

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: P591317

Luminaire Tested: **CTN-CA10-630-730-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591317  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-730-U-T3-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D 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: 54177 lumens  
Efficiency: N/A  
Efficacy: 85.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B5 - U0 - G4

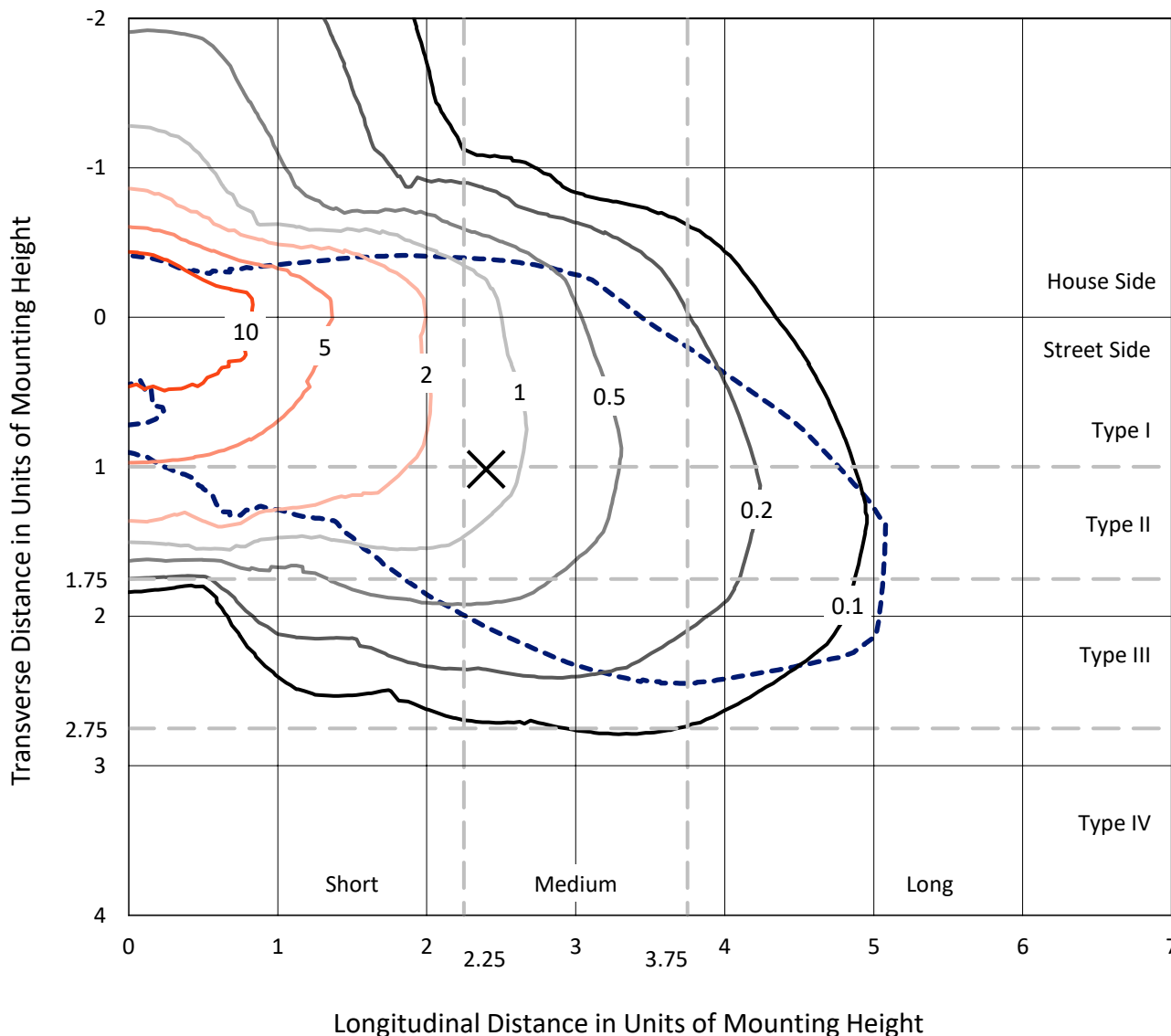
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

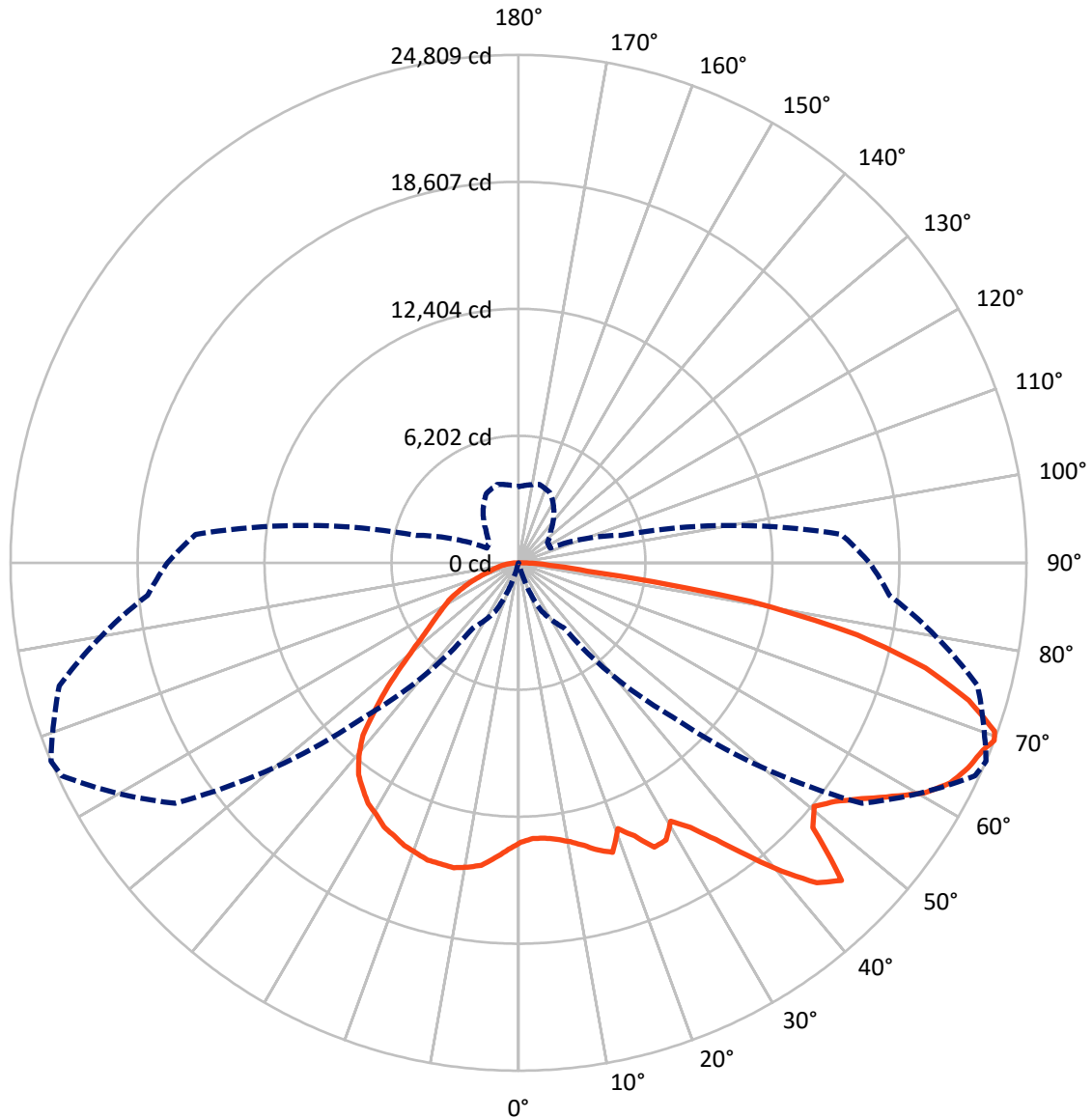
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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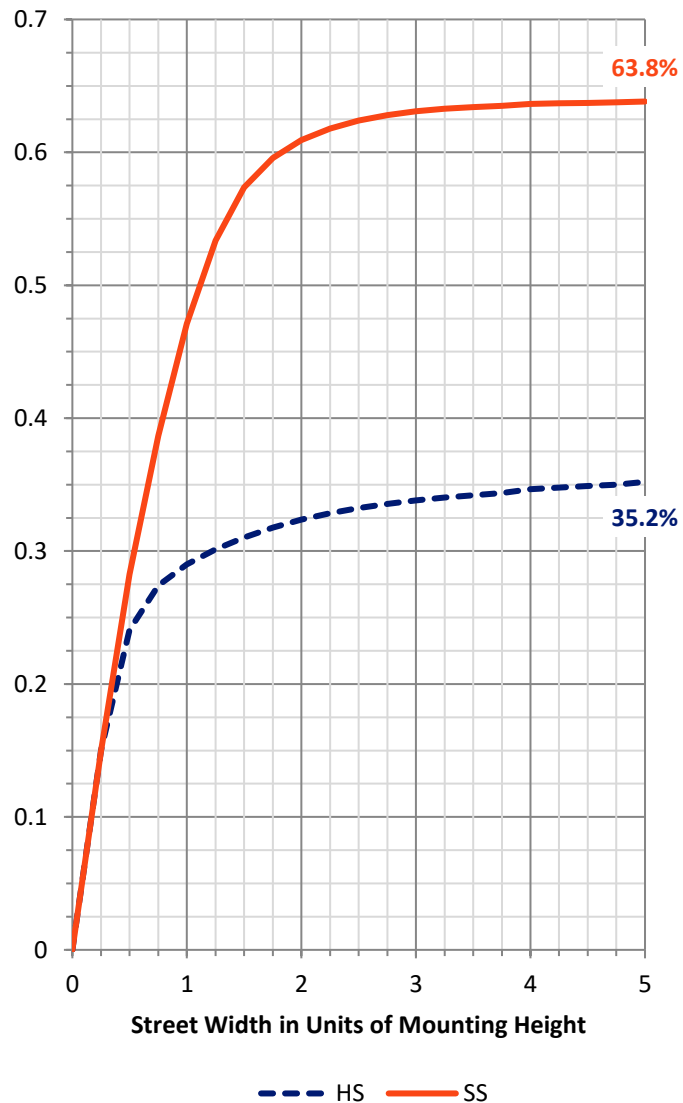
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	19599.7	0.0	19599.7
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	34577.3	0.0	34577.3
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	54177.0	0.0	54177.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1364.8	2.5
10°-20°	4213.6	7.8
20°-30°	6219.0	11.5
30°-40°	7813.8	14.4
40°-50°	9165.2	16.9
50°-60°	9590.7	17.7
60°-70°	8568.2	15.8
70°-80°	6030.4	11.1
80°-90°	1211.3	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°	54177.0	100.0
0°-180°	54177.0	100.0

**Coefficient of Utilization**

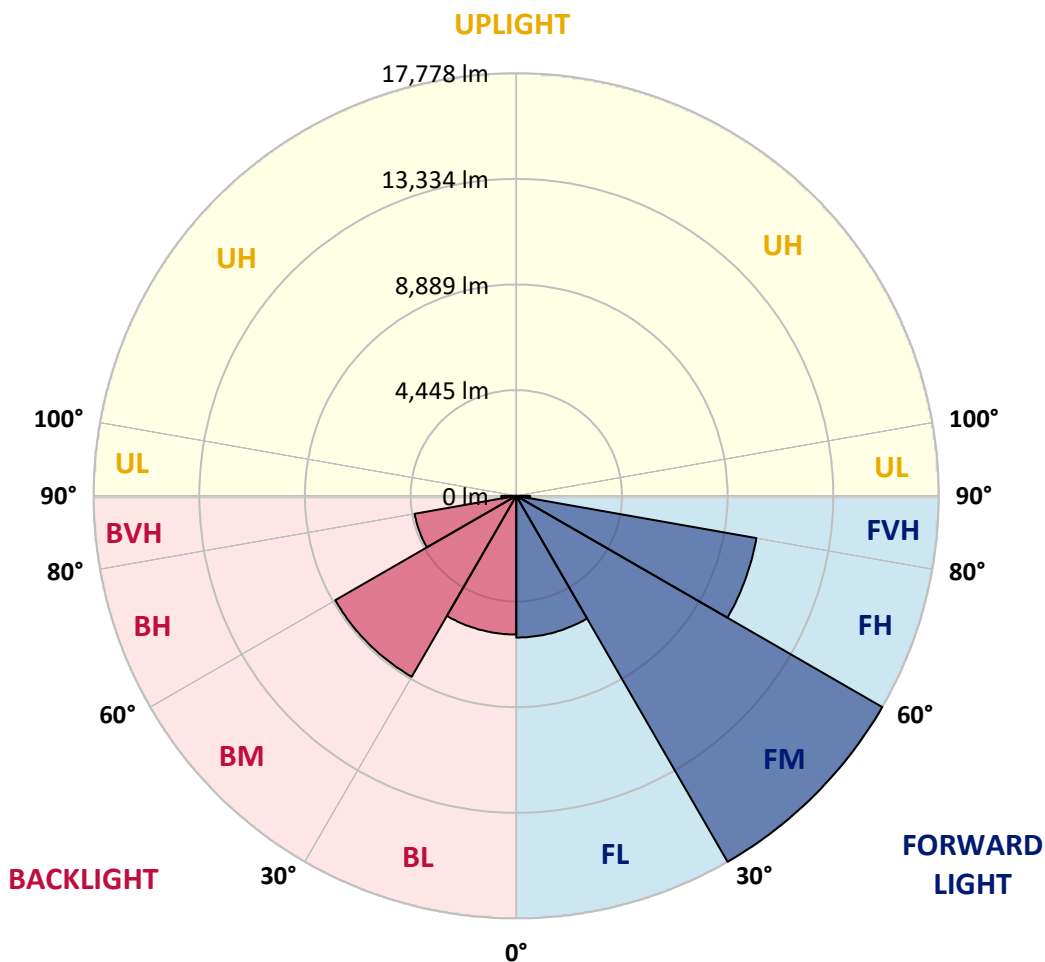


