

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: P591353

Luminaire Tested: **CTN-CA8-230-730-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591353  
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-CA8-230-730-U-T3-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21047 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

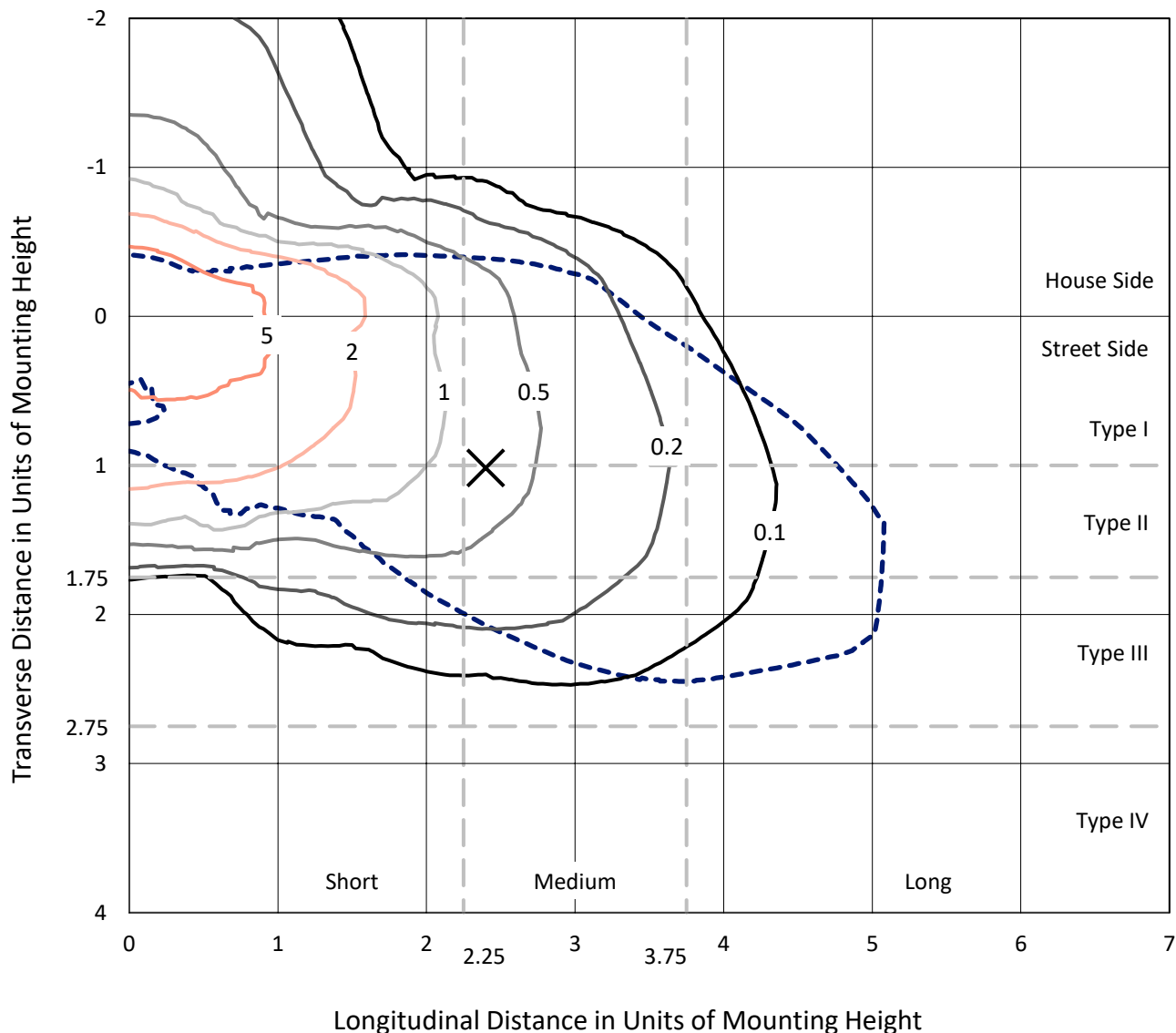
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

