

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: P591035

Luminaire Tested: **CTN-CA8-330-727-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P591035  
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-CA8-330-727-U-T3-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37731 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

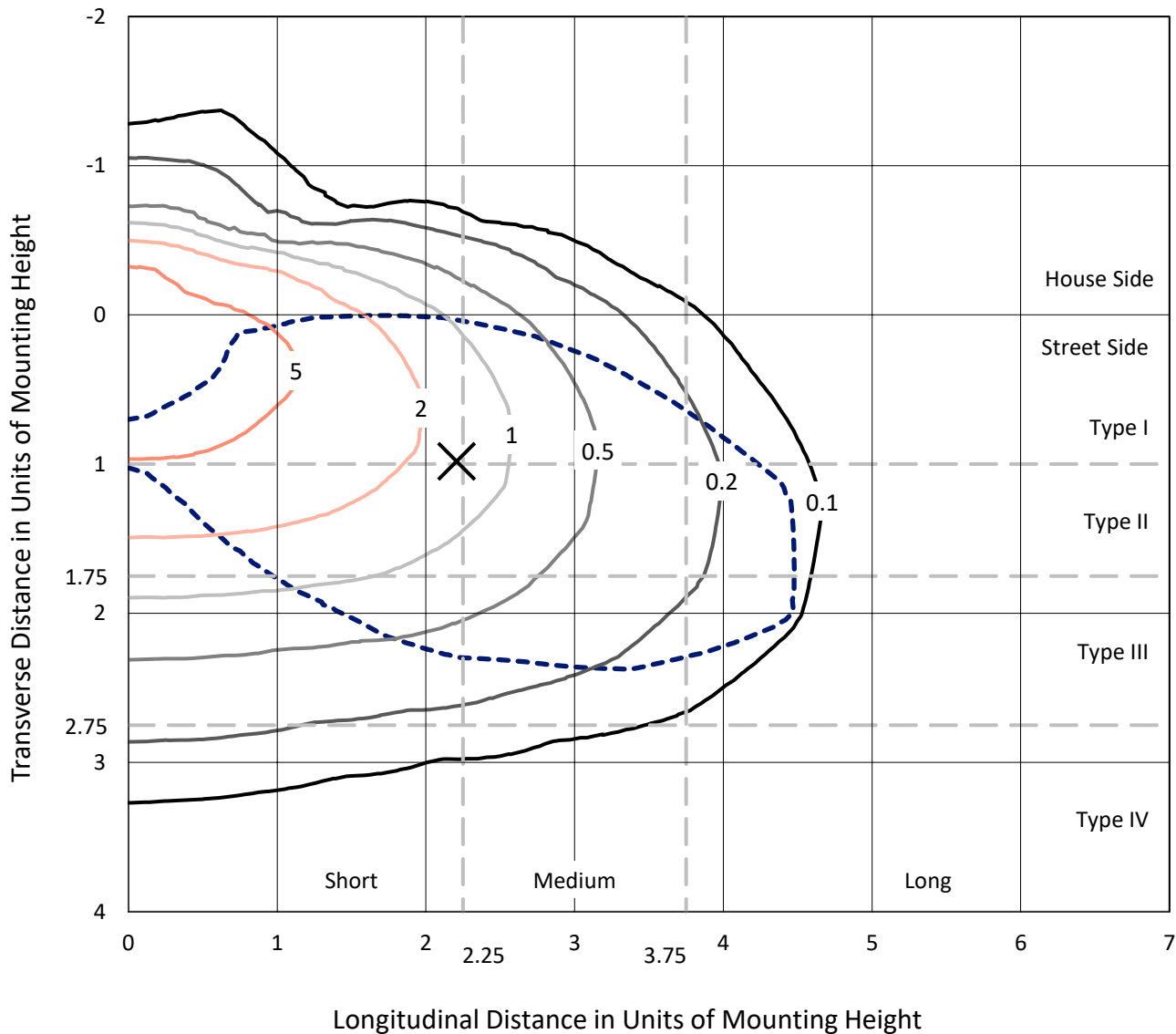
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

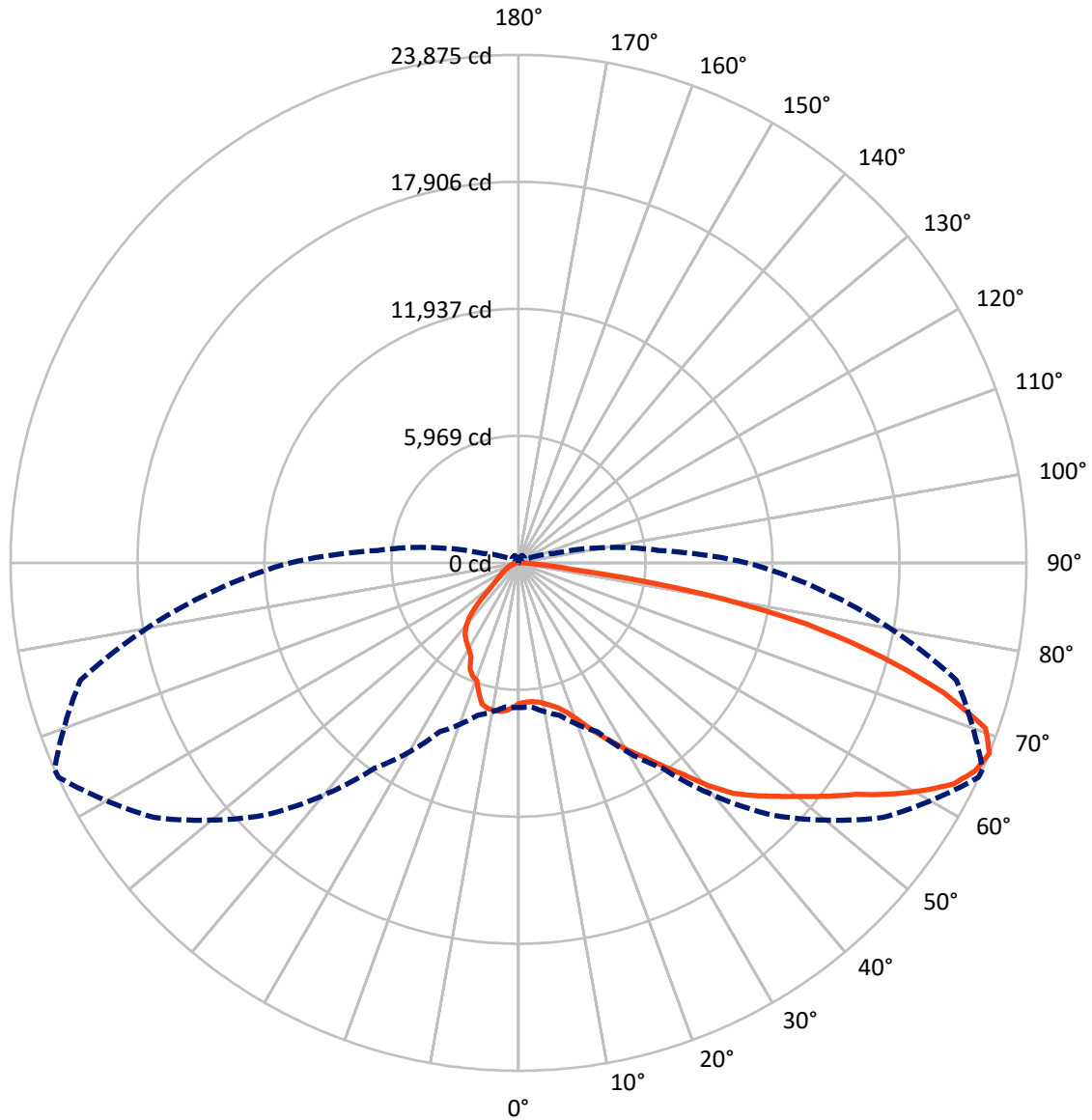
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.2 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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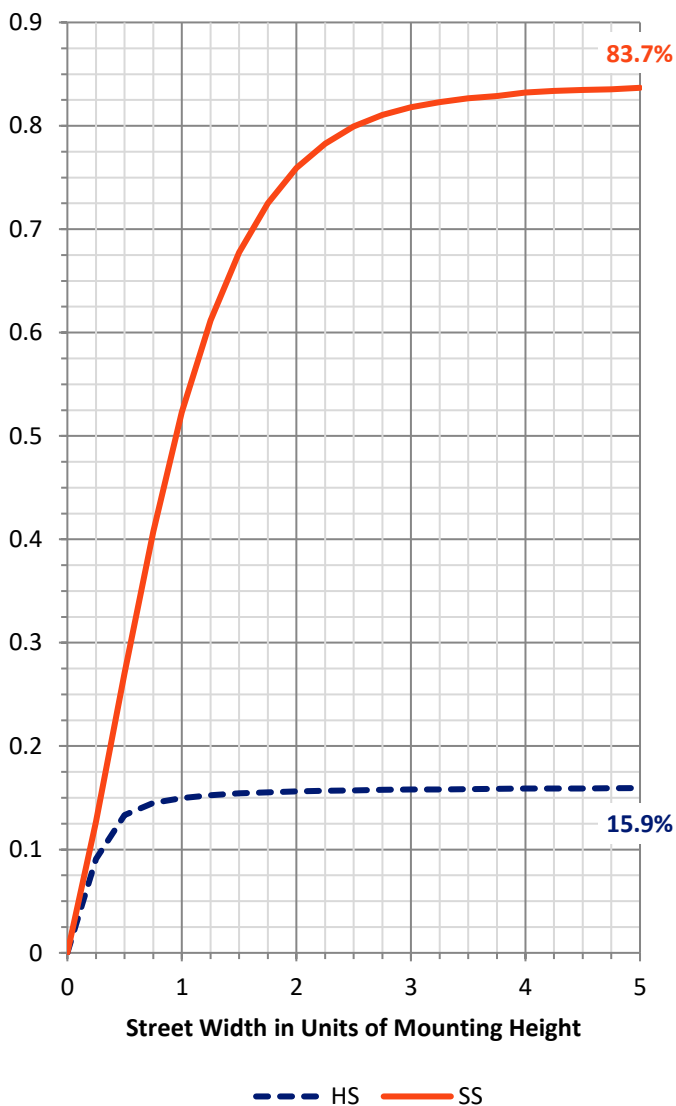
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6090.6	0.0	6090.6
	% Fixture	16.1	0.0	16.1
<b>Street Side</b>	Lumens	31640.4	0.0	31640.4
	% Fixture	83.9	0.0	83.9
<b>Total</b>	Lumens	37731.0	0.0	37731.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	654.7	1.7
10°-20°	1973.9	5.2
20°-30°	3208.7	8.5
30°-40°	4687.0	12.4
40°-50°	6242.7	16.5
50°-60°	7551.6	20.0
60°-70°	8084.8	21.4
70°-80°	4798.0	12.7
80°-90°	529.8	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°	37731.0	100.0
0°-180°	37731.0	100.0

**Coefficient of Utilization**



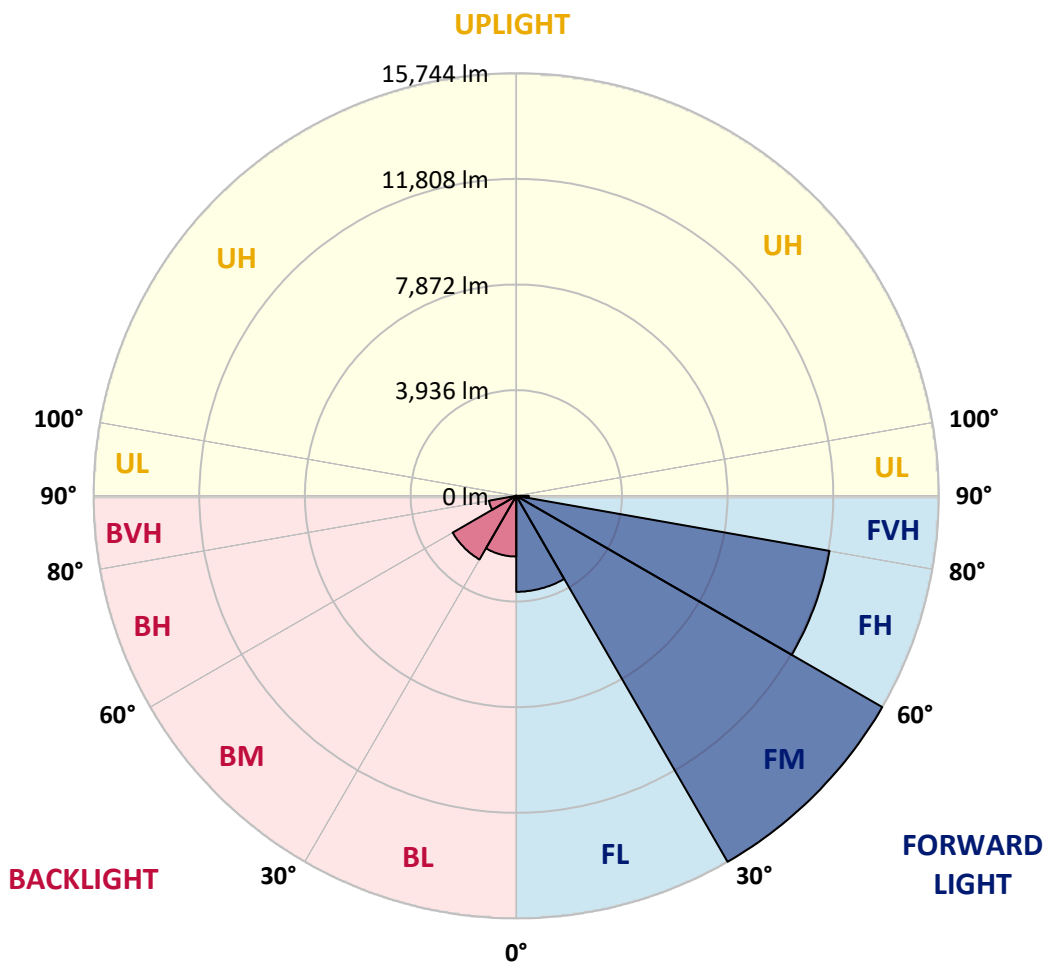