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5962.0	11.0			
FM (30°-60°)	17778.4	32.8			
FH (60°-80°)	10258.1	18.9			G4/12000
FVH (80°-90°)	578.8	1.1			G4/750
BL (0°-30°)	5835.5	10.8	B5		
BM (30°-60°)	8791.2	16.2	B5		
BH (60°-80°)	4340.5	8.0	B4/5000		G4/5000
BVH (80°-90°)	632.4	1.2			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6
2.5°	13322.8	13244.4	13280.8	13384.4	13168.8	13322.8	13266.8	13423.6	13482.4	13474.0	13698.0
5°	13429.2	13342.4	13356.4	13434.8	13199.6	13320.0	13266.8	13440.4	13507.6	13488.0	13793.2
7.5°	13807.2	13712.0	13681.2	13706.4	13451.6	13544.0	13429.2	13569.2	13642.0	13642.0	13989.2
10°	14403.7	14288.9	14221.7	14218.9	13919.2	13877.2	13737.2	13801.6	13854.8	13899.6	14286.1
12.5°	15028.1	14932.9	14846.1	14798.5	14403.7	14305.7	14101.3	14148.9	14165.7	14227.3	14610.9
15°	15596.5	15501.3	15476.1	15400.5	15008.5	14846.1	14560.5	14538.1	14560.5	14596.9	14977.7
17.5°	15378.1	15383.7	15523.7	15537.7	15028.1	14652.9	14454.1	14832.1	14868.5	15156.9	15403.3
20°	14963.7	14759.3	14025.6	13625.2	13684.0	14171.3	13810.0	13793.2	13868.8	14381.3	15630.1
22.5°	12463.2	12351.2	12754.4	12883.2	13348.0	13532.8	14392.5	14414.9	14490.5	14490.5	14854.5
25°	10760.7	11340.4	12124.4	13524.4	13378.8	13415.2	13765.2	15252.1	15394.9	15392.1	15338.9
27.5°	11124.8	11052.0	12225.2	13104.4	14143.3	14078.9	13698.0	14708.9	15341.7	16428.1	16176.1
