

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: P591099

Luminaire Tested: **CTN-CA10-210-722-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591099  
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-CA10-210-722-U-T2-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15611 lumens  
Efficiency: N/A  
Efficacy: 73.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

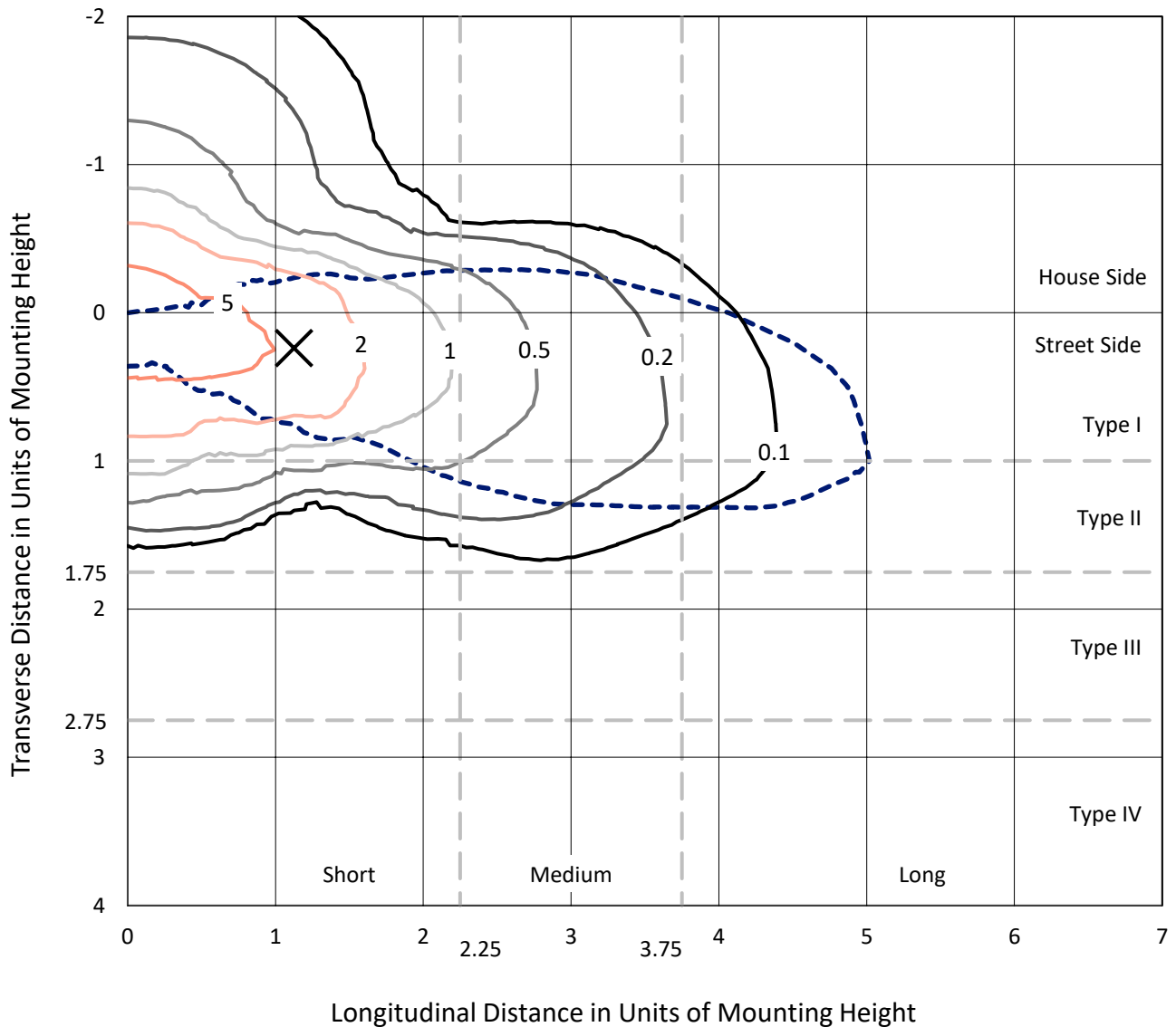
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

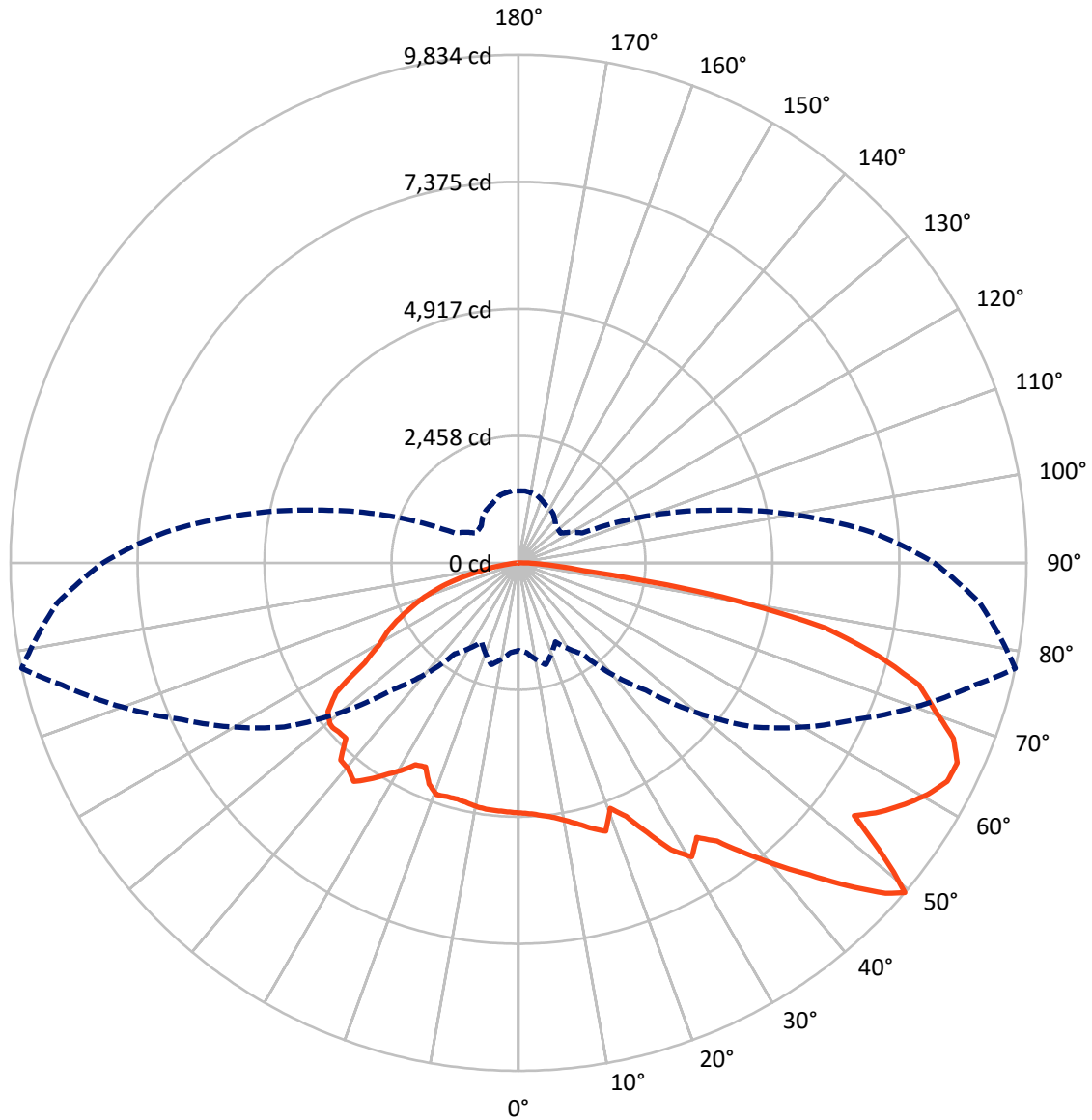
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 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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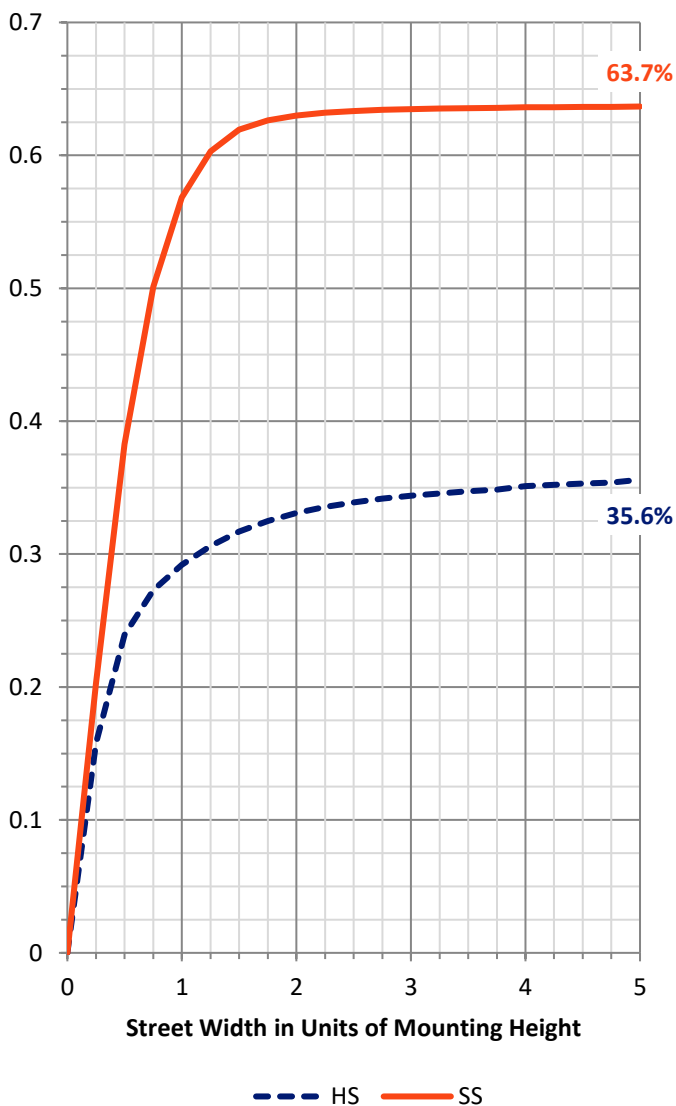
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5702.9	0.0	5702.9
	% Fixture	36.5	0.0	36.5
<b>Street Side</b>	Lumens	9908.1	0.0	9908.1
	% Fixture	63.5	0.0	63.5
<b>Total</b>	Lumens	15611.0	0.0	15611.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	469.2	3.0
10°-20°	1379.9	8.8
20°-30°	1942.8	12.4
30°-40°	2435.3	15.6
40°-50°	2748.8	17.6
50°-60°	2641.3	16.9
60°-70°	2157.7	13.8
70°-80°	1513.7	9.7
80°-90°	322.2	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°	15611.0	100.0
0°-180°	15611.0	100.0