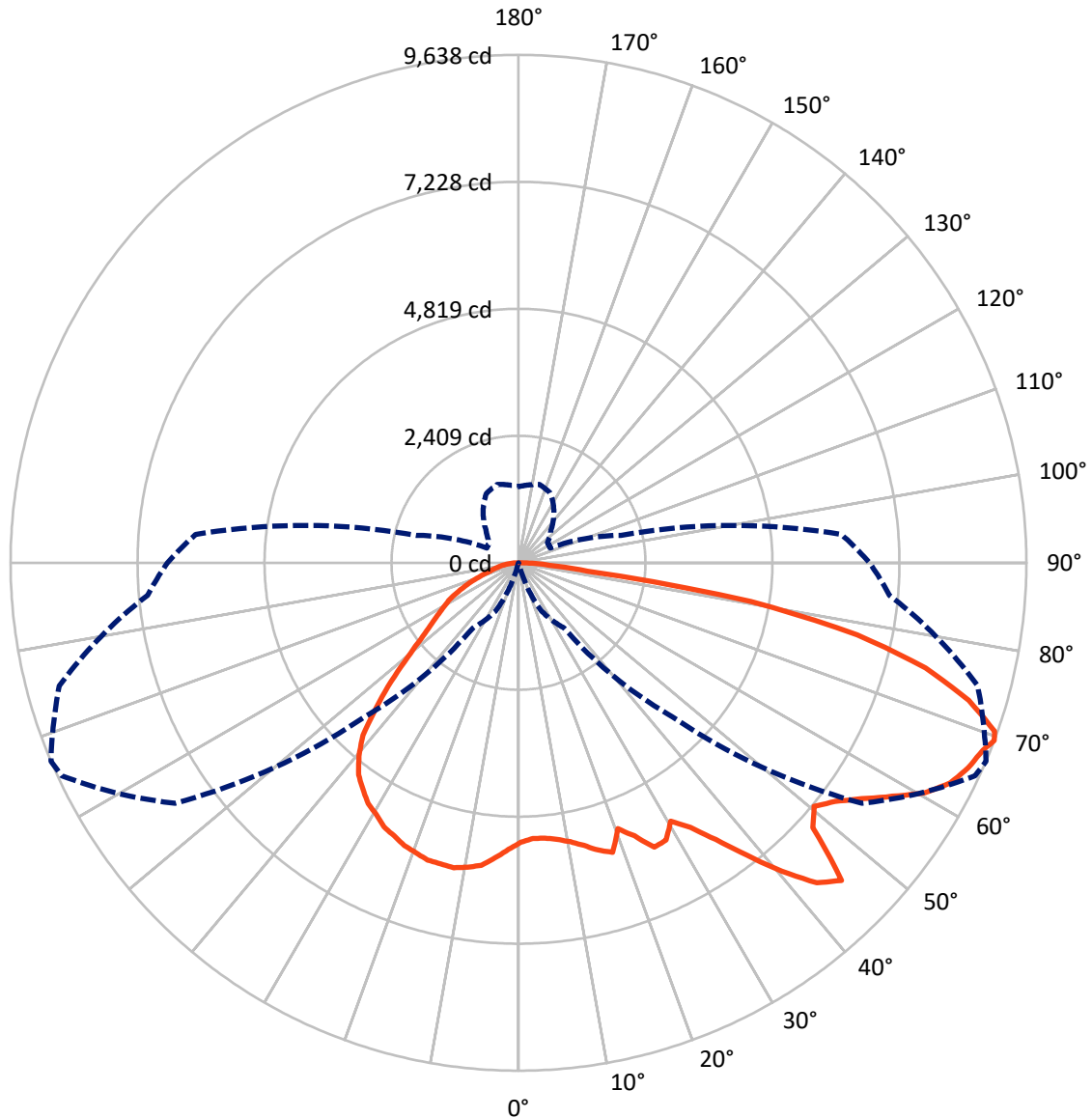
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.5 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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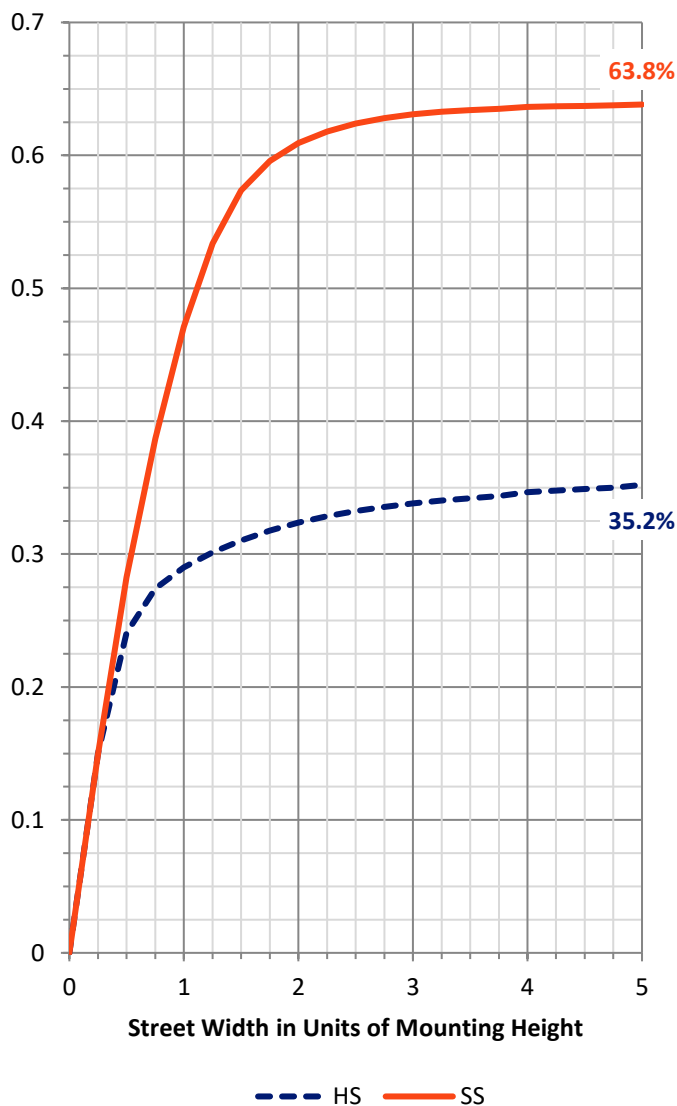
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7614.2	0.0	7614.2
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	13432.8	0.0	13432.8
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	21047.0	0.0	21047.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	530.2	2.5
10°-20°	1636.9	7.8
20°-30°	2416.0	11.5
30°-40°	3035.6	14.4
40°-50°	3560.5	16.9
50°-60°	3725.8	17.7
60°-70°	3328.6	15.8
70°-80°	2342.7	11.1
80°-90°	470.6	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°	21047.0	100.0
0°-180°	21047.0	100.0

