

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: P591272

Luminaire Tested: **CTN-CA8-330-727-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591272  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-330-727-U-T4-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22493 lumens  
Efficiency: N/A  
Efficacy: 67.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

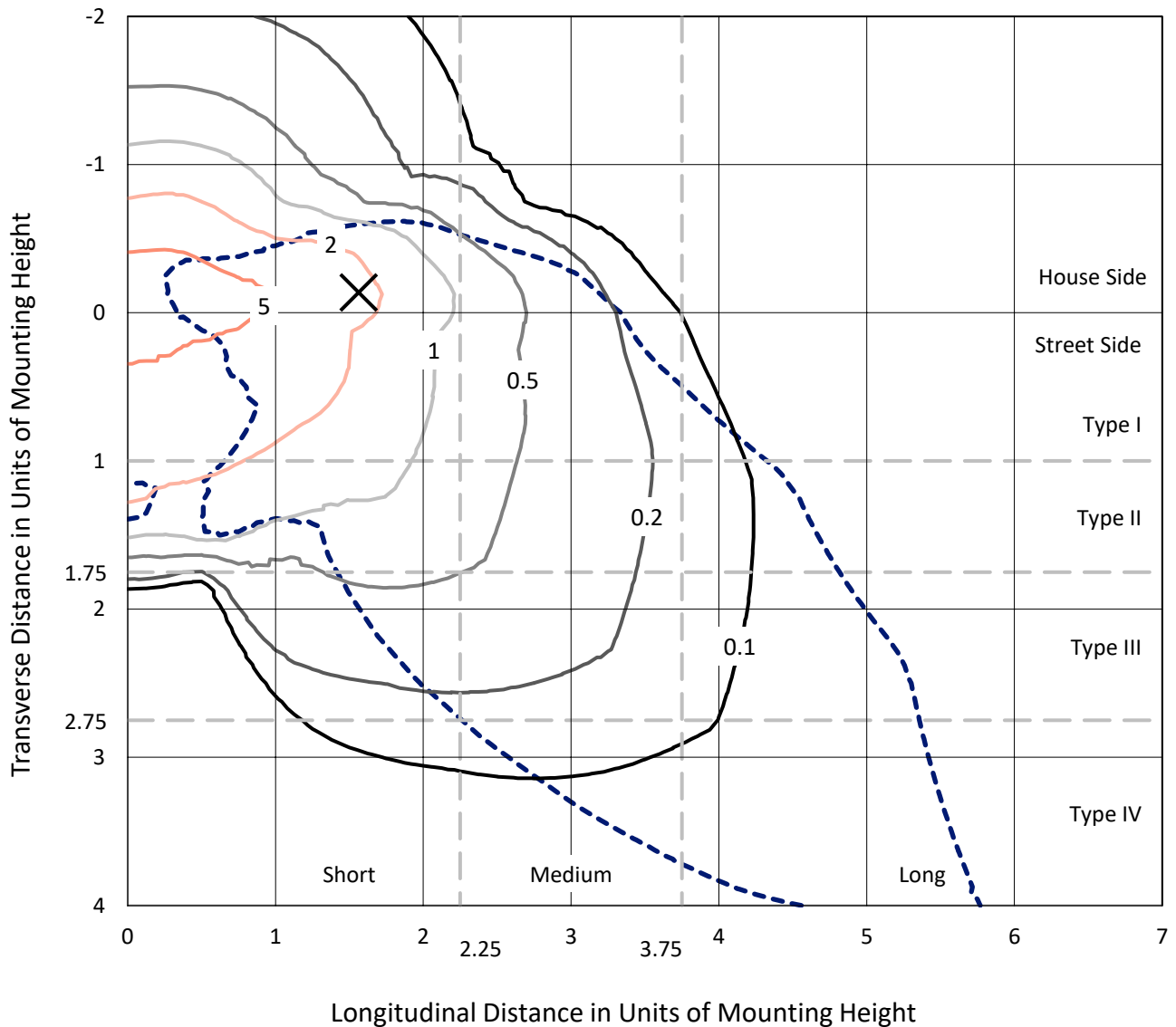
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

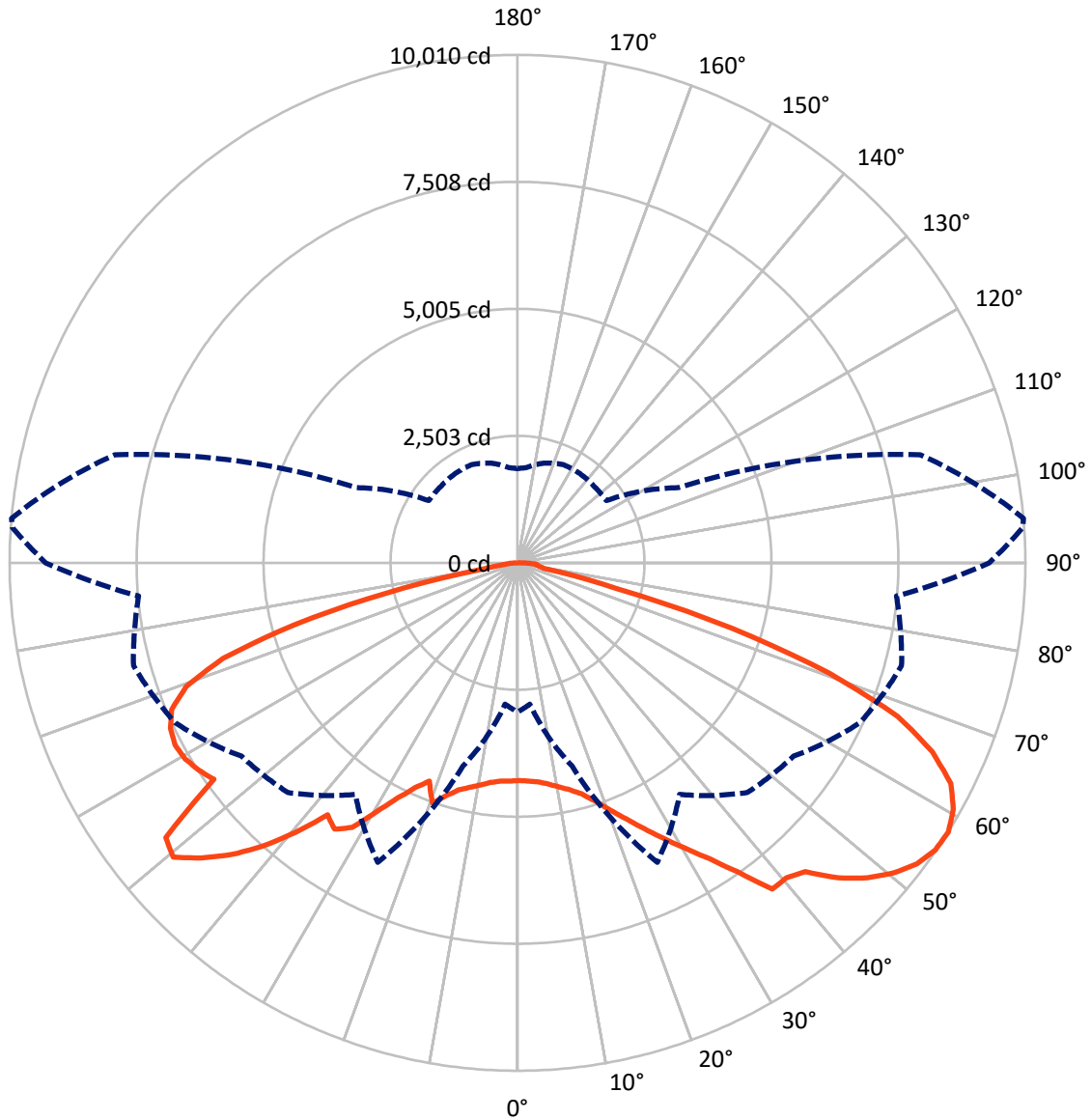
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

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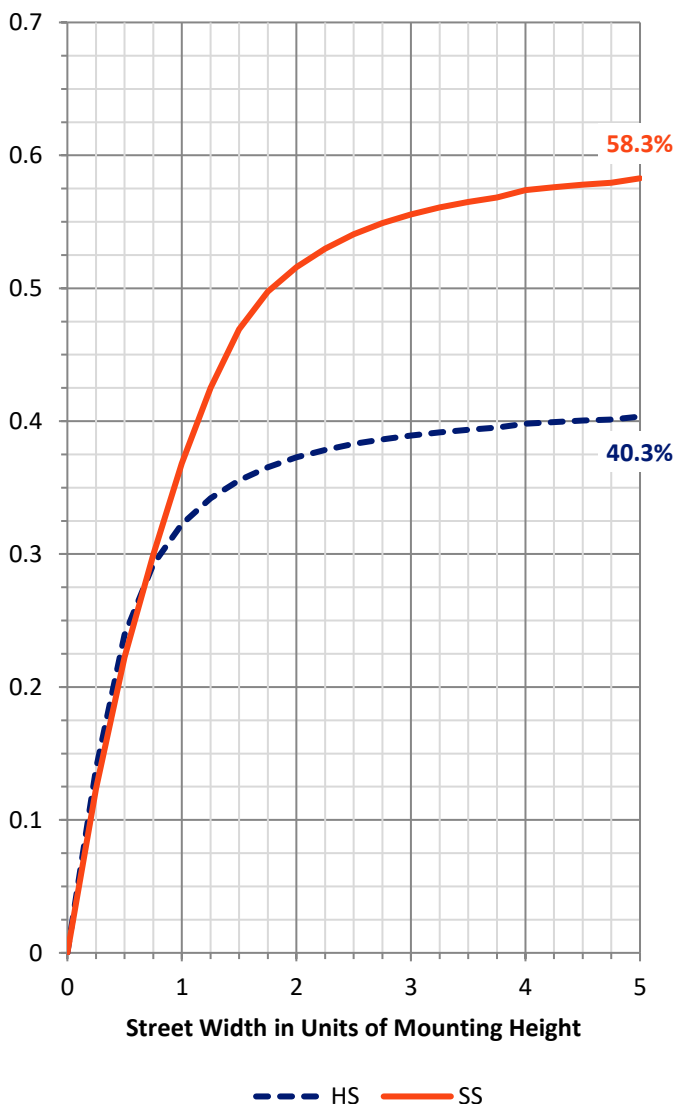
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9264.2	0.0	9264.2
	% Fixture	41.2	0.0	41.2
<b>Street Side</b>	Lumens	13228.8	0.0	13228.8
	% Fixture	58.8	0.0	58.8
<b>Total</b>	Lumens	22493.0	0.0	22493.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	419.1	1.9
10°-20°	1281.5	5.7
20°-30°	2025.1	9.0
30°-40°	2798.3	12.4
40°-50°	3773.0	16.8
50°-60°	4444.6	19.8
60°-70°	3970.6	17.7
70°-80°	2964.8	13.2
80°-90°	816.1	3.6
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°	22493.0	100.0
0°-180°	22493.0	100.0

**Coefficient of Utilization**

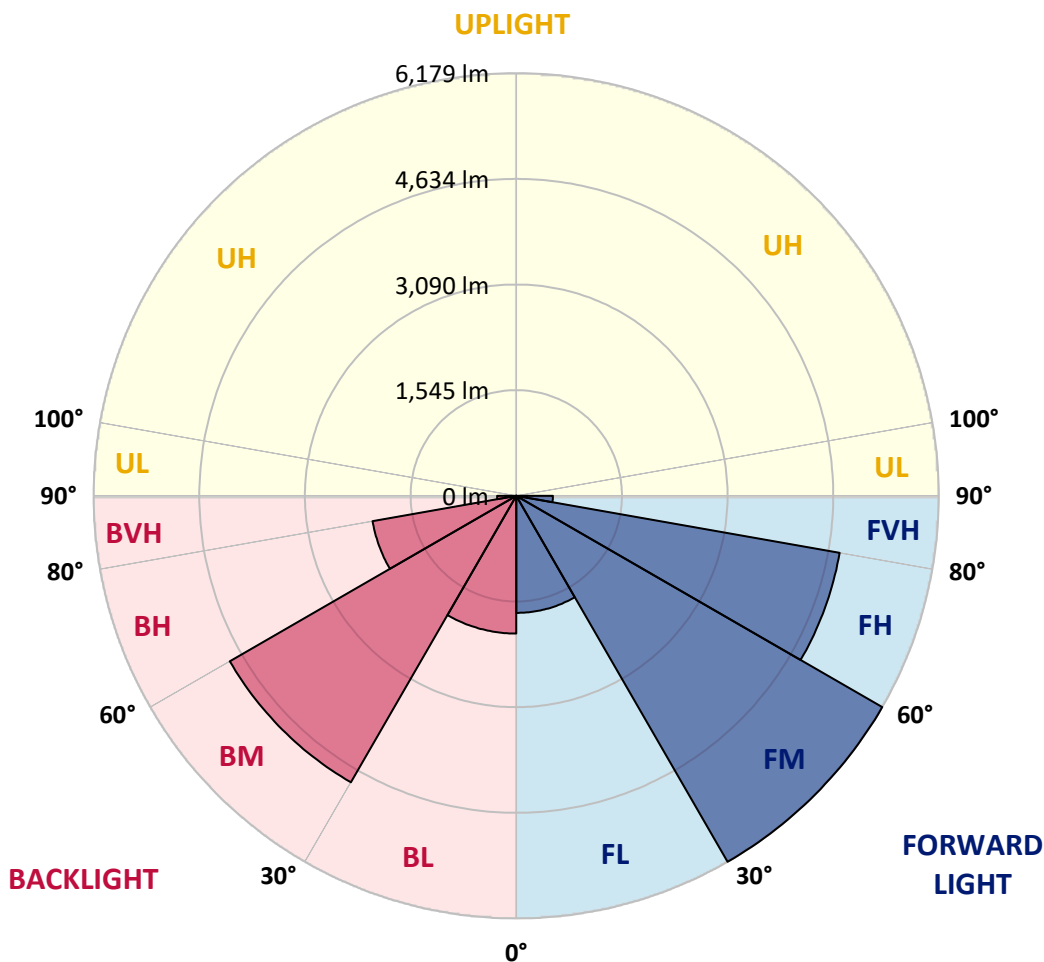


