

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: P591291

Luminaire Tested: **CTN-CA10-210-730-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591291  
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-CA10-210-730-U-T2-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18808 lumens  
Efficiency: N/A  
Efficacy: 88.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

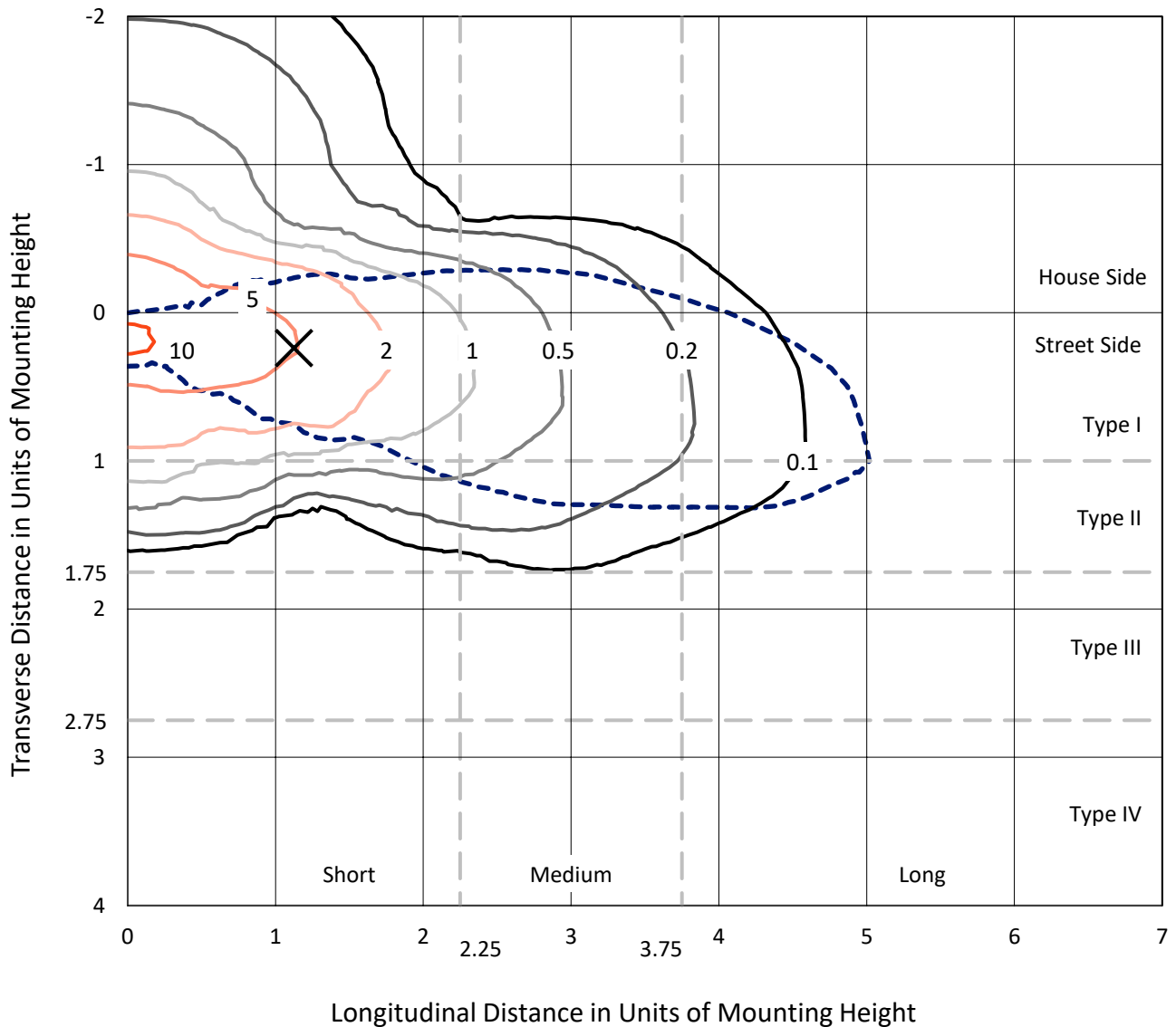
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

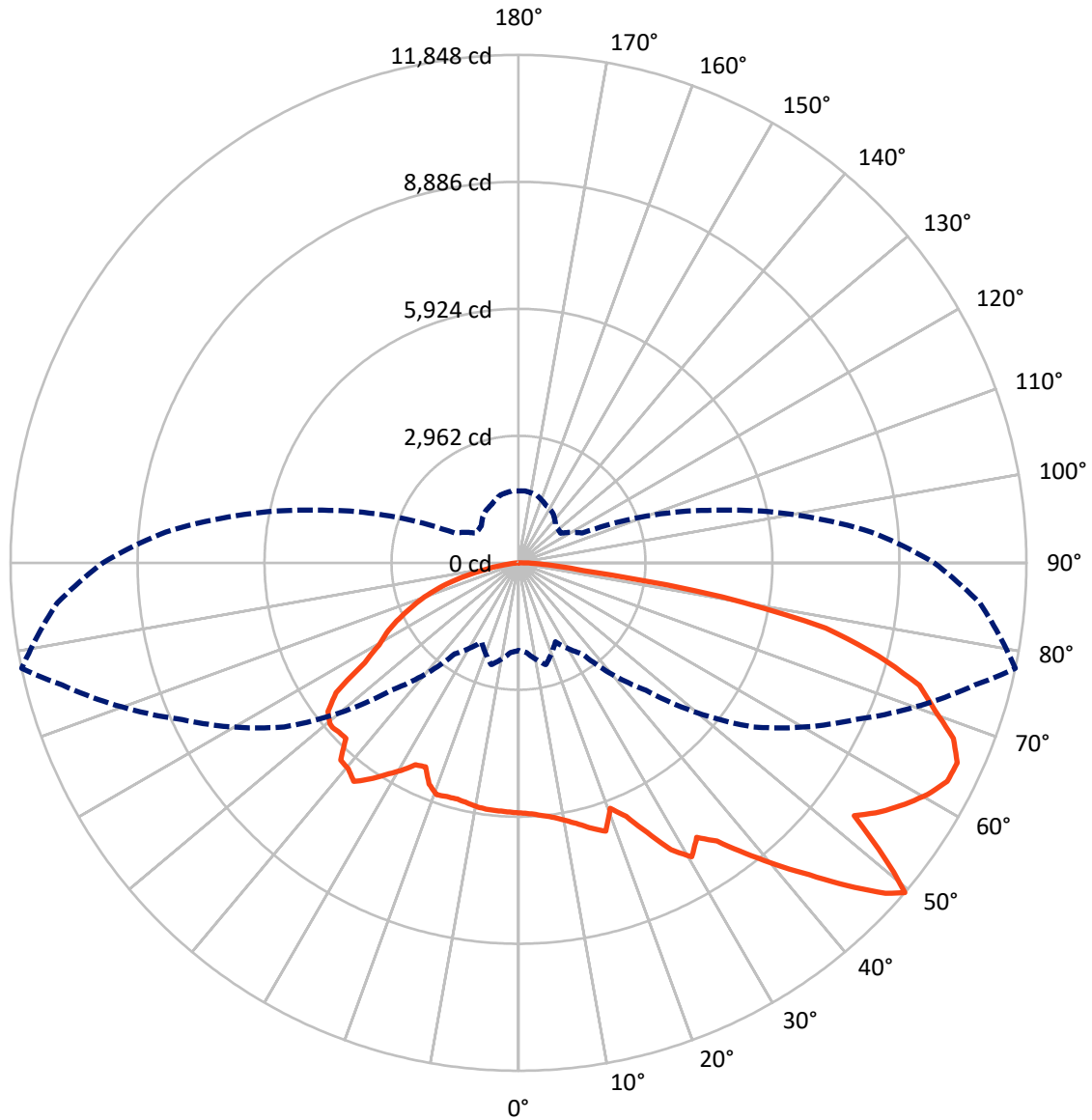
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 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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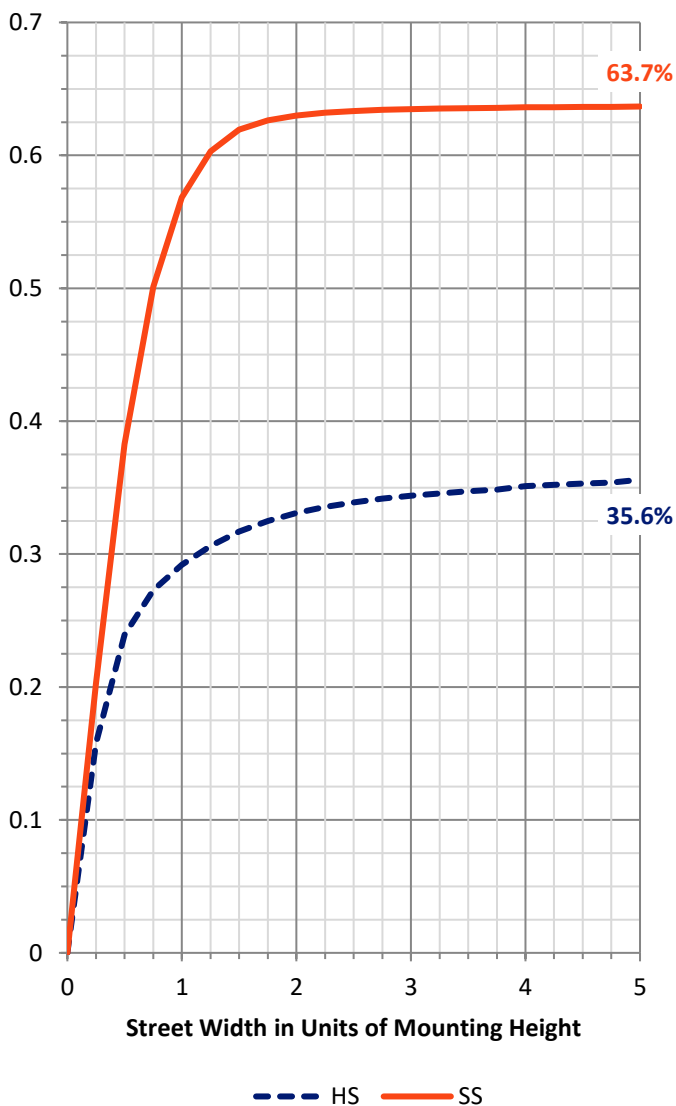
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6870.9	0.0	6870.9
	% Fixture	36.5	0.0	36.5
<b>Street Side</b>	Lumens	11937.1	0.0	11937.1
	% Fixture	63.5	0.0	63.5
<b>Total</b>	Lumens	18808.0	0.0	18808.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	565.3	3.0
10°-20°	1662.4	8.8
20°-30°	2340.7	12.4
30°-40°	2934.1	15.6
40°-50°	3311.8	17.6
50°-60°	3182.2	16.9
60°-70°	2599.6	13.8
70°-80°	1823.7	9.7
80°-90°	388.2	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°	18808.0	100.0
0°-180°	18808.0	100.0

