

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: P591113

Luminaire Tested: **CTN-CA10-310-722-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591113  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-310-722-U-T3-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D 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: 23613 lumens  
Efficiency: N/A  
Efficacy: 75.6 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B4 - U0 - G3

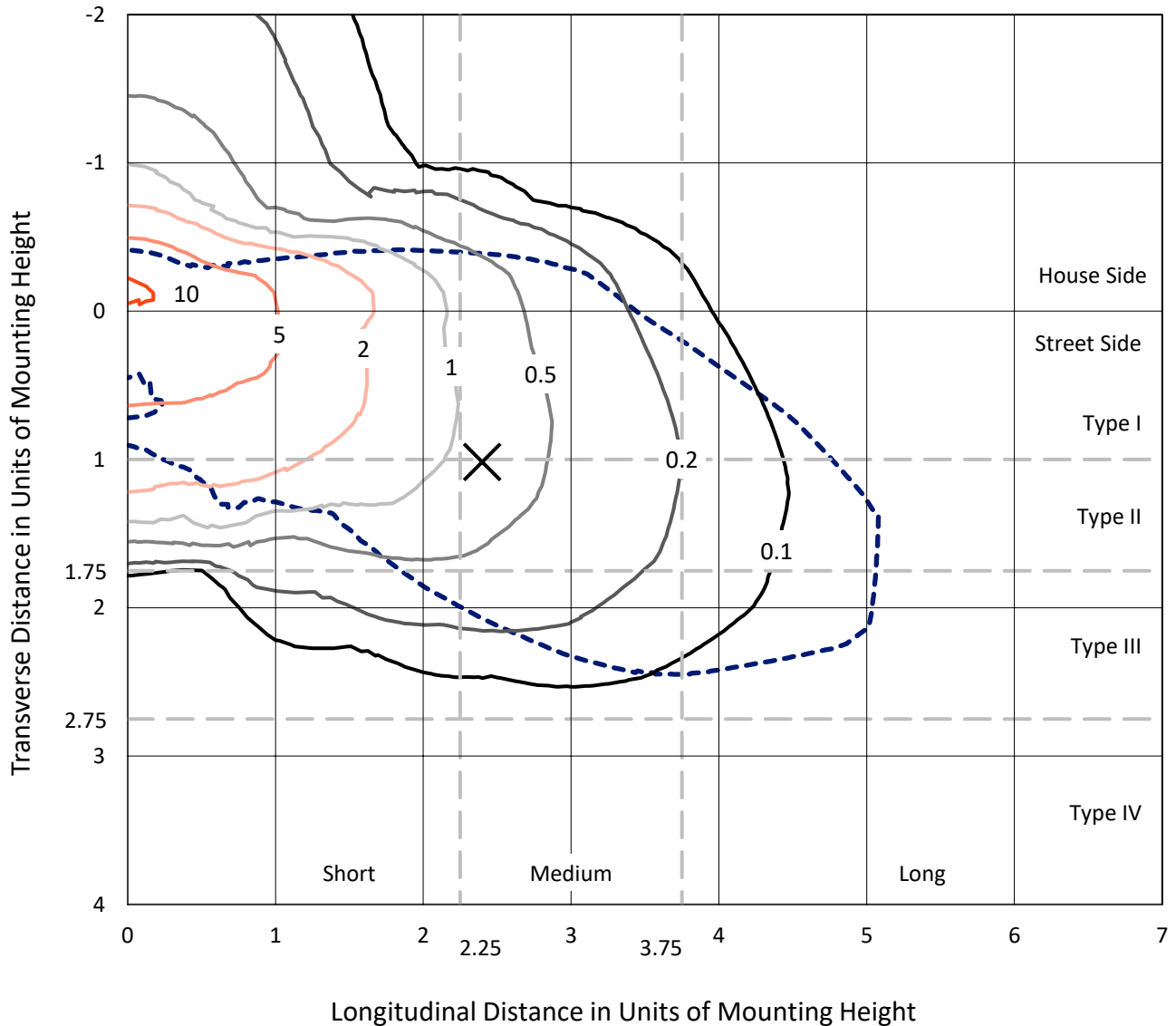
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

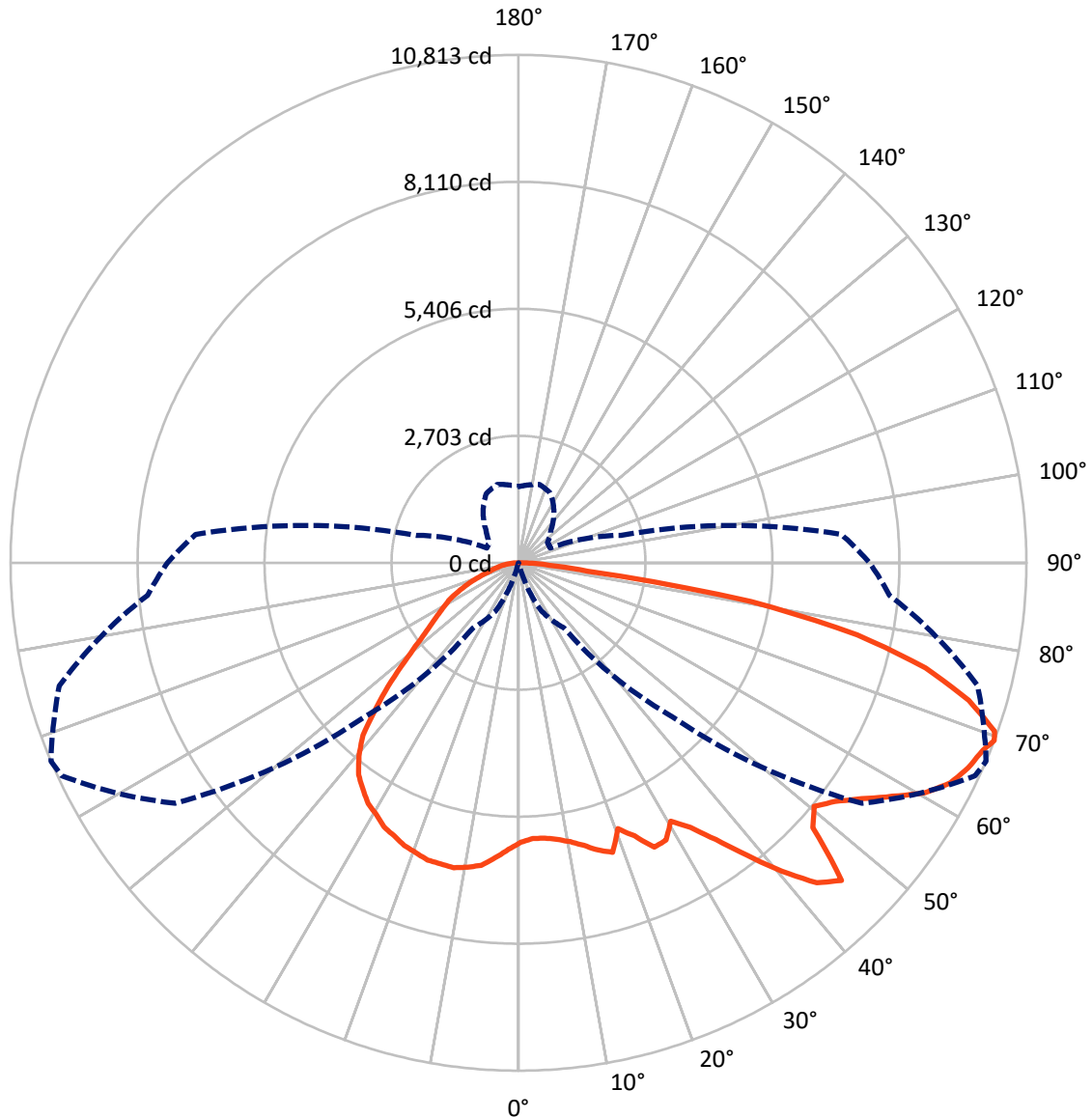
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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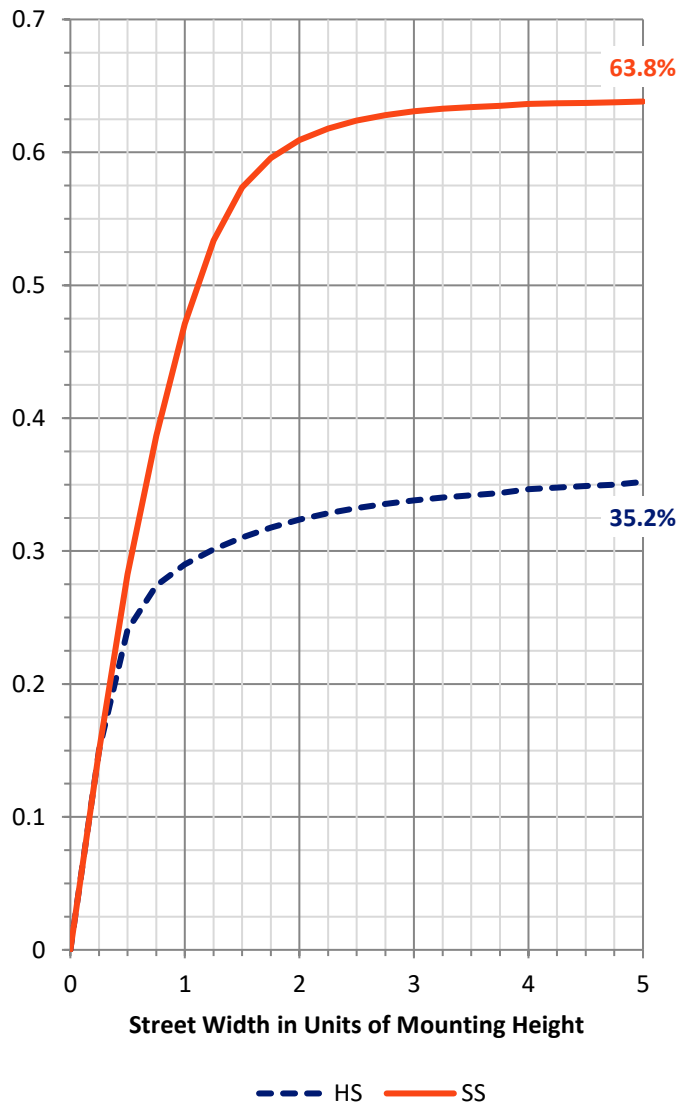
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8542.5	0.0	8542.5
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	15070.5	0.0	15070.5
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	23613.0	0.0	23613.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	594.9	2.5
10°-20°	1836.5	7.8
20°-30°	2710.6	11.5
30°-40°	3405.6	14.4
40°-50°	3994.6	16.9
50°-60°	4180.1	17.7
60°-70°	3734.4	15.8
70°-80°	2628.3	11.1
80°-90°	527.9	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°	23613.0	100.0
0°-180°	23613.0	100.0

