

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: P591240

Luminaire Tested: **CTN-CA6-230-727-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591240  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA6-230-727-U-T1-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18542 lumens  
Efficiency: N/A  
Efficacy: 81.4 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B4 - U0 - G4

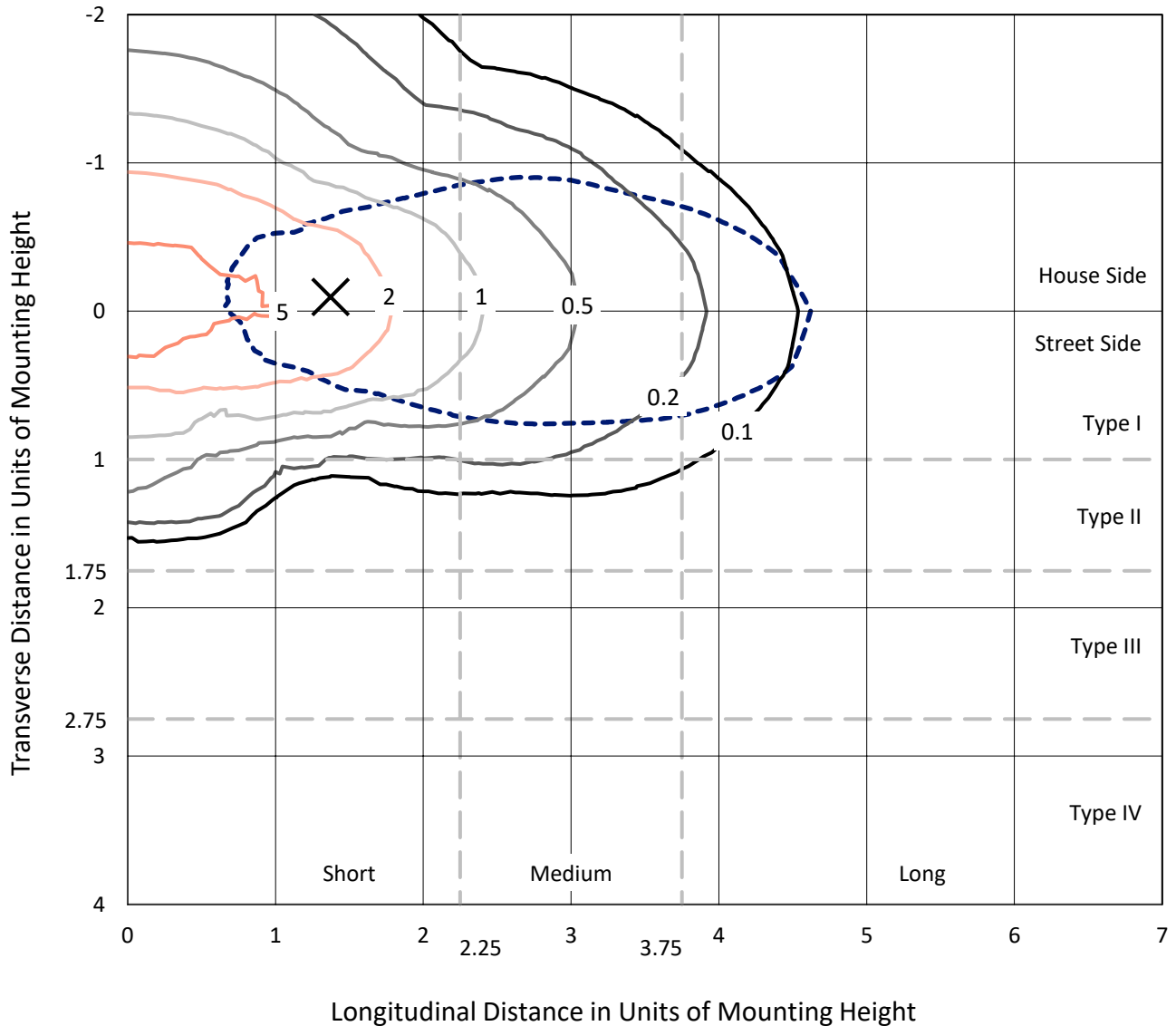
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

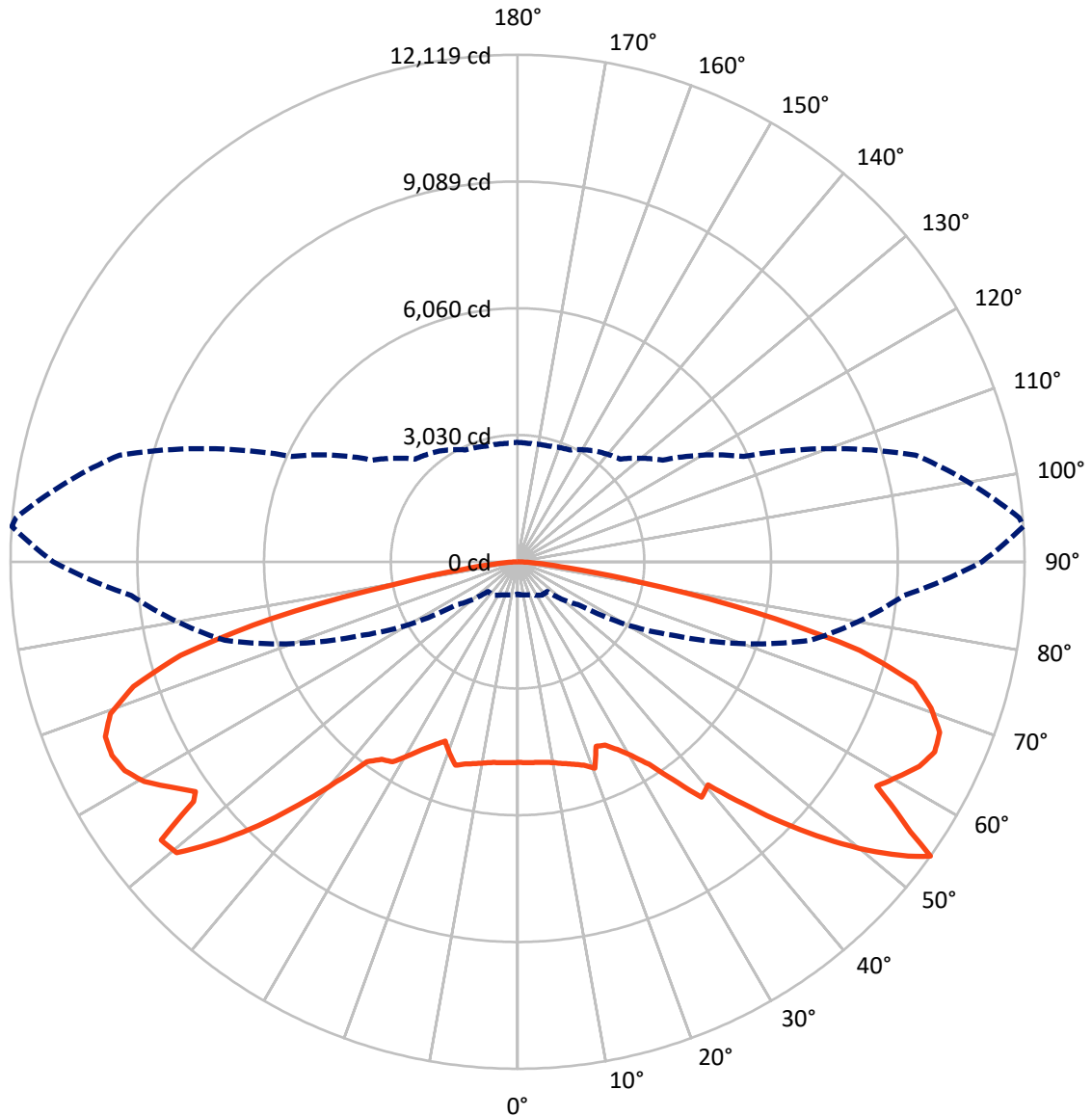
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.7 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 94-Deg Lateral      - - - Horizontal Cone Through 54-Deg Vertical

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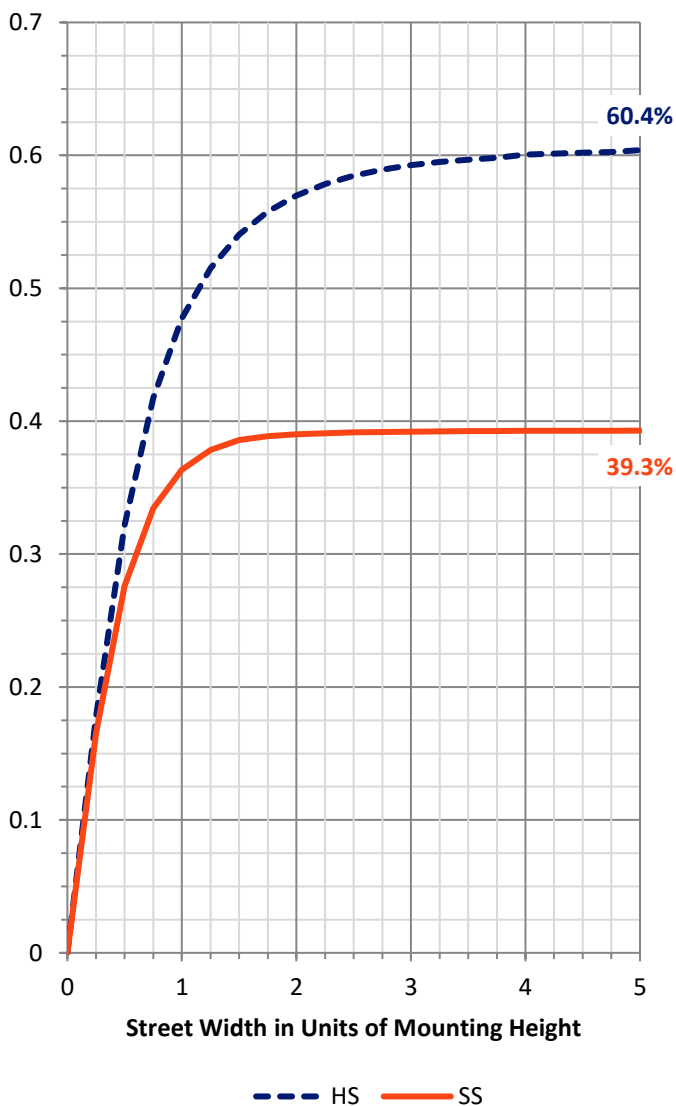
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11293.6	0.0	11293.6
	% Fixture	60.9	0.0	60.9
<b>Street Side</b>	Lumens	7248.4	0.0	7248.4
	% Fixture	39.1	0.0	39.1
<b>Total</b>	Lumens	18542.0	0.0	18542.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	457.6	2.5
10°-20°	1309.2	7.1
20°-30°	1869.9	10.1
30°-40°	2474.1	13.3
40°-50°	3257.0	17.6
50°-60°	3593.4	19.4
60°-70°	3237.9	17.5
70°-80°	2047.8	11.0
80°-90°	295.1	1.6
