

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: P591398

Luminaire Tested: **CTN-CA10-310-740-U-T2-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591398  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-310-740-U-T2-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29676 lumens  
Efficiency: N/A  
Efficacy: 95.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G4

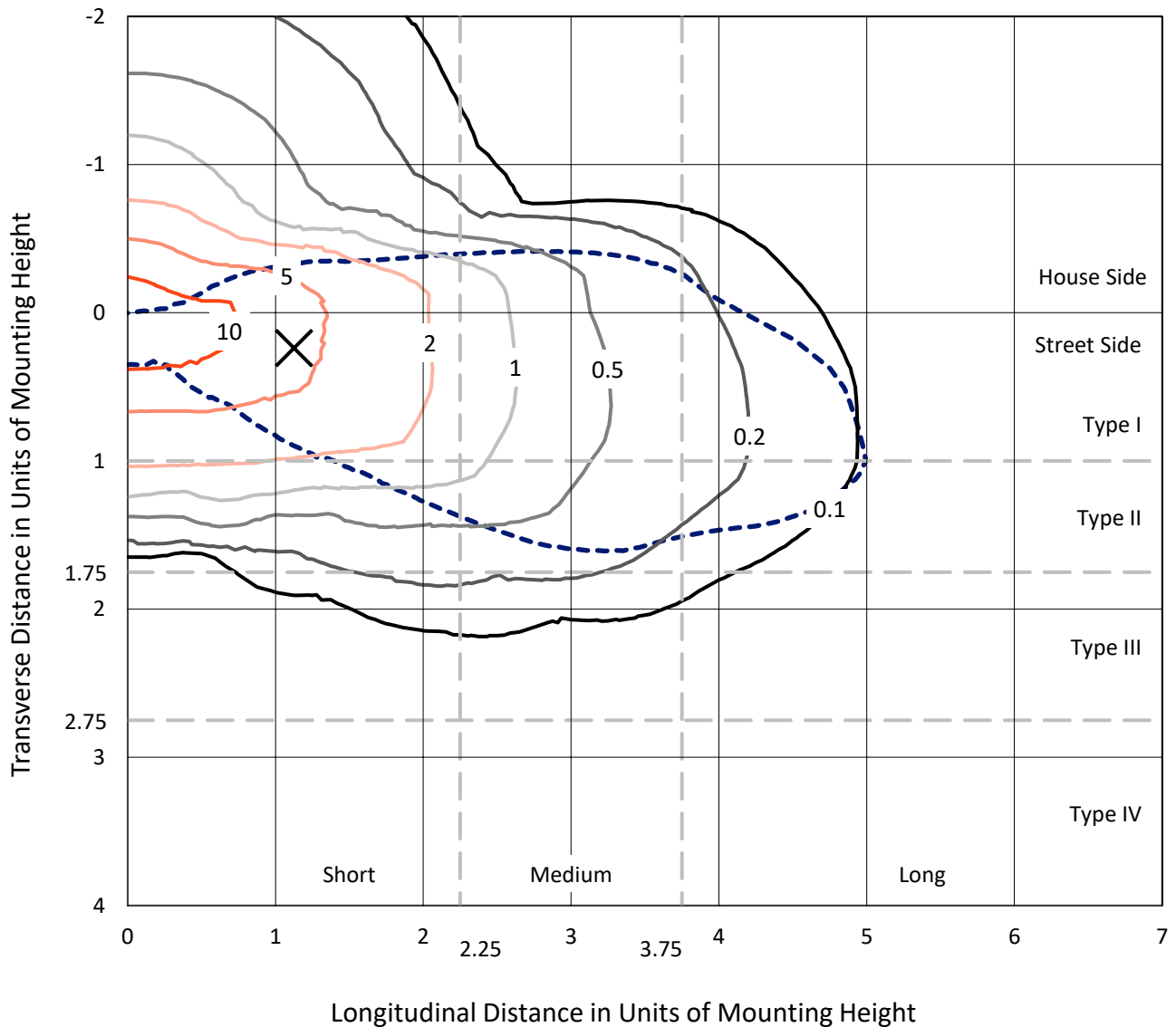
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

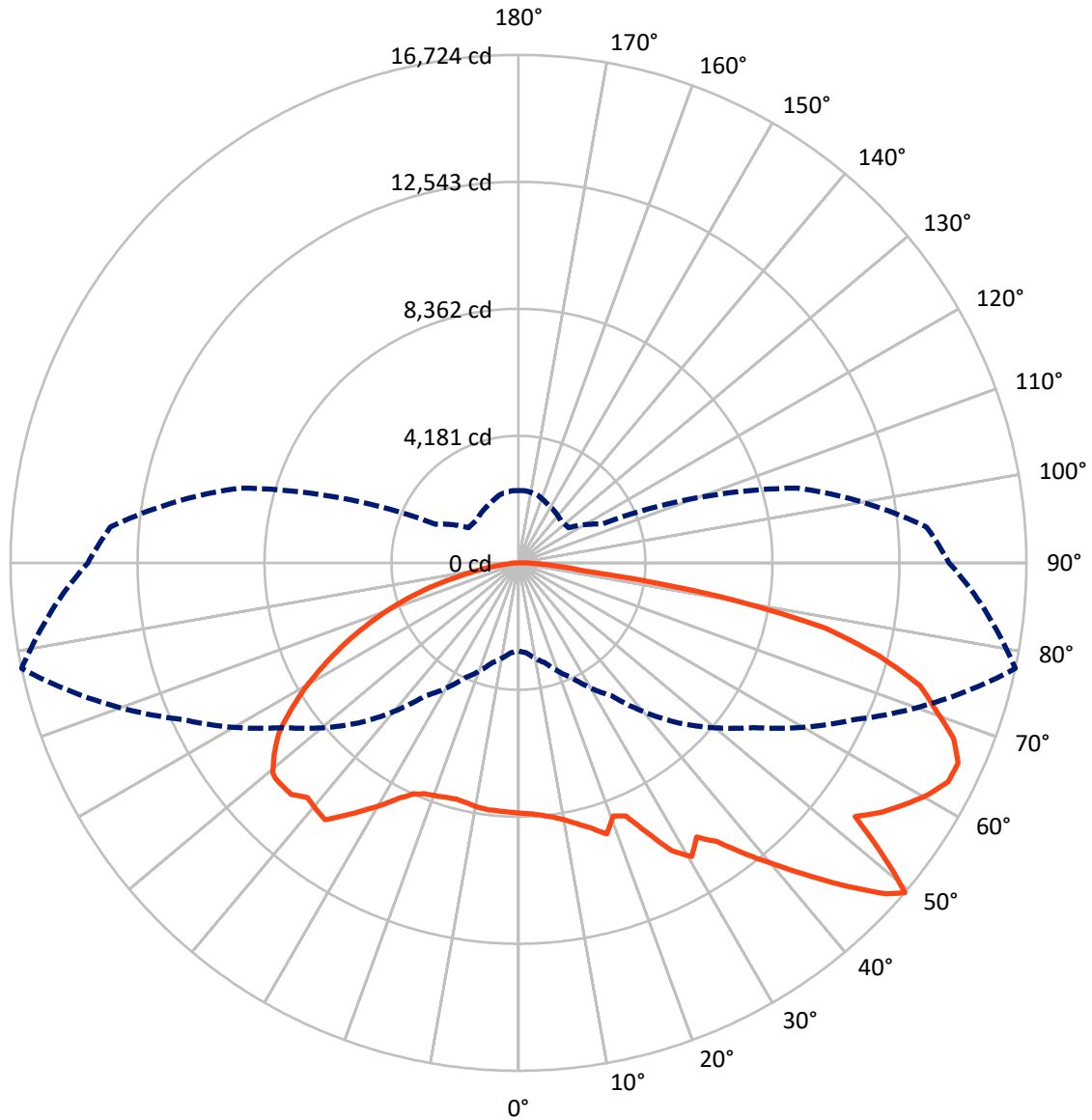
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.1 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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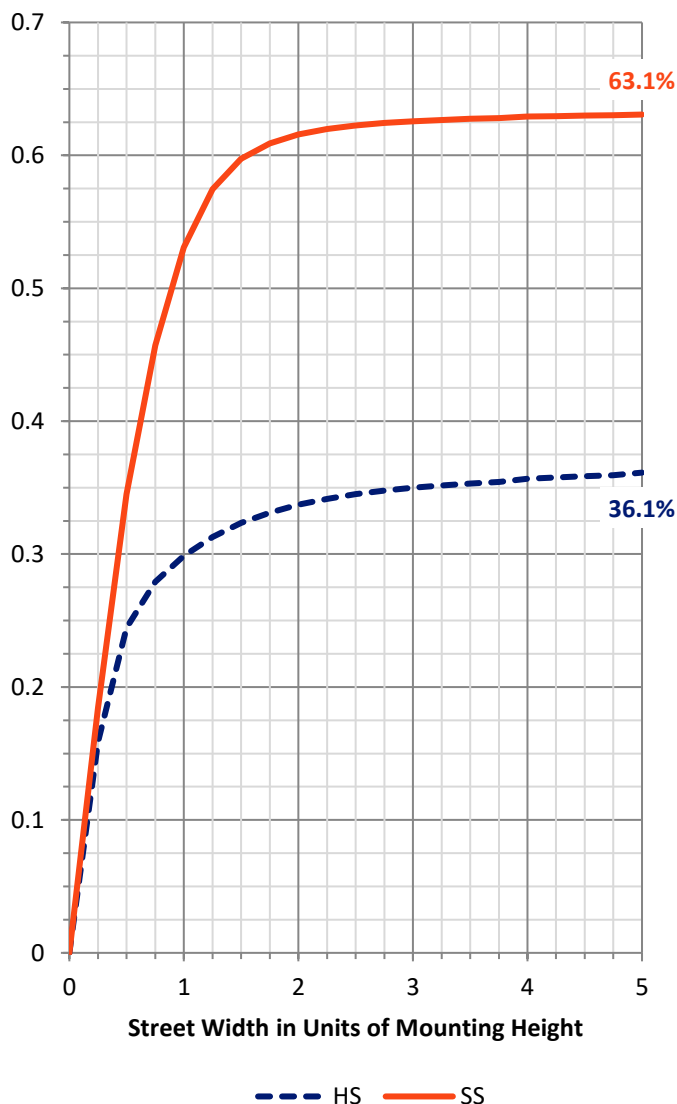
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10987.9	0.0	10987.9
	% Fixture	37.0	0.0	37.0
<b>Street Side</b>	Lumens	18688.1	0.0	18688.1
	% Fixture	63.0	0.0	63.0
<b>Total</b>	Lumens	29676.0	0.0	29676.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	798.8	2.7
10°-20°	2350.7	7.9
20°-30°	3355.7	11.3
30°-40°	4319.9	14.6
40°-50°	5067.2	17.1
50°-60°	5227.5	17.6
60°-70°	4746.5	16.0
70°-80°	3152.3	10.6
80°-90°	657.3	2.2
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°	29676.0	100.0
0°-180°	29676.0	100.0