**Coefficient of Utilization**

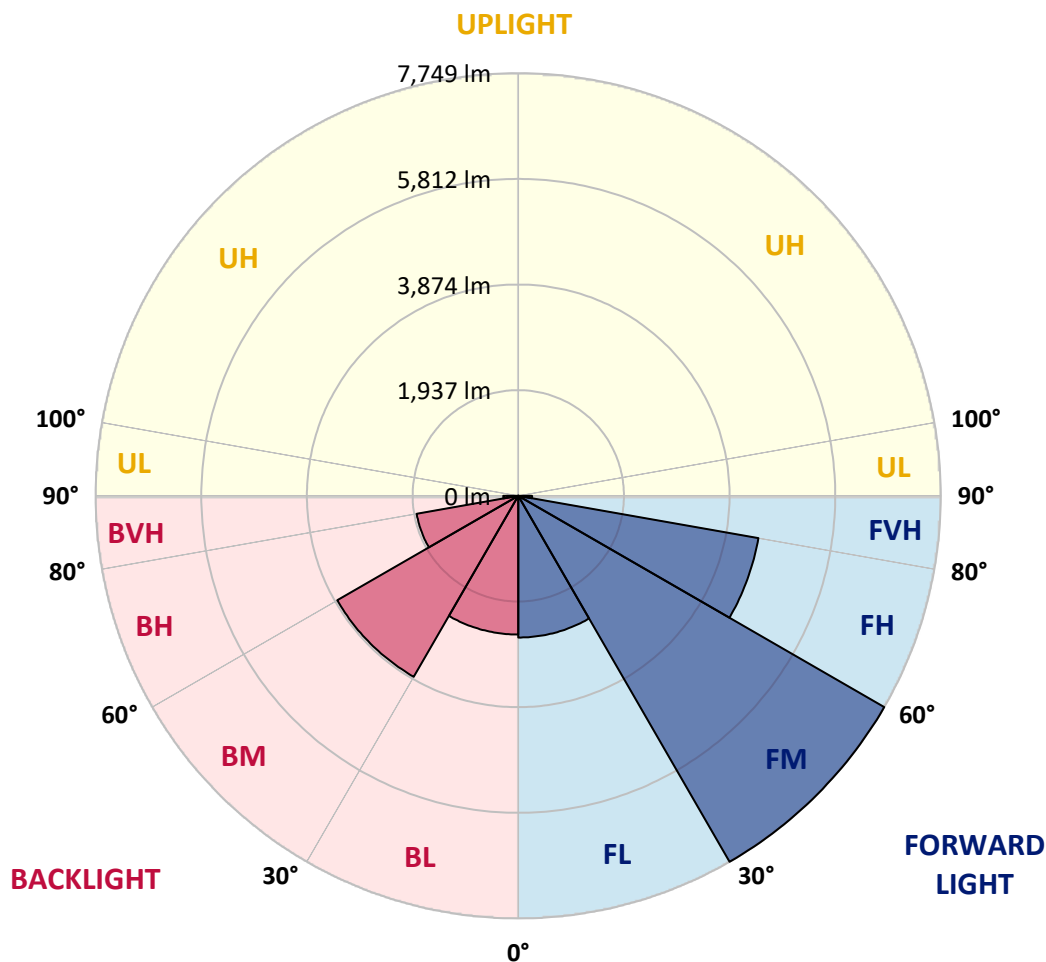


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2598.5	11.0			
FM (30°-60°)	7748.7	32.8			
FH (60°-80°)	4471.0	18.9			G2/5000
FVH (80°-90°)	252.3	1.1			G3/500
BL (0°-30°)	2543.4	10.8	B4/5000		
BM (30°-60°)	3831.6	16.2	B3/5000		
BH (60°-80°)	1891.8	8.0	B3/2500		G3/2500
BVH (80°-90°)	275.6	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-G3**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3
2.5°	5806.7	5772.6	5788.4	5833.6	5739.6	5806.7	5782.3	5850.7	5876.3	5872.6	5970.3
5°	5853.1	5815.3	5821.4	5855.6	5753.0	5805.5	5782.3	5858.0	5887.3	5878.7	6011.8
7.5°	6017.9	5976.4	5963.0	5973.9	5862.9	5903.2	5853.1	5914.1	5945.9	5945.9	6097.2
10°	6277.8	6227.8	6198.5	6197.3	6066.7	6048.4	5987.4	6015.4	6038.6	6058.1	6226.6
12.5°	6550.0	6508.5	6470.6	6449.9	6277.8	6235.1	6146.0	6166.8	6174.1	6200.9	6368.1
15°	6797.7	6756.2	6745.2	6712.3	6541.4	6470.6	6346.2	6336.4	6346.2	6362.0	6528.0
17.5°	6702.5	6705.0	6766.0	6772.1	6550.0	6386.4	6299.8	6464.5	6480.4	6606.1	6713.5
20°	6521.9	6432.8	6113.1	5938.5	5964.2	6176.5	6019.1	6011.8	6044.7	6268.1	6812.4
22.5°	5432.1	5383.3	5559.0	5615.1	5817.7	5898.3	6272.9	6282.7	6315.7	6315.7	6474.3
25°	4690.1	4942.7	5284.4	5894.6	5831.2	5847.0	5999.6	6647.6	6709.9	6708.6	6685.4