**Coefficient of Utilization**

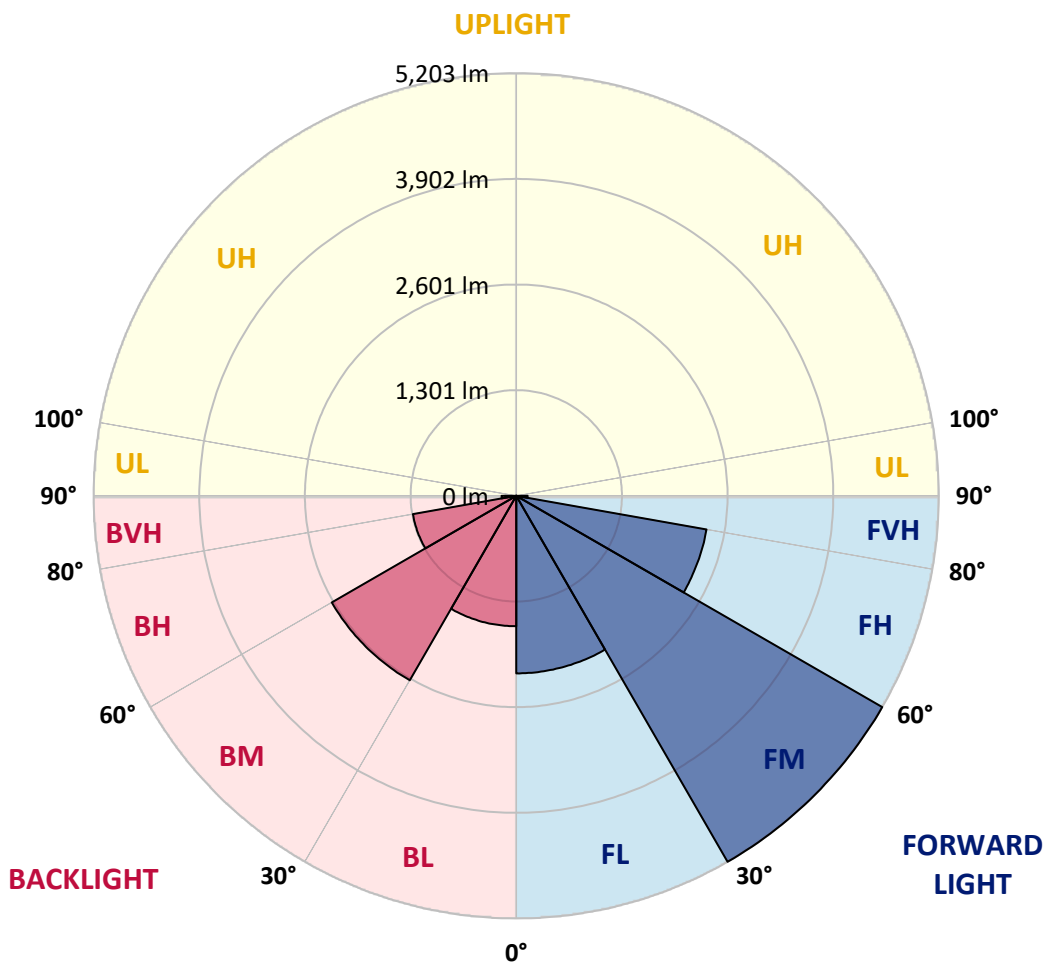


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2186.0	14.0			
FM	(30°-60°)	5203.0	33.3			
FH	(60°-80°)	2378.8	15.2			G2/5000
FVH	(80°-90°)	140.3	0.9			G2/225
BL	(0°-30°)	1605.8	10.3	B3/2500		
BM	(30°-60°)	2622.5	16.8	B3/5000		
BH	(60°-80°)	1292.7	8.3	B3/2500		G3/2500
BVH	(80°-90°)	181.9	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°	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2
2.5°	5041.7	4995.1	5005.7	5030.3	4935.3	4961.7	4919.5	4938.0	4887.9	4866.8	4875.6
5°	5401.3	5346.8	5359.1	5371.4	5231.6	5171.8	5054.0	5026.8	4950.3	4915.1	4910.7
7.5°	5572.7	5516.4	5529.6	5529.6	5423.3	5432.9	5313.4	5186.8	5033.8	4978.4	4953.8
10°	5847.9	5784.6	5774.9	5758.2	5619.3	5557.8	5458.4	5384.6	5152.5	5073.4	5005.7
12.5°	6049.2	6000.0	6000.8	5982.4	5825.9	5781.1	5606.1	5519.1	5289.6	5193.8	5084.8
15°	6132.7	6097.5	6120.4	6065.0	5960.4	5893.6	5810.9	5671.2	5433.8	5335.3	5200.8
17.5°	5743.3	5680.0	5512.0	5541.1	5534.0	5554.2	5473.4	5556.0	5518.2	5464.6	5375.8
20°	4863.3	4930.1	5047.9	4943.3	4935.3	5198.2	5386.3	5360.8	5149.9	5071.6	5160.4
22.5°	4132.7	4051.0	4299.7	4671.6	4776.2	5044.4	5364.4	5668.5	5430.3	5330.1	5061.1