**Coefficient of Utilization**

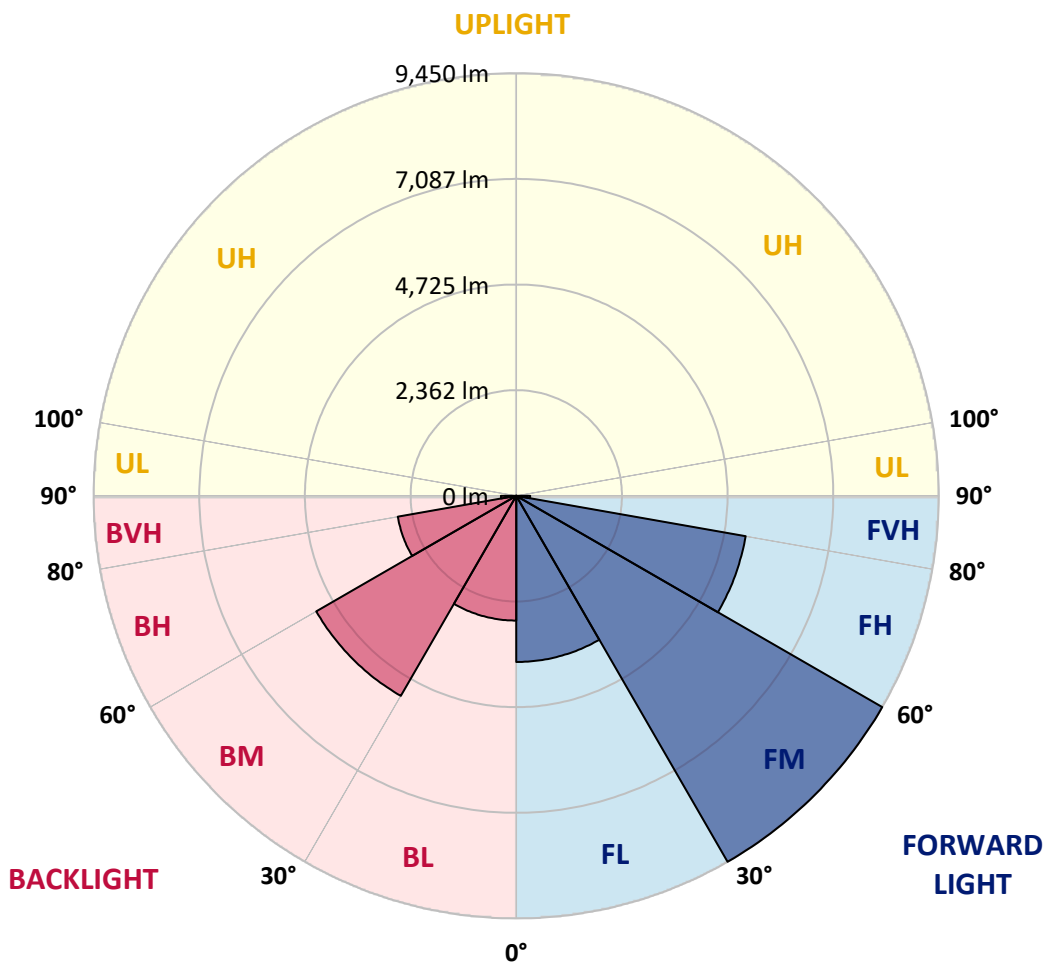


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3715.8	12.5			
FM (30°-60°)	9449.7	31.8			
FH (60°-80°)	5209.3	17.6			G3/7500
FVH (80°-90°)	313.3	1.1			G3/500
BL (0°-30°)	2789.4	9.4	B4/5000		
BM (30°-60°)	5164.9	17.4	B4/8500		
BH (60°-80°)	2689.6	9.1	B4/5000		G4/5000
BVH (80°-90°)	344.0	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7
2.5°	8577.7	8511.8	8532.7	8568.7	8405.4	8441.4	8371.0	8399.5	8312.6	8279.7	8294.6
5°	9184.1	9113.8	9139.2	9151.2	8914.6	8818.8	8598.6	8552.2	8415.9	8356.0	8350.0
7.5°	9483.6	9407.3	9413.3	9420.7	9232.1	9245.5	9046.4	8808.3	8555.2	8463.8	8423.4
10°	9976.3	9870.0	9834.1	9819.1	9564.5	9458.2	9284.5	9154.2	8758.9	8621.1	8517.8
12.5°	10280.3	10202.4	10202.4	10187.5	9917.9	9835.6	9525.6	9387.8	8998.5	8835.2	8657.0
15°	10335.7	10283.3	10350.7	10337.2	10160.5	10064.7	9926.9	9639.4	9241.1	9071.8	8862.2
17.5°	9709.8	9570.5	9303.9	9344.4	9345.9	9540.5	9446.2	9643.9	9527.1	9389.3	9163.2
20°	7974.2	8022.1	8448.9	8345.5	8306.6	8719.9	9142.2	9154.2	8922.1	8899.6	9205.1
22.5°	6946.9	6776.2	7250.9	7941.2	7984.7	8537.2	9029.9	9622.9	9251.5	9052.4	8818.8
25°	5916.6	5979.5	6695.3	7589.3	8221.3	8344.1	8910.1	9856.5	10015.3	9831.1	9342.9
27.5°	5738.4	5735.4	6046.9	7038.2	8335.1	8796.3	8983.5	9724.7	10831.4	10728.1	10111.1
