

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: P591328

Luminaire Tested: **CTN-CA10-760-730-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591328  
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-CA10-760-730-U-T2-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 76005 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B5 - U0 - G5

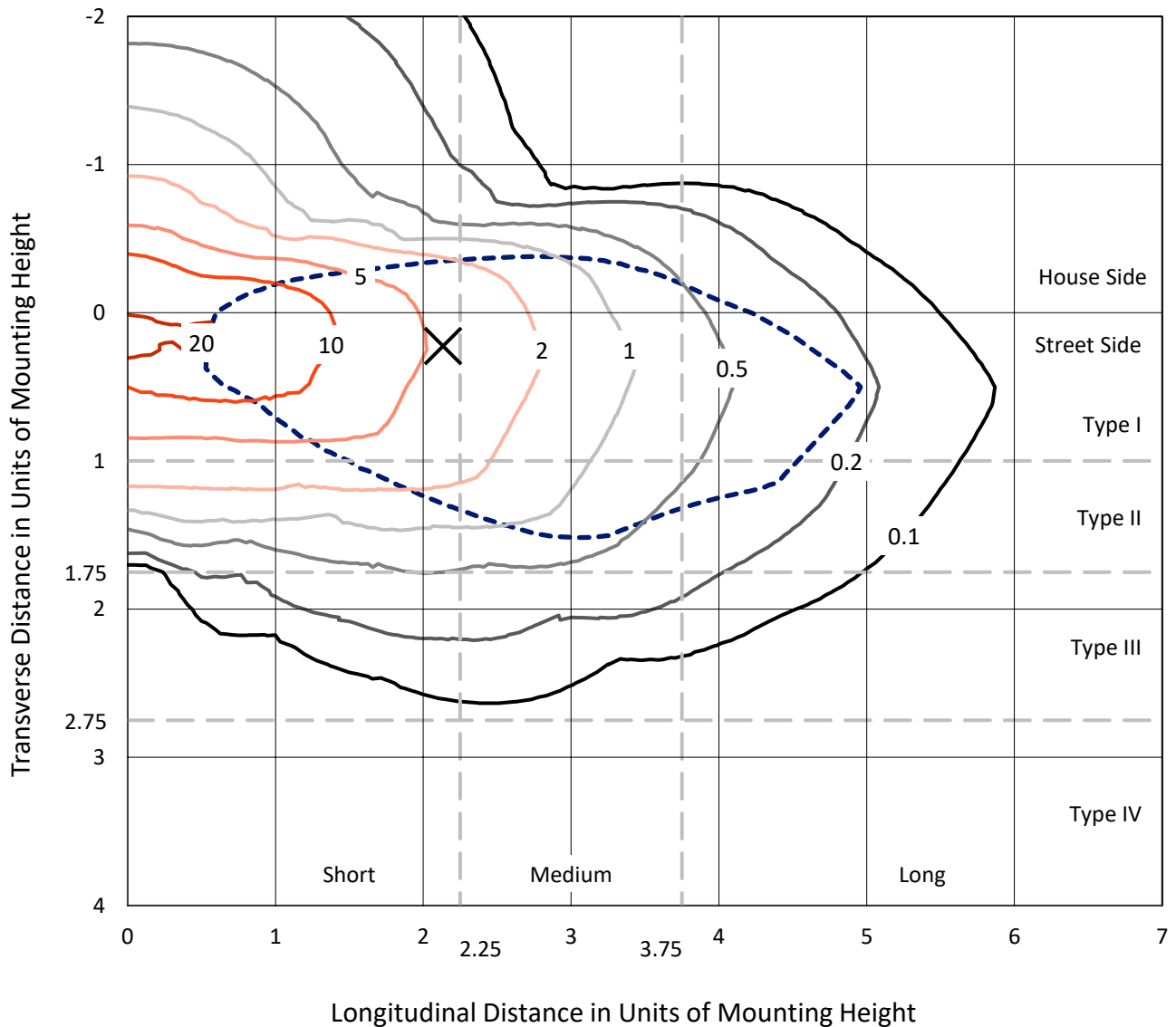
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

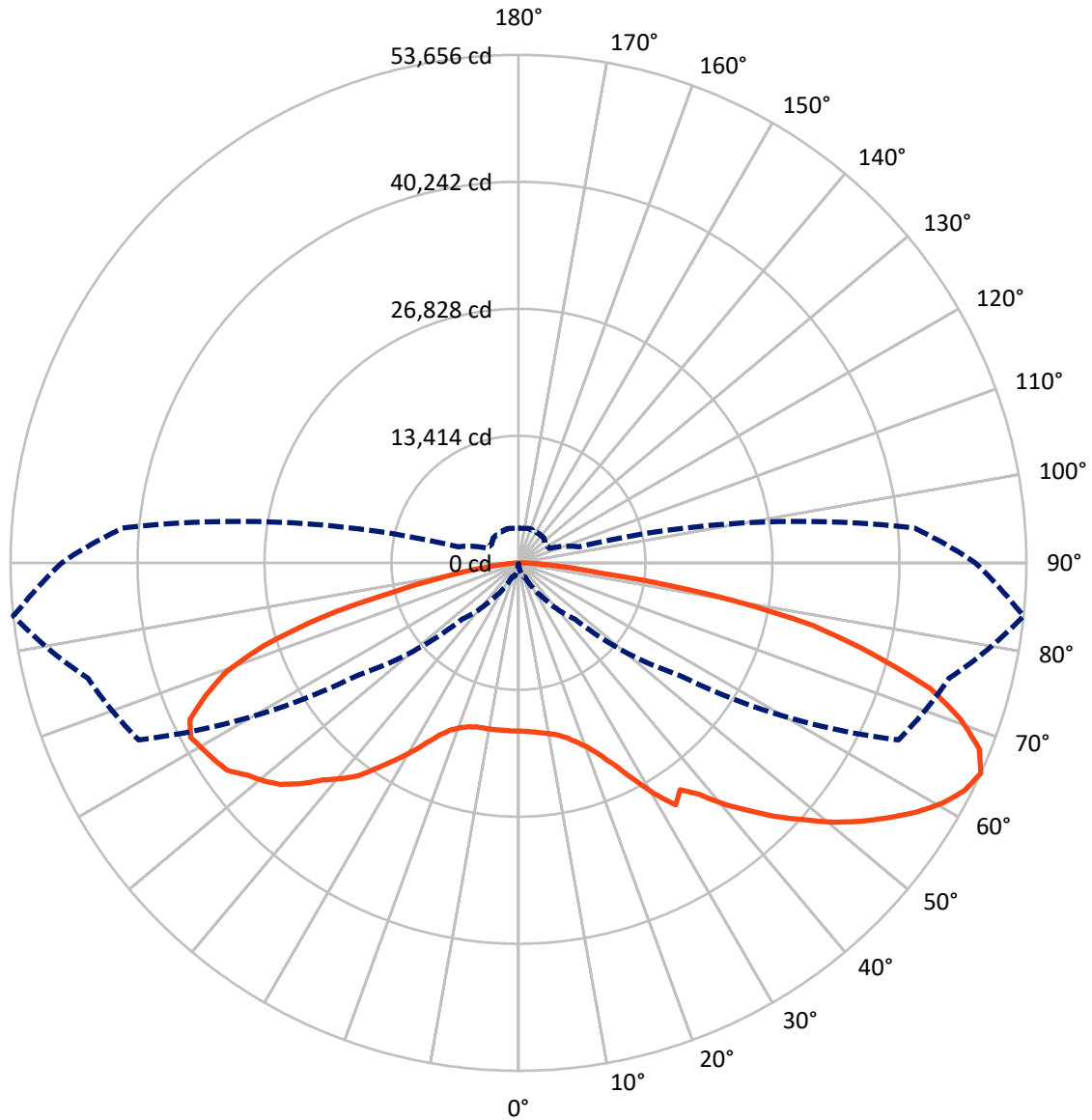
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 22.9 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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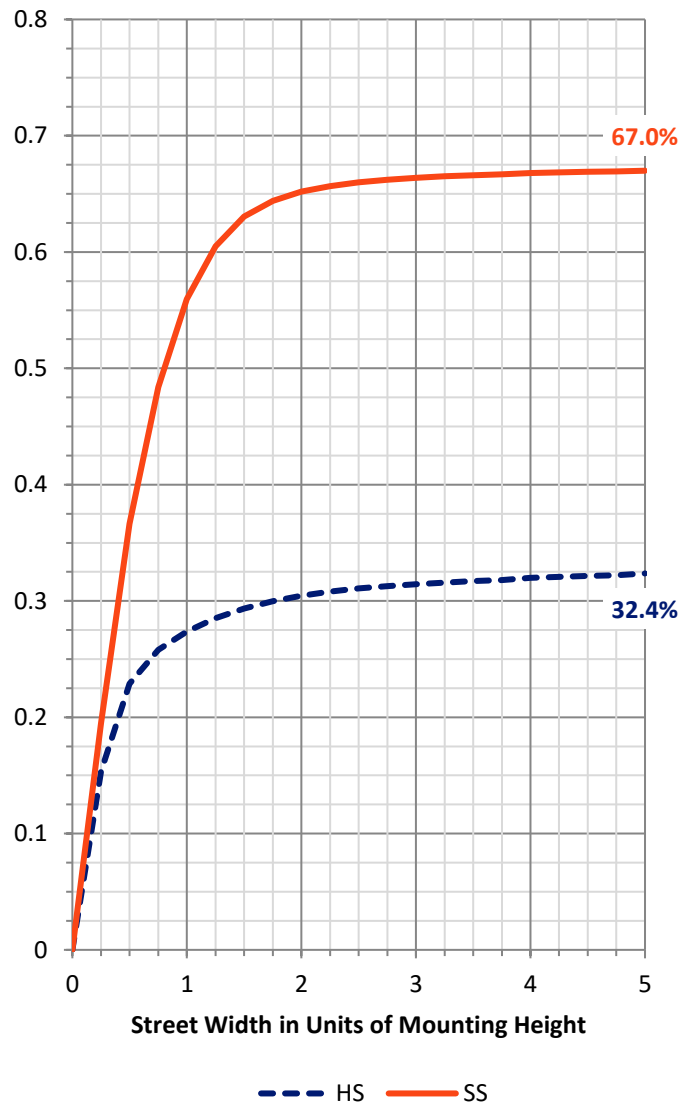
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	25161.4	0.0	25161.4
	% Fixture	33.1	0.0	33.1
<b>Street Side</b>	Lumens	50843.6	0.0	50843.6
	% Fixture	66.9	0.0	66.9
<b>Total</b>	Lumens	76005.0	0.0	76005.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1715.3	2.3
10°-20°	5105.6	6.7
20°-30°	7671.0	10.1
30°-40°	10201.0	13.4
40°-50°	12595.1	16.6
50°-60°	14153.4	18.6
60°-70°	13881.3	18.3
70°-80°	9026.1	11.9
80°-90°	1656.5	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°	76005.0	100.0
0°-180°	76005.0	100.0

**Coefficient of Utilization**

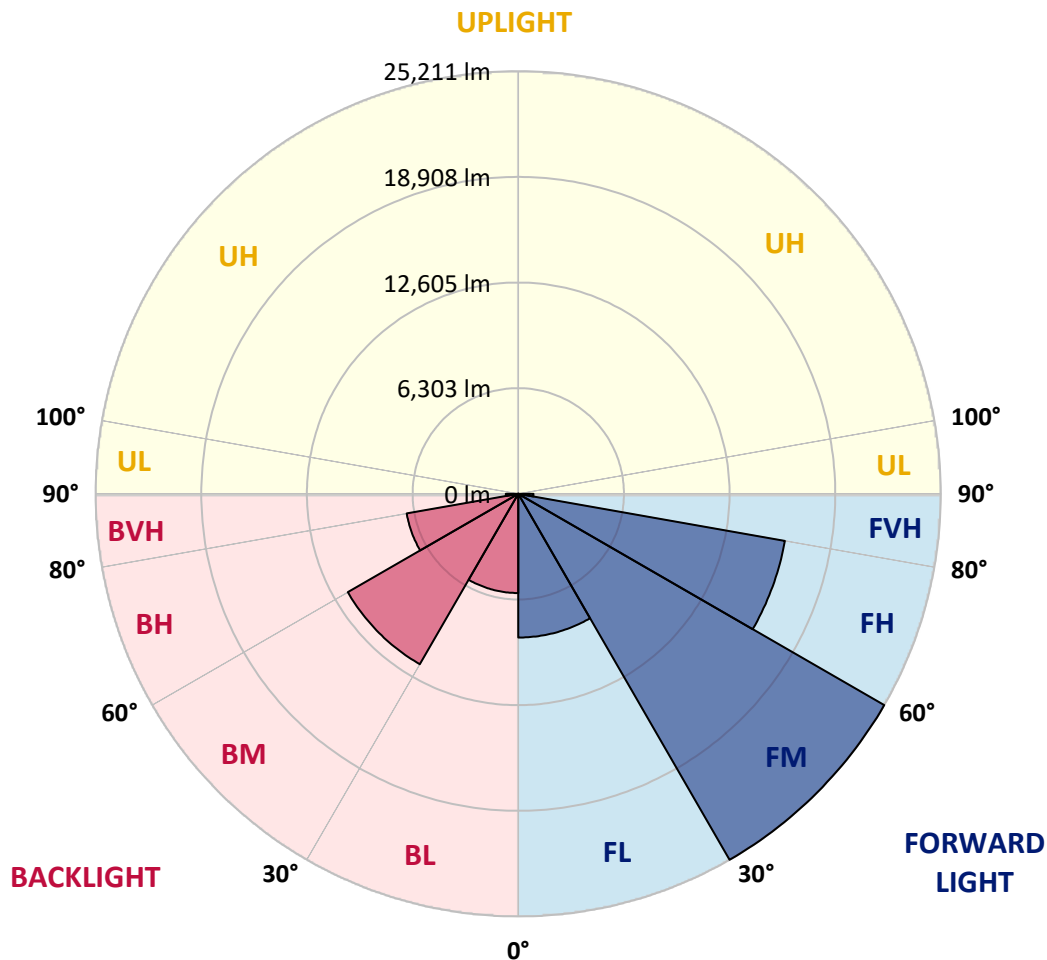