25°	3476.9	3559.5	3946.3	4509.0	4837.8	4916.9	5283.5	5855.8	5893.6	5784.6	5435.6
27.5°	3373.2	3372.3	3633.4	4178.4	4926.6	5174.5	5287.0	5762.6	6362.2	6287.4	5886.6
30°	3349.4	3337.1	3436.5	3988.5	4684.8	5405.7	5624.6	5791.6	6358.6	6608.3	6401.7
32.5°	3247.4	3237.8	3339.8	3599.1	4356.0	5626.3	5948.1	6167.9	6200.4	6336.7	6924.8
35°	3083.9	3106.8	3240.4	3527.0	4086.1	5192.1	6276.0	6619.7	6698.0	6618.0	6622.4
37.5°	2927.5	2945.0	3082.2	3398.7	3889.2	4223.3	6501.1	7054.0	7228.1	7136.7	6709.4
40°	2724.4	2749.0	2911.6	3262.4	3760.0	3644.8	6174.9	7563.9	7805.7	7688.7	7204.3
42.5°	2495.8	2507.2	2699.8	3038.2	2696.2	3664.2	5713.4	8031.6	8370.1	8254.0	7669.4
45°	2300.6	2307.7	2465.0	2680.4	2430.8	3633.4	5394.2	7810.1	9029.4	8913.3	8161.7
47.5°	2026.4	2076.5	2247.0	1853.2	2257.6	3557.8	5501.5	6925.7	9647.4	9561.3	8639.9
49°	1697.6	1742.4	2042.2	1687.9	2150.3	3490.1	5538.4	7184.1	9146.3	9833.8	8967.8
50°	1560.4	1593.0	1564.8	1629.0	2072.1	3421.5	5479.5	7392.5	8406.1	9418.0	9178.8
52.5°	1356.5	1262.4	1075.2	1462.8	1891.9	3154.3	4515.1	7952.5	8328.7	8138.8	8600.4
55°	573.2	816.7	951.2	1200.0	1709.9	1914.7	4181.1	8562.6	8702.4	8510.7	7728.3
57.5°	448.3	457.1	523.1	893.2	945.9	1483.1	4044.8	8824.6	8984.6	8818.4	8028.1
60°	65.9	65.1	86.2	102.9	234.7	682.2	2643.5	6281.3	8671.6	9105.0	8302.4