27.5°	4848.7	4817.0	5328.3	5711.6	6164.3	6136.3	5970.3	6410.8	6686.7	7160.2	7050.3
30°	5039.1	5015.9	5053.7	5701.8	6452.3	6490.2	6336.4	6291.2	6385.2	7379.9	7467.7
32.5°	5216.1	5188.0	5230.7	5329.6	6048.4	6855.1	6736.7	6681.8	6716.0	6916.1	8004.7
35°	5372.3	5369.8	5418.7	5535.8	6148.5	6982.0	7146.8	7143.1	7234.6	7406.7	8082.8
37.5°	5483.3	5482.1	5521.2	5657.9	5795.8	6448.7	7531.2	7749.6	7896.1	8151.2	7896.1
40°	5482.1	5501.6	5604.2	5779.9	5963.0	6159.4	7700.8	8462.4	8638.1	8820.0	8395.2
42.5°	5367.4	5378.4	5559.0	5884.8	6111.8	6281.5	7027.2	9117.7	9314.2	9300.8	8788.2
45°	5261.2	5266.1	5467.5	5867.8	6236.3	6542.7	6889.3	9115.3	9646.2	9729.2	9158.0
47.5°	5123.3	5123.3	5322.2	5768.9	6348.6	6836.8	7257.8	7874.1	8428.2	10100.2	9464.3
50°	4946.3	4968.3	4724.2	5666.4	6402.3	7116.3	7570.2	8077.9	8154.8	9032.3	9748.7
52.5°	4664.4	4652.2	3691.8	5552.9	6424.3	7318.8	7894.9	8396.5	8438.0	8350.1	9470.4
55°	2940.0	3278.0	3264.6	5419.9	6410.8	7449.4	8143.8	8746.7	8863.9	8756.5	7966.9
57.5°	1775.7	1695.2	2789.9	5039.1	5148.9	7550.7	8481.9	9278.8	9381.3	9132.4	8101.1
60°	693.2	654.1	706.6	2293.2	3694.2	7024.7	8942.0	9843.9	9941.5	9490.0	8214.6
62.5°	86.6	74.4	63.5	1587.8	2348.1	5218.5	9186.1	10299.1	10317.4	9748.7	8236.6
