

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: P591176

Luminaire Tested: **CTN-CA8-330-722-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591176  
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-CA8-330-722-U-T4-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21648 lumens  
Efficiency: N/A  
Efficacy: 65.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

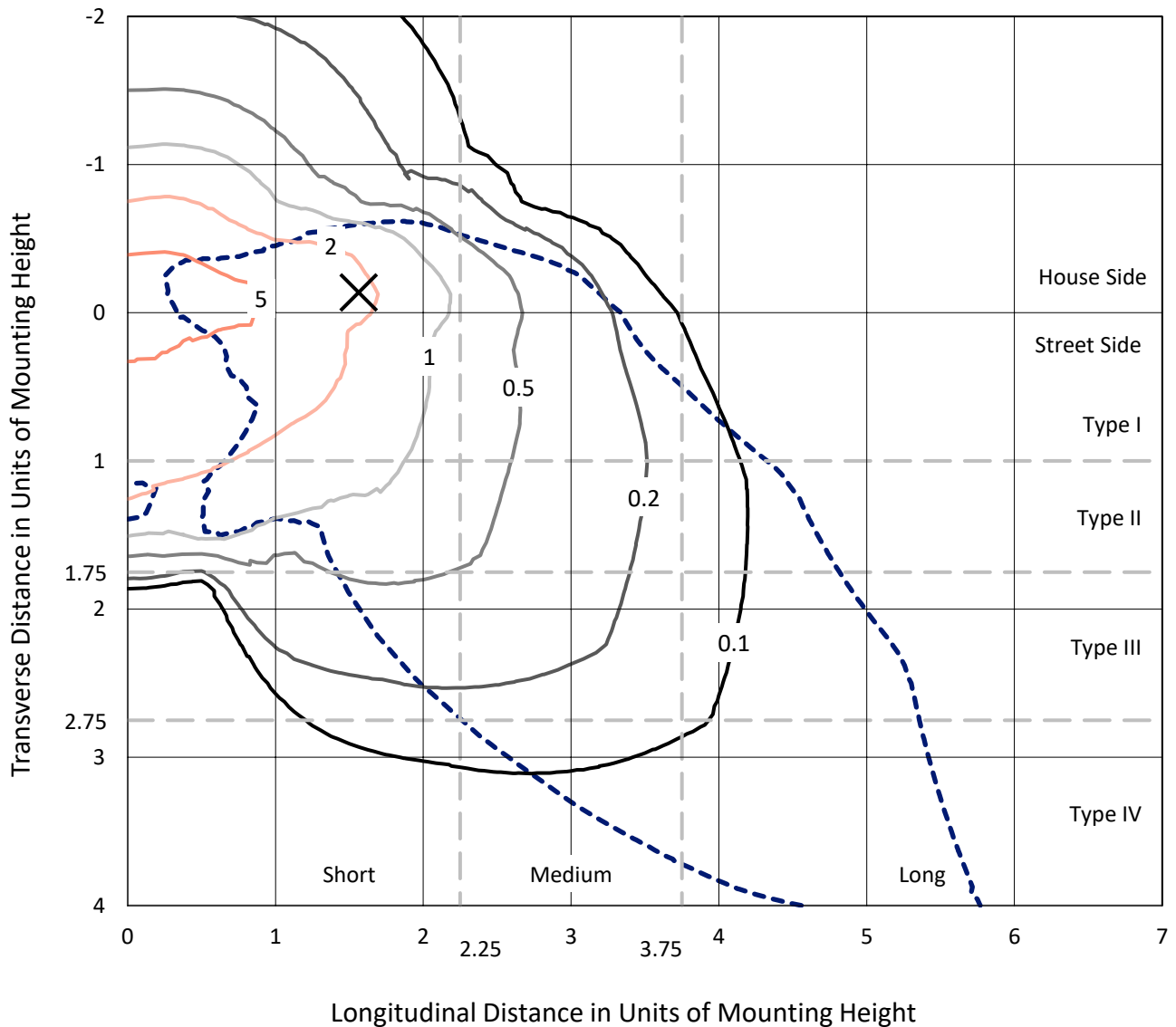
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

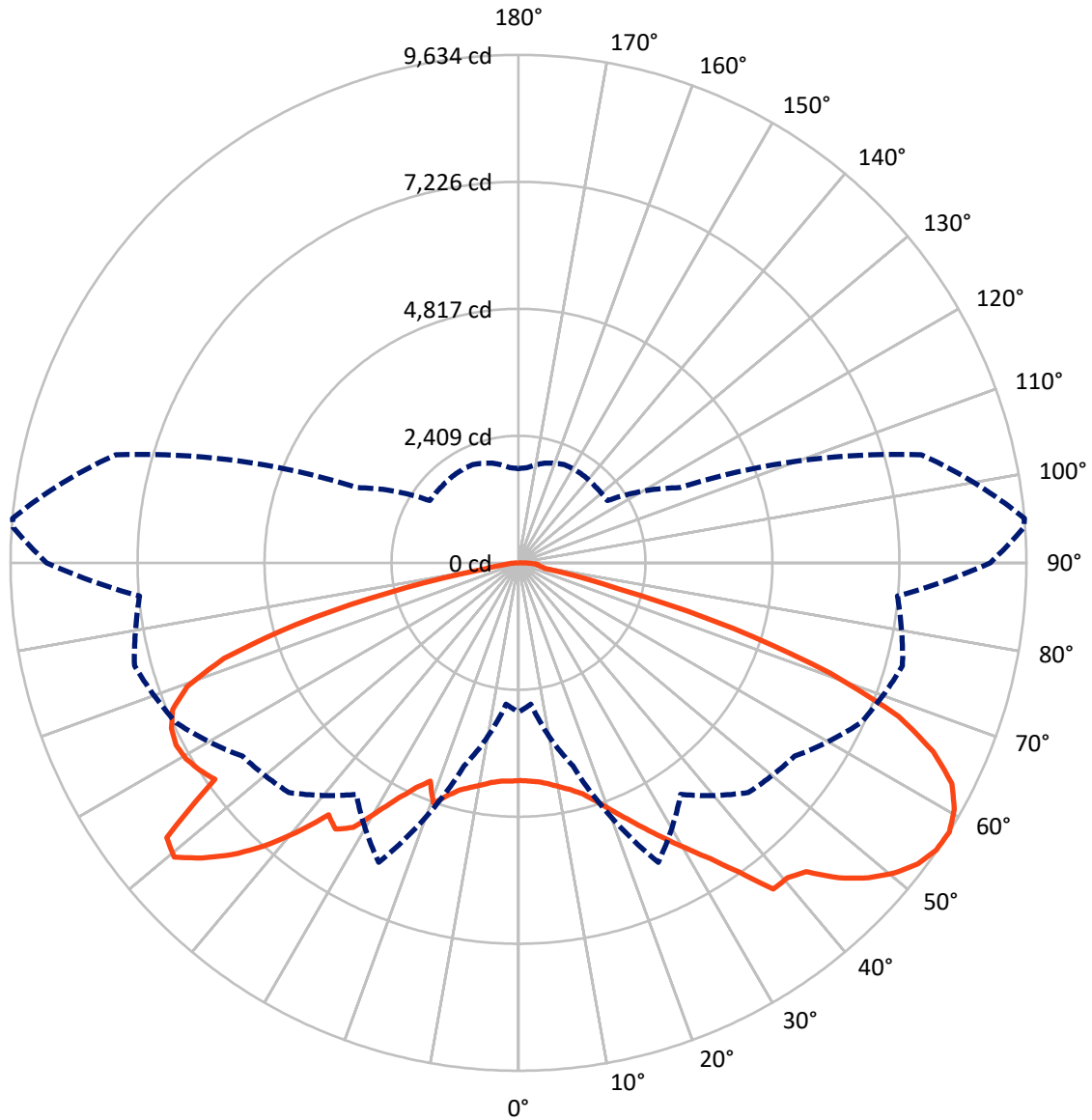
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 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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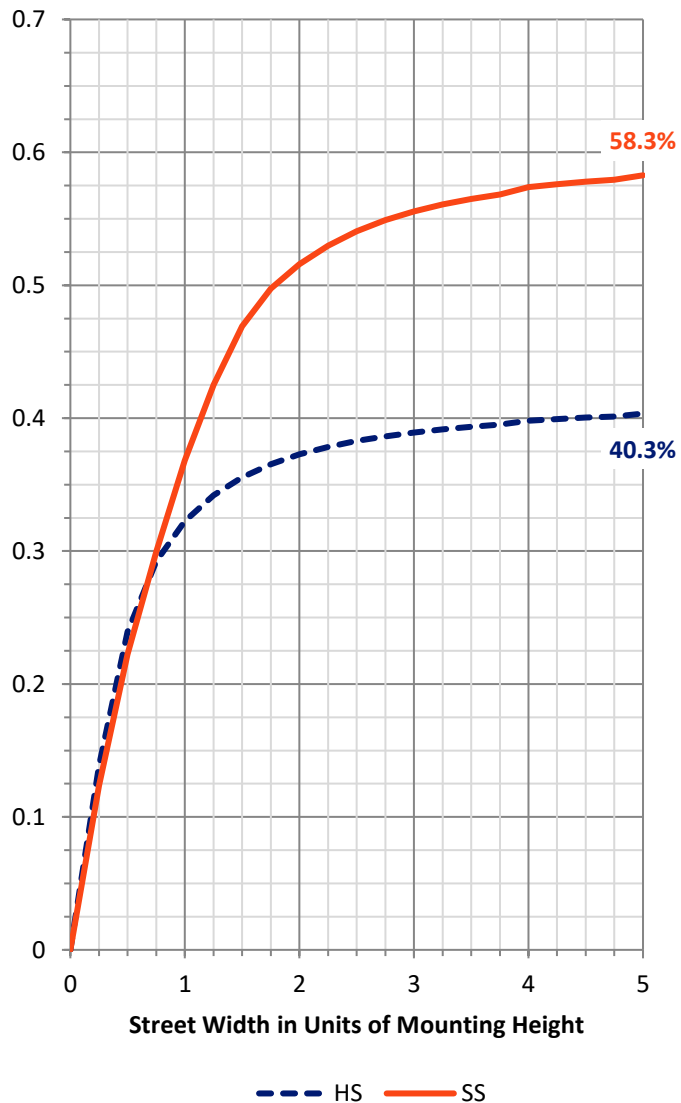
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8916.1	0.0	8916.1
	% Fixture	41.2	0.0	41.2
<b>Street Side</b>	Lumens	12731.9	0.0	12731.9
	% Fixture	58.8	0.0	58.8
<b>Total</b>	Lumens	21648.0	0.0	21648.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	403.3	1.9
10°-20°	1233.4	5.7
20°-30°	1949.0	9.0
30°-40°	2693.2	12.4
40°-50°	3631.3	16.8
50°-60°	4277.6	19.8
60°-70°	3821.4	17.7
70°-80°	2853.4	13.2
80°-90°	785.4	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°	21648.0	100.0
0°-180°	21648.0	100.0