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3575.2	9.5			
FM (30°-60°)	15744.4	41.7			
FH (60°-80°)	11851.1	31.4			G4/12000
FVH (80°-90°)	469.6	1.2			G3/500
BL (0°-30°)	2262.0	6.0	B3/2500		
BM (30°-60°)	2736.8	7.3	B3/5000		
BH (60°-80°)	1031.7	2.7	B3/2500		G3/2500
BVH (80°-90°)	60.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0
2.5°	6522.0	6485.2	6501.8	6545.2	6462.0	6514.9	6477.5	6542.8	6560.7	6567.8	6593.9
5°	6649.8	6601.1	6602.2	6629.6	6535.1	6558.3	6494.7	6540.5	6554.7	6573.7	6637.3
7.5°	6873.8	6819.7	6815.0	6822.1	6704.4	6678.3	6588.6	6598.1	6608.8	6620.1	6702.7
10°	7181.5	7126.3	7116.8	7098.4	6943.3	6875.0	6741.9	6721.1	6731.2	6712.8	6810.8
12.5°	7551.1	7484.6	7449.5	7396.6	7217.2	7110.2	6934.4	6877.3	6886.2	6847.6	6916.0
15°	7939.7	7869.0	7850.0	7768.6	7547.5	7401.4	7173.8	7087.1	7089.4	7044.9	7041.9
17.5°	8354.4	8291.4	8276.0	8224.3	7979.5	7805.4	7524.4	7406.7	7397.8	7353.8	7223.1
20°	8825.0	8785.2	8776.8	8747.1	8525.5	8321.7	8002.1	7844.0	7835.1	7765.6	7486.3
22.5°	9403.7	9356.7	9331.8	9306.2	9140.5	8928.4	8584.9	8362.1	8397.2	8280.1	7828.0
25°	9979.4	9942.0	9920.6	9904.0	9767.3	9566.5	9218.9	8957.5	8992.5	8867.2	8243.3
27.5°	10551.0	10468.4	10502.9	10542.1	10405.4	10245.6	9867.7	9583.1	9593.8	9458.3	8740.6