**Coefficient of Utilization**



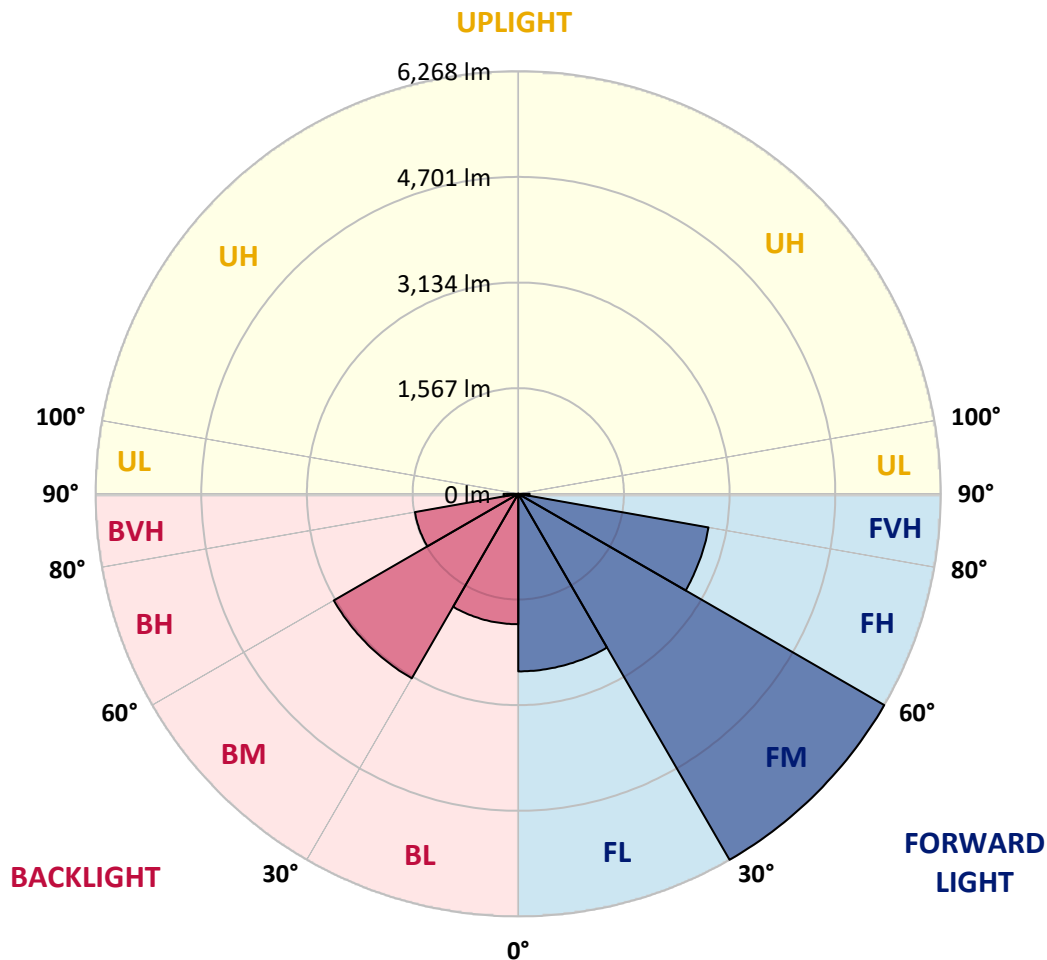
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2633.7	14.0			
FM (30°-60°)	6268.5	33.3			
FH (60°-80°)	2866.0	15.2			G2/5000
FVH (80°-90°)	169.1	0.9			G2/225
BL (0°-30°)	1934.7	10.3	B3/2500		
BM (30°-60°)	3159.6	16.8	B3/5000		
BH (60°-80°)	1557.4	8.3	B3/2500		G3/2500
BVH (80°-90°)	219.2	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°	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8
2.5°	6074.2	6018.1	6030.8	6060.5	5946.1	5977.8	5927.0	5949.2	5888.9	5863.5	5874.0
5°	6507.4	6441.7	6456.6	6471.4	6303.0	6231.0	6089.1	6056.2	5964.1	5921.7	5916.4
7.5°	6714.0	6646.2	6662.1	6662.1	6533.9	6545.5	6401.5	6249.0	6064.7	5998.0	5968.3
10°	7045.5	6969.2	6957.6	6937.4	6770.1	6695.9	6576.3	6487.3	6207.7	6112.4	6030.8
12.5°	7288.0	7228.7	7229.8	7207.5	7019.0	6965.0	6754.2	6649.3	6372.9	6257.5	6126.1
15°	7388.6	7346.3	7373.8	7307.1	7181.0	7100.5	7001.0	6832.6	6546.6	6428.0	6265.9
17.5°	6919.4	6843.2	6640.9	6675.8	6667.3	6691.7	6594.3	6693.8	6648.3	6583.7	6476.7
20°	5859.2	5939.7	6081.6	5955.6	5946.1	6262.8	6489.4	6458.7	6204.5	6110.2	6217.2
22.5°	4979.1	4880.6	5180.3	5628.3	5754.4	6077.4	6462.9	6829.4	6542.4	6421.6	6097.5
25°	4188.9	4288.5	4754.5	5432.4	5828.5	5923.8	6365.5	7055.0	7100.5	6969.2	6548.7