30°	5699.5	5675.5	5838.7	6662.4	7806.4	9203.6	9560.0	9825.1	10767.0	11226.7	10970.7
32.5°	5528.8	5507.8	5681.5	6112.8	7382.7	9501.6	10109.6	10504.9	10548.4	10765.5	11878.1
35°	5260.7	5277.2	5518.3	5987.0	6770.2	8785.8	10672.7	11270.2	11427.4	11277.6	11431.9
37.5°	4986.7	5004.6	5241.2	5772.8	6663.9	8486.3	11036.5	12009.9	12336.4	12176.1	11463.3
40°	4646.7	4675.2	4949.2	5546.7	6541.1	7810.9	10289.3	12850.0	13293.3	13083.6	12290.0
42.5°	4260.4	4272.4	4583.8	5202.3	6385.3	7851.4	9518.1	13625.7	14221.7	14106.4	13104.6
45°	3924.9	3924.9	4208.0	4759.0	6030.4	7775.0	9191.6	13047.7	15361.3	15198.1	13920.7
47.5°	3468.2	3508.6	3841.1	4387.7	5612.6	7598.3	9378.8	11749.4	16423.0	16286.8	14739.9
49°	2905.1	2974.0	3412.8	4184.0	5344.6	7451.5	9453.7	12207.6	15690.8	16724.0	15271.5
50°	2674.5	2710.5	2715.0	4038.7	5145.4	7318.3	9488.1	12559.5	14455.3	16018.7	15644.3
52.5°	2315.1	2089.0	1856.9	3635.9	4745.6	6825.6	9509.1	13514.9	14158.8	13878.8	15353.8
55°	977.9	1280.4	1627.8	2974.0	4314.3	6216.1	9440.2	14564.7	14810.2	14501.8	13164.5
57.5°	739.8	787.7	874.5	2307.6	3090.8	5521.3	9208.1	15229.5	15359.8	15009.4	13699.1
60°	107.8	110.8	155.7	935.9	1770.0	3941.4	8372.5	15210.1	15768.6	15499.1	14160.3
62.5°	44.9	46.4	59.9	766.7	1364.2	3033.9	7643.2	14955.5	16165.5	15876.5	14593.1