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1712.0	7.6			
FM	(30°-60°)	6179.3	27.5			
FH	(60°-80°)	4801.5	21.3			G2/5000
FVH	(80°-90°)	536.0	2.4			G4/750
BL	(0°-30°)	2013.7	9.0	B3/2500		
BM	(30°-60°)	4836.6	21.5	B3/5000		
BH	(60°-80°)	2133.8	9.5	B3/2500		G3/2500
BVH	(80°-90°)	280.0	1.2			G3/500
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°	75°	85°	90°
0°	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5
2.5°	4235.1	4208.2	4209.5	4246.7	4191.6	4231.3	4226.2	4287.6	4278.7	4303.0	4310.7
5°	4200.5	4177.5	4178.8	4226.2	4189.0	4224.9	4200.5	4256.9	4277.4	4314.5	4322.2
7.5°	4209.5	4189.0	4196.7	4241.5	4195.4	4231.3	4233.8	4286.4	4296.6	4360.7	4370.9
10°	4232.6	4210.8	4215.9	4251.8	4222.3	4286.4	4278.7	4347.9	4350.4	4440.1	4452.9
12.5°	4201.8	4186.4	4186.4	4231.3	4246.7	4310.7	4329.9	4401.7	4417.0	4520.8	4537.5
15°	4146.7	4121.1	4158.3	4224.9	4255.6	4353.0	4388.8	4496.5	4514.4	4622.0	4657.9
17.5°	4051.9	4037.8	4174.9	4195.4	4078.8	4153.1	4305.6	4606.6	4668.1	4794.9	4861.6
20°	3768.8	3610.0	3243.6	3310.2	3668.9	3936.6	3984.0	4128.8	4392.7	5024.2	5128.0
22.5°	2770.9	2908.0	3392.2	3431.9	3420.4	3642.0	4140.3	4280.0	4405.5	4637.4	5326.6
25°	2869.5	2861.8	3098.8	3602.3	3584.4	3626.6	3835.4	4514.4	4639.9	4870.5	5587.9
