

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: P591232

Luminaire Tested: **CTN-CA10-760-727-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591232  
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-CA10-760-727-U-T2-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 65547 lumens  
Efficiency: N/A  
Efficacy: 86.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B5 - U0 - G5

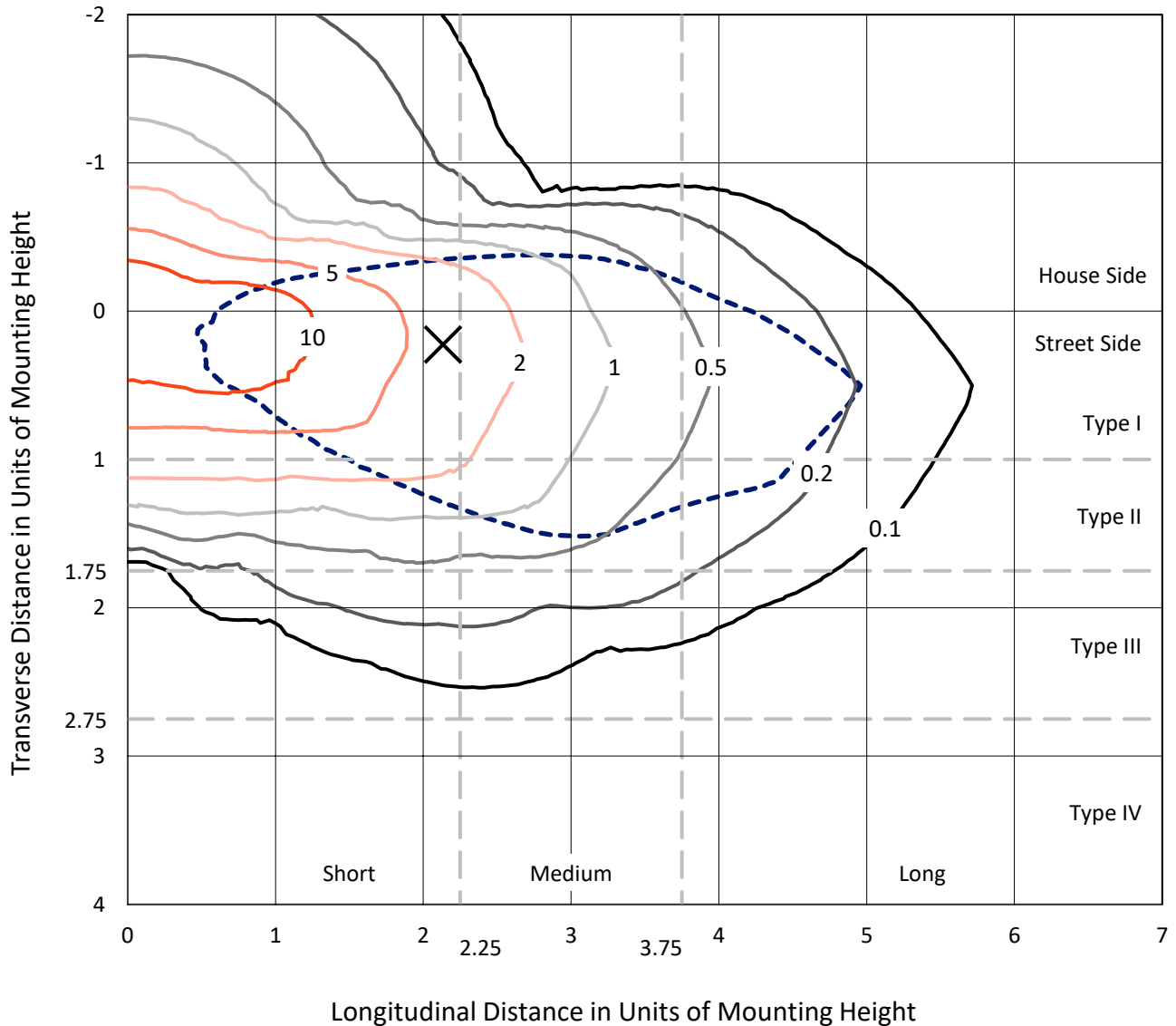
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

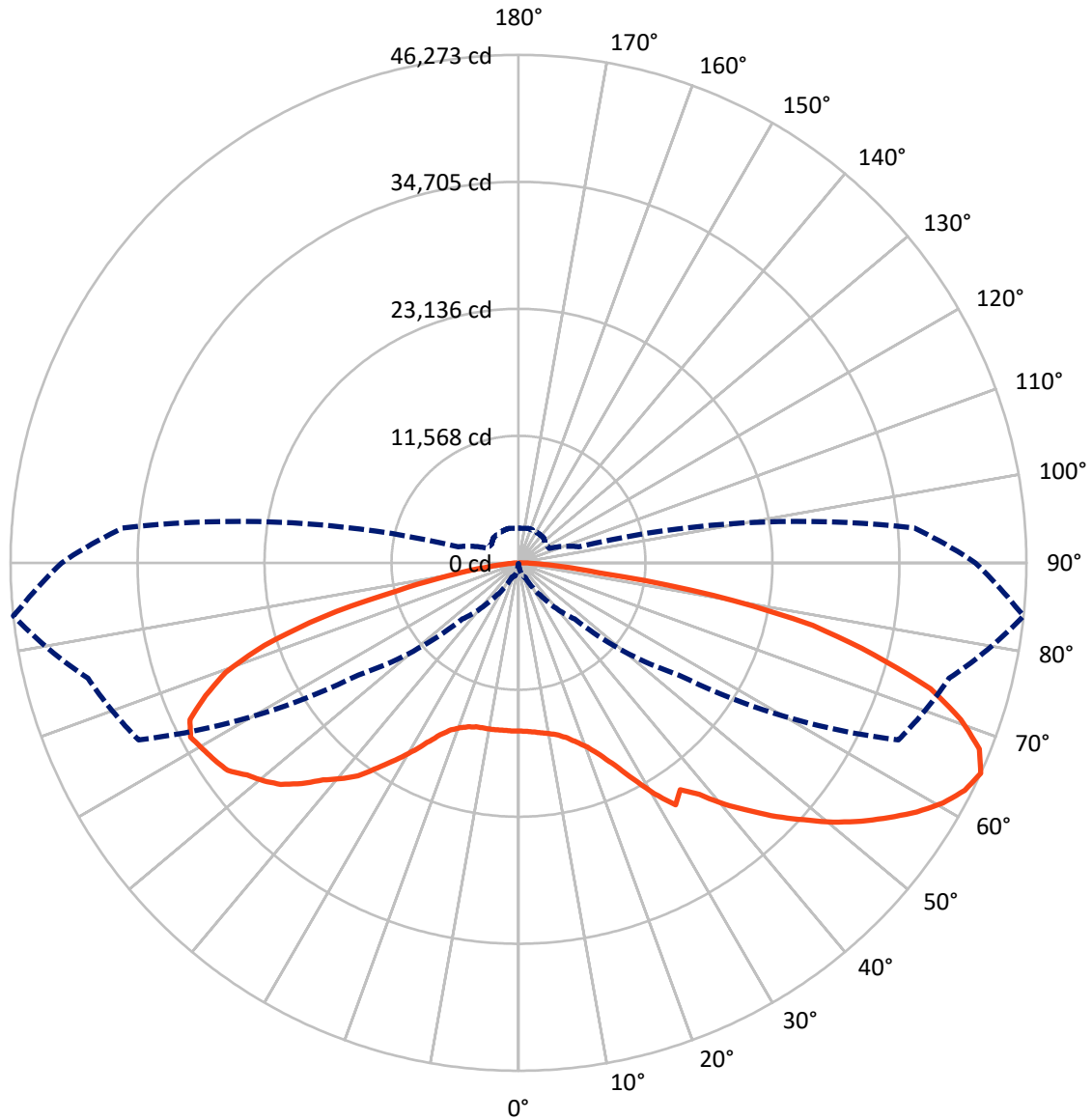
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.8 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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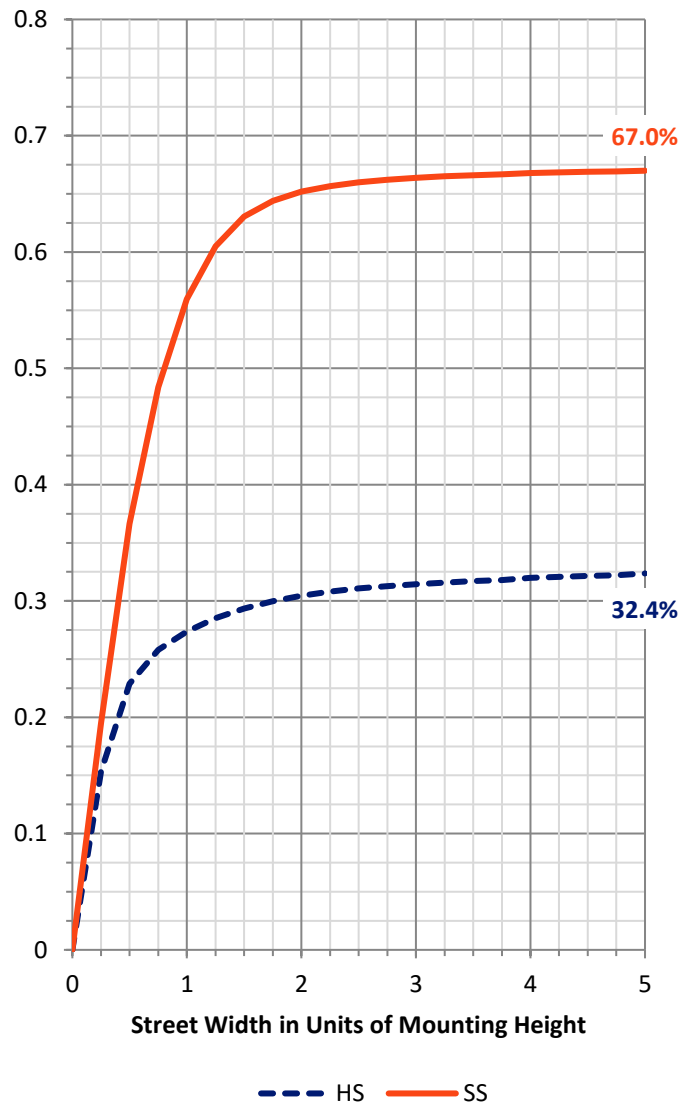
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	21699.3	0.0	21699.3
	% Fixture	33.1	0.0	33.1
<b>Street Side</b>	Lumens	43847.7	0.0	43847.7
	% Fixture	66.9	0.0	66.9
<b>Total</b>	Lumens	65547.0	0.0	65547.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1479.2	2.3
10°-20°	4403.1	6.7
20°-30°	6615.5	10.1
30°-40°	8797.3	13.4
40°-50°	10862.0	16.6
50°-60°	12205.9	18.6
60°-70°	11971.3	18.3
70°-80°	7784.1	11.9
80°-90°	1428.5	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°	65547.0	100.0
0°-180°	65547.0	100.0

**Coefficient of Utilization**

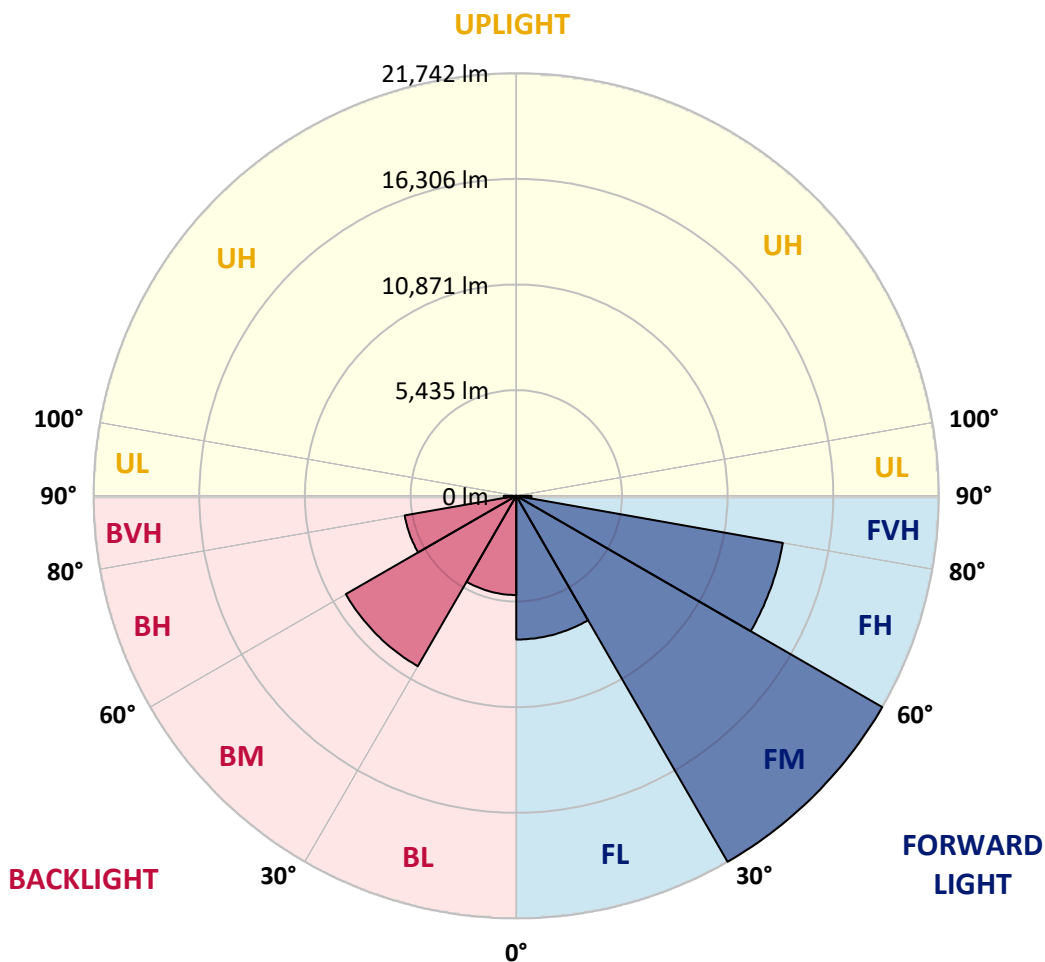


