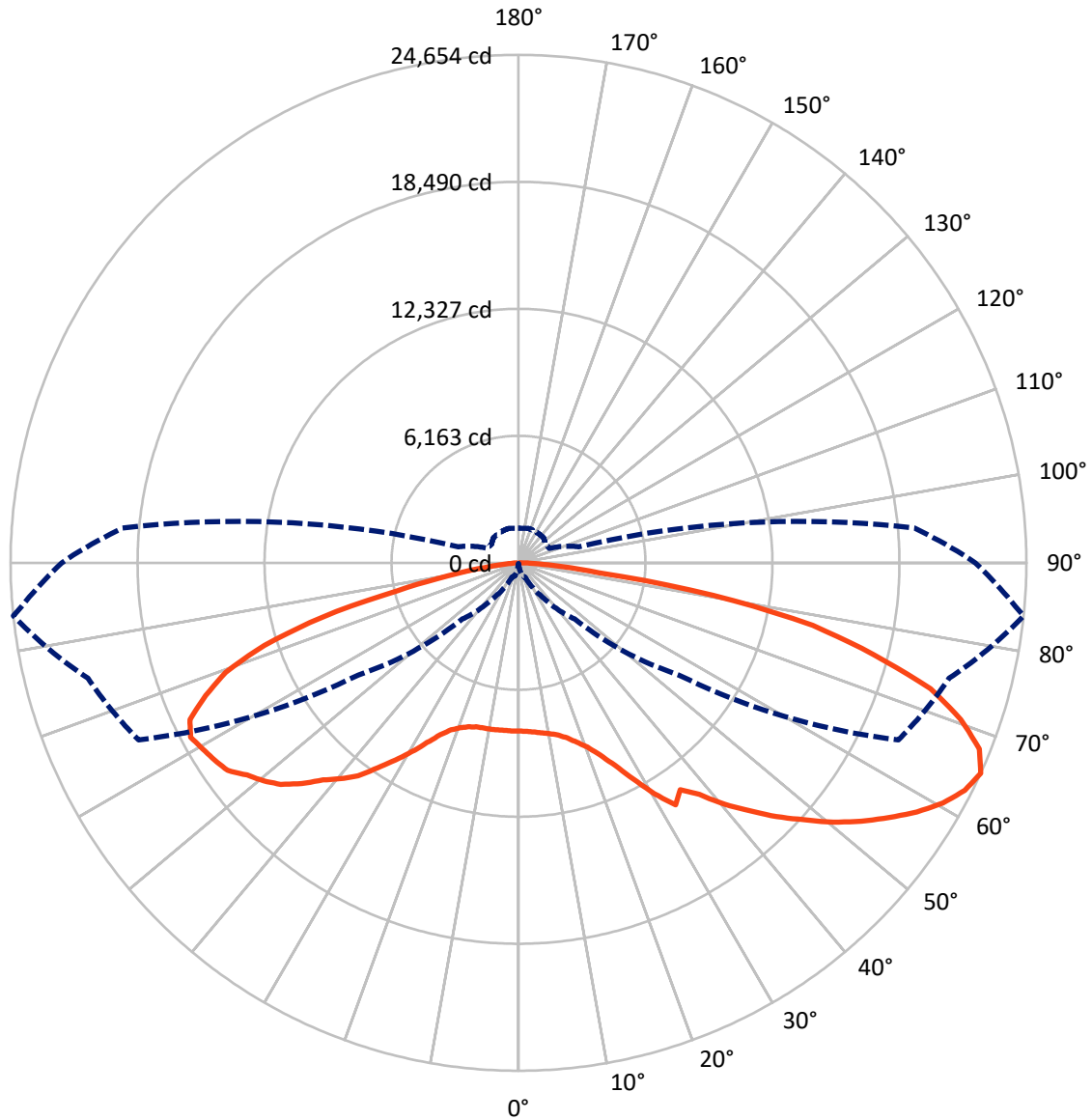
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.5 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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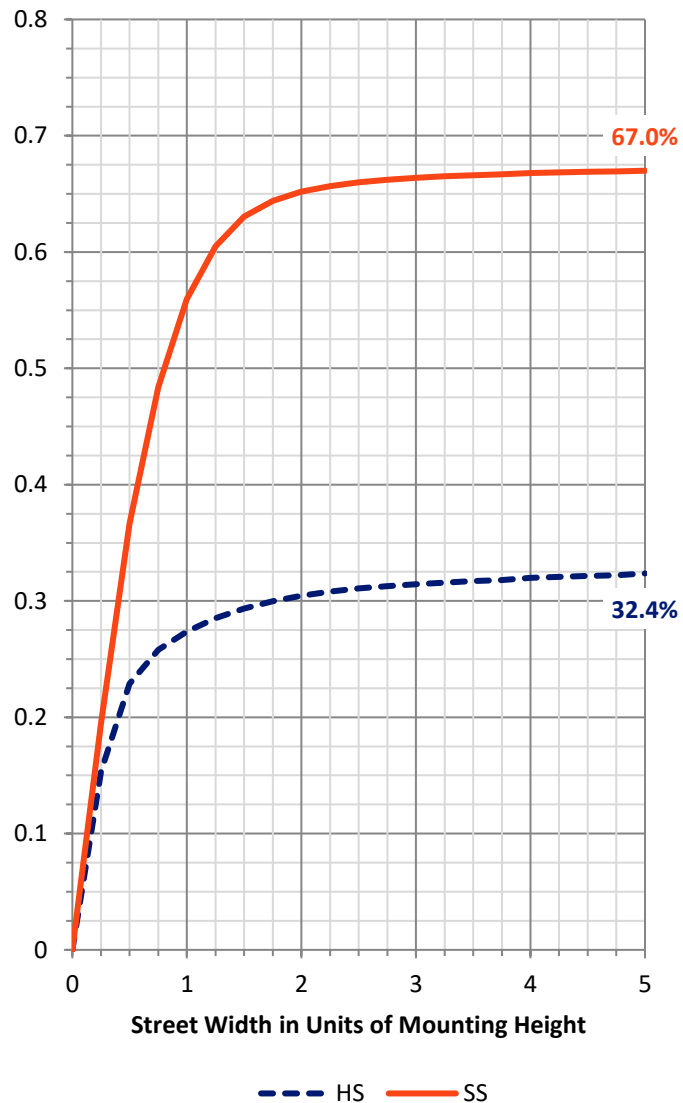
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11561.3	0.0	11561.3
	% Fixture	33.1	0.0	33.1
<b>Street Side</b>	Lumens	23361.7	0.0	23361.7
	% Fixture	66.9	0.0	66.9
<b>Total</b>	Lumens	34923.0	0.0	34923.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	788.1	2.3
10°-20°	2345.9	6.7
20°-30°	3524.7	10.1
30°-40°	4687.2	13.4
40°-50°	5787.2	16.6
50°-60°	6503.2	18.6
60°-70°	6378.2	18.3
70°-80°	4147.3	11.9
80°-90°	761.1	2.2
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°	34923.0	100.0
0°-180°	34923.0	100.0

**Coefficient of Utilization**

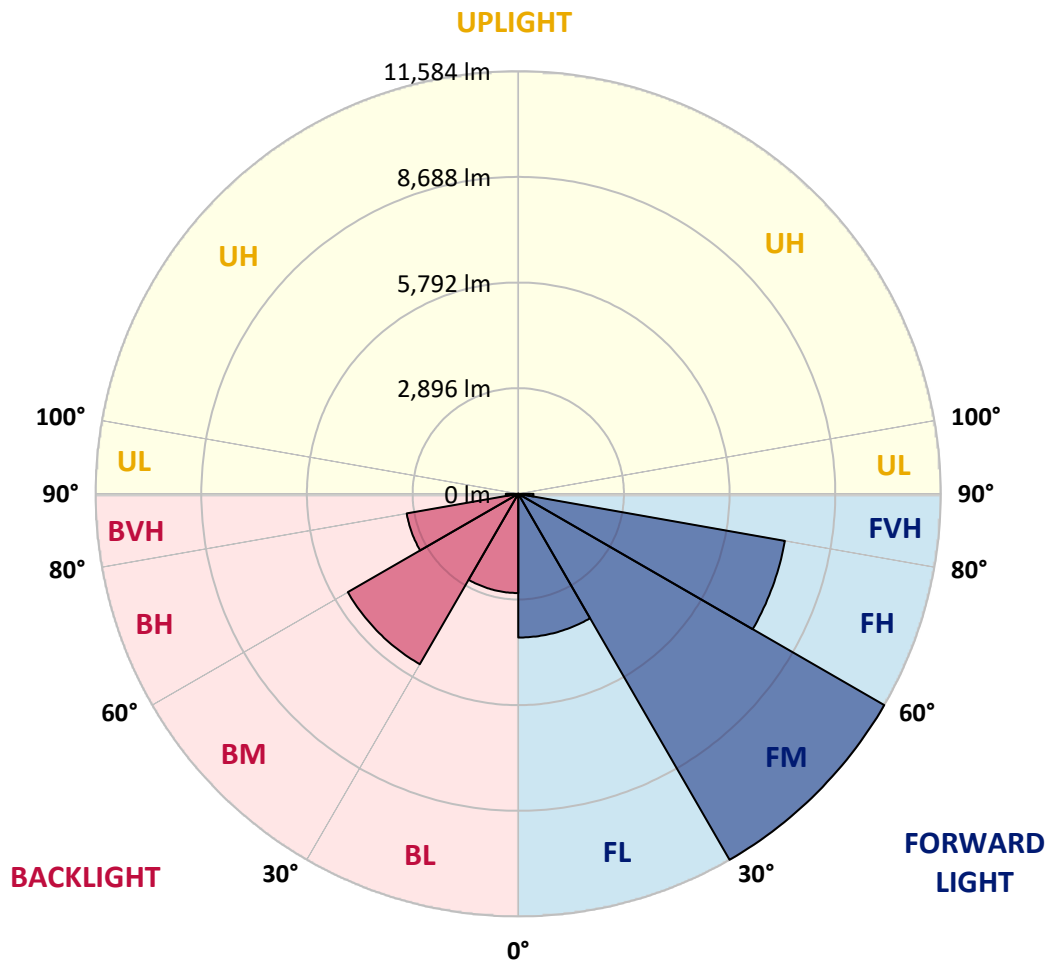


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3939.1	11.3			
FM	(30°-60°)	11583.8	33.2			
FH	(60°-80°)	7420.7	21.2			G3/7500
FVH	(80°-90°)	418.1	1.2			G3/500
BL	(0°-30°)	2719.6	7.8	B4/5000		
BM	(30°-60°)	5393.8	15.4	B4/8500		
BH	(60°-80°)	3104.9	8.9	B4/5000		G4/5000
BVH	(80°-90°)	343.0	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0
2.5°	8514.5	8434.3	8443.2	8481.8	8333.3	8382.3	8299.1	8314.0	8214.5	8196.6	8207.0
5°	9113.2	9027.0	9027.0	9050.8	8801.2	8734.4	8502.6	8464.0	8317.0	8251.6	8254.6
7.5°	9422.1	9337.5	9321.1	9343.4	9163.7	9178.5	8940.8	8713.6	8452.1	8336.3	8330.3