**Coefficient of Utilization**

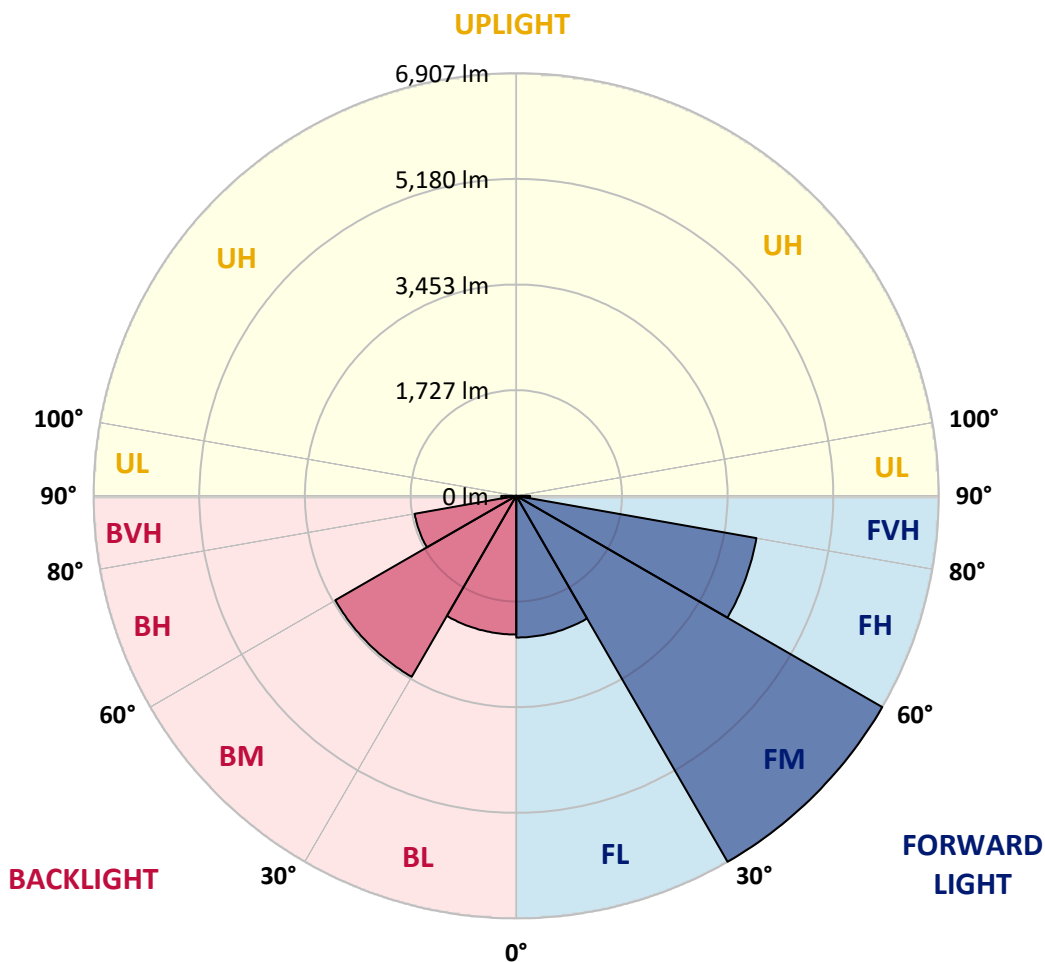


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2316.1	11.0			
FM (30°-60°)	6906.7	32.8			
FH (60°-80°)	3985.1	18.9			G2/5000
FVH (80°-90°)	224.9	1.1			G2/225
BL (0°-30°)	2267.0	10.8	B3/2500		
BM (30°-60°)	3415.3	16.2	B3/5000		
BH (60°-80°)	1686.2	8.0	B3/2500		G3/2500
BVH (80°-90°)	245.7	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9
2.5°	5175.7	5145.3	5159.4	5199.7	5115.9	5175.7	5154.0	5214.9	5237.7	5234.5	5321.5
5°	5217.1	5183.3	5188.8	5219.2	5127.9	5174.6	5154.0	5221.4	5247.5	5239.9	5358.5
7.5°	5363.9	5326.9	5315.0	5324.8	5225.8	5261.7	5217.1	5271.5	5299.7	5299.7	5434.6
10°	5595.6	5551.0	5524.9	5523.8	5407.4	5391.1	5336.7	5361.7	5382.4	5399.8	5549.9
12.5°	5838.2	5801.2	5767.5	5749.0	5595.6	5557.5	5478.1	5496.6	5503.2	5527.1	5676.1
15°	6059.0	6022.0	6012.2	5982.9	5830.6	5767.5	5656.5	5647.8	5656.5	5670.7	5818.6
17.5°	5974.2	5976.3	6030.7	6036.2	5838.2	5692.4	5615.2	5762.1	5776.2	5888.2	5984.0
20°	5813.2	5733.8	5448.8	5293.2	5316.1	5505.3	5365.0	5358.5	5387.9	5586.9	6072.1
22.5°	4841.8	4798.3	4954.9	5004.9	5185.5	5257.3	5591.3	5600.0	5629.3	5629.3	5770.8
25°	4180.4	4405.6	4710.2	5254.1	5197.5	5211.6	5347.6	5925.2	5980.7	5979.6	5958.9