30°	11561.6	11508.4	11595.2	13082.0	14804.1	14890.9	14538.1	14434.5	14650.1	16932.1	17133.7
32.5°	11967.6	11903.2	12001.2	12228.0	13877.2	15728.1	15456.5	15330.5	15408.9	15868.1	18365.8
35°	12326.0	12320.4	12432.4	12701.2	14106.9	16019.3	16397.3	16388.9	16598.9	16993.7	18545.0
37.5°	12580.8	12578.0	12667.6	12981.2	13297.6	14795.7	17279.4	17780.6	18116.6	18701.8	18116.6
40°	12578.0	12622.8	12858.0	13261.2	13681.2	14132.1	17668.6	19415.8	19819.0	20236.2	19261.8
42.5°	12314.8	12340.0	12754.4	13502.0	14022.8	14412.1	16122.9	20919.5	21370.3	21339.5	20163.4
45°	12071.2	12082.4	12544.4	13462.8	14308.5	15011.3	15806.5	20913.9	22131.9	22322.3	21011.9
47.5°	11754.8	11754.8	12211.2	13236.0	14566.1	15686.1	16652.1	18066.2	19337.4	23173.5	21714.7
50°	11348.8	11399.2	10839.1	13000.8	14689.3	16327.3	17369.0	18533.8	18710.2	20723.5	22367.1
52.5°	10701.9	10673.9	8470.3	12740.4	14739.7	16792.1	18113.8	19264.6	19359.8	19158.2	21728.7
55°	6745.4	7521.0	7490.2	12435.2	14708.9	17091.7	18685.0	20068.2	20337.1	20090.6	18279.0
57.5°	4074.1	3889.3	6401.0	11561.6	11813.6	17324.2	19460.6	21289.1	21524.3	20953.1	18587.0
60°	1590.5	1500.8	1621.3	5261.4	8475.9	16117.3	20516.3	22585.5	22809.5	21773.5	18847.4
62.5°	198.8	170.8	145.6	3642.9	5387.4	11973.2	21076.3	23630.0	23672.0	22367.1	18897.8
65°	28.0	30.8	56.0	3248.1	4894.6	11768.8	21272.3	24055.6	24142.4	22795.5	18727.0
