

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: P591031

Luminaire Tested: **CTN-CA10-630-727-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P591031  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 12/14/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-727-U-T3-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 71125 lumens  
Efficiency: N/A  
Efficacy: 112.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G5

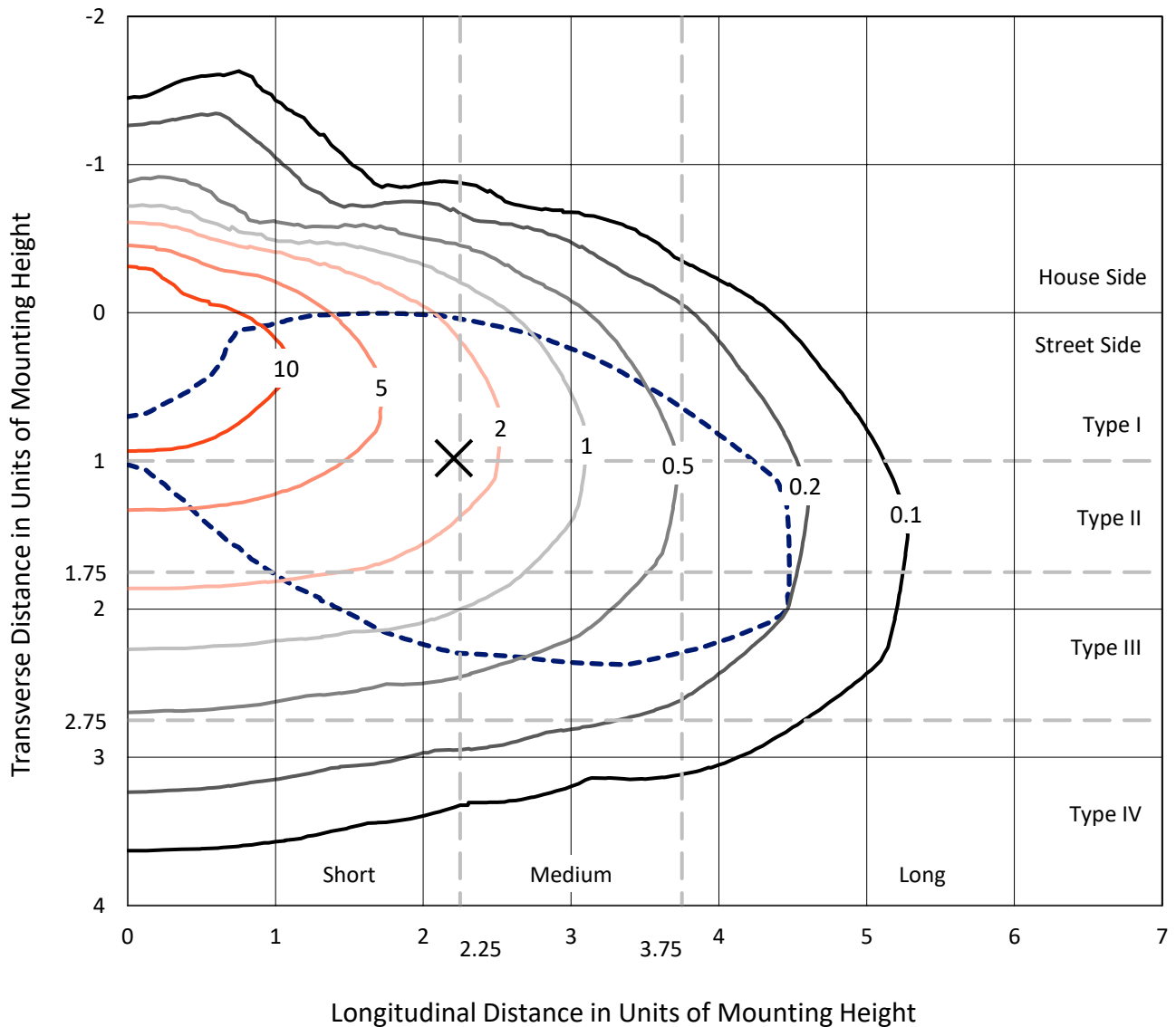
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

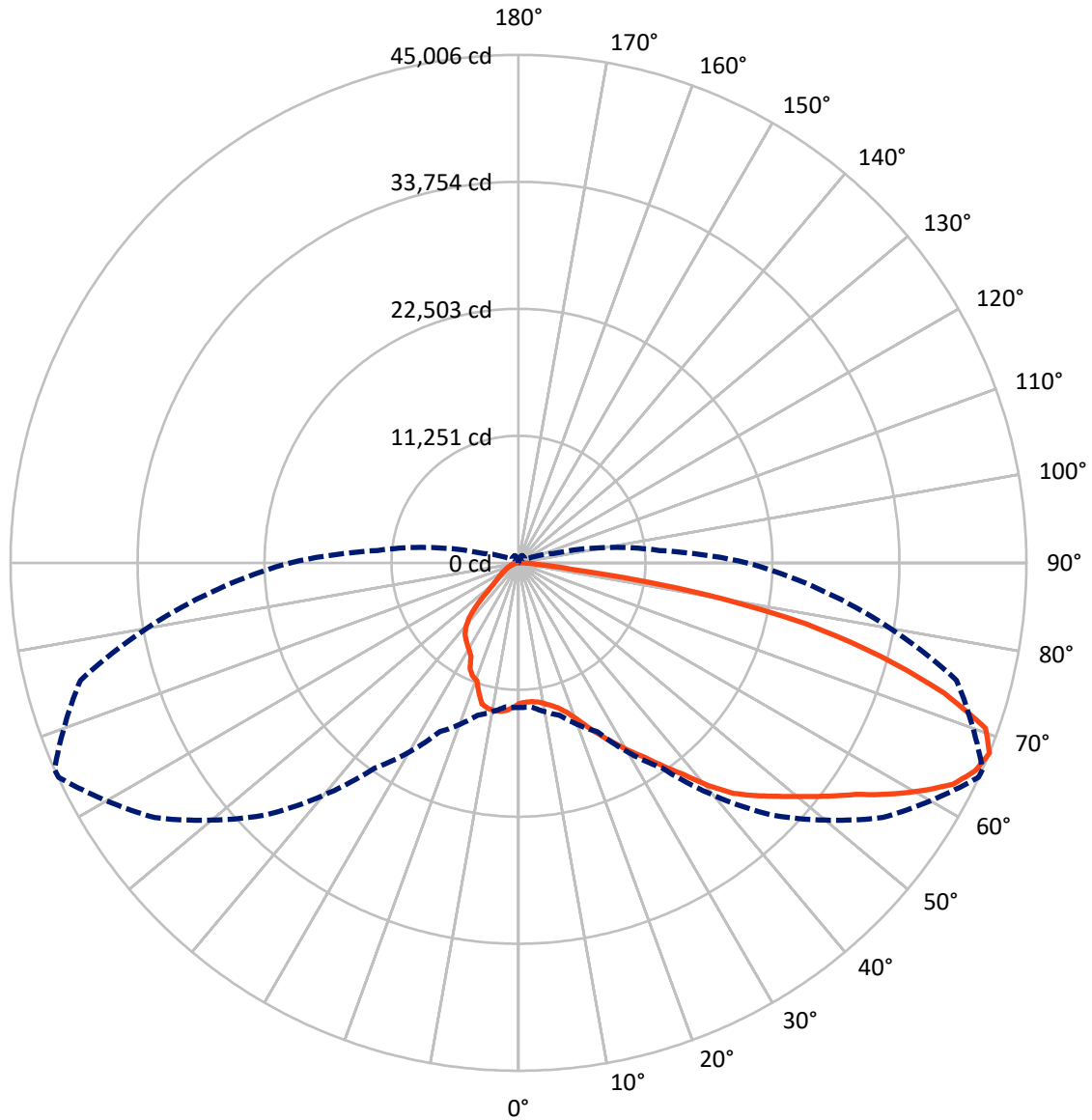
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 15.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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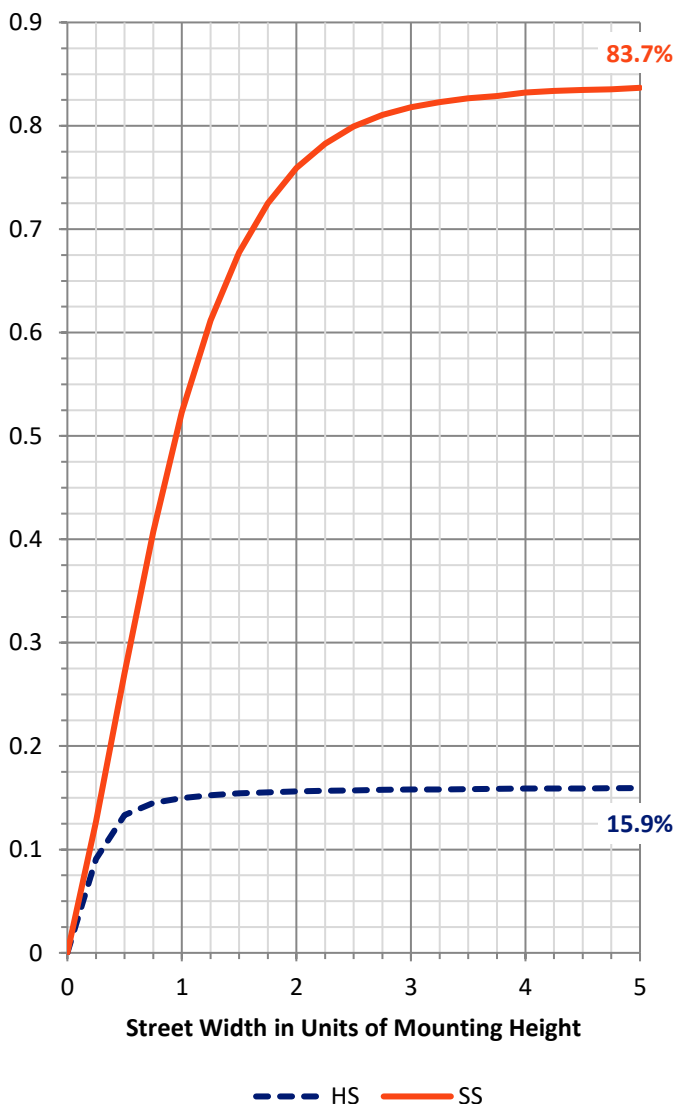
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11481.1	0.0	11481.1
	% Fixture	16.1	0.0	16.1
<b>Street Side</b>	Lumens	59643.9	0.0	59643.9
	% Fixture	83.9	0.0	83.9
<b>Total</b>	Lumens	71125.0	0.0	71125.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1234.1	1.7
10°-20°	3720.8	5.2
20°-30°	6048.5	8.5
30°-40°	8835.3	12.4
40°-50°	11767.7	16.5
50°-60°	14235.2	20.0
60°-70°	15240.3	21.4
70°-80°	9044.5	12.7
80°-90°	998.6	1.4
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°	71125.0	100.0
0°-180°	71125.0	100.0