**Coefficient of Utilization**

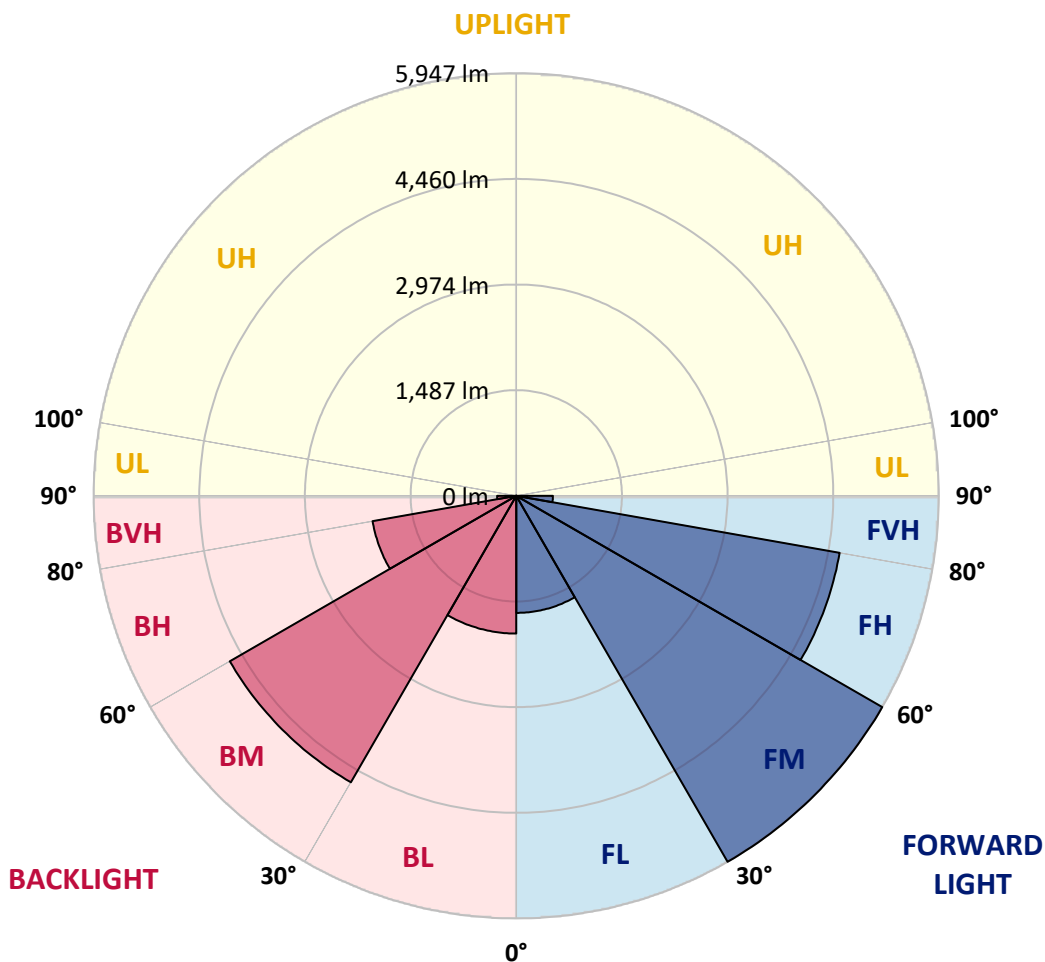


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1647.7	7.6			
FM	(30°-60°)	5947.1	27.5			
FH	(60°-80°)	4621.2	21.3			G2/5000
FVH	(80°-90°)	515.9	2.4			G4/750
BL	(0°-30°)	1938.0	9.0	B3/2500		
BM	(30°-60°)	4654.9	21.5	B3/5000		
BH	(60°-80°)	2053.7	9.5	B3/2500		G3/2500
BVH	(80°-90°)	269.5	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°	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3
2.5°	4076.0	4050.1	4051.4	4087.1	4034.1	4072.3	4067.4	4126.6	4117.9	4141.4	4148.8
5°	4042.7	4020.5	4021.8	4067.4	4031.6	4066.2	4042.7	4097.0	4116.7	4152.5	4159.9
7.5°	4051.4	4031.6	4039.0	4082.2	4037.8	4072.3	4074.8	4125.3	4135.2	4196.8	4206.7
10°	4073.6	4052.6	4057.5	4092.1	4063.7	4125.3	4117.9	4184.5	4187.0	4273.3	4285.6
12.5°	4044.0	4029.2	4029.2	4072.3	4087.1	4148.8	4167.3	4236.3	4251.1	4351.0	4367.0
15°	3991.0	3966.3	4002.0	4066.2	4095.7	4189.5	4224.0	4327.5	4344.8	4448.4	4482.9
17.5°	3899.7	3886.2	4018.1	4037.8	3925.6	3997.1	4143.8	4433.6	4492.7	4614.8	4678.9
20°	3627.2	3474.4	3121.7	3185.9	3531.1	3788.8	3834.4	3973.7	4227.7	4835.5	4935.4
22.5°	2666.8	2798.7	3264.8	3303.0	3291.9	3505.2	3984.8	4119.2	4240.0	4463.2	5126.5