30°	11082.2	11038.8	11098.2	11135.0	11035.2	10910.5	10513.6	10238.5	10254.5	10093.5	9311.0
32.5°	11553.9	11491.5	11624.0	11695.9	11636.5	11533.7	11150.5	10889.7	10894.4	10797.0	9991.9
35°	11900.3	11904.5	12087.5	12280.6	12280.0	12135.0	11809.4	11688.2	11743.5	11700.1	10827.3
37.5°	12253.2	12221.8	12433.3	12720.3	12814.1	12685.2	12492.1	12564.0	12638.3	12771.3	11616.3
40°	12420.2	12421.4	12677.5	13009.0	13225.9	13201.5	13133.8	13614.5	13768.3	13808.1	11300.2
42.5°	12218.8	12233.0	12689.9	13276.4	13613.3	13742.2	13890.7	14709.5	14813.5	14588.3	11672.8
45°	11955.0	11974.6	12511.1	13368.5	13956.7	14319.7	14729.1	15527.6	15608.4	15309.0	12214.6
47.5°	11707.2	11743.5	12302.0	13313.2	14228.8	14970.3	15478.9	16298.2	16396.9	16001.8	12719.7
50°	11381.6	11462.4	12032.2	13166.5	14433.8	15536.5	16171.7	17225.7	17263.7	16677.9	13174.8
52.5°	11066.7	11090.5	11726.8	12978.7	14588.3	16049.9	16998.2	18178.7	18222.7	17418.2	13594.8
55°	10635.4	10671.0	11382.2	12743.4	14683.3	16480.1	17834.7	19172.2	19211.4	18307.7	14046.4
57.5°	10160.6	10186.8	10935.4	12382.2	14612.0	16862.1	18726.6	20423.5	20519.7	19222.7	14452.2
60°	9564.7	9599.2	10359.1	11881.3	14366.1	17307.7	19828.1	21760.9	21760.9	20062.8	14773.6