67.5°	11.2	14.0	44.8	2825.3	4295.3	11225.6	20787.9	24349.6	24450.4	23209.9	18561.8
69°	11.2	14.0	44.8	2539.7	3886.5	10626.3	20477.1	24610.0	24808.8	23218.3	18183.8
70°	11.2	14.0	42.0	2335.3	3567.3	10119.5	20177.4	24509.2	24668.8	22994.3	17763.8
72.5°	11.2	14.0	42.0	1797.7	2713.3	8125.9	18281.8	23081.1	22999.9	21583.1	16128.5
75°	14.0	14.0	42.0	1262.8	1881.7	5779.4	15428.5	20496.7	20533.1	19214.2	13566.4
77.5°	14.0	14.0	42.0	803.6	1187.2	3343.3	11172.4	16808.9	16912.5	16008.1	10158.7
80°	14.0	14.0	42.0	366.8	736.4	1747.3	5493.8	10954.0	11511.2	10746.7	5575.0
82.5°	14.0	14.0	39.2	229.6	403.2	786.8	2167.3	3435.7	3402.1	3348.9	1772.5
85°	11.2	11.2	30.8	162.4	268.8	456.4	1204.0	1540.0	1520.4	1346.8	915.6
87.5°	5.6	5.6	16.8	67.2	112.0	207.2	602.0	700.0	666.4	571.2	392.0
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°	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6	13647.6
2.5°	13801.6	13821.2	13913.6	14034.0	14070.5	14227.3	14252.5	14510.1	14549.3	14613.7	14641.7
5°	13941.6	14017.2	14218.9	14501.7	14742.5	14988.9	14997.3	15310.9	15392.1	15375.3	15456.5
7.5°	14140.5	14266.5	14574.5	14966.5	15053.3	15372.5	15350.1	15660.9	15666.5	15621.7	15744.9
10°	14445.7	14602.5	14882.5	15123.3	15288.5	15495.7	15467.7	15761.7	15719.7	15672.1	15809.3
12.5°	14759.3	14840.5	15011.3	15280.1	15316.5	15389.3	15352.9	15624.5	15579.7	15520.9	15655.3