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	8573.0	11.3			
FM (30°-60°)	25210.6	33.2			
FH (60°-80°)	16150.1	21.2			G5
FVH (80°-90°)	910.0	1.2			G5
BL (0°-30°)	5918.9	7.8	B5		
BM (30°-60°)	11738.8	15.4	B5		
BH (60°-80°)	6757.3	8.9	B5		G5
BVH (80°-90°)	746.5	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°	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7
2.5°	18530.7	18356.1	18375.5	18459.5	18136.2	18242.9	18061.9	18094.2	17877.6	17838.8	17861.5
5°	19833.5	19646.0	19646.0	19697.7	19154.6	19009.1	18504.8	18420.7	18100.7	17958.4	17964.9
7.5°	20505.9	20321.7	20286.1	20334.6	19943.4	19975.7	19458.5	18963.9	18394.9	18142.7	18129.8
10°	21495.2	21288.3	21165.4	21168.7	20641.7	20441.3	20059.8	19713.9	18844.2	18352.9	18291.4
12.5°	22293.7	22135.3	22070.6	22022.1	21440.2	21307.7	20590.0	20308.7	19380.9	18672.9	18592.1
15°	22756.0	22607.3	22513.5	22403.6	22080.3	21863.7	21553.4	20913.3	20017.8	19186.9	19086.7
17.5°	21550.1	21294.7	20851.8	20657.9	20583.5	20897.1	22232.3	21905.7	20838.9	19917.5	19810.9
20°	18369.0	18601.8	18938.0	18175.0	18411.0	20741.9	23247.4	23218.3	21986.6	20793.6	20654.6
22.5°	15627.6	15013.3	16073.7	17237.5	17981.1	20179.4	23641.8	24734.5	23541.6	22025.4	21863.7
25°	12811.8	13160.9	14589.8	16933.6	17974.6	19752.7	23425.2	25898.3	25529.8	23703.2	23512.5