62.5°	8725.2	8773.3	9542.7	11160.0	13855.1	17565.6	20707.5	22925.4	22917.7	20724.7	14882.4
65°	7749.6	7757.3	8454.8	10145.2	13006.6	17428.3	21042.6	23605.8	23588.5	21203.6	14732.7
67.5°	6803.1	6794.7	7413.9	8757.2	11783.3	16752.8	20882.7	23854.1	23874.9	21318.9	14174.7
70°	5460.3	5449.6	6018.8	7116.8	9933.1	15297.7	19974.3	23223.7	23286.7	20660.5	13248.5
72.5°	3907.2	3891.1	4163.8	4889.9	7294.4	12584.2	17709.4	20800.7	20916.0	18551.9	11556.9
75°	2288.1	2305.3	2589.9	3007.6	4332.0	8278.4	14363.7	17468.7	17633.3	15781.9	9090.0
77.5°	1272.7	1269.1	1478.3	1792.6	2130.6	4146.0	10027.5	13757.0	13812.9	12366.7	6112.7
80°	614.4	611.4	667.8	842.5	1215.0	1862.7	4924.9	8547.5	8716.8	7516.1	2988.6
82.5°	442.1	444.4	475.9	462.3	453.3	821.7	1643.4	2692.1	2458.0	1897.1	923.9
85°	332.1	332.1	360.7	332.7	325.0	418.3	799.1	961.9	923.3	844.3	549.0
87.5°	156.3	148.5	158.0	149.7	139.0	185.4	350.6	406.4	376.1	328.0	240.0
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°	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0	6607.0
2.5°	6638.5	6651.6	6719.9	6809.0	6817.3	6894.0	6917.7	7012.8	7009.2	6983.1	7010.4
5°	6683.0	6722.9	6839.9	6965.3	6997.4	7093.6	7114.4	7207.7	7213.6	7181.5	7208.3
7.5°	6754.3	6812.6	6923.1	7047.3	7061.5	7147.1	7143.5	7232.0	7216.6	7188.7	7224.3