25°	2761.7	2754.3	2982.4	3467.0	3449.7	3490.4	3691.4	4344.8	4465.6	4687.5	5378.0
27.5°	2846.8	2853.0	2835.7	3291.9	3614.9	3656.8	3718.5	4164.8	4749.2	5003.2	5652.9
30°	3015.7	2989.8	2943.0	2941.7	3759.2	3820.8	3925.6	4074.8	5010.6	5413.7	5996.9
32.5°	3300.5	3270.9	3209.3	3111.9	3248.7	3991.0	4135.2	4325.1	4623.4	5918.0	6400.1
35°	3511.3	3490.4	3448.5	3380.7	3270.9	4076.0	4339.9	4591.4	4985.9	6127.6	6929.0
37.5°	3771.5	3741.9	3693.8	3610.0	3527.4	3494.1	4537.1	4893.4	5491.4	5985.8	7043.7
40°	4066.2	4048.9	3961.4	3852.9	3761.6	3669.2	4672.8	5288.0	6141.2	6622.0	6938.9
42.5°	4288.1	4274.5	4222.7	4135.2	4046.4	3987.3	4141.4	5772.5	6848.9	7237.2	7470.2
45°	4481.7	4466.9	4466.9	4443.4	4418.8	4423.7	4490.3	6120.2	7520.8	7762.4	7973.3
47.5°	4630.8	4604.9	4501.4	4522.3	4558.1	4665.4	4867.6	5321.3	8062.0	8208.8	8396.2
50°	4994.5	4955.1	4619.7	4697.4	4813.3	4985.9	5246.1	5816.9	7528.2	8589.7	8736.4
52.5°	5329.9	5147.4	3815.9	4955.1	5085.8	5341.0	5649.2	6353.2	6929.0	8466.4	8996.6
55°	4755.4	4569.2	3835.6	5428.5	5406.3	5728.1	6029.0	6793.4	7254.5	7072.0	8931.2
57.5°	2830.8	2690.2	3991.0	6269.4	5359.5	6160.9	6392.7	7169.4	7540.5	7213.8	8948.5
60°	1465.9	1541.1	1482.0	3709.8	4614.8	6350.8	6768.7	7531.9	7734.1	7319.8	8959.6
62.5°	197.3	141.8	59.2	2713.6	3279.6	5291.7	7240.9	7877.1	7875.9	7355.6	8881.9