27.5°	12430.3	12436.7	13810.7	15604.9	18330.2	20741.9	23661.2	25943.6	27776.6	25872.4	25503.9
30°	12349.5	12310.7	12682.4	14861.4	17703.0	21666.5	25180.6	26347.7	28322.9	28297.1	27805.7
32.5°	11971.2	11948.6	12336.5	13325.8	16361.4	22646.1	26619.2	28232.4	28125.7	30482.5	30349.9
35°	11431.3	11512.2	11993.8	13021.9	15731.0	21831.4	28096.6	30392.0	30573.0	29422.1	29949.1
37.5°	10868.8	10914.1	11379.6	12621.0	14677.1	20405.7	29221.7	32509.5	33130.2	31051.5	30631.2
40°	10102.6	10196.4	10742.7	12139.3	14463.7	19083.5	28426.4	34921.2	35887.8	33537.5	32890.9
42.5°	9291.2	9336.5	10002.4	11357.0	14108.1	19102.9	26793.8	37003.1	38428.8	35807.0	35150.7
45°	8580.0	8592.9	9216.8	10429.2	13406.6	18983.3	25762.5	37087.2	41470.9	38238.1	37413.7
47.5°	7710.3	7833.2	8450.7	9659.7	12511.1	18582.4	26244.2	34478.3	44522.7	40556.0	39802.8
50°	5912.9	6009.9	7206.0	8906.5	11531.6	17913.2	26574.0	36579.6	41121.8	43071.2	42531.3
52.5°	5085.3	4920.4	5780.3	8059.5	10636.1	16797.9	26713.0	39528.0	41115.3	45347.1	44807.2
55°	2175.7	3336.3	5208.1	6617.6	9818.1	15310.7	26612.8	42411.7	43119.7	47493.7	47306.2
57.5°	1719.9	1800.7	3827.7	5353.6	8848.3	13552.1	26160.2	44319.0	44878.3	49643.5	49110.1
60°	316.8	358.8	1881.5	2263.0	6407.5	10927.0	24511.4	44590.6	46161.8	51515.4	50833.2
62.5°	145.5	171.3	1513.0	1884.7	5124.1	8987.3	23098.7	44503.3	47348.2	52905.5	52304.2
