

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: P591147

Luminaire Tested: **CTN-CA6-230-722-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591147  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA6-230-722-U-T2-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15411 lumens  
Efficiency: N/A  
Efficacy: 67.7 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

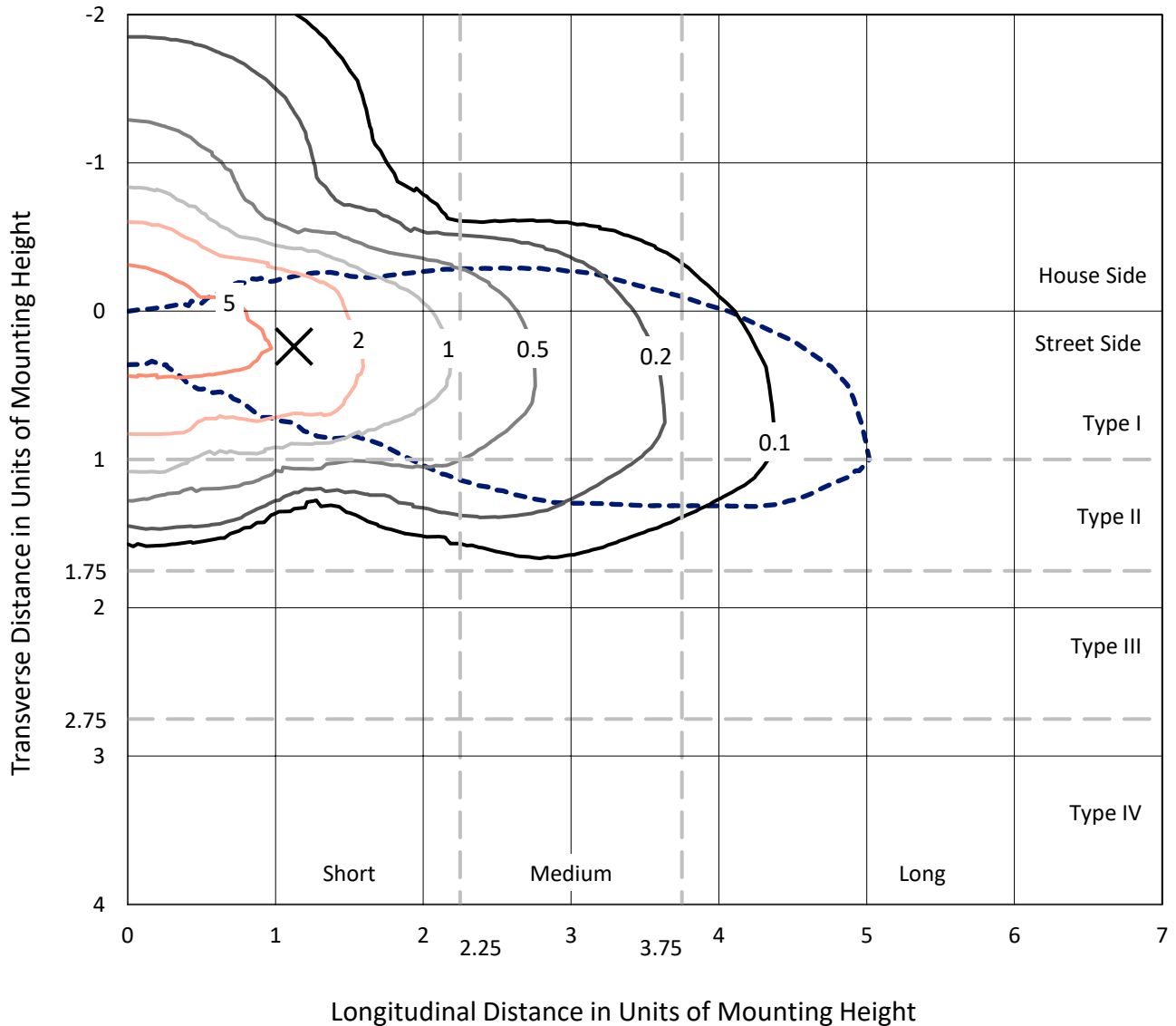
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

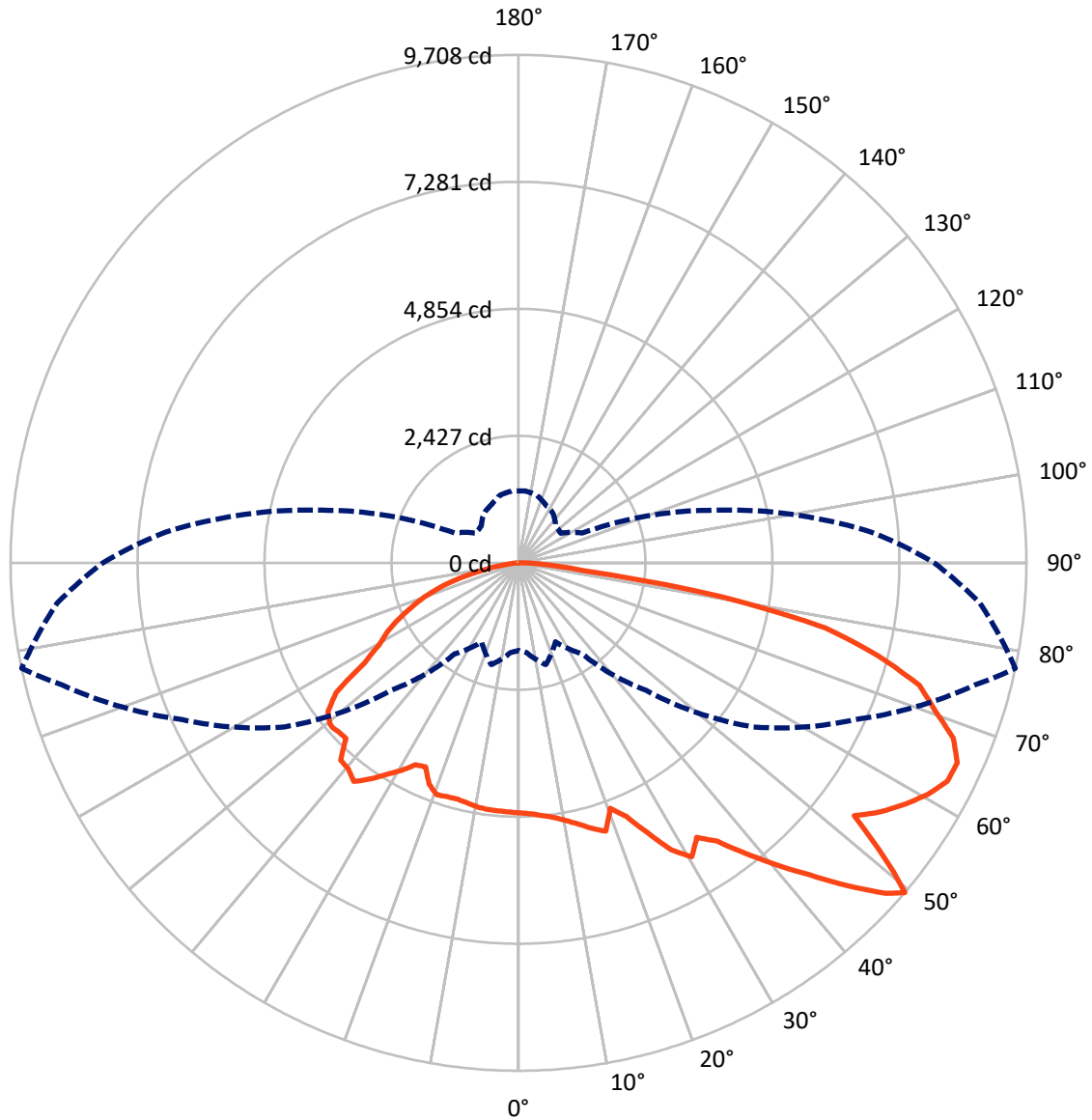
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 49-Deg Vertical

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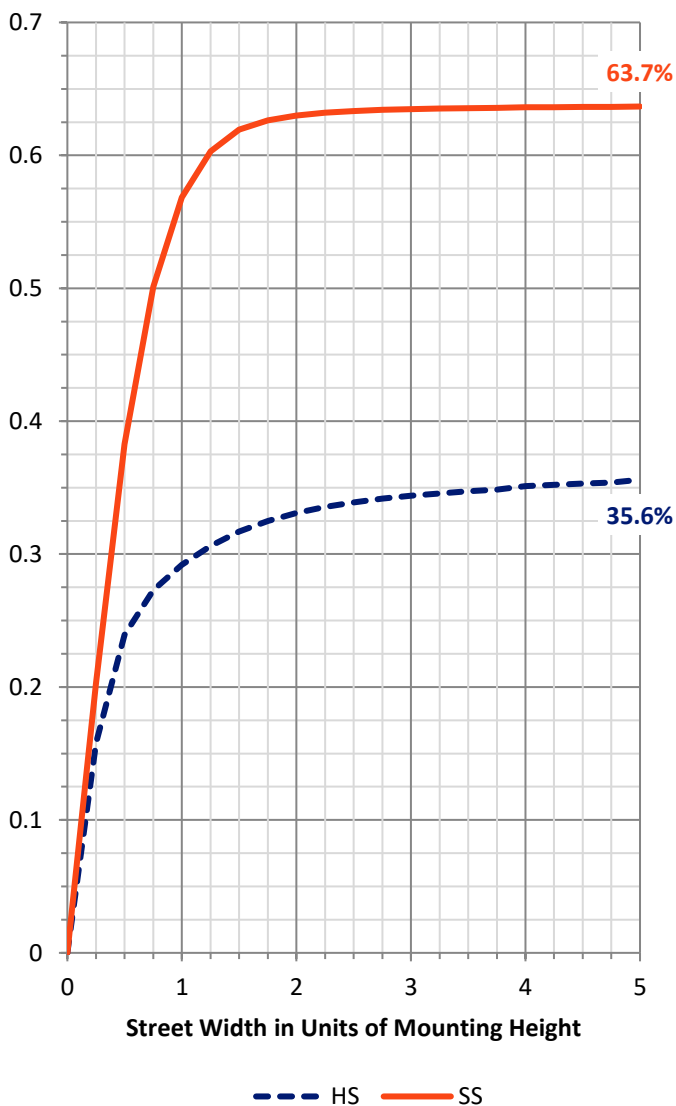
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5629.9	0.0	5629.9
	% Fixture	36.5	0.0	36.5
<b>Street Side</b>	Lumens	9781.1	0.0	9781.1
	% Fixture	63.5	0.0	63.5
<b>Total</b>	Lumens	15411.0	0.0	15411.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	463.2	3.0
10°-20°	1362.2	8.8
20°-30°	1917.9	12.4
30°-40°	2404.1	15.6
40°-50°	2713.6	17.6
50°-60°	2607.4	16.9
60°-70°	2130.1	13.8
70°-80°	1494.3	9.7
80°-90°	318.1	2.1
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°	15411.0	100.0
0°-180°	15411.0	100.0