10°	9876.7	9781.6	9725.2	9726.6	9484.5	9392.4	9217.1	9058.2	8658.6	8432.8	8404.6
12.5°	10243.6	10170.8	10141.1	10118.8	9851.4	9790.5	9460.7	9331.5	8905.2	8579.9	8542.7
15°	10456.0	10387.7	10344.6	10294.1	10145.5	10046.0	9903.4	9609.3	9197.8	8816.1	8770.0
17.5°	9901.9	9784.6	9581.1	9491.9	9457.8	9601.9	10215.3	10065.3	9575.1	9151.8	9102.8
20°	8440.2	8547.2	8701.7	8351.1	8459.6	9530.6	10681.8	10668.4	10102.5	9554.3	9490.5
22.5°	7180.6	6898.4	7385.6	7920.3	8262.0	9272.1	10863.0	11365.1	10816.9	10120.3	10046.0
25°	5886.8	6047.2	6703.8	7780.7	8259.0	9076.0	10763.5	11899.8	11730.5	10891.2	10803.6
27.5°	5711.5	5714.5	6345.8	7170.2	8422.4	9530.6	10871.9	11920.6	12762.9	11887.9	11718.6
30°	5674.4	5656.5	5827.4	6828.6	8134.2	9955.4	11570.1	12106.3	13013.9	13002.0	12776.2
32.5°	5500.6	5490.2	5668.4	6123.0	7517.8	10405.5	12231.1	12972.3	12923.3	14006.2	13945.3
35°	5252.5	5289.6	5511.0	5983.3	7228.1	10031.2	12909.9	13964.6	14047.8	13519.0	13761.1
37.5°	4994.0	5014.8	5228.7	5799.1	6743.9	9376.1	13426.9	14937.5	15222.8	14267.6	14074.5
40°	4642.0	4685.1	4936.1	5577.8	6645.8	8768.5	13061.4	16045.7	16489.8	15409.9	15112.8
42.5°	4269.1	4289.9	4595.9	5218.3	6482.4	8777.4	12311.3	17002.3	17657.4	16452.7	16151.1
45°	3942.3	3948.3	4235.0	4792.0	6160.1	8722.5	11837.4	17040.9	19055.2	17569.7	17191.0
47.5°	3542.8	3599.2	3882.9	4438.5	5748.6	8538.3	12058.8	15842.2	20457.4	18634.8	18288.7