65°	67.9	87.3	1354.6	1710.2	4435.5	8386.0	20651.4	44267.3	47086.4	53655.5	52679.2
67.5°	51.7	74.4	1244.6	1535.6	3688.7	7787.9	18327.0	41791.0	45825.6	52494.9	51140.3
70°	51.7	74.4	1138.0	1396.6	3129.4	7028.2	14877.5	38690.7	42948.3	49562.7	48434.5
72.5°	55.0	74.4	1011.9	1264.0	2712.4	6068.0	11622.1	33741.2	39498.9	45515.2	44328.7
75°	55.0	74.4	872.9	1118.6	2285.6	5082.0	7781.5	24117.0	34022.4	38739.2	37420.2
77.5°	55.0	74.4	724.2	934.3	1862.1	4060.5	5033.5	13002.5	26767.9	31769.1	30078.4
80°	55.0	74.4	539.9	708.0	1399.8	2864.3	3006.5	6556.2	14402.3	20871.2	21165.4
82.5°	55.0	71.1	375.0	517.3	914.9	1571.2	1661.7	3165.0	5314.8	8560.6	8680.2
85°	51.7	61.4	268.3	342.7	501.1	591.6	808.2	1574.4	2547.5	3653.1	3624.0
87.5°	32.3	32.3	87.3	135.8	203.7	232.8	362.1	581.9	879.3	1205.9	1138.0
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°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7	17767.7
2.5°	17858.2	17783.9	17690.1	17664.3	17444.4	17341.0	17130.8	17224.6	17117.9	17030.6	17130.8
5°	17884.1	17774.2	17577.0	17344.2	16875.4	16662.1	16364.7	16397.0	16241.8	16122.2	16190.1
7.5°	17948.7	17813.0	17502.6	16978.9	16419.6	16083.4	15773.0	16015.5	15908.8	15818.3	15886.2
10°	17981.1	17874.4	17324.8	16772.0	15967.0	15782.7	15394.8	15365.7	15375.4	15365.7	15472.4
12.5°	18068.4	17916.4	17117.9	16413.1	15727.8	15239.6	15000.4	14997.2	14690.0	14557.5	14615.7