62.5°	23.7	24.6	24.6	29.0	43.1	298.9	1921.7	5860.2	8880.8	9315.1	8531.8
65°	1.8	2.6	4.4	9.7	22.9	282.2	1704.6	5963.9	8813.1	9335.3	8643.5
67.5°	0.0	0.9	2.6	7.0	18.5	277.8	1585.0	5789.0	8529.2	9078.6	8399.1
70°	0.0	0.0	1.8	6.2	16.7	267.3	1376.7	5195.6	8021.0	8552.0	7954.2
72.5°	0.0	0.0	1.8	6.2	14.9	254.9	1131.4	4574.0	7558.6	8114.2	7309.0
75°	0.0	0.0	1.8	5.3	13.2	232.1	827.2	3315.1	6770.9	7195.6	6392.9
77.5°	0.0	0.0	1.8	5.3	12.3	200.4	559.1	1899.8	5570.9	6084.4	5371.4
80°	0.0	0.0	1.8	4.4	11.4	152.1	316.5	948.6	2911.6	3999.1	3839.1
82.5°	0.0	0.0	1.8	4.4	8.8	80.9	147.7	414.1	1073.4	1266.8	1478.7
85°	0.0	0.0	1.8	3.5	7.0	20.2	50.1	196.9	586.4	651.4	635.6
87.5°	0.0	0.0	1.8	3.5	5.3	7.9	16.7	56.3	217.1	242.6	207.5
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2	4842.2
2.5°	4873.8	4846.6	4821.1	4824.6	4763.9	4750.7	4693.6	4728.8	4705.0	4675.1	4694.5
5°	4884.4	4849.2	4804.4	4754.3	4621.5	4574.0	4494.9	4517.8	4486.1	4451.0	4469.4
7.5°	4907.2	4865.9	4792.1	4661.9	4507.2	4423.7	4332.3	4410.5	4400.8	4380.6	4400.8
10°	4916.9	4880.8	4755.1	4603.9	4389.4	4332.3	4262.8	4249.6	4252.3	4256.7	4286.6
12.5°	4942.4	4888.8	4695.4	4516.0	4320.8	4207.4	4138.9	4179.3	4095.8	4058.9	4074.7