27.5°	4064.0	4062.9	4377.5	5034.1	5935.5	6234.2	6369.7	6942.7	7665.1	7575.0	7092.1
30°	4035.4	4020.5	4140.2	4805.4	5644.2	6512.7	6776.4	6977.7	7660.8	7961.6	7712.7
32.5°	3912.5	3900.8	4023.7	4336.2	5248.1	6778.6	7166.2	7431.0	7470.2	7634.4	8342.9
35°	3715.5	3743.0	3904.0	4249.3	4922.9	6255.3	7561.3	7975.4	8069.7	7973.3	7978.6
37.5°	3527.0	3548.2	3713.4	4094.7	4685.7	5088.2	7832.4	8498.6	8708.3	8598.2	8083.4
40°	3282.3	3312.0	3507.9	3930.5	4530.0	4391.2	7439.5	9112.9	9404.2	9263.3	8679.7
42.5°	3006.9	3020.7	3252.6	3660.4	3248.4	4414.5	6883.4	9676.4	10084.2	9944.4	9240.0
45°	2771.8	2780.3	2969.9	3229.3	2928.5	4377.5	6498.9	9409.5	10878.5	10738.7	9833.1
47.5°	2441.3	2501.7	2707.2	2232.7	2719.9	4286.4	6628.2	8344.0	11623.1	11519.3	10409.3
49°	2045.2	2099.2	2460.4	2033.6	2590.7	4204.8	6672.6	8655.4	11019.4	11847.7	10804.4
50°	1880.0	1919.2	1885.3	1962.6	2496.4	4122.2	6601.7	8906.4	10127.6	11346.7	11058.6
52.5°	1634.3	1520.9	1295.3	1762.4	2279.3	3800.2	5439.8	9581.1	10034.4	9805.6	10361.7
55°	690.6	984.0	1146.0	1445.7	2060.0	2306.8	5037.3	10316.1	10484.5	10253.6	9311.0
57.5°	540.2	550.8	630.2	1076.1	1139.6	1786.8	4873.1	10631.7	10824.5	10624.3	9672.2
60°	79.4	78.4	103.8	123.9	282.8	821.9	3184.9	7567.6	10447.5	10969.6	10002.6