50°	2716.9	2761.4	3311.0	4092.4	5298.6	8230.8	12210.3	16807.7	18894.7	19790.5	19542.4
52.5°	2336.6	2260.8	2656.0	3703.2	4887.1	7718.3	12274.2	18162.4	18891.8	20836.2	20588.1
55°	999.7	1533.0	2393.0	3040.7	4511.3	7035.0	12228.1	19487.4	19812.7	21822.5	21736.4
57.5°	790.3	827.4	1758.8	2459.9	4065.6	6226.9	12020.1	20363.8	20620.8	22810.4	22565.3
60°	145.6	164.9	864.5	1039.8	2944.1	5020.8	11262.6	20488.6	21210.5	23670.4	23357.0
62.5°	66.8	78.7	695.2	866.0	2354.4	4129.5	10613.4	20448.5	21755.7	24309.2	24032.9
65°	31.2	40.1	622.4	785.8	2038.0	3853.2	9489.0	20340.1	21635.4	24653.8	24205.2
67.5°	23.8	34.2	571.9	705.6	1694.9	3578.4	8420.9	19202.2	21056.1	24120.5	23498.1
70°	23.8	34.2	522.9	641.7	1437.9	3229.3	6836.0	17777.7	19734.0	22773.2	22254.8
72.5°	25.3	34.2	464.9	580.8	1246.3	2788.2	5340.1	15503.5	18149.1	20913.5	20368.3
75°	25.3	34.2	401.1	514.0	1050.2	2335.1	3575.4	11081.4	15632.7	17800.0	17193.9
77.5°	25.3	34.2	332.7	429.3	855.6	1865.7	2312.8	5974.4	12299.4	14597.4	13820.5
80°	25.3	34.2	248.1	325.3	643.2	1316.1	1381.5	3012.5	6617.6	9590.0	9725.2
82.5°	25.3	32.7	172.3	237.7	420.4	721.9	763.5	1454.2	2442.1	3933.4	3988.4
85°	23.8	28.2	123.3	157.5	230.2	271.8	371.4	723.4	1170.5	1678.5	1665.2
87.5°	14.9	14.9	40.1	62.4	93.6	107.0	166.4	267.4	404.0	554.1	522.9
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°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0	8164.0
2.5°	8205.5	8171.4	8128.3	8116.4	8015.4	7967.9	7871.3	7914.4	7865.4	7825.3	7871.3