**Coefficient of Utilization**

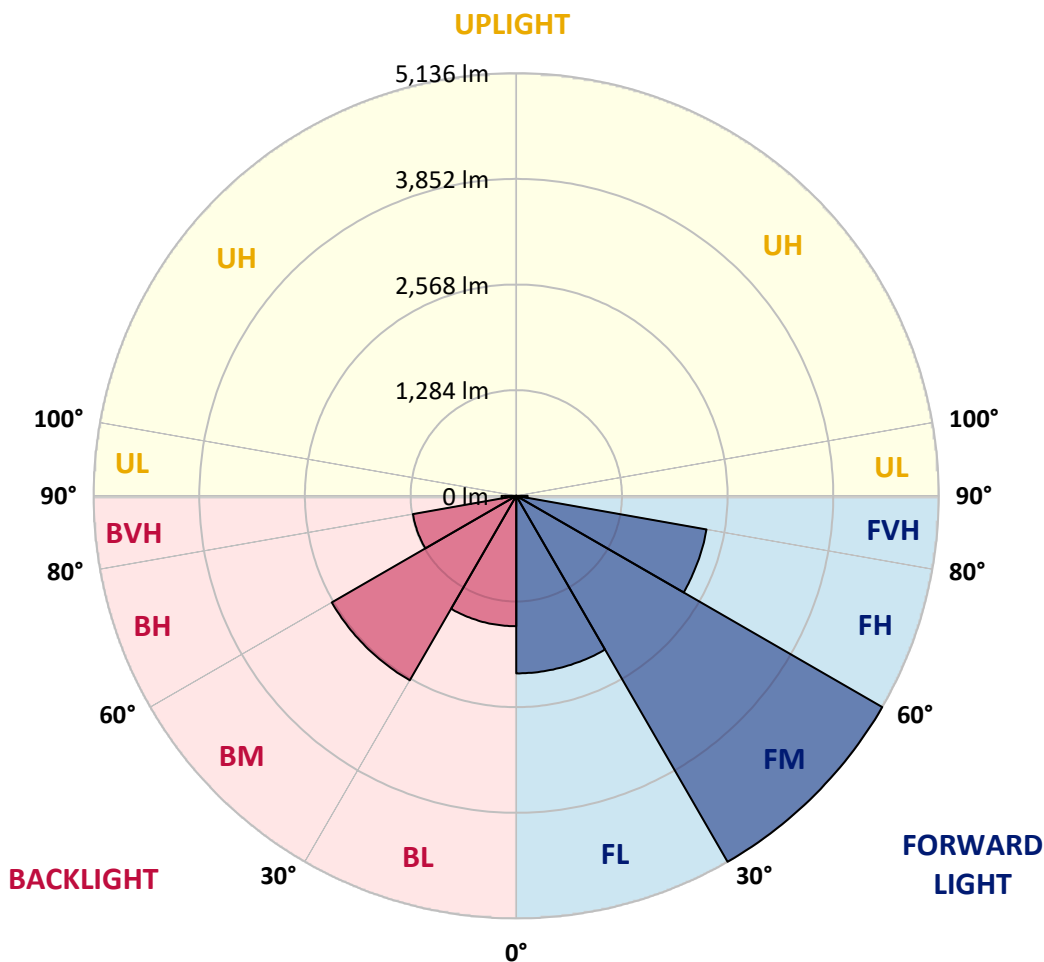


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2158.0	14.0			
FM (30°-60°)	5136.3	33.3			
FH (60°-80°)	2348.3	15.2			G2/5000
FVH (80°-90°)	138.5	0.9			G2/225
BL (0°-30°)	1585.3	10.3	B3/2500		
BM (30°-60°)	2588.9	16.8	B3/5000		
BH (60°-80°)	1276.1	8.3	B3/2500		G3/2500
BVH (80°-90°)	179.6	1.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1
2.5°	4977.1	4931.1	4941.5	4965.8	4872.1	4898.2	4856.5	4874.7	4825.3	4804.4	4813.1
5°	5332.1	5278.3	5290.4	5302.6	5164.6	5105.6	4989.3	4962.4	4886.9	4852.2	4847.8
7.5°	5501.3	5445.8	5458.8	5458.8	5353.8	5363.3	5245.3	5120.3	4969.3	4914.6	4890.3
10°	5773.0	5710.5	5700.9	5684.4	5547.3	5486.6	5388.5	5315.6	5086.5	5008.4	4941.5
12.5°	5971.7	5923.1	5924.0	5905.7	5751.3	5707.0	5534.3	5448.4	5221.9	5127.3	5019.7
15°	6054.1	6019.4	6042.0	5987.3	5884.0	5818.1	5736.5	5598.5	5364.2	5267.0	5134.2
17.5°	5669.7	5607.2	5441.4	5470.1	5463.1	5483.1	5403.2	5484.8	5447.5	5394.6	5306.9
20°	4801.0	4866.9	4983.2	4879.9	4872.1	5131.6	5317.3	5292.2	5083.9	5006.6	5094.3
22.5°	4079.8	3999.1	4244.7	4611.8	4715.0	4979.7	5295.6	5595.9	5360.7	5261.8	4996.2
25°	3432.4	3513.9	3895.8	4451.2	4775.8	4853.9	5215.8	5780.8	5818.1	5710.5	5365.9
