

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: P510407

Luminaire Tested: **CTN-CA10-210-727-U-T2**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510407
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-CA10-210-727-U-T2
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29337 lumens
Efficiency: N/A
Efficacy: 137.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

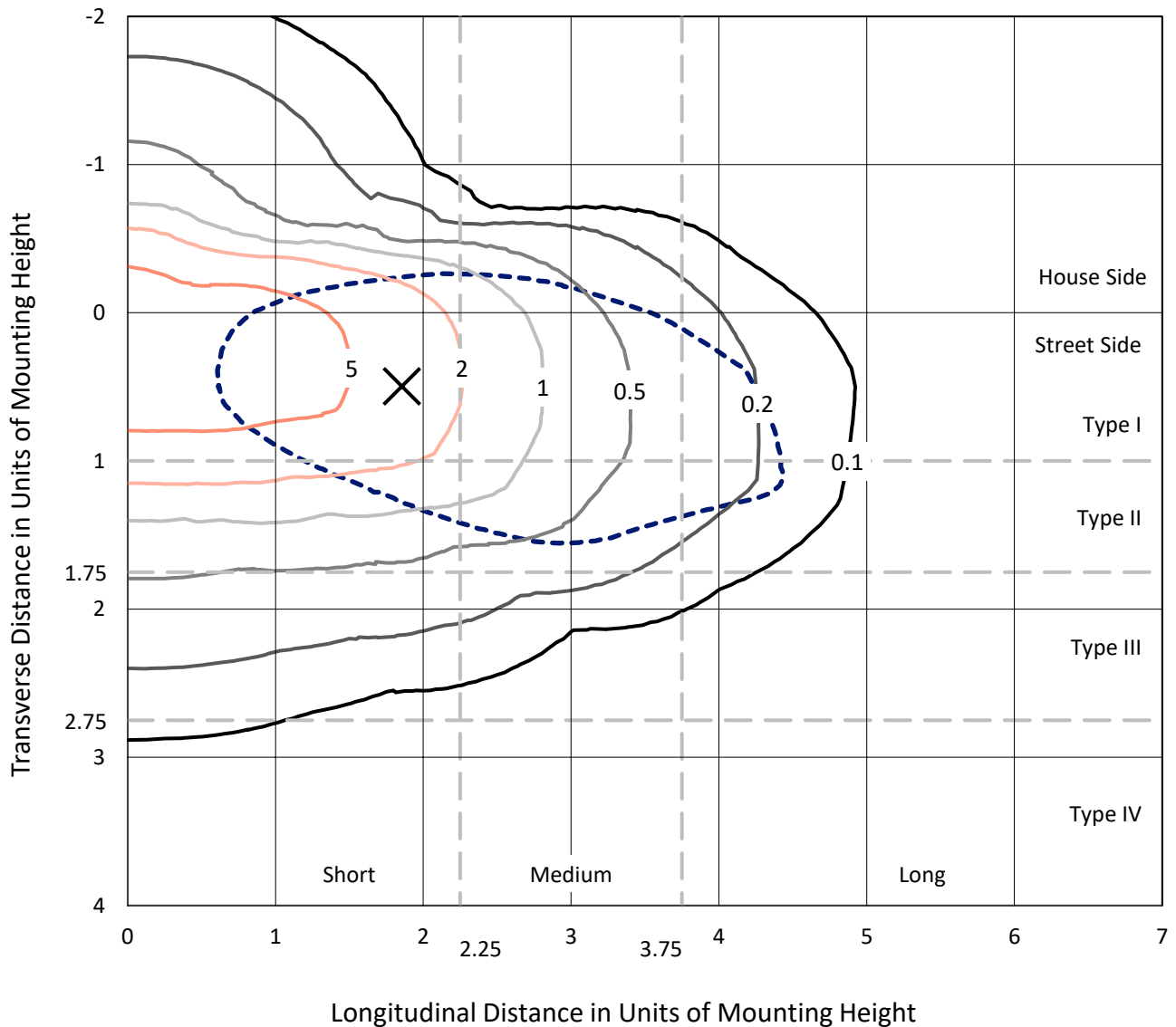
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

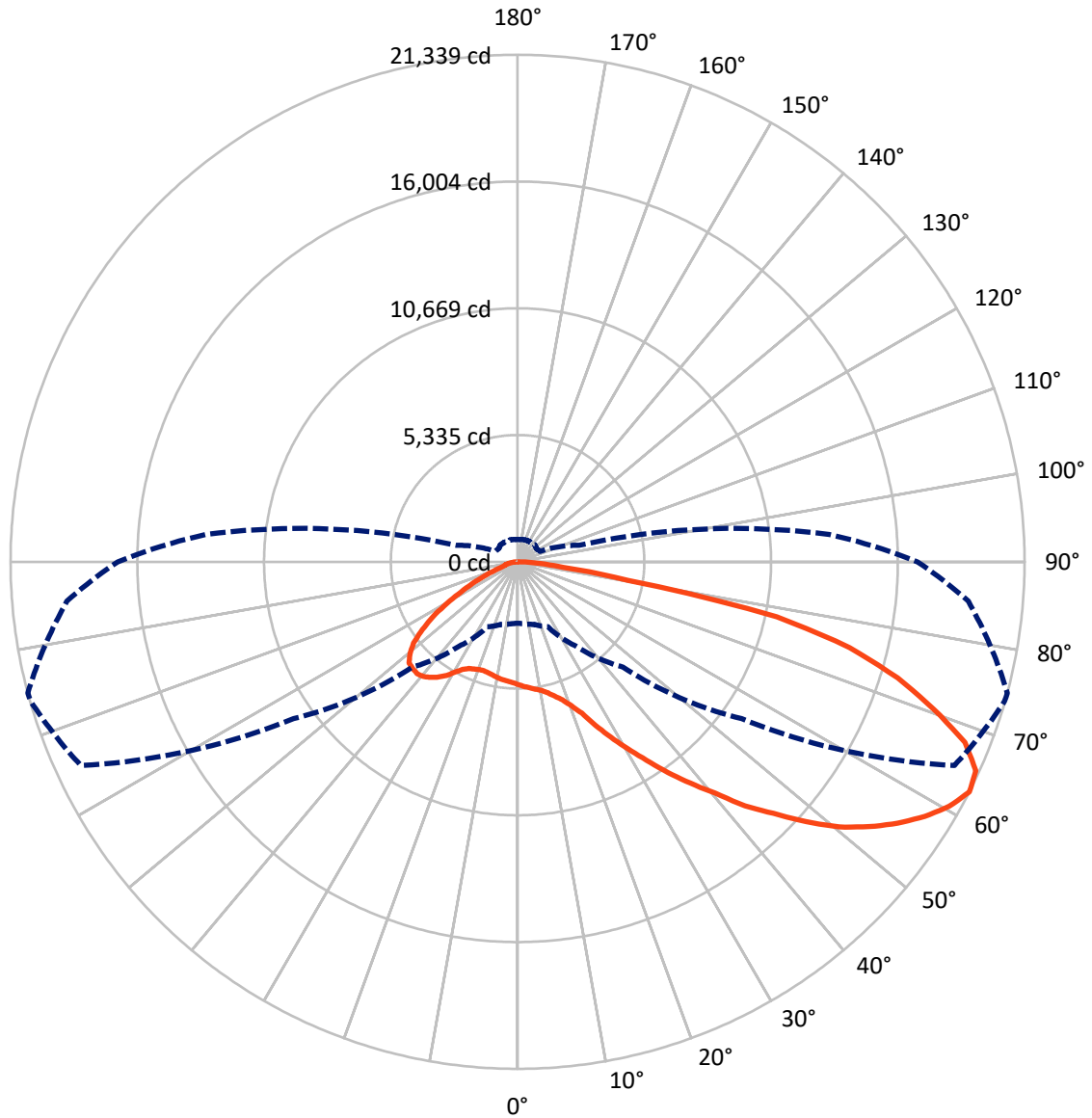
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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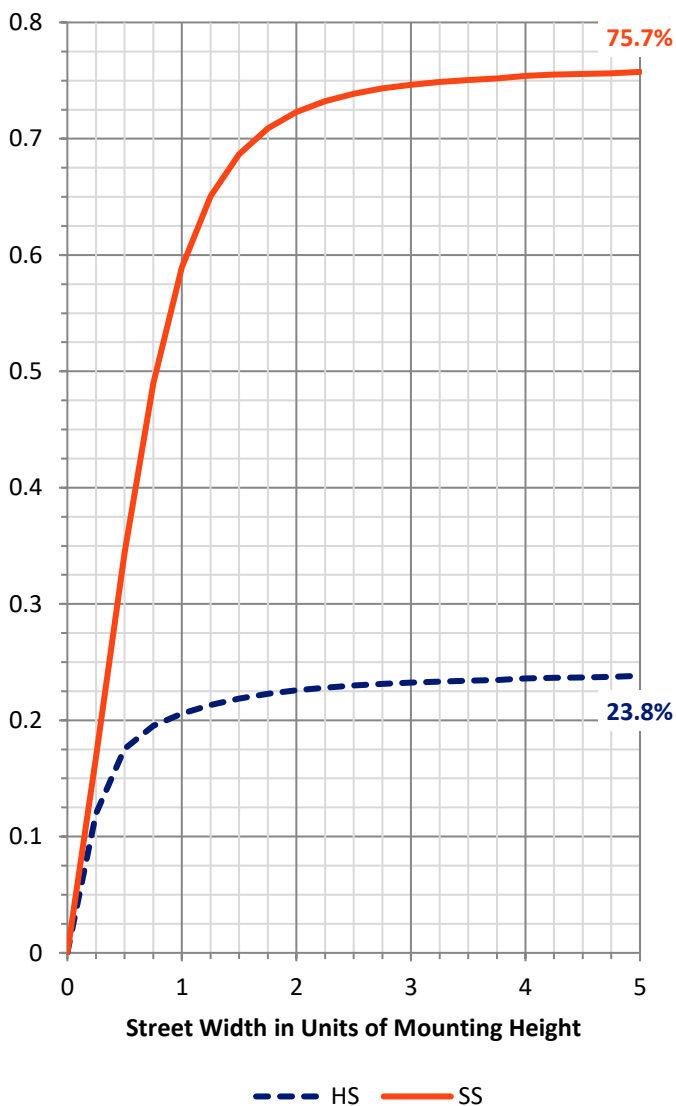
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7107.8	0.0	7107.8
	% Fixture	24.2	0.0	24.2
Street Side	Lumens	22229.2	0.0	22229.2
	% Fixture	75.8	0.0	75.8
Total	Lumens	29337.0	0.0	29337.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	497.5	1.7
10°-20°	1509.9	5.1
20°-30°	2604.2	8.9
30°-40°	3840.0	13.1
40°-50°	5061.9	17.3
50°-60°	5957.4	20.3
60°-70°	5927.0	20.2
70°-80°	3456.5	11.8
80°-90°	482.6	1.6
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°	29337.0	100.0
0°-180°	29337.0	100.0

Coefficient of Utilization



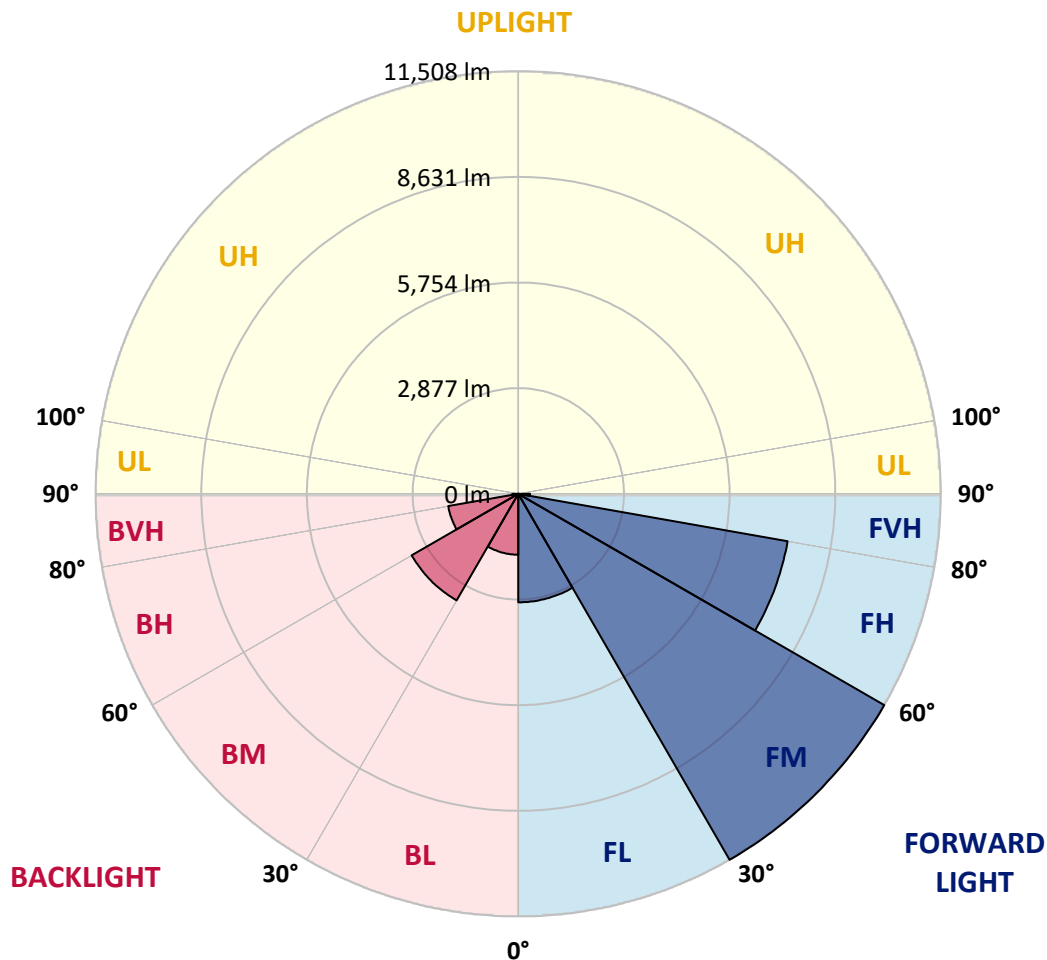