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°	18542.0	100.0
0°-180°	18542.0	100.0

**Coefficient of Utilization**

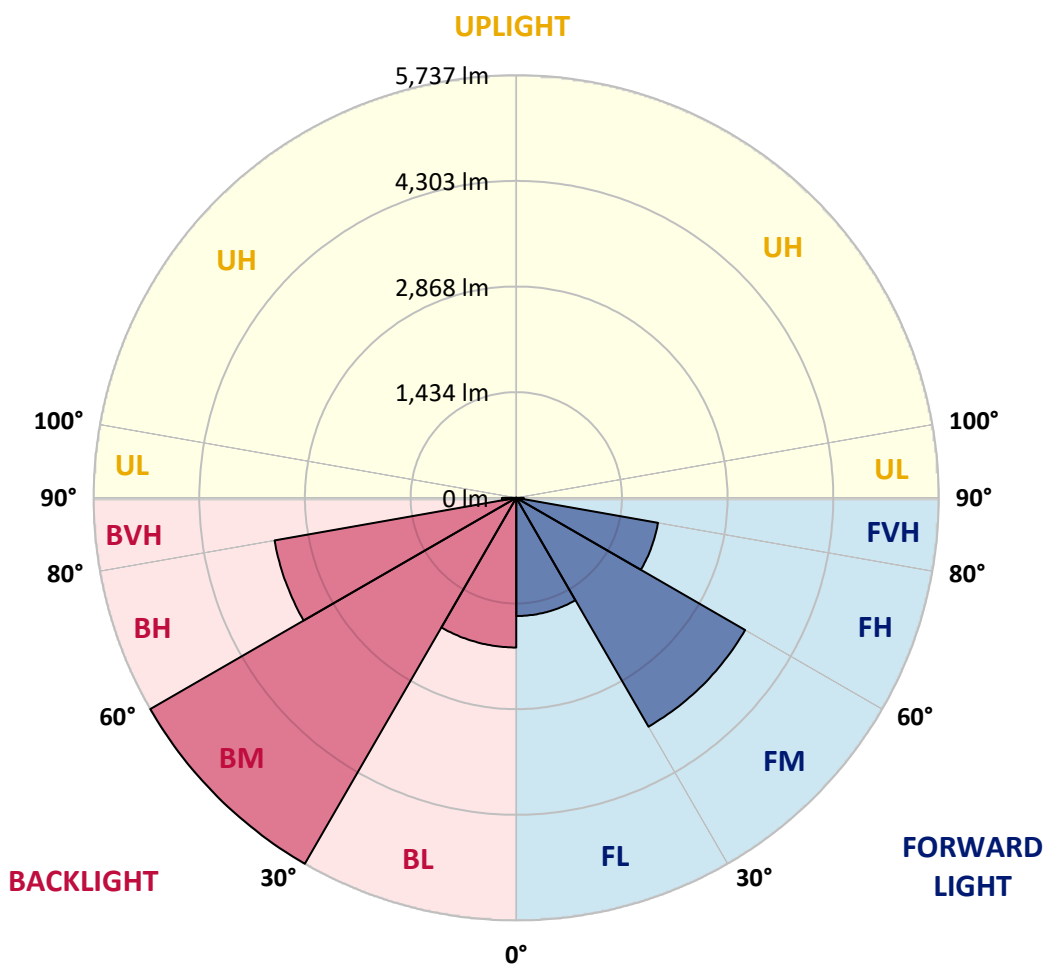


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1604.7	8.7			
FM	(30°-60°)	3587.7	19.3			
FH	(60°-80°)	1953.8	10.5			G2/5000
FVH	(80°-90°)	102.2	0.6			G2/225
BL	(0°-30°)	2032.0	11.0	B3/2500		
BM	(30°-60°)	5736.8	30.9	B4/8500		
BH	(60°-80°)	3331.8	18.0	B4/5000		G4/5000
BVH	(80°-90°)	192.9	1.0			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5
2.5°	4803.5	4770.1	4774.6	4809.8	4735.0	4781.9	4760.2	4799.0	4783.7	4805.3	4821.5
5°	4761.1	4729.6	4737.7	4781.0	4721.4	4774.6	4744.0	4781.9	4787.3	4813.4	4828.8
7.5°	4726.0	4695.3	4700.7	4741.3	4703.4	4750.3	4732.3	4782.8	4783.7	4829.7	4841.4
10°	4690.8	4659.2	4666.4	4701.6	4677.3	4727.8	4739.5	4799.0	4812.5	4876.5	4877.4
12.5°	4615.9	4588.0	4591.6	4640.3	4641.2	4714.2	4737.7	4829.7	4857.6	4929.7	4937.0
15°	4321.1	4340.9	4416.7	4478.0	4534.8	4633.1	4713.3	4863.9	4901.8	4989.3	5010.0
17.5°	3606.9	3576.3	3411.2	3498.7	3771.9	4033.4	4172.3	4487.0	4839.6	5080.3	5107.4
20°	2529.3	2578.0	2836.8	2955.9	3150.6	3624.0	4058.7	4239.9	4354.4	4790.0	5129.9
22.5°	2006.3	2020.8	2391.4	2835.9	2982.0	3185.8	3701.6	4306.7	4486.1	4612.3	4668.2