65°	12.2	13.4	24.4	1415.7	2133.3	5129.4	9271.5	10484.6	10522.4	9935.4	8162.1
67.5°	4.9	6.1	19.5	1231.4	1872.1	4892.7	9060.4	10612.7	10656.7	10116.0	8090.1
69°	4.9	6.1	19.5	1106.9	1693.9	4631.5	8924.9	10726.2	10812.9	10119.7	7925.4
70°	4.9	6.1	18.3	1017.8	1554.8	4410.6	8794.3	10682.3	10751.9	10022.1	7742.3
72.5°	4.9	6.1	18.3	783.5	1182.6	3541.6	7968.1	10059.9	10024.5	9407.0	7029.6
75°	6.1	6.1	18.3	550.4	820.1	2518.9	6724.5	8933.5	8949.3	8374.5	5912.9
77.5°	6.1	6.1	18.3	350.3	517.5	1457.2	4869.5	7326.2	7371.3	6977.1	4427.7
80°	6.1	6.1	18.3	159.9	321.0	761.5	2394.5	4774.3	5017.1	4684.0	2429.8
82.5°	6.1	6.1	17.1	100.1	175.7	342.9	944.6	1497.5	1482.8	1459.6	772.5
85°	4.9	4.9	13.4	70.8	117.2	198.9	524.8	671.2	662.7	587.0	399.1
87.5°	2.4	2.4	7.3	29.3	48.8	90.3	262.4	305.1	290.5	249.0	170.9
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°	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3	5948.3
2.5°	6015.4	6024.0	6064.3	6116.7	6132.6	6200.9	6211.9	6324.2	6341.3	6369.4	6381.6
5°	6076.5	6109.4	6197.3	6320.5	6425.5	6532.9	6536.6	6673.2	6708.6	6701.3	6736.7
7.5°	6163.1	6218.0	6352.3	6523.1	6561.0	6700.1	6690.3	6825.8	6828.2	6808.7	6862.4
10°	6296.1	6364.5	6486.5	6591.5	6663.5	6753.8	6741.6	6869.7	6851.4	6830.7	6890.5
12.5°	6432.8	6468.2	6542.7	6659.8	6675.7	6707.4	6691.5	6809.9	6790.4	6764.8	6823.4