27.5°	2957.9	2964.3	2946.4	3420.4	3756.0	3799.6	3863.6	4327.4	4934.6	5198.5	5873.6
30°	3133.4	3106.5	3057.8	3056.6	3905.9	3969.9	4078.8	4233.8	5206.2	5625.1	6231.0
32.5°	3429.3	3398.6	3334.6	3233.3	3375.5	4146.7	4296.6	4493.9	4803.9	6149.0	6649.9
35°	3648.4	3626.6	3583.1	3512.6	3398.6	4235.1	4509.3	4770.6	5180.5	6366.8	7199.5
37.5°	3918.7	3888.0	3838.0	3750.9	3665.1	3630.5	4714.2	5084.5	5705.8	6219.5	7318.6
40°	4224.9	4206.9	4116.0	4003.3	3908.5	3812.4	4855.1	5494.4	6380.9	6880.5	7209.7
42.5°	4455.5	4441.4	4387.6	4296.6	4204.4	4142.9	4303.0	5997.8	7116.2	7519.7	7761.8
45°	4656.6	4641.2	4641.2	4616.9	4591.3	4596.4	4665.6	6359.1	7814.4	8065.4	8284.5
47.5°	4811.6	4784.7	4677.1	4698.9	4736.0	4847.5	5057.6	5529.0	8376.7	8529.2	8723.9
50°	5189.5	5148.5	4800.1	4880.8	5001.2	5180.5	5450.8	6044.0	7822.0	8925.0	9077.5
52.5°	5537.9	5348.4	3964.8	5148.5	5284.3	5549.5	5869.7	6601.2	7199.5	8796.9	9347.8
55°	4941.0	4747.5	3985.3	5640.4	5617.4	5951.7	6264.3	7058.5	7537.7	7348.1	9279.9
57.5°	2941.3	2795.2	4146.7	6514.1	5568.7	6401.4	6642.2	7449.3	7834.9	7495.4	9297.8
60°	1523.2	1601.3	1539.8	3854.7	4794.9	6598.6	7032.9	7825.9	8036.0	7605.5	9309.3
62.5°	205.0	147.3	61.5	2819.6	3407.6	5498.2	7523.6	8184.6	8183.3	7642.7	9228.6