25°	1867.5	1878.3	1937.8	2519.4	2918.0	3134.4	3360.7	4147.9	4641.2	4798.1	4864.8
27.5°	1751.2	1762.9	1821.5	2017.2	2859.4	3134.4	3391.4	3754.8	4791.8	5029.8	5086.6
30°	1664.6	1664.6	1725.0	1891.8	2396.8	3144.3	3455.4	3799.0	4557.3	5322.0	5372.5
32.5°	1585.2	1586.1	1652.0	1812.5	2076.7	3101.9	3545.6	3961.3	4375.2	5614.2	5744.9
35°	1514.0	1516.7	1576.2	1738.5	1995.5	2500.5	3645.7	4169.6	4725.1	5581.7	6311.2
37.5°	1453.6	1455.4	1506.8	1665.5	1927.0	1811.6	3710.6	4420.3	5194.9	5871.2	6429.3
40°	1410.3	1407.6	1444.6	1588.8	1826.9	1655.6	3140.7	4680.9	5753.0	6777.4	6984.8
42.5°	1367.0	1362.5	1399.5	1508.6	1249.8	1612.3	2909.9	4935.2	6396.0	7772.9	7957.7
45°	1316.5	1318.3	1354.4	1353.5	1183.1	1554.6	2935.1	4346.3	7084.0	8790.9	9026.3
47.5°	1289.5	1281.4	1299.4	982.9	1128.1	1475.2	2924.3	4035.2	7690.8	9763.9	9997.5
50°	1239.0	1237.2	910.7	931.5	1073.1	1384.2	2754.8	4147.0	6939.7	10665.6	10901.9
52.5°	1163.2	1027.1	844.9	895.4	1018.1	1276.8	1967.6	4193.0	6920.8	10576.4	11745.0
54°	772.8	791.7	817.9	870.2	978.4	1003.6	1799.8	4189.4	7249.9	9265.3	11100.3
55°	442.7	620.4	796.2	849.4	950.4	702.4	1734.9	4170.5	7460.0	9322.1	10006.5
57.5°	383.2	385.0	438.2	708.8	487.8	602.4	1551.0	4016.3	7853.1	9844.2	10039.8
60°	33.4	32.5	37.0	50.5	64.0	140.7	780.9	2576.2	7578.1	10292.3	10596.2