27.5°	3329.9	3329.1	3586.8	4124.9	4863.4	5108.2	5219.3	5688.8	6280.6	6206.9	5811.1
30°	3306.5	3294.4	3392.4	3937.4	4624.8	5336.4	5552.5	5717.4	6277.2	6523.6	6319.7
32.5°	3205.8	3196.3	3297.0	3553.0	4300.2	5554.3	5871.9	6088.8	6121.0	6255.5	6836.1
35°	3044.4	3067.0	3198.9	3481.8	4033.8	5125.5	6195.6	6534.9	6612.2	6533.2	6537.5
37.5°	2889.9	2907.3	3042.7	3355.1	3839.4	4169.2	6417.8	6963.6	7135.5	7045.2	6623.4
40°	2689.5	2713.8	2874.3	3220.6	3711.8	3598.1	6095.8	7467.0	7705.7	7590.2	7112.0
42.5°	2463.8	2475.1	2665.2	2999.3	2661.7	3617.2	5640.2	7928.7	8262.8	8148.3	7571.1
45°	2271.2	2278.1	2433.5	2646.1	2399.6	3586.8	5325.1	7710.0	8913.7	8799.2	8057.1
47.5°	2000.4	2049.9	2218.2	1829.4	2228.6	3512.2	5431.0	6836.9	9523.8	9438.8	8529.2
49°	1675.8	1720.1	2016.0	1666.3	2122.8	3445.4	5467.5	7092.1	9029.1	9707.8	8853.0
50°	1540.4	1572.5	1544.8	1608.1	2045.5	3377.7	5409.3	7297.8	8298.4	9297.3	9061.2
52.5°	1339.1	1246.2	1061.4	1444.1	1867.6	3113.9	4457.3	7850.6	8222.0	8034.6	8490.2
55°	565.8	806.2	939.0	1184.6	1688.0	1890.2	4127.5	8452.9	8590.9	8401.7	7629.3
57.5°	442.6	451.3	516.4	881.7	933.8	1464.1	3993.0	8711.5	8869.4	8705.4	7925.2
60°	65.1	64.2	85.0	101.5	231.7	673.5	2609.6	6200.8	8560.5	8988.3	8196.0