15°	5004.8	4902.8	4648.8	4393.8	4199.5	4109.9	3941.1	3941.1	3920.0	3883.9	3894.5
17.5°	5130.5	4959.1	4636.5	4312.9	4064.1	3909.4	3754.7	3672.9	3650.1	3661.5	3668.5
20°	5198.2	5062.8	4630.3	4206.6	3912.1	3732.7	3498.0	3440.0	3363.5	3374.0	3386.3
22.5°	4791.2	4614.5	4620.6	4076.5	3723.9	3496.2	3239.5	3138.4	3091.8	3083.1	3106.8
25°	5081.3	4725.2	4175.8	4005.2	3517.3	3227.2	2967.0	2828.1	2756.9	2752.5	2767.5
27.5°	5466.3	5030.3	4114.3	3671.2	3297.6	2901.1	2613.6	2514.3	2443.9	2440.4	2443.1
30°	5914.7	5437.3	4267.2	3259.8	2999.5	2524.8	2296.2	2225.9	2161.7	2133.6	2134.5
32.5°	6413.1	5805.7	4414.9	3180.6	2404.4	2196.9	2019.3	1964.8	1876.9	1836.5	1825.0
35°	6880.0	6196.9	4599.5	3047.9	2086.1	1905.0	1780.2	1707.2	1638.7	1604.4	1593.0
37.5°	6468.5	6557.3	4763.0	2938.9	1843.5	1578.9	1544.6	1496.3	1461.1	1434.7	1430.3
40°	6562.6	5906.8	4859.7	2733.2	1593.0	1379.3	1323.9	1347.7	1383.7	1361.7	1360.9
42.5°	6876.4	6007.9	4771.8	2448.3	1394.3	1189.4	1205.3	1294.1	1369.7	1355.6	1357.4
45°	7325.7	6323.5	4094.9	2108.1	1201.7	1071.6	1174.5	1278.2	1373.2	1377.6	1377.6
47.5°	7790.7	6678.6	3969.2	1654.5	1060.2	1025.9	1169.2	1258.9	1367.9	1396.0	1392.5
49°	8048.3	6850.9	3934.0	1361.7	996.9	1016.3	1168.3	1240.4	1357.4	1396.9	1392.5