**Coefficient of Utilization**

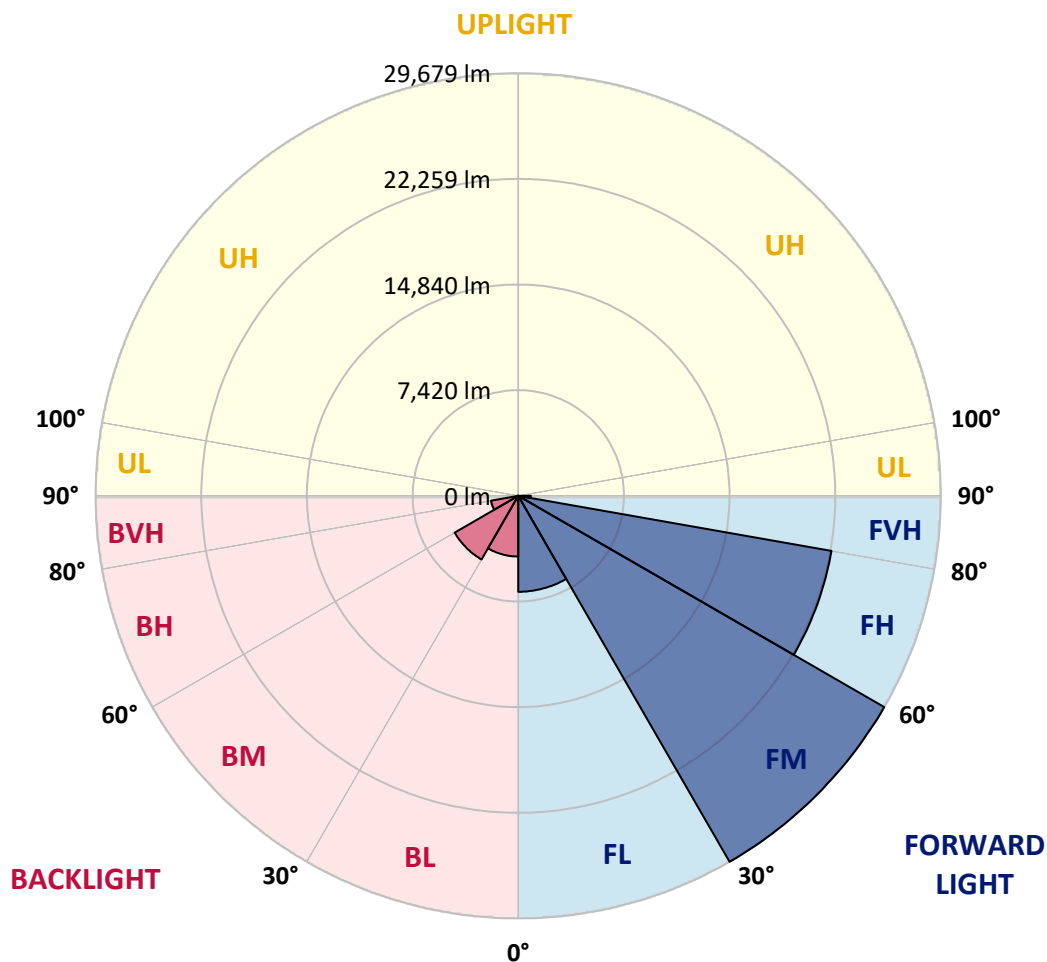


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6739.5	9.5			
FM	(30°-60°)	29679.1	41.7			
FH	(60°-80°)	22340.0	31.4			G5
FVH	(80°-90°)	885.3	1.2			G5
BL	(0°-30°)	4263.9	6.0	B4/5000		
BM	(30°-60°)	5159.0	7.3	B4/8500		
BH	(60°-80°)	1944.8	2.7	B3/2500		G3/2500
BVH	(80°-90°)	113.4	0.2			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5
2.5°	12294.4	12224.9	12256.3	12338.1	12181.3	12280.9	12210.4	12333.6	12367.2	12380.6	12429.9
5°	12535.2	12443.3	12445.6	12497.1	12319.0	12362.7	12242.9	12329.1	12356.0	12391.8	12511.7
7.5°	12957.4	12855.5	12846.6	12860.0	12638.2	12589.0	12419.8	12437.7	12457.9	12479.2	12634.9
10°	13537.6	13433.4	13415.5	13380.8	13088.5	12959.7	12708.8	12669.6	12688.6	12653.9	12838.7
12.5°	14234.3	14108.8	14042.7	13943.0	13604.8	13403.2	13071.7	12964.2	12981.0	12908.2	13037.0
15°	14966.7	14833.5	14797.6	14644.2	14227.5	13952.0	13523.0	13359.5	13364.0	13280.0	13274.4
17.5°	15748.5	15629.8	15600.7	15503.2	15041.8	14713.6	14183.9	13962.1	13945.3	13862.4	13616.0
20°	16635.6	16560.5	16544.8	16488.8	16071.1	15686.9	15084.3	14786.4	14769.6	14638.6	14112.2
22.5°	17726.5	17638.0	17590.9	17542.8	17230.3	16830.4	16183.1	15763.1	15829.2	15608.5	14756.2
25°	18811.7	18741.2	18700.9	18669.5	18411.9	18033.3	17378.1	16885.3	16951.4	16715.1	15539.1