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2954.1	10.1			
FM (30°-60°)	11507.7	39.2			
FH (60°-80°)	7447.1	25.4			G3/7500
FVH (80°-90°)	320.3	1.1			G3/500
BL (0°-30°)	1657.5	5.6	B3/2500		
BM (30°-60°)	3351.5	11.4	B3/5000		
BH (60°-80°)	1936.4	6.6	B3/2500		G3/2500
BVH (80°-90°)	162.4	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4
2.5°	5454.6	5432.3	5435.3	5419.6	5396.1	5378.5	5332.7	5283.1	5253.6	5251.1	5208.9
5°	5728.7	5736.0	5737.8	5687.7	5638.2	5582.0	5512.0	5416.6	5338.7	5326.6	5244.5
7.5°	5978.7	5978.1	5974.5	5946.7	5923.8	5840.4	5700.4	5550.6	5423.8	5412.4	5278.9
10°	6234.7	6232.9	6196.7	6150.2	6098.3	6021.6	5901.4	5722.1	5516.8	5501.7	5310.9
12.5°	6513.7	6493.7	6470.8	6414.6	6353.1	6220.2	6094.0	5899.0	5684.7	5657.5	5367.7
15°	6743.7	6723.2	6691.2	6653.1	6588.5	6487.1	6353.1	6121.8	5891.8	5865.2	5495.1
17.5°	6971.3	6961.7	6938.7	6898.3	6848.8	6761.2	6638.0	6441.8	6140.5	6107.9	5707.0
20°	7157.9	7135.0	7118.1	7136.8	7141.0	7076.4	7008.8	6843.9	6511.9	6461.7	5967.2
22.5°	7264.2	7259.3	7351.7	7420.6	7448.3	7462.8	7441.7	7308.9	7008.2	6920.6	6329.5
25°	7365.0	7357.2	7482.7	7654.8	7818.4	7901.8	7957.9	7975.4	7699.5	7620.4	6912.2
27.5°	7368.0	7389.8	7572.1	7860.7	8110.1	8364.3	8633.6	8664.4	8422.2	8359.4	7575.1