15°	15033.7	15072.9	15072.9	15218.5	15126.1	15184.9	15061.7	15280.1	15176.5	15148.5	15277.3
17.5°	15389.3	15324.9	15193.3	15182.1	14941.3	14851.7	14666.9	14725.7	14529.7	14549.3	14616.5
20°	15789.7	15646.9	15299.7	14952.5	14507.3	14294.5	13927.6	13899.6	13717.6	13684.0	13748.4
22.5°	15938.1	16064.1	15428.5	14756.5	13989.2	13513.2	13079.2	12872.0	12606.0	12435.2	12457.6
25°	16388.9	16615.7	15624.5	14406.5	13378.8	12594.8	11942.4	11469.2	11068.8	10864.3	10906.3
27.5°	16999.3	17369.0	15736.5	14162.9	12578.0	11553.2	10461.1	9839.5	9425.1	9212.3	9206.7
30°	17873.0	18337.8	15952.1	13653.2	11687.6	10183.9	8837.1	8103.5	7764.6	7624.6	7635.8
32.5°	18965.0	19525.0	16400.1	13227.6	10718.7	8719.5	7185.0	6543.8	6389.8	6364.6	6350.6
35°	20412.7	20967.1	16755.7	12572.4	9461.5	7059.0	5768.2	5314.6	5339.8	5334.2	5351.0
37.5°	20177.4	22280.3	17161.7	11931.2	7957.9	5533.0	4662.1	4407.3	4415.7	4513.7	4533.3
40°	19292.6	21132.3	17766.6	10869.9	6199.4	4250.5	3676.5	3617.7	3858.5	4074.1	4113.3
42.5°	19987.0	20440.7	17847.8	9724.7	4536.1	3259.3	3074.5	3318.1	3707.3	3956.5	4001.3
45°	20681.5	21048.3	17377.4	8011.1	3253.7	2788.9	2926.1	3276.1	3707.3	3973.3	4004.1
47.5°	21387.1	21384.3	16828.5	6423.4	2660.1	2665.7	2889.7	3278.9	3729.7	3998.5	4015.3
50°	21835.1	21655.9	15394.9	5031.8	2475.3	2592.9	2870.1	3295.7	3724.1	3920.1	3928.5