27.5°	19889.2	19733.5	19798.5	19872.4	19614.8	19313.5	18601.2	18064.7	18084.9	17829.5	16476.5
30°	20890.5	20808.7	20920.7	20990.2	20802.0	20566.8	19818.6	19300.1	19330.3	19026.8	17551.7
32.5°	21779.8	21662.2	21911.9	22047.5	21935.5	21741.7	21019.3	20527.6	20536.6	20352.9	18835.3
35°	22432.7	22440.6	22785.6	23149.6	23148.4	22875.2	22261.4	22032.9	22137.1	22055.3	20410.0
37.5°	23098.0	23038.7	23437.4	23978.4	24155.3	23912.3	23548.3	23683.8	23823.8	24074.7	21897.4
40°	23412.8	23415.0	23897.7	24522.7	24931.5	24885.6	24757.9	25664.0	25954.1	26029.1	21301.5
42.5°	23033.1	23060.0	23921.2	25026.7	25661.7	25904.8	26184.8	27728.2	27924.2	27499.7	22003.8
45°	22535.8	22572.8	23584.1	25200.3	26309.1	26993.4	27765.1	29270.4	29422.8	28858.3	23025.2
47.5°	22068.7	22137.1	23189.9	25096.1	26822.1	28219.9	29178.6	30723.1	30909.0	30164.2	23977.2
50°	21455.0	21607.3	22681.4	24819.5	27208.5	29287.2	30484.5	32471.4	32543.1	31438.8	24835.2
52.5°	20861.4	20906.2	22105.7	24465.6	27499.7	30254.9	32042.5	34267.9	34350.8	32834.3	25627.0
55°	20048.2	20115.4	21456.1	24022.0	27678.9	31065.8	33619.4	36140.6	36214.5	34511.0	26478.2
57.5°	19153.4	19202.6	20613.8	23341.1	27544.5	31786.0	35300.6	38499.3	38680.8	36235.8	27243.2
60°	18030.0	18094.9	19527.4	22396.9	27080.8	32626.0	37377.1	41020.5	41020.5	37819.5	27849.1