10°	6841.7	6886.8	6960.5	7042.5	7036.0	7104.3	7082.9	7146.5	7114.4	7091.8	7132.8
12.5°	6929.6	6931.4	6937.3	6989.0	6948.6	6964.1	6921.9	6968.8	6919.5	6881.5	6906.5
15°	7017.6	6967.6	6883.9	6851.8	6739.5	6681.9	6621.3	6677.7	6562.4	6501.8	6517.3
17.5°	7141.7	7021.7	6740.1	6332.5	5986.7	5796.0	5652.8	5542.3	5544.6	5599.3	5632.0
20°	7241.0	6784.6	6096.6	5844.7	5586.2	5237.5	4696.2	4547.7	4449.6	4447.8	4463.9
22.5°	7205.9	6533.9	6097.2	5703.3	5141.2	4444.3	4210.2	4074.1	3845.4	3356.4	3316.6
25°	7528.5	6756.1	6132.3	5411.0	4432.4	4078.9	3757.4	3493.0	2915.5	2824.6	2821.0
27.5°	7915.3	7056.2	6179.8	4780.0	4149.0	3671.9	3263.1	2624.4	2347.5	2308.3	2294.6
30°	8362.7	7409.7	5889.9	4578.0	3847.1	3198.3	2656.5	2015.4	1790.2	1776.5	1780.1
32.5°	8923.6	7813.1	5587.4	4411.6	3481.7	2649.9	1811.6	1537.1	1408.1	1267.3	1312.5
35°	9521.3	7580.8	5768.1	4206.0	3024.2	1992.8	1376.1	1221.0	1116.4	934.0	859.7
37.5°	9286.0	7740.6	5977.8	3980.2	2452.7	1351.1	1064.7	930.4	832.4	680.3	677.3
40°	9576.0	8198.1	6127.5	3616.6	1773.6	958.4	776.0	720.1	675.0	590.6	578.7
42.5°	10088.1	8597.4	6229.1	3150.2	1060.0	713.0	662.5	670.8	631.6	566.8	559.1
45°	10592.6	8946.8	6133.5	2439.0	754.0	642.9	645.8	642.3	594.7	571.0	562.7