62.5°	28.6	29.7	29.7	35.0	51.9	360.1	2315.3	7060.3	10699.5	11222.8	10279.0
65°	2.1	3.2	5.3	11.7	27.5	340.0	2053.7	7185.3	10618.0	11247.1	10413.6
67.5°	0.0	1.1	3.2	8.5	22.2	334.7	1909.6	6974.5	10275.9	10937.8	10119.1
70°	0.0	0.0	2.1	7.4	20.1	322.0	1658.6	6259.6	9663.7	10303.4	9583.2
72.5°	0.0	0.0	2.1	7.4	18.0	307.2	1363.1	5510.8	9106.6	9776.0	8805.8
75°	0.0	0.0	2.1	6.4	15.9	279.6	996.7	3994.1	8157.6	8669.1	7702.1
77.5°	0.0	0.0	2.1	6.4	14.8	241.5	673.6	2288.8	6711.8	7330.4	6471.4
80°	0.0	0.0	2.1	5.3	13.8	183.2	381.3	1142.8	3507.9	4818.1	4625.3
82.5°	0.0	0.0	2.1	5.3	10.6	97.4	177.9	498.9	1293.2	1526.2	1781.5
85°	0.0	0.0	2.1	4.2	8.5	24.4	60.4	237.2	706.5	784.8	765.8
87.5°	0.0	0.0	2.1	4.2	6.4	9.5	20.1	67.8	261.6	292.3	250.0
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°	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8	5833.8
2.5°	5871.9	5839.1	5808.4	5812.6	5739.5	5723.6	5654.8	5697.2	5668.6	5632.6	5655.9
5°	5884.6	5842.3	5788.3	5727.9	5568.0	5510.8	5415.4	5443.0	5404.8	5362.5	5384.7
7.5°	5912.2	5862.4	5773.4	5616.7	5430.3	5329.6	5219.5	5313.8	5302.1	5277.7	5302.1
10°	5923.8	5880.4	5728.9	5546.8	5288.3	5219.5	5135.8	5119.9	5123.1	5128.4	5164.4
12.5°	5954.5	5889.9	5656.9	5440.9	5205.7	5069.1	4986.5	5035.2	4934.6	4890.1	4909.2