65°	7.5	9.0	25.5	678.4	1127.6	2834.8	6843.6	15006.4	16024.7	15904.9	14760.8
67.5°	6.0	7.5	24.0	609.5	929.9	2595.2	6054.4	14196.3	15511.1	15458.7	14313.1
70°	6.0	7.5	25.5	551.1	804.2	2286.7	5079.5	13074.6	14569.1	14590.1	13561.3
72.5°	7.5	7.5	25.5	492.7	699.3	1954.2	4019.3	11577.1	13714.1	13829.4	12492.1
75°	7.5	7.5	24.0	428.3	600.5	1629.3	2894.7	8513.3	12298.9	12264.5	10955.7
77.5°	7.5	7.5	24.0	339.9	498.7	1340.3	1885.3	4795.0	10184.5	10329.7	9160.2
80°	7.5	7.5	24.0	248.6	390.8	1004.8	1142.6	2454.4	5437.4	6731.2	6301.5
82.5°	7.5	7.5	24.0	167.7	268.1	579.5	658.9	1242.9	1952.7	2139.9	2503.8
85°	6.0	6.0	18.0	100.3	137.8	205.2	317.5	661.9	1067.7	1115.6	1088.7
87.5°	3.0	3.0	9.0	35.9	59.9	74.9	142.3	266.6	392.3	401.3	348.9
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°	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7	8240.7
2.5°	8294.6	8246.7	8203.3	8210.8	8117.9	8091.0	7987.6	8041.6	7989.1	7942.7	7986.1
5°	8308.1	8249.7	8170.3	8094.0	7881.3	7782.5	7658.2	7689.6	7619.3	7563.9	7611.8
7.5°	8347.0	8275.2	8152.4	7935.2	7682.2	7524.9	7384.2	7521.9	7505.5	7463.5	7512.9
10°	8365.0	8303.6	8092.5	7837.9	7484.5	7385.7	7258.4	7256.9	7261.4	7268.8	7318.3
12.5°	8412.9	8320.1	7986.1	7689.6	7361.7	7161.0	7068.2	7143.1	7008.3	6928.9	6963.4