30°	7384.3	7394.0	7574.5	7906.0	8425.3	8832.8	9183.6	9356.9	9148.0	9119.0	8305.1
32.5°	7177.2	7189.9	7470.7	7985.1	8663.1	9317.7	9783.2	10040.4	9988.5	9951.6	9084.0
35°	6961.7	6972.5	7298.6	7872.8	8840.1	9757.8	10324.8	10830.1	10924.9	10897.2	9952.8
37.5°	6623.6	6659.8	7001.5	7738.7	8870.9	10081.4	10841.6	11616.9	11903.1	11819.8	10871.8
40°	6256.4	6283.0	6680.9	7458.0	8836.4	10294.0	11349.4	12487.5	12834.1	12789.4	11784.1
42.5°	5792.7	5864.0	6262.5	7099.3	8659.5	10426.2	11819.1	13474.7	13978.3	14038.1	12622.2
45°	5402.1	5400.3	5770.4	6580.1	8338.9	10457.6	12251.5	14472.8	15209.4	15097.1	13730.1
47.5°	4942.6	4961.3	5347.7	6063.2	7866.1	10358.0	12588.4	15652.6	16398.3	16337.3	14638.8
50°	3879.3	4014.0	4745.8	5618.8	7226.7	10080.2	12869.1	16801.6	17513.5	17541.2	15464.8
52.5°	3344.4	3396.3	3800.2	5171.4	6659.2	9614.1	13177.1	18094.3	18591.2	18520.6	16402.5
55°	3130.0	3157.8	3351.6	4367.8	6110.3	8892.6	13325.0	19274.7	19431.7	19420.2	17174.1
57.5°	2974.9	2996.0	3133.7	3645.1	5507.8	7966.4	13200.0	20042.7	20286.7	20211.8	17902.3
60°	2750.9	2767.8	2973.1	3284.6	4887.7	7031.1	12431.4	20391.1	20906.8	20879.0	18545.9
62.5°	2582.4	2611.4	2726.1	3018.3	4358.1	6260.7	11515.4	20282.4	21313.7	21338.5	19037.4