65°	12.8	14.1	28.2	2805.5	3758.6	6523.1	8335.7	8474.1	8256.3	7577.4	8959.6
67.5°	5.1	6.4	25.6	2786.3	4055.8	6857.4	9291.4	8566.3	8264.0	7401.9	8369.0
70°	5.1	6.4	25.6	2595.4	4258.2	6916.3	9452.8	8531.7	8169.2	6970.1	7271.2
72.5°	6.4	7.7	23.1	2254.6	4135.2	6756.2	9188.9	8461.3	7829.7	6101.6	5645.6
75°	6.4	7.7	23.1	1821.6	3658.7	6406.5	8980.1	7872.0	6863.8	4559.2	3661.2
77.5°	5.1	6.4	23.1	1422.0	3050.2	5677.6	8146.1	6844.6	5427.8	2653.0	1446.3
80°	5.1	6.4	23.1	990.2	2323.8	4654.0	6635.8	5330.4	3052.7	758.4	407.4
82.5°	5.1	6.4	21.8	617.5	1643.6	3422.9	4534.9	2457.0	654.6	295.9	317.7
85°	5.1	5.1	16.7	302.3	1050.5	2273.8	2259.8	411.2	260.1	192.2	240.8
87.5°	2.6	3.8	9.0	138.4	586.7	1199.1	900.6	157.6	111.5	78.1	134.5
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):**

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5	4291.5
2.5°	4313.3	4306.9	4324.8	4370.9	4368.4	4402.9	4376.0	4428.6	4437.5	4426.0	4443.9
5°	4336.3	4338.9	4387.6	4436.2	4418.3	4474.7	4486.2	4564.4	4566.9	4556.7	4579.7
7.5°	4394.0	4402.9	4451.6	4509.3	4534.9	4582.3	4575.9	4677.1	4668.1	4663.0	4689.9
10°	4474.7	4491.3	4543.9	4634.8	4623.3	4696.3	4663.0	4730.9	4728.3	4718.1	4747.5
12.5°	4573.3	4590.0	4656.6	4743.7	4745.0	4750.1	4723.2	4757.8	4746.3	4721.9	4745.0