62.5°	23.4	24.3	24.3	28.6	42.5	295.1	1897.1	5785.1	8767.0	9195.8	8422.5
65°	1.7	2.6	4.3	9.5	22.6	278.6	1682.8	5887.5	8700.2	9215.7	8532.7
67.5°	0.0	0.9	2.6	6.9	18.2	274.2	1564.7	5714.8	8419.9	8962.3	8291.5
70°	0.0	0.0	1.7	6.1	16.5	263.8	1359.1	5129.0	7918.3	8442.5	7852.3
72.5°	0.0	0.0	1.7	6.1	14.8	251.7	1116.9	4515.4	7461.8	8010.3	7215.3
75°	0.0	0.0	1.7	5.2	13.0	229.1	816.6	3272.7	6684.2	7103.4	6311.0
77.5°	0.0	0.0	1.7	5.2	12.1	197.9	552.0	1875.4	5499.6	6006.4	5302.6
80°	0.0	0.0	1.7	4.3	11.3	150.1	312.4	936.4	2874.3	3947.9	3789.9
82.5°	0.0	0.0	1.7	4.3	8.7	79.8	145.8	408.8	1059.6	1250.6	1459.7
85°	0.0	0.0	1.7	3.5	6.9	20.0	49.5	194.4	578.9	643.1	627.5
87.5°	0.0	0.0	1.7	3.5	5.2	7.8	16.5	55.5	214.4	239.5	204.8
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°	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1	4780.1
2.5°	4811.4	4784.5	4759.3	4762.8	4702.9	4689.9	4633.5	4668.2	4644.7	4615.2	4634.3
5°	4821.8	4787.1	4742.8	4693.3	4562.3	4515.4	4437.3	4459.9	4428.6	4393.9	4412.2
7.5°	4844.3	4803.6	4730.7	4602.2	4449.5	4367.0	4276.8	4354.0	4344.5	4324.5	4344.5
10°	4853.9	4818.3	4694.2	4544.9	4333.2	4276.8	4208.2	4195.2	4197.8	4202.1	4231.6
12.5°	4879.1	4826.1	4635.2	4458.2	4265.5	4153.5	4085.8	4125.8	4043.3	4006.9	4022.5