15°	6029.7	5906.9	5600.8	5293.6	5059.6	4951.5	4748.2	4748.2	4722.7	4679.3	4692.0
17.5°	6181.2	5974.7	5586.0	5196.2	4896.4	4710.0	4523.6	4425.1	4397.6	4411.4	4419.8
20°	6262.8	6099.6	5578.5	5068.0	4713.2	4497.2	4214.4	4144.5	4052.3	4065.0	4079.8
22.5°	5772.4	5559.5	5566.9	4911.3	4486.6	4212.2	3903.0	3781.2	3725.0	3714.4	3743.0
25°	6121.9	5692.9	5031.0	4825.5	4237.7	3888.1	3574.6	3407.3	3321.5	3316.2	3334.2
27.5°	6585.8	6060.5	4956.8	4423.0	3972.9	3495.2	3148.9	3029.2	2944.4	2940.2	2943.4
30°	7126.0	6550.8	5141.1	3927.3	3613.8	3041.9	2766.5	2681.8	2604.4	2570.6	2571.6
32.5°	7726.5	6994.6	5319.1	3832.0	2896.8	2646.8	2432.9	2367.2	2261.3	2212.6	2198.8
35°	8288.9	7465.9	5541.5	3672.1	2513.4	2295.2	2144.8	2056.9	1974.3	1932.9	1919.2
37.5°	7793.2	7900.2	5738.5	3540.7	2221.0	1902.2	1860.9	1802.7	1760.3	1728.5	1723.2
40°	7906.6	7116.4	5855.0	3292.9	1919.2	1661.8	1595.1	1623.7	1667.1	1640.6	1639.6
42.5°	8284.7	7238.2	5749.1	2949.7	1679.8	1433.0	1452.1	1559.1	1650.2	1633.2	1635.3
45°	8825.9	7618.5	4933.5	2539.8	1447.9	1291.1	1415.0	1540.0	1654.4	1659.7	1659.7
47.5°	9386.2	8046.4	4782.1	1993.3	1277.3	1236.0	1408.7	1516.7	1648.0	1681.9	1677.7
49°	9696.5	8254.0	4739.7	1640.6	1201.1	1224.4	1407.6	1494.5	1635.3	1683.0	1677.7