15°	4706.5	4725.8	4816.7	4880.8	4825.7	4811.6	4760.4	4741.1	4697.6	4633.5	4652.7
17.5°	4916.6	4932.0	5034.5	5070.4	4975.6	4919.2	4773.2	4664.3	4541.3	4451.6	4468.3
20°	5181.8	5195.9	5279.2	5270.2	5143.4	5005.0	4778.3	4593.8	4364.5	4189.0	4183.9
22.5°	5473.9	5482.9	5562.3	5482.9	5257.4	5056.3	4768.0	4484.9	4099.3	3872.6	3848.3
25°	5795.4	5803.1	5801.8	5625.1	5322.7	5026.8	4673.2	4303.0	3808.5	3566.4	3540.8
27.5°	6155.4	6156.7	6015.8	5735.2	5294.5	4917.9	4490.1	3976.4	3542.1	3332.0	3312.8
30°	6538.4	6535.9	6211.8	5745.5	5185.7	4711.7	4206.9	3667.6	3302.5	3115.5	3088.6
32.5°	6975.3	6953.5	6386.0	5709.6	4987.1	4415.8	3841.8	3408.9	3114.2	2900.3	2860.6
35°	7535.1	7481.3	6534.6	5585.3	4692.5	4016.1	3503.6	3183.4	2932.3	2714.5	2674.8
37.5°	8228.1	8159.0	6767.7	5409.8	4353.0	3685.6	3255.1	3030.9	2801.6	2553.1	2501.9
40°	8028.3	8161.5	7045.7	5220.2	4025.0	3421.7	3109.1	2957.9	2722.2	2446.8	2398.1
42.5°	8337.0	8320.4	7426.2	4996.1	3709.9	3215.4	3050.2	2936.1	2679.9	2400.7	2344.3
45°	8862.2	8858.4	7836.1	4778.3	3402.4	3050.2	3005.3	2877.2	2619.7	2343.0	2281.5
47.5°	9288.8	9276.0	8228.1	4538.7	3118.1	2920.8	2914.4	2758.1	2512.1	2254.6	2198.3
50°	9586.0	9605.3	8445.9	4308.1	2849.0	2787.5	2763.2	2590.3	2361.0	2148.3	2104.8