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	7393.3	11.3			
FM	(30°-60°)	21741.7	33.2			
FH	(60°-80°)	13927.9	21.2			G5
FVH	(80°-90°)	784.8	1.2			G5
BL	(0°-30°)	5104.5	7.8	B5		
BM	(30°-60°)	10123.6	15.4	B5		
BH	(60°-80°)	5827.5	8.9	B5		G5
BVH	(80°-90°)	643.8	1.0			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9
2.5°	15980.9	15830.4	15847.1	15919.6	15640.8	15732.8	15576.6	15604.5	15417.7	15384.3	15403.8
5°	17104.5	16942.8	16942.8	16987.4	16519.0	16393.5	15958.6	15886.1	15610.1	15487.4	15493.0
7.5°	17684.4	17525.5	17494.8	17536.6	17199.3	17227.2	16781.1	16354.5	15863.8	15646.3	15635.2
10°	18537.5	18359.1	18253.1	18255.9	17801.5	17628.6	17299.6	17001.3	16251.3	15827.6	15774.6
12.5°	19226.2	19089.5	19033.8	18992.0	18490.1	18375.8	17756.9	17514.3	16714.2	16103.6	16033.9
15°	19624.8	19496.6	19415.7	19321.0	19042.1	18855.4	18587.7	18035.7	17263.4	16546.9	16460.4
17.5°	18584.9	18364.7	17982.7	17815.4	17751.3	18021.7	19173.2	18891.6	17971.6	17177.0	17085.0
20°	15841.5	16042.2	16332.2	15674.2	15877.8	17887.9	20048.6	20023.5	18961.3	17932.5	17812.6
22.5°	13477.3	12947.5	13862.0	14865.7	15506.9	17402.8	20388.8	21331.1	20302.3	18994.8	18855.4
25°	11048.9	11350.0	12582.3	14603.6	15501.4	17034.8	20202.0	22334.8	22017.0	20441.7	20277.2