15°	18327.0	17997.2	16978.9	15986.4	15229.9	14906.6	14150.2	14153.4	14024.1	13872.1	13868.9
17.5°	18844.2	18239.7	16978.9	15698.7	14770.9	14117.8	13458.3	13099.5	13012.2	13031.6	13018.7
20°	19526.4	18647.0	16972.4	15275.2	14124.3	13448.6	12498.2	12194.3	11919.5	11938.9	11938.9
22.5°	20505.9	19248.3	16985.4	14887.2	13506.8	12588.7	11518.6	11133.9	10839.7	10849.4	10849.4
25°	21912.2	20279.6	17137.3	14651.2	12679.2	11576.8	10497.0	9899.0	9598.3	9601.5	9608.0
27.5°	23703.2	21718.2	17664.3	14150.2	11990.6	10380.7	9197.4	8757.8	8457.1	8379.5	8379.5
30°	25730.2	23444.6	18346.4	13823.6	10923.8	9032.6	8049.8	7723.3	7361.2	7254.5	7254.5
32.5°	27977.0	25177.4	19051.1	13422.8	9918.4	7875.2	7057.3	6756.6	6304.0	6171.5	6126.2
35°	30314.4	26968.4	19907.8	12860.2	8654.3	6921.5	6197.4	5832.0	5505.5	5331.0	5288.9
37.5°	31575.2	29008.3	20680.5	12291.3	7678.0	6168.3	5360.1	5075.6	4859.0	4736.1	4713.5
40°	33308.0	30492.2	21081.4	11350.5	6627.3	5402.1	4587.4	4574.5	4603.6	4493.7	4487.2
42.5°	35073.1	31956.7	20971.5	10089.7	5809.4	4619.7	4199.5	4422.5	4584.2	4487.2	4493.7
45°	37281.1	33928.7	21372.3	8764.2	5001.2	4186.5	4118.6	4380.5	4603.6	4580.9	4580.9
47.5°	39515.0	35836.1	20632.0	7141.4	4458.1	4060.5	4128.3	4312.6	4590.6	4665.0	4648.8
50°	41335.1	37142.1	20176.2	5764.2	4151.0	4063.7	4160.7	4228.6	4532.4	4652.1	4648.8