15°	6552.4	6569.5	6569.5	6633.0	6592.7	6618.3	6564.6	6659.8	6614.7	6602.5	6658.6
17.5°	6707.4	6679.3	6622.0	6617.1	6512.1	6473.1	6392.5	6418.2	6332.7	6341.3	6370.6
20°	6881.9	6819.7	6668.4	6517.0	6323.0	6230.2	6070.4	6058.1	5978.8	5964.2	5992.2
22.5°	6946.6	7001.5	6724.5	6431.6	6097.2	5889.7	5700.6	5610.3	5494.3	5419.9	5429.6
25°	7143.1	7242.0	6809.9	6279.0	5831.2	5489.4	5205.1	4998.8	4824.3	4735.2	4753.5
27.5°	7409.2	7570.2	6858.7	6172.9	5482.1	5035.4	4559.5	4288.5	4107.9	4015.2	4012.7
30°	7789.9	7992.5	6952.7	5950.8	5094.0	4438.7	3851.6	3531.9	3384.2	3323.2	3328.1
32.5°	8265.9	8510.0	7148.0	5765.2	4671.8	3800.4	3131.6	2852.1	2785.0	2774.0	2767.9
35°	8896.8	9138.5	7303.0	5479.7	4123.8	3076.7	2514.1	2316.4	2327.3	2324.9	2332.2
37.5°	8794.3	9710.9	7479.9	5200.2	3468.4	2411.5	2032.0	1920.9	1924.6	1967.3	1975.9
40°	8408.7	9210.5	7743.5	4737.7	2702.0	1852.6	1602.4	1576.8	1681.7	1775.7	1792.8
42.5°	8711.3	8909.0	7778.9	4238.5	1977.1	1420.6	1340.0	1446.2	1615.8	1724.4	1744.0
45°	9014.0	9173.9	7573.9	3491.6	1418.1	1215.5	1275.3	1427.9	1615.8	1731.8	1745.2
47.5°	9321.5	9320.3	7334.7	2799.6	1159.4	1161.8	1259.5	1429.1	1625.6	1742.8	1750.1
50°	9516.8	9438.7	6709.9	2193.1	1078.8	1130.1	1250.9	1436.4	1623.2	1708.6	1712.2