62.5°	16447.4	16538.1	17988.5	21037.2	26117.6	33112.1	39034.7	43215.7	43201.2	39067.2	28054.1
65°	14608.3	14622.9	15937.8	19124.2	24518.2	32853.4	39666.4	44498.1	44465.7	39969.9	27771.9
67.5°	12824.2	12808.5	13975.5	16507.9	22212.1	31579.9	39365.1	44966.3	45005.5	40187.2	26720.2
70°	10292.9	10272.8	11345.7	13415.5	18724.4	28837.0	37652.6	43778.0	43896.7	38946.2	24974.1
72.5°	7365.2	7335.0	7849.1	9217.7	13750.4	23721.9	33383.1	39210.6	39427.8	34971.3	21785.4
75°	4313.2	4345.7	4882.1	5669.5	8166.0	15605.1	27076.3	32929.5	33239.8	29749.8	17135.1
77.5°	2399.1	2392.3	2786.6	3379.1	4016.4	7815.5	18902.5	25932.8	26038.1	23312.0	11522.7
80°	1158.1	1152.5	1258.9	1588.2	2290.4	3511.2	9283.8	16112.5	16431.7	14168.2	5633.7
82.5°	833.3	837.8	897.1	871.4	854.6	1549.0	3098.0	5074.8	4633.5	3576.2	1741.6
85°	626.1	626.1	679.8	627.2	612.6	788.5	1506.4	1813.3	1740.5	1591.5	1034.9
87.5°	294.6	280.0	297.9	282.2	262.1	349.4	660.8	766.1	709.0	618.2	452.5
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°	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5	12454.5
2.5°	12513.9	12538.6	12667.4	12835.4	12851.0	12995.5	13040.3	13219.5	13212.8	13163.5	13215.0
5°	12597.9	12673.0	12893.6	13129.9	13190.4	13371.8	13411.0	13586.9	13598.1	13537.6	13588.0
7.5°	12732.3	12842.1	13050.4	13284.5	13311.4	13472.6	13465.9	13632.8	13603.7	13551.0	13618.2