52.5°	42806.1	38386.8	18475.7	4865.4	3976.4	4076.6	4264.1	4215.6	4429.0	4555.1	4629.4
55°	44888.0	40109.9	16539.2	4519.5	3885.9	4063.7	4299.7	4260.9	4348.2	4406.4	4461.3
57.5°	46498.0	40966.6	13946.5	4296.4	3805.1	4044.3	4270.6	4273.8	4315.8	4293.2	4270.6
60°	47849.3	41748.9	11408.7	4079.8	3701.6	4002.3	4147.7	4193.0	4180.1	4151.0	4092.8
62.5°	48508.8	42595.9	8861.2	3850.3	3591.7	3879.4	3947.3	3999.0	3969.9	3872.9	3866.5
65°	48259.9	41988.2	6569.1	3601.4	3459.1	3743.6	3740.4	3763.0	3776.0	3653.1	3666.0
67.5°	46863.3	39317.8	5004.4	3284.6	3307.2	3549.7	3533.5	3546.4	3510.9	3426.8	3439.7
70°	42802.8	36285.4	3549.7	2751.1	2996.8	3245.8	3268.4	3323.4	3242.5	3093.8	3103.5
72.5°	36799.5	31074.1	2489.3	2191.9	2631.5	2948.4	2935.4	2932.2	2822.3	2880.5	2951.6
75°	31387.7	23797.0	1891.2	1765.1	2078.7	2537.8	2683.3	2693.0	2709.1	3291.0	3333.1
77.5°	24162.3	14395.9	1610.0	1393.4	1613.2	2104.6	2376.1	2486.1	3413.9	3536.7	3472.1
80°	14399.1	8314.9	1244.6	1086.2	1302.8	1606.7	2030.2	2625.1	3430.0	3064.7	2932.2
82.5°	7008.8	3856.8	905.2	827.6	960.2	1167.1	1593.8	3058.3	2903.1	2369.7	2337.3
85°	2615.4	1302.8	543.1	565.7	640.1	766.2	1212.3	2919.3	2227.4	1930.0	1823.3
87.5°	653.0	239.2	219.8	226.3	287.7	384.7	620.7	1406.3	1079.8	895.5	876.1
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)