5°	8217.4	8166.9	8076.3	7969.4	7754.0	7655.9	7519.3	7534.1	7462.8	7407.9	7439.1
7.5°	8247.1	8184.8	8042.2	7801.5	7544.5	7390.0	7247.4	7358.9	7309.8	7268.2	7299.4
10°	8262.0	8213.0	7960.5	7706.4	7336.6	7251.9	7073.6	7060.3	7064.7	7060.3	7109.3
12.5°	8302.1	8232.3	7865.4	7541.6	7226.6	7002.3	6892.4	6890.9	6749.8	6688.9	6715.7
15°	8420.9	8269.4	7801.5	7345.5	6997.9	6849.3	6501.8	6503.2	6443.8	6374.0	6372.5
17.5°	8658.6	8380.8	7801.5	7213.3	6787.0	6486.9	6183.9	6019.0	5978.9	5987.8	5981.9
20°	8972.0	8568.0	7798.5	7018.7	6489.9	6179.4	5742.7	5603.1	5476.8	5485.7	5485.7
22.5°	9422.1	8844.3	7804.5	6840.4	6206.2	5784.3	5292.6	5115.8	4980.7	4985.1	4985.1
25°	10068.3	9318.1	7874.3	6732.0	5825.9	5319.3	4823.2	4548.4	4410.3	4411.7	4414.7
27.5°	10891.2	9979.2	8116.4	6501.8	5509.5	4769.7	4226.1	4024.0	3885.9	3850.3	3850.3
30°	11822.6	10772.4	8429.9	6351.7	5019.3	4150.3	3698.7	3548.7	3382.3	3333.3	3333.3
32.5°	12855.0	11568.6	8753.7	6167.5	4557.3	3618.5	3242.7	3104.6	2896.6	2835.7	2814.9
35°	13928.9	12391.5	9147.3	5909.1	3976.5	3180.3	2847.6	2679.7	2529.7	2449.5	2430.2
37.5°	14508.3	13328.8	9502.3	5647.6	3527.9	2834.2	2462.9	2332.1	2232.6	2176.2	2165.8
40°	15304.4	14010.6	9686.5	5215.4	3045.1	2482.2	2107.8	2101.9	2115.3	2064.8	2061.8
42.5°	16115.5	14683.5	9636.0	4636.0	2669.3	2122.7	1929.6	2032.1	2106.3	2061.8	2064.8
45°	17130.1	15589.7	9820.2	4027.0	2298.0	1923.6	1892.4	2012.8	2115.3	2104.9	2104.9