65°	2404.3	2430.2	2527.5	2782.9	3878.1	5754.1	10527.6	19737.8	21126.5	21192.4	19117.1
67.5°	2184.5	2204.4	2319.8	2540.7	3317.2	5247.5	9413.7	18774.8	20088.0	20300.0	18323.8
70°	1908.0	1915.2	2056.5	2206.8	2754.5	4483.7	7485.2	17198.3	18585.2	18589.4	16825.8
72.5°	1518.5	1524.6	1562.0	1676.1	2069.2	3548.5	5501.7	14370.2	16758.1	16727.3	14954.0
75°	1032.5	1085.6	1215.4	1324.1	1492.6	2491.8	3421.7	9681.7	14198.1	14439.6	12283.5
77.5°	815.7	820.5	874.3	973.9	1119.4	1861.5	1917.6	5356.8	10585.0	11159.2	9655.2
80°	568.8	577.2	548.2	572.4	780.7	1274.0	1120.6	2331.2	4414.3	4713.2	5797.0
82.5°	271.1	280.8	322.4	299.5	388.2	541.6	591.7	1204.6	1906.8	1956.9	2257.0
85°	178.7	178.7	179.3	169.7	226.4	236.1	268.7	513.8	931.0	962.4	957.0
87.5°	57.4	63.4	61.6	71.9	86.9	78.5	82.1	161.2	319.4	316.4	264.5
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°	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4	5171.4
2.5°	5178.7	5153.9	5096.0	5045.3	4995.1	4957.1	4924.5	4881.0	4860.5	4841.8	4881.0
5°	5193.8	5149.7	5045.9	4942.0	4846.6	4776.6	4733.7	4702.3	4673.9	4673.9	4687.2
7.5°	5211.3	5151.5	5003.0	4855.7	4712.6	4632.9	4571.9	4532.0	4509.1	4510.3	4538.7
10°	5222.8	5131.0	4954.1	4755.4	4599.7	4471.7	4411.9	4354.5	4311.0	4285.1	4314.1