52.5°	9820.5	9856.3	8540.7	4286.4	2613.3	2615.9	2573.6	2416.0	2236.7	2065.0	2018.9
55°	9935.8	9990.8	8443.3	4145.5	2382.7	2398.1	2357.1	2257.2	2150.9	1993.3	1960.0
57.5°	9983.2	10010.1	8217.9	3506.2	2135.5	2132.9	2145.7	2135.5	2035.6	1880.6	1856.2
60°	9902.5	9866.6	7727.2	2664.6	1884.4	1895.9	1977.9	1967.7	1879.3	1761.4	1728.1
62.5°	9653.9	9583.5	6829.2	1970.2	1683.3	1776.8	1863.9	1834.5	1726.8	1619.2	1593.6
65°	9179.9	8981.4	5441.9	1538.5	1587.2	1715.3	1796.0	1752.5	1629.5	1502.7	1487.3
67.5°	8329.3	8080.8	3571.5	1379.7	1546.2	1662.8	1747.3	1674.3	1555.2	1418.1	1396.3
70°	6797.2	6524.3	1691.0	1286.2	1454.0	1569.3	1630.8	1556.5	1434.8	1297.7	1282.3
72.5°	4739.9	4429.8	910.8	1185.0	1347.7	1447.6	1488.6	1397.6	1291.3	1231.1	1227.2
75°	2362.2	2018.9	826.3	1081.2	1210.6	1297.7	1366.9	1304.1	1210.6	1100.4	1072.2
77.5°	629.0	540.6	777.6	965.9	1101.7	1200.3	1240.0	1174.7	1067.1	973.6	956.9
80°	436.8	445.8	726.4	800.7	960.8	1049.2	1086.3	1003.1	949.3	857.0	831.4
82.5°	370.2	389.4	586.7	603.4	763.5	858.3	923.6	909.5	832.7	758.4	748.1
85°	347.2	368.9	375.3	417.6	547.0	658.5	771.2	777.6	726.4	631.6	600.8
87.5°	199.8	197.3	180.6	212.7	299.8	365.1	442.0	421.5	343.3	297.2	290.8
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)