15°	8526.7	8357.5	7914.3	7481.5	7171.5	7005.3	6708.8	6734.2	6705.8	6627.9	6662.4
17.5°	8751.4	8462.4	7911.3	7349.7	6928.9	6657.9	6398.8	6276.0	6237.1	6243.1	6273.0
20°	9026.9	8648.0	7917.3	7180.5	6675.8	6361.4	5961.5	5876.2	5747.4	5750.4	5757.9
22.5°	8851.7	8862.2	7920.3	6987.3	6359.9	5966.0	5542.2	5374.5	5275.7	5250.2	5287.7
25°	9326.4	9278.5	7966.7	6884.0	6027.4	5498.8	5055.5	4841.4	4693.2	4681.2	4723.1
27.5°	9958.4	9871.5	8206.3	6660.9	5675.5	4938.7	4458.0	4296.3	4169.0	4124.1	4154.1
30°	10726.6	10624.7	8537.2	6487.2	5200.8	4336.7	3924.9	3814.1	3688.3	3606.0	3613.5
32.5°	11529.2	11312.1	8877.2	6340.4	4714.1	3809.6	3457.7	3358.9	3210.6	3104.3	3129.8
35°	12337.9	12029.4	9256.0	6081.3	4119.6	3345.4	3060.9	2927.6	2806.3	2710.5	2694.0
37.5°	11698.4	12868.0	9622.9	5840.2	3653.9	2992.0	2670.0	2575.7	2503.8	2428.9	2427.4
40°	11750.9	12018.9	9840.0	5413.4	3134.3	2629.6	2306.1	2339.1	2369.0	2312.1	2312.1
42.5°	12270.5	11888.6	9753.2	4847.4	2747.9	2267.2	2119.0	2252.2	2346.6	2306.1	2304.6
45°	13002.8	12507.1	9901.4	4209.5	2372.0	2044.1	2066.5	2229.8	2352.6	2345.1	2342.1
47.5°	13780.0	13210.9	9616.9	3451.7	2113.0	1975.2	2066.5	2196.8	2343.6	2378.0	2370.5
49°	14179.8	13489.4	9503.1	3010.0	2009.6	1966.2	2069.5	2169.9	2327.1	2379.5	2372.0
50°	14423.9	13639.2	9356.4	2758.4	1954.2	1967.7	2075.5	2153.4	2312.1	2370.5	2366.0