65°	12.3	13.6	27.1	2700.1	3617.4	6278.0	8022.6	8155.7	7946.1	7292.7	8623.0
67.5°	4.9	6.2	24.7	2681.6	3903.4	6599.8	8942.3	8244.5	7953.5	7123.8	8054.6
70°	4.9	6.2	24.7	2497.9	4098.2	6656.5	9097.7	8211.2	7862.3	6708.3	6998.0
72.5°	6.2	7.4	22.2	2169.9	3979.9	6502.4	8843.7	8143.4	7535.6	5872.4	5433.5
75°	6.2	7.4	22.2	1753.2	3521.2	6165.8	8642.7	7576.3	6606.0	4388.0	3523.7
77.5°	4.9	6.2	22.2	1368.5	2935.6	5464.3	7840.1	6587.5	5223.9	2553.4	1392.0
80°	4.9	6.2	22.2	953.0	2236.5	4479.2	6386.5	5130.2	2938.0	729.9	392.1
82.5°	4.9	6.2	21.0	594.3	1581.8	3294.4	4364.5	2364.7	630.0	284.8	305.8
85°	4.9	4.9	16.0	291.0	1011.0	2188.4	2174.9	395.8	250.3	184.9	231.8
87.5°	2.5	3.7	8.6	133.2	564.7	1154.0	866.7	151.6	107.3	75.2	129.5
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°	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3	4130.3
2.5°	4151.2	4145.1	4162.3	4206.7	4204.2	4237.5	4211.6	4262.2	4270.8	4259.7	4277.0
5°	4173.4	4175.9	4222.7	4269.6	4252.3	4306.6	4317.7	4392.9	4395.3	4385.5	4407.7
7.5°	4228.9	4237.5	4284.4	4339.9	4364.5	4410.1	4404.0	4501.4	4492.7	4487.8	4513.7
10°	4306.6	4322.6	4373.2	4460.7	4449.6	4519.9	4487.8	4553.2	4550.7	4540.8	4569.2
12.5°	4401.5	4417.5	4481.7	4565.5	4566.7	4571.7	4545.8	4579.1	4568.0	4544.5	4566.7