52.5°	9614.4	9498.5	6158.2	1752.5	1041.0	1104.5	1252.1	1453.5	1609.7	1657.3	1654.9
55°	9449.7	9465.6	5701.8	1457.2	1005.6	1083.7	1258.2	1465.7	1615.8	1664.6	1664.6
57.5°	9244.7	9248.3	5338.1	1233.8	970.2	1066.6	1265.6	1484.0	1728.1	1819.6	1806.2
60°	9100.6	8935.9	4823.1	1093.5	930.0	1050.8	1275.3	1563.4	1991.7	2084.5	2052.7
62.5°	8863.9	8640.6	4293.4	995.9	884.8	1038.6	1281.4	1674.4	2027.1	2032.0	1953.9
65°	8448.9	8129.2	3466.0	899.4	838.4	1021.5	1277.8	1715.9	1867.2	1794.0	1772.0
67.5°	7848.5	7431.1	2716.6	803.0	787.2	995.9	1302.2	1640.2	1763.5	1703.7	1674.4
69°	7473.8	6901.5	2255.3	745.7	754.2	976.3	1314.4	1625.6	1726.9	1653.7	1619.5
70°	7189.5	6442.6	1910.0	707.8	726.1	959.2	1290.0	1617.1	1709.8	1619.5	1579.2
72.5°	6104.5	5179.4	1222.9	620.0	652.9	916.5	1224.1	1563.4	1672.0	1611.0	1560.9
75°	4719.4	3804.0	779.8	539.4	578.5	853.1	1155.7	1525.5	1689.1	1579.2	1469.4
77.5°	3176.7	2124.7	595.6	452.8	490.6	770.1	1047.1	1419.3	1630.5	1534.1	1398.6
80°	1447.4	810.4	460.1	367.3	396.6	620.0	903.1	1255.8	1541.4	1540.2	1442.5
82.5°	579.7	541.9	341.7	280.7	312.4	462.5	715.2	1075.2	1359.5	1418.1	1514.5
85°	338.1	341.7	227.0	195.3	233.1	340.5	510.1	831.1	1105.7	1222.9	1304.6
87.5°	137.9	153.8	106.2	102.5	128.1	181.8	234.3	402.7	595.6	731.0	781.1
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)