50°	9877.6	8395.9	4660.3	1499.8	1156.6	1222.3	1408.7	1480.7	1622.6	1675.6	1673.5
52.5°	10257.9	8575.9	4382.8	1235.0	1048.6	1214.8	1425.6	1468.0	1583.4	1639.6	1660.7
55°	8476.4	8272.0	3916.7	1108.9	999.8	1200.0	1425.6	1475.4	1549.5	1582.4	1602.5
57.5°	8581.2	7073.0	3080.0	1046.4	967.0	1184.1	1403.4	1474.3	1531.5	1536.8	1530.5
60°	8901.1	7237.2	2296.2	982.9	928.9	1164.0	1355.7	1440.4	1483.9	1483.9	1464.8
62.5°	9092.8	7314.5	1836.6	913.0	888.6	1122.7	1284.7	1374.8	1407.6	1389.6	1386.4
65°	9140.5	7377.0	1332.4	837.8	843.1	1078.2	1211.7	1290.0	1335.6	1304.9	1311.2
67.5°	8976.3	6931.1	973.4	760.5	791.2	1017.8	1139.6	1209.5	1242.4	1226.5	1229.7
70°	8369.4	6446.0	685.3	628.1	707.5	924.6	1048.6	1129.1	1146.0	1118.5	1122.7
72.5°	7393.9	5697.2	432.1	491.4	622.8	838.8	941.6	992.4	995.6	1029.5	1047.5
75°	6439.6	4571.3	312.4	387.6	494.6	717.0	860.0	907.7	942.6	1112.1	1139.6
77.5°	5161.2	2892.5	265.8	306.1	388.7	595.2	766.8	839.9	1154.5	1238.1	1217.0
80°	3127.7	1796.3	200.2	241.5	324.1	457.6	656.7	865.3	1168.2	1089.9	1045.4
82.5°	1443.6	780.6	135.6	197.0	257.4	341.0	517.9	1010.4	1000.9	834.6	826.1
85°	519.0	230.9	74.1	140.9	180.1	235.1	398.2	1000.9	784.8	701.2	656.7
87.5°	132.4	41.3	30.7	68.8	91.1	125.0	217.1	529.6	407.8	359.1	346.3
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)