27.5°	10719.9	10725.5	11910.4	13457.8	15808.1	17887.9	20405.5	22373.8	23954.6	22312.5	21994.7
30°	10650.2	10616.8	10937.4	12816.5	15267.2	18685.3	21715.9	22722.3	24425.8	24403.5	23979.7
32.5°	10324.0	10304.5	10639.1	11492.2	14110.1	19530.1	22956.5	24347.7	24255.7	26288.2	26173.9
35°	9858.4	9928.1	10343.5	11230.1	13566.5	18827.5	24230.6	26210.1	26366.3	25373.7	25828.2
37.5°	9373.3	9412.3	9813.8	10884.4	12657.6	17598.0	25200.9	28036.3	28571.6	26778.9	26416.5
40°	8712.6	8793.4	9264.6	10469.0	12473.6	16457.7	24515.0	30116.1	30949.8	28922.9	28365.3
42.5°	8012.8	8051.8	8626.1	9794.3	12166.9	16474.4	23107.1	31911.6	33141.1	30880.1	30314.1
45°	7399.4	7410.5	7948.6	8994.1	11561.9	16371.2	22217.7	31984.1	35764.7	32976.7	32265.7
47.5°	6649.4	6755.4	7287.9	8330.6	10789.6	16025.5	22633.1	29734.2	38396.6	34975.7	34326.1
50°	5099.3	5182.9	6214.5	7681.0	9944.9	15448.4	22917.5	31546.4	35463.6	37144.7	36679.1
52.5°	4385.5	4243.4	4985.0	6950.5	9172.6	14486.5	23037.4	34089.1	35458.0	39107.5	38641.9
55°	1876.3	2877.2	4491.5	5707.1	8467.2	13204.0	22950.9	36576.0	37186.6	40958.7	40797.0
57.5°	1483.2	1552.9	3301.0	4617.0	7630.8	11687.4	22560.6	38220.9	38703.2	42812.8	42352.8
60°	273.2	309.5	1622.6	1951.6	5525.8	9423.5	21138.7	38455.1	39810.1	44427.0	43838.8
62.5°	125.5	147.8	1304.8	1625.4	4419.0	7750.7	19920.4	38379.8	40833.3	45625.9	45107.3