15°	4940.7	4840.0	4589.2	4337.5	4145.7	4057.2	3890.6	3890.6	3869.8	3834.2	3844.6
17.5°	5064.8	4895.6	4577.1	4257.7	4012.1	3859.3	3706.6	3625.9	3603.3	3614.6	3621.5
20°	5131.6	4998.0	4571.0	4152.7	3861.9	3684.9	3453.2	3395.9	3320.4	3330.8	3343.0
22.5°	4729.8	4555.4	4561.4	4024.2	3676.2	3451.4	3198.0	3098.2	3052.2	3043.6	3067.0
25°	5016.2	4664.7	4122.3	3953.9	3472.3	3185.9	2929.0	2791.9	2721.6	2717.2	2732.0
27.5°	5396.3	4965.8	4061.5	3624.1	3255.3	2863.9	2580.1	2482.1	2412.6	2409.2	2411.8
30°	5838.9	5367.7	4212.6	3218.0	2961.1	2492.5	2266.8	2197.4	2134.0	2106.3	2107.1
32.5°	6331.0	5731.3	4358.4	3139.9	2373.6	2168.8	1993.5	1939.6	1852.9	1812.9	1801.7
35°	6791.8	6117.5	4540.6	3008.8	2059.4	1880.6	1757.4	1685.4	1617.7	1583.8	1572.5
37.5°	6385.7	6473.3	4702.0	2901.2	1819.9	1558.7	1524.8	1477.1	1442.4	1416.3	1412.0
40°	6478.5	5831.1	4797.5	2698.2	1572.5	1361.7	1307.0	1330.4	1366.0	1344.3	1343.4
42.5°	6788.3	5930.9	4710.7	2417.0	1376.4	1174.2	1189.8	1277.5	1352.1	1338.2	1340.0
45°	7231.8	6242.5	4042.5	2081.1	1186.4	1057.9	1159.5	1261.9	1355.6	1359.9	1359.9
47.5°	7690.9	6593.1	3918.4	1633.3	1046.6	1012.8	1154.2	1242.8	1350.4	1378.1	1374.7
49°	7945.2	6763.2	3883.6	1344.3	984.1	1003.2	1153.4	1224.5	1340.0	1379.0	1374.7