50°	8198.6	6968.7	3868.1	1244.8	960.0	1014.5	1169.2	1229.0	1346.8	1390.8	1389.0
52.5°	8514.2	7118.2	3637.8	1025.0	870.3	1008.3	1183.3	1218.5	1314.3	1360.9	1378.5
55°	7035.6	6865.9	3251.0	920.4	829.9	996.0	1183.3	1224.6	1286.1	1313.4	1330.1
57.5°	7122.6	5870.7	2556.5	868.6	802.6	982.9	1164.8	1223.7	1271.2	1275.6	1270.3
60°	7388.1	6007.0	1905.9	815.8	771.0	966.1	1125.3	1195.6	1231.6	1231.6	1215.8
62.5°	7547.2	6071.2	1524.4	757.8	737.6	931.9	1066.4	1141.1	1168.3	1153.4	1150.8
65°	7586.8	6123.0	1105.9	695.4	699.8	894.9	1005.7	1070.8	1108.6	1083.1	1088.3
67.5°	7450.5	5752.9	807.9	631.2	656.7	844.8	945.9	1003.9	1031.2	1018.0	1020.7
70°	6946.8	5350.3	568.8	521.3	587.2	767.5	870.3	937.1	951.2	928.3	931.9
72.5°	6137.1	4728.8	358.7	407.9	516.9	696.3	781.5	823.7	826.4	854.5	869.4
75°	5345.0	3794.3	259.3	321.8	410.5	595.2	713.8	753.4	782.4	923.1	945.9
77.5°	4283.9	2400.9	220.7	254.1	322.6	494.1	636.5	697.1	958.2	1027.7	1010.1
80°	2596.0	1491.0	166.2	200.4	269.0	379.8	545.1	718.2	969.7	904.6	867.7
82.5°	1198.2	647.9	112.5	163.5	213.6	283.1	429.9	838.7	830.8	692.7	685.7
85°	430.8	191.6	61.5	116.9	149.4	195.2	330.5	830.8	651.4	582.0	545.1
87.5°	109.9	34.3	25.5	57.1	75.6	103.7	180.2	439.6	338.5	298.0	287.5
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)