62.5°	13.5	14.4	18.0	24.3	38.8	63.1	645.6	2283.2	7694.4	10565.5	10898.3
65°	2.7	2.7	4.5	8.1	14.4	37.9	550.1	2033.4	7634.9	10654.8	11099.4
67.5°	0.0	0.0	2.7	6.3	11.7	30.7	476.1	1871.1	7295.0	10624.2	11024.5
70°	0.0	0.0	2.7	6.3	10.8	29.8	407.6	1726.8	6451.9	10303.1	10746.8
72.5°	0.0	0.0	2.7	5.4	9.9	27.1	349.0	1524.8	5469.0	9530.4	10134.5
75°	0.0	0.0	2.7	5.4	9.0	24.3	294.0	1308.4	4569.1	8213.8	8939.7
77.5°	0.0	0.0	2.7	5.4	8.1	21.6	230.8	1045.1	3588.0	5955.9	6345.5
80°	0.0	0.0	2.7	5.4	7.2	17.1	170.4	660.1	1990.1	3020.8	3181.3
82.5°	0.0	0.0	1.8	4.5	6.3	10.8	81.2	249.8	937.8	1383.3	1341.8
85°	0.0	0.0	1.8	4.5	5.4	8.1	35.2	63.1	312.0	459.0	427.4
87.5°	0.0	0.0	1.8	3.6	4.5	5.4	9.0	10.8	99.2	132.6	137.1
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°	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5	4794.5
2.5°	4810.7	4810.7	4809.8	4833.3	4803.5	4806.2	4778.3	4850.4	4842.3	4819.7	4846.8
5°	4816.1	4820.6	4819.7	4831.5	4808.0	4822.4	4783.7	4854.9	4843.2	4825.1	4853.1
7.5°	4838.7	4846.8	4840.5	4861.2	4814.3	4828.8	4789.1	4851.3	4839.6	4813.4	4843.2
10°	4887.4	4895.5	4882.9	4892.8	4843.2	4836.0	4787.3	4852.2	4826.9	4807.1	4844.1
12.5°	4950.5	4960.4	4935.2	4933.4	4870.2	4855.8	4785.5	4829.7	4792.7	4776.5	4809.8
15°	5020.8	5032.5	5002.8	4996.5	4927.0	4879.2	4778.3	4788.2	4735.0	4713.3	4748.5