10°	12897.0	12982.1	13121.0	13275.5	13263.2	13392.0	13351.7	13471.5	13411.0	13368.5	13445.8
12.5°	13062.7	13066.1	13077.3	13174.7	13098.6	13127.7	13048.2	13136.6	13043.7	12972.0	13019.0
15°	13228.5	13134.4	12976.5	12916.0	12704.3	12595.7	12481.4	12587.8	12370.5	12256.3	12285.4
17.5°	13462.6	13236.3	12705.4	11937.1	11285.3	10925.7	10655.8	10447.5	10452.0	10555.0	10616.6
20°	13649.6	12789.4	11492.5	11017.6	10530.4	9872.9	8852.6	8572.6	8387.8	8384.4	8414.7
22.5°	13583.5	12316.8	11493.6	10751.0	9691.5	8377.7	7936.4	7679.9	7248.7	6327.0	6251.9
25°	14191.7	12735.7	11559.7	10200.0	8355.3	7688.9	7083.0	6584.6	5495.9	5324.5	5317.8
27.5°	14920.8	13301.3	11649.3	9010.5	7821.1	6921.7	6151.1	4947.1	4425.2	4351.3	4325.5
30°	15764.2	13967.7	11102.7	8629.7	7252.1	6029.0	5007.6	3799.1	3374.6	3348.8	3355.6
32.5°	16821.5	14728.2	10532.6	8316.1	6563.3	4995.3	3414.9	2897.5	2654.4	2389.0	2474.1
35°	17948.2	14290.3	10873.1	7928.6	5700.9	3756.5	2594.0	2301.6	2104.5	1760.7	1620.7
37.5°	17504.7	14591.5	11268.5	7503.0	4623.4	2546.9	2007.1	1753.9	1569.1	1282.4	1276.8
40°	18051.3	15453.9	11550.7	6817.5	3343.2	1806.6	1462.7	1357.5	1272.3	1113.3	1090.9
42.5°	19016.7	16206.6	11742.2	5938.3	1998.1	1344.0	1248.8	1264.5	1190.6	1068.5	1053.9
45°	19967.6	16865.2	11561.9	4597.7	1421.3	1211.9	1217.5	1210.7	1121.1	1076.3	1060.7