50°	8093.6	6879.5	3818.5	1228.9	947.7	1001.5	1154.2	1213.3	1329.5	1372.9	1371.2
52.5°	8405.1	7027.0	3591.2	1011.9	859.2	995.4	1168.1	1202.8	1297.4	1343.4	1360.8
55°	6945.4	6777.9	3209.3	908.6	819.3	983.3	1168.1	1208.9	1269.7	1296.6	1313.1
57.5°	7031.3	5795.5	2523.7	857.4	792.3	970.3	1149.9	1208.0	1254.9	1259.3	1254.0
60°	7293.4	5930.0	1881.5	805.4	761.1	953.8	1110.9	1180.3	1215.9	1215.9	1200.2
62.5°	7450.5	5993.4	1504.9	748.1	728.1	919.9	1052.7	1126.5	1153.4	1138.6	1136.0
65°	7489.6	6044.6	1091.8	686.5	690.8	883.5	992.8	1057.0	1094.4	1069.2	1074.4
67.5°	7355.0	5679.2	797.6	623.1	648.3	834.0	933.8	991.1	1018.0	1005.0	1007.6
70°	6857.8	5281.7	561.5	514.6	579.7	757.6	859.2	925.1	939.0	916.5	919.9
72.5°	6058.5	4668.2	354.1	402.7	510.3	687.3	771.5	813.2	815.8	843.6	858.3
75°	5276.5	3745.6	256.0	317.6	405.3	587.5	704.7	743.7	772.4	911.2	933.8
77.5°	4229.0	2370.1	217.8	250.8	318.5	487.7	628.3	688.2	946.0	1014.5	997.2
80°	2562.8	1471.9	164.0	197.9	265.6	374.9	538.1	709.0	957.2	893.0	856.6
82.5°	1182.9	639.6	111.1	161.4	210.9	279.4	424.4	827.9	820.1	683.9	676.9
85°	425.2	189.2	60.7	115.4	147.5	192.7	326.3	820.1	643.1	574.5	538.1
87.5°	108.5	33.8	25.2	56.4	74.6	102.4	177.9	433.9	334.1	294.2	283.8
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)