17.5°	5112.8	5123.6	5101.1	5097.5	5007.3	4926.1	4768.3	4735.9	4661.0	4643.0	4661.9
20°	5267.0	5274.2	5244.4	5217.4	5084.8	4951.4	4752.1	4667.3	4552.8	4515.0	4536.6
22.5°	4793.6	4851.3	5436.5	5335.5	5142.6	4977.5	4711.5	4570.0	4409.4	4338.2	4352.6
25°	4855.8	4861.2	5083.0	5475.3	5205.7	4994.7	4663.7	4449.1	4228.2	4124.5	4142.5
27.5°	5081.2	5074.9	4987.5	5490.6	5280.5	5004.6	4604.2	4322.0	4048.8	3924.3	3928.8
30°	5373.4	5363.5	5230.9	4964.0	5387.8	5008.2	4551.9	4175.9	3889.2	3756.6	3753.0
32.5°	5772.9	5744.9	5539.3	5170.5	4934.3	5032.5	4478.0	4037.0	3736.8	3606.0	3596.1
35°	6386.0	6334.6	5960.4	5432.9	4855.8	5032.5	4377.0	3887.3	3596.1	3471.7	3464.4
37.5°	7146.2	7159.7	6498.8	5726.9	4976.6	4560.9	4256.2	3747.6	3474.4	3364.3	3364.3
40°	7010.0	7189.5	7123.7	6028.1	5101.1	4485.2	4126.3	3613.2	3373.4	3289.5	3300.3
42.5°	7909.1	7839.6	7848.6	6330.1	5188.5	4407.6	3985.6	3488.8	3284.1	3212.9	3221.0
45°	8906.4	8827.9	7185.0	6600.6	5229.1	4292.2	3843.2	3360.7	3185.8	3126.3	3147.9
47.5°	9891.1	9820.7	7890.1	6534.8	5191.2	4115.5	3667.3	3249.8	3082.1	3039.7	3072.2
50°	10844.2	10745.0	8650.3	5841.4	5056.9	3871.1	3487.9	3133.5	2991.9	2966.7	2991.0
52.5°	11694.5	11562.9	9420.4	5946.0	4417.6	3624.0	3328.3	3021.7	2909.9	2881.9	2906.3