15°	4529.7	4548.2	4635.8	4697.4	4644.4	4630.8	4581.5	4563.0	4521.1	4459.5	4478.0
17.5°	4731.9	4746.7	4845.4	4879.9	4788.6	4734.4	4593.8	4489.0	4370.7	4284.4	4300.4
20°	4987.1	5000.7	5080.8	5072.2	4950.2	4817.0	4598.8	4421.2	4200.5	4031.6	4026.7
22.5°	5268.3	5276.9	5353.3	5276.9	5059.9	4866.3	4588.9	4316.4	3945.3	3727.1	3703.7
25°	5577.7	5585.1	5583.9	5413.7	5122.8	4838.0	4497.7	4141.4	3665.5	3432.4	3407.8
27.5°	5924.2	5925.4	5789.8	5519.8	5095.6	4733.2	4321.4	3827.0	3409.0	3206.8	3188.3
30°	6292.8	6290.3	5978.4	5529.6	4990.8	4534.7	4048.9	3529.8	3178.5	2998.5	2972.6
32.5°	6713.2	6692.3	6146.1	5495.1	4799.7	4249.9	3697.5	3280.8	2997.2	2791.3	2753.1
35°	7252.0	7200.2	6289.1	5375.5	4516.2	3865.2	3372.0	3063.8	2822.1	2612.6	2574.3
37.5°	7919.0	7852.4	6513.5	5206.6	4189.5	3547.1	3132.8	2917.1	2696.4	2457.2	2407.9
40°	7726.7	7854.9	6781.0	5024.1	3873.8	3293.1	2992.3	2846.8	2619.9	2354.9	2308.0
42.5°	8023.8	8007.8	7147.2	4808.4	3570.5	3094.6	2935.6	2825.8	2579.3	2310.5	2256.2
45°	8529.3	8525.6	7541.8	4598.8	3274.6	2935.6	2892.4	2769.1	2521.3	2255.0	2195.8
47.5°	8939.9	8927.6	7919.0	4368.2	3000.9	2811.1	2804.9	2654.5	2417.7	2169.9	2115.7
50°	9225.9	9244.4	8128.6	4146.3	2742.0	2682.8	2659.4	2493.0	2272.3	2067.6	2025.7