47.5°	18156.5	16466.1	9480.1	3281.3	2048.4	1865.7	1896.9	1981.6	2109.3	2143.5	2136.1
50°	18992.8	17066.2	9270.6	2648.5	1907.3	1867.2	1911.8	1943.0	2082.6	2137.5	2136.1
52.5°	19668.7	17638.1	8489.3	2235.6	1827.1	1873.1	1959.3	1937.0	2035.0	2093.0	2127.1
55°	20625.3	18429.8	7599.5	2076.6	1785.5	1867.2	1975.6	1957.8	1997.9	2024.6	2049.9
57.5°	21365.0	18823.4	6408.2	1974.1	1748.4	1858.3	1962.3	1963.7	1983.1	1972.7	1962.3
60°	21985.9	19182.9	5242.1	1874.6	1700.8	1839.0	1905.8	1926.6	1920.7	1907.3	1880.6
62.5°	22289.0	19572.1	4071.6	1769.2	1650.3	1782.5	1813.7	1837.5	1824.1	1779.6	1776.6
65°	22174.6	19292.8	3018.4	1654.8	1589.4	1720.1	1718.6	1729.0	1735.0	1678.5	1684.5
67.5°	21532.9	18065.9	2299.5	1509.2	1519.6	1631.0	1623.6	1629.5	1613.2	1574.6	1580.5
70°	19667.2	16672.5	1631.0	1264.1	1377.0	1491.4	1501.8	1527.0	1489.9	1421.6	1426.0
72.5°	16908.7	14278.0	1143.8	1007.1	1209.1	1354.7	1348.8	1347.3	1296.8	1323.5	1356.2
75°	14422.1	10934.3	869.0	811.0	955.1	1166.1	1232.9	1237.4	1244.8	1512.2	1531.5
77.5°	11102.2	6614.6	739.7	640.2	741.2	967.0	1091.8	1142.3	1568.6	1625.1	1595.4
80°	6616.1	3820.5	571.9	499.1	598.6	738.3	932.9	1206.2	1576.0	1408.2	1347.3
82.5°	3220.4	1772.1	415.9	380.3	441.2	536.2	732.3	1405.2	1333.9	1088.8	1074.0
85°	1201.7	598.6	249.6	260.0	294.1	352.0	557.0	1341.3	1023.5	886.8	837.8
87.5°	300.1	109.9	101.0	104.0	132.2	176.8	285.2	646.2	496.1	411.5	402.6
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)