65°	58.5	75.3	1168.2	1474.9	3825.2	7232.1	17809.8	38176.3	40607.5	46272.7	45430.7
67.5°	44.6	64.1	1073.4	1324.3	3181.1	6716.3	15805.3	36040.7	39520.1	45271.8	44103.6
70°	44.6	64.1	981.4	1204.4	2698.8	6061.1	12830.5	33367.0	37038.8	42743.1	41770.1
72.5°	47.4	64.1	872.6	1090.1	2339.1	5233.1	10022.9	29098.5	34064.0	39252.5	38229.3
75°	47.4	64.1	752.8	964.7	1971.1	4382.8	6710.8	20798.6	29341.1	33408.8	32271.3
77.5°	47.4	64.1	624.5	805.7	1605.9	3501.7	4340.9	11213.4	23084.8	27397.8	25939.7
80°	47.4	64.1	465.6	610.6	1207.2	2470.2	2592.9	5654.1	12420.6	17999.4	18253.1
82.5°	47.4	61.3	323.4	446.1	789.0	1355.0	1433.0	2729.5	4583.5	7382.7	7485.8
85°	44.6	53.0	231.4	295.5	432.1	510.2	697.0	1357.8	2197.0	3150.5	3125.4
87.5°	27.9	27.9	75.3	117.1	175.6	200.7	312.3	501.8	758.3	1039.9	981.4
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°	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9	15322.9
2.5°	15401.0	15336.9	15256.0	15233.7	15044.1	14954.9	14773.7	14854.5	14762.5	14687.3	14773.7
5°	15423.3	15328.5	15158.4	14957.7	14553.4	14369.4	14112.9	14140.8	14007.0	13903.8	13962.4
7.5°	15479.1	15362.0	15094.3	14642.7	14160.3	13870.4	13602.7	13811.8	13719.8	13641.8	13700.3
10°	15506.9	15414.9	14941.0	14464.2	13770.0	13611.1	13276.5	13251.4	13259.8	13251.4	13343.4
12.5°	15582.2	15451.2	14762.5	14154.8	13563.7	13142.7	12936.4	12933.6	12668.7	12554.4	12604.6