52.5°	9451.5	9486.1	8219.9	4125.3	2515.2	2517.6	2476.9	2325.3	2152.7	1987.5	1943.1
55°	9562.5	9615.5	8126.2	3989.7	2293.2	2308.0	2268.6	2172.4	2070.1	1918.4	1886.4
57.5°	9608.1	9634.0	7909.2	3374.5	2055.3	2052.8	2065.1	2055.3	1959.1	1809.9	1786.5
60°	9530.4	9495.9	7437.0	2564.5	1813.6	1824.7	1903.6	1893.8	1808.7	1695.3	1663.2
62.5°	9291.3	9223.5	6572.7	1896.2	1620.1	1710.1	1793.9	1765.5	1662.0	1558.4	1533.7
65°	8835.1	8644.0	5237.4	1480.7	1527.6	1650.9	1728.5	1686.6	1568.3	1446.2	1431.4
67.5°	8016.4	7777.2	3437.4	1327.9	1488.1	1600.3	1681.7	1611.4	1496.8	1364.8	1343.9
70°	6541.9	6279.2	1627.5	1237.8	1399.4	1510.3	1569.5	1498.0	1380.9	1248.9	1234.1
72.5°	4561.8	4263.4	876.6	1140.4	1297.0	1393.2	1432.6	1345.1	1242.8	1184.8	1181.1
75°	2273.5	1943.1	795.2	1040.6	1165.1	1248.9	1315.5	1255.1	1165.1	1059.1	1032.0
77.5°	605.4	520.3	748.4	929.6	1060.3	1155.2	1193.5	1130.6	1027.0	937.0	921.0
80°	420.4	429.1	699.1	770.6	924.7	1009.8	1045.5	965.4	913.6	824.8	800.2
82.5°	356.3	374.8	564.7	580.7	734.8	826.1	888.9	875.4	801.4	729.9	720.0
85°	334.1	355.1	361.2	401.9	526.5	633.7	742.2	748.4	699.1	607.8	578.2
87.5°	192.3	189.9	173.8	204.7	288.5	351.4	425.4	405.6	330.4	286.0	279.9
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)