52.5°	14973.5	13866.8	8628.6	2321.1	1864.4	1972.2	2114.5	2136.9	2256.7	2319.6	2352.6
55°	14413.4	14386.4	7700.1	2120.5	1816.5	1961.7	2130.9	2151.9	2210.3	2244.7	2270.2
57.5°	14326.5	14612.6	6530.6	2012.6	1774.5	1946.7	2111.5	2150.4	2184.8	2178.9	2168.4
60°	14602.1	14810.2	5325.1	1906.3	1726.6	1922.8	2047.1	2104.0	2114.5	2099.5	2075.5
62.5°	14645.5	14864.1	4092.7	1798.5	1674.2	1864.4	1952.7	2009.6	2009.6	1972.2	1963.2
65°	14443.4	14527.2	3016.0	1674.2	1611.3	1797.0	1841.9	1883.9	1903.3	1853.9	1856.9
67.5°	13863.8	13378.6	2289.7	1525.9	1534.9	1704.2	1735.6	1764.1	1768.5	1740.1	1737.1
70°	12698.8	12093.8	1636.8	1301.3	1395.7	1557.4	1605.3	1648.7	1633.8	1584.4	1576.9
72.5°	10942.2	10404.6	1112.6	1042.3	1227.9	1416.6	1446.6	1448.1	1418.1	1454.1	1479.5
75°	9413.3	8126.9	829.6	831.1	983.9	1222.0	1314.8	1322.3	1335.8	1533.4	1573.9
77.5°	7480.0	5295.1	706.8	655.9	754.7	1016.8	1163.6	1217.5	1615.8	1752.1	1734.1
80°	4594.3	3179.2	548.1	519.6	614.0	781.7	1000.3	1244.4	1648.7	1549.9	1497.5
82.5°	2151.9	1451.1	395.3	398.3	456.7	570.5	790.7	1448.1	1424.1	1175.5	1160.6
85°	832.6	501.7	239.6	271.0	307.0	386.4	606.5	1428.6	1106.6	995.8	922.5
87.5°	214.1	97.3	104.8	110.8	136.3	203.7	330.9	748.7	582.5	510.6	501.7
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)