15°	15805.3	15520.9	14642.7	13786.7	13134.3	12855.5	12203.1	12205.9	12094.4	11963.4	11960.6
17.5°	16251.3	15730.0	14642.7	13538.6	12738.4	12175.3	11606.5	11297.0	11221.8	11238.5	11227.3
20°	16839.6	16081.3	14637.1	13173.4	12180.8	11598.1	10778.5	10516.4	10279.4	10296.1	10296.1
22.5°	17684.4	16599.8	14648.2	12838.8	11648.3	10856.5	9933.7	9601.9	9348.2	9356.6	9356.6
25°	18897.2	17489.2	14779.3	12635.3	10934.6	9983.9	9052.7	8536.9	8277.6	8280.4	8286.0
27.5°	20441.7	18729.9	15233.7	12203.1	10340.8	8952.3	7931.9	7552.7	7293.5	7226.5	7226.5
30°	22189.8	20218.7	15822.0	11921.6	9420.7	7789.7	6942.2	6660.6	6348.3	6256.3	6256.3
32.5°	24127.5	21713.1	16429.8	11575.8	8553.6	6791.6	6086.2	5827.0	5436.6	5322.3	5283.3
35°	26143.2	23257.6	17168.6	11090.7	7463.5	5969.1	5344.6	5029.6	4748.0	4597.4	4561.2
37.5°	27230.6	25016.9	17834.9	10600.0	6621.5	5319.5	4622.5	4377.2	4190.4	4084.4	4064.9
40°	28724.9	26296.6	18180.7	9788.7	5715.4	4658.8	3956.2	3945.0	3970.1	3875.3	3869.8
42.5°	30247.2	27559.5	18085.9	8701.4	5010.1	3984.1	3621.6	3814.0	3953.4	3869.8	3875.3
45°	32151.4	29260.2	18431.6	7558.3	4313.1	3610.5	3551.9	3777.8	3970.1	3950.6	3950.6
47.5°	34077.9	30905.2	17793.1	6158.7	3844.7	3501.7	3560.3	3719.2	3959.0	4023.1	4009.2
50°	35647.6	32031.5	17400.0	4971.0	3579.8	3504.5	3588.2	3646.7	3908.8	4012.0	4009.2