12.5°	5236.0	5124.3	4888.3	4664.3	4474.7	4329.8	4205.4	4162.5	4120.2	4087.6	4103.3
15°	5318.2	5149.7	4833.3	4548.3	4328.6	4148.0	3985.0	3906.5	3894.4	3872.1	3877.5
17.5°	5452.2	5217.9	4797.7	4406.4	4152.9	3939.7	3733.2	3631.8	3607.6	3596.2	3602.2
20°	5652.1	5347.7	4808.6	4306.8	3954.8	3716.3	3449.4	3330.5	3250.2	3255.0	3278.6
22.5°	5957.6	5557.3	4867.7	4197.5	3740.5	3427.7	3158.4	2996.6	2915.7	2898.2	2924.7
25°	6444.2	5894.8	4932.9	4093.1	3533.4	3116.1	2817.9	2642.8	2538.9	2532.3	2561.9
27.5°	7067.9	6412.2	5074.8	4002.5	3276.2	2741.8	2445.3	2295.6	2185.1	2171.8	2162.2
30°	7706.1	6987.0	5331.4	3864.8	2976.1	2355.4	2097.6	1980.4	1856.6	1806.5	1817.4
32.5°	8382.4	7522.6	5632.1	3768.2	2640.4	2015.4	1791.4	1679.7	1566.2	1493.8	1476.9
35°	9063.5	8055.1	5885.1	3623.9	2322.2	1745.6	1531.2	1415.9	1316.9	1257.7	1253.5
37.5°	9860.5	8609.4	6088.0	3470.6	1991.9	1534.2	1276.4	1210.0	1162.3	1110.4	1115.8
40°	10658.7	9255.5	6250.4	3217.0	1717.8	1307.2	1086.2	1099.5	1109.8	1066.3	1062.7
42.5°	11321.6	9798.3	6324.7	2888.5	1475.1	1109.8	1002.3	1062.7	1107.3	1079.0	1075.3
45°	11994.8	10255.3	6295.7	2481.0	1273.4	1015.6	995.6	1057.2	1114.6	1108.0	1104.9
47.5°	12726.6	10854.3	6245.6	2016.7	1129.1	1006.5	1010.1	1039.1	1111.6	1123.6	1118.8