47.5°	11051.9	9242.1	5864.3	1609.0	654.2	626.8	633.4	617.3	563.9	550.2	549.0
50°	11446.4	9554.0	4643.3	1232.9	629.2	605.4	619.7	593.6	501.5	486.6	471.2
52.5°	11689.4	9035.3	4125.2	947.1	603.1	572.2	576.3	597.7	472.4	376.1	352.3
55°	11652.6	8139.3	3835.3	788.4	561.5	525.8	534.1	568.6	427.2	294.1	266.2
57.5°	11827.8	8065.6	3534.6	670.8	484.2	476.5	459.9	518.1	388.6	194.9	184.8
60°	11799.3	8056.7	3154.4	527.6	427.8	400.5	379.7	421.8	278.7	72.5	66.0
62.5°	11753.0	7828.0	2722.4	472.9	393.9	383.2	365.4	412.9	237.1	50.5	37.4
65°	11520.7	7456.6	2232.8	414.1	367.8	345.8	344.6	391.0	195.5	27.9	12.5
67.5°	10727.5	6648.0	1661.3	381.4	352.3	341.0	361.8	376.7	187.8	28.5	11.3
70°	9741.2	5581.5	1071.9	344.0	330.3	336.3	353.5	380.9	182.4	26.1	10.1
72.5°	8145.3	4317.7	650.0	307.2	298.9	316.7	348.8	380.9	168.7	22.0	8.3
75°	6196.4	2879.9	483.6	271.5	262.0	284.6	317.9	366.0	165.8	19.0	5.3
77.5°	3847.1	1360.0	381.4	228.2	218.1	241.2	266.8	301.8	168.1	18.4	3.0
80°	1556.1	568.0	299.5	183.6	171.1	183.6	216.3	257.3	133.7	26.1	0.0
82.5°	654.8	399.9	244.8	146.2	136.7	120.6	147.4	190.7	105.2	20.8	0.0
85°	433.1	277.5	175.3	99.2	87.3	58.8	71.9	86.2	60.0	0.0	0.0
87.5°	196.1	123.0	76.6	33.9	28.5	16.0	9.5	8.3	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)