52.5°	36916.1	33104.9	15933.5	4196.0	3429.3	3515.7	3677.4	3635.6	3819.6	3928.3	3992.4
55°	38711.6	34590.9	14263.5	3897.6	3351.2	3504.5	3708.1	3674.6	3749.9	3800.1	3847.5
57.5°	40100.0	35329.7	12027.5	3705.3	3281.5	3487.8	3683.0	3685.8	3722.0	3702.5	3683.0
60°	41265.4	36004.4	9838.9	3518.5	3192.3	3451.6	3577.0	3616.1	3604.9	3579.8	3529.6
62.5°	41834.2	36734.9	7642.0	3320.5	3097.5	3345.6	3404.2	3448.8	3423.7	3340.0	3334.5
65°	41619.5	36210.8	5665.2	3105.8	2983.2	3228.5	3225.7	3245.3	3256.4	3150.5	3161.6
67.5°	40415.1	33907.9	4315.8	2832.6	2852.1	3061.2	3047.3	3058.5	3027.8	2955.3	2966.4
70°	36913.3	31292.7	3061.2	2372.6	2584.5	2799.2	2818.7	2866.1	2796.4	2668.1	2676.5
72.5°	31736.0	26798.4	2146.8	1890.3	2269.4	2542.7	2531.5	2528.7	2433.9	2484.1	2545.5
75°	27068.8	20522.6	1631.0	1522.3	1792.7	2188.6	2314.1	2322.4	2336.4	2838.2	2874.4
77.5°	20837.6	12415.0	1388.4	1201.6	1391.2	1815.0	2049.2	2144.0	2944.1	3050.1	2994.3
80°	12417.8	7170.8	1073.4	936.8	1123.6	1385.6	1750.9	2263.9	2958.1	2643.0	2528.7
82.5°	6044.4	3326.1	780.6	713.7	828.0	1006.5	1374.5	2637.5	2503.6	2043.6	2015.7
85°	2255.5	1123.6	468.4	487.9	552.0	660.8	1045.5	2517.6	1920.9	1664.4	1572.4
87.5°	563.2	206.3	189.6	195.2	248.1	331.8	535.3	1212.8	931.2	772.3	755.6
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)