47.5°	20833.4	17421.8	11054.5	3033.0	1233.1	1181.6	1193.9	1163.7	1062.9	1037.1	1034.9
50°	21577.1	18009.8	8752.9	2324.0	1186.1	1141.3	1168.2	1118.9	945.3	917.3	888.2
52.5°	22035.1	17032.0	7776.3	1785.3	1136.8	1078.6	1086.4	1126.7	890.4	709.0	664.2
55°	21965.7	15343.1	7229.7	1486.3	1058.4	991.2	1006.9	1071.9	805.3	554.4	501.8
57.5°	22296.1	15204.2	6663.0	1264.5	912.8	898.3	866.9	976.7	732.5	367.4	348.3
60°	22242.3	15187.4	5946.2	994.6	806.4	754.9	715.7	795.2	525.3	136.6	124.3
62.5°	22155.0	14756.2	5131.9	891.5	742.6	722.4	688.8	778.4	446.9	95.2	70.6
65°	21717.1	14056.2	4209.0	780.6	693.3	651.8	649.6	737.0	368.5	52.6	23.5
67.5°	20221.8	12531.8	3131.6	719.0	664.2	642.9	682.1	710.1	353.9	53.8	21.3
70°	18362.6	10521.4	2020.5	648.5	622.7	633.9	666.4	717.9	343.8	49.3	19.0
72.5°	15354.3	8139.1	1225.3	579.0	563.4	597.0	657.4	717.9	318.1	41.4	15.7
75°	11680.6	5428.7	911.7	511.8	493.9	536.5	599.2	689.9	312.5	35.8	10.1
77.5°	7252.1	2563.7	719.0	430.1	411.0	454.7	502.9	569.0	317.0	34.7	5.6
80°	2933.3	1070.7	564.5	346.1	322.6	346.1	407.7	485.0	252.0	49.3	0.0
82.5°	1234.3	753.8	461.4	275.5	257.6	227.4	277.8	359.5	198.2	39.2	0.0
85°	816.5	523.0	330.4	187.0	164.6	110.9	135.5	162.4	113.1	0.0	0.0
87.5°	369.6	231.8	144.5	63.8	53.8	30.2	17.9	15.7	0.0	0.0	0.0
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)