52.5°	22059.1	21793.1	14129.3	4020.9	2388.5	2534.1	2872.9	3334.9	3693.3	3802.5	3796.9
55°	21681.1	21717.5	13082.0	3343.3	2307.3	2486.5	2886.9	3362.9	3707.3	3819.3	3819.3
57.5°	21210.7	21219.1	12247.6	2830.9	2226.1	2447.3	2903.7	3404.9	3964.9	4174.9	4144.1
60°	20880.3	20502.3	11066.0	2508.9	2133.7	2410.9	2926.1	3586.9	4569.7	4782.6	4709.8
62.5°	20337.1	19824.6	9850.7	2284.9	2030.1	2382.9	2940.1	3841.7	4650.9	4662.1	4482.9
65°	19385.0	18651.4	7952.3	2063.7	1923.7	2343.7	2931.7	3936.9	4284.1	4116.1	4065.7
67.5°	18007.4	17049.7	6233.0	1842.5	1806.1	2284.9	2987.7	3763.3	4046.1	3908.9	3841.7
69°	17147.7	15834.5	5174.6	1710.9	1730.5	2240.1	3015.7	3729.7	3962.1	3794.1	3715.7
70°	16495.3	14781.7	4382.1	1624.1	1666.1	2200.9	2959.7	3710.1	3922.9	3715.7	3623.3
72.5°	14006.0	11883.6	2805.7	1422.4	1498.0	2102.9	2808.5	3586.9	3836.1	3696.1	3581.3
75°	10827.9	8727.9	1789.3	1237.6	1327.2	1957.3	2651.7	3500.1	3875.3	3623.3	3371.3
77.5°	7288.6	4875.0	1366.4	1038.8	1125.6	1766.9	2402.5	3256.5	3740.9	3519.7	3208.9
80°	3320.9	1859.3	1055.6	842.8	910.0	1422.4	2072.1	2881.3	3536.5	3533.7	3309.7
82.5°	1330.0	1243.2	784.0	644.0	716.8	1061.2	1640.9	2466.9	3119.3	3253.7	3474.9
85°	775.6	784.0	520.8	448.0	534.8	781.2	1170.4	1906.9	2536.9	2805.7	2993.3
87.5°	316.4	352.8	243.6	235.2	294.0	417.2	537.6	924.0	1366.4	1677.3	1792.1
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)