50°	13621.5	11405.6	5949.1	1570.5	1059.0	1021.0	1042.7	1027.6	1089.2	1114.0	1118.2
52.5°	14512.0	11830.0	5552.4	1360.9	1031.3	1034.9	1088.0	1036.7	1063.9	1085.6	1105.5
55°	15199.2	12262.3	4910.6	1234.7	1022.2	1041.5	1100.7	1056.0	1055.4	1055.4	1062.1
57.5°	15902.6	12841.4	4268.8	1153.2	1006.5	1048.8	1085.6	1059.6	1051.2	1039.1	1031.3
60°	16392.2	13055.7	3444.0	1099.5	990.2	1038.5	1043.3	1039.7	1013.8	1002.3	993.2
62.5°	16827.0	13172.2	2681.4	1037.9	967.9	1014.4	989.0	981.2	966.1	938.3	943.1
65°	16710.4	12922.3	2043.2	968.5	952.2	985.4	941.3	922.6	923.8	894.8	904.5
67.5°	15960.5	11801.0	1467.2	862.2	909.3	928.0	887.0	873.1	852.5	838.1	851.3
70°	14445.6	10461.2	989.6	715.5	811.5	851.9	824.8	800.6	768.6	759.0	773.5
72.5°	12158.5	8732.6	682.9	575.4	700.4	752.9	742.7	717.9	695.0	718.5	746.9
75°	9988.5	6460.5	557.3	471.6	538.6	627.3	657.5	664.8	733.6	963.0	986.6
77.5°	7189.9	4004.9	501.1	383.4	429.9	501.7	562.1	586.9	896.0	858.0	856.2
80°	4192.1	2334.2	382.2	302.5	347.8	367.7	439.6	688.9	772.8	663.0	646.7
82.5°	1912.8	1030.1	266.3	242.1	241.5	243.3	299.5	663.0	592.9	522.3	503.0
85°	703.4	362.3	161.8	140.1	160.6	139.5	196.2	486.0	343.6	338.1	282.0
87.5°	173.3	74.3	54.9	45.9	37.4	35.6	59.8	160.0	83.9	76.7	73.7
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)