54°	12119.2	12039.0	9850.5	5957.7	4234.5	3470.8	3232.7	2950.5	2863.9	2840.4	2854.0
55°	11396.0	11556.5	10105.7	5947.8	4102.0	3377.9	3169.6	2903.6	2831.4	2806.2	2819.7
57.5°	10120.1	9947.0	9448.3	5826.1	3741.3	3145.2	2984.7	2784.5	2734.9	2702.5	2721.4
60°	10441.1	10409.5	8625.0	5558.3	3347.2	2884.6	2802.6	2645.7	2612.3	2585.3	2610.5
62.5°	10776.5	10755.8	8756.7	5142.6	2955.0	2628.5	2593.4	2483.4	2463.5	2451.8	2458.1
65°	10957.8	10825.2	8753.1	4586.2	2595.2	2366.1	2360.7	2278.7	2287.7	2282.3	2308.4
67.5°	10881.2	10739.6	8366.2	4184.9	2257.0	2066.8	2083.9	2049.6	2083.0	2092.9	2112.7
70°	10480.8	10526.8	7523.1	3798.1	1920.7	1740.3	1794.4	1789.9	1838.6	1876.5	1908.1
72.5°	9927.1	9750.4	6305.8	3228.2	1405.8	1238.1	1331.9	1395.0	1449.1	1494.2	1523.9
75°	8449.2	8241.8	4655.6	2516.7	1018.1	853.9	879.2	907.1	942.3	1046.0	1107.3
77.5°	5792.7	5706.1	3348.1	1898.1	648.3	514.9	613.2	669.1	698.8	694.3	705.2
80°	2970.3	2955.0	1982.0	1135.3	437.3	376.9	446.4	451.8	499.6	536.5	538.3
82.5°	1197.5	1257.0	791.7	622.2	303.9	284.9	314.7	354.4	395.0	416.6	422.0
85°	423.8	413.9	240.8	292.2	193.0	199.3	222.7	267.8	310.2	315.6	303.9
87.5°	113.6	118.1	51.4	107.3	105.5	115.4	128.0	146.1	176.7	185.8	176.7
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)