27.5°	4321.8	4293.5	4749.3	5090.9	5494.5	5469.4	5321.5	5714.2	5960.0	6382.1	6284.2
30°	4491.5	4470.8	4504.6	5082.2	5751.2	5784.9	5647.8	5607.6	5691.3	6577.9	6656.2
32.5°	4649.2	4624.2	4662.3	4750.4	5391.1	6110.1	6004.6	5955.7	5986.1	6164.5	7134.8
35°	4788.5	4786.3	4829.8	4934.2	5480.3	6223.3	6370.1	6366.9	6448.5	6601.8	7204.5
37.5°	4887.5	4886.4	4921.2	5043.0	5165.9	5747.9	6712.8	6907.5	7038.0	7265.4	7038.0
40°	4886.4	4903.8	4995.2	5151.8	5315.0	5490.1	6864.0	7542.8	7699.4	7861.5	7482.9
42.5°	4784.1	4793.9	4954.9	5245.3	5447.7	5598.9	6263.5	8126.9	8302.1	8290.1	7833.2
45°	4689.5	4693.8	4873.3	5230.1	5558.6	5831.7	6140.6	8124.7	8597.9	8671.9	8162.8
47.5°	4566.6	4566.6	4743.9	5142.0	5658.7	6093.8	6469.1	7018.5	7512.3	9002.6	8435.9
50°	4408.8	4428.4	4210.9	5050.6	5706.6	6342.9	6747.6	7200.1	7268.6	8050.8	8689.3
52.5°	4157.6	4146.7	3290.6	4949.5	5726.2	6523.5	7036.9	7484.0	7521.0	7442.7	8441.3
55°	2620.5	2921.8	2909.9	4830.9	5714.2	6639.9	7258.9	7796.2	7900.7	7804.9	7101.1
57.5°	1582.7	1510.9	2486.7	4491.5	4589.4	6730.2	7560.2	8270.5	8361.9	8140.0	7220.8
60°	617.9	583.1	629.8	2044.0	3292.8	6261.3	7970.3	8774.2	8861.2	8458.7	7322.0
62.5°	77.2	66.4	56.6	1415.2	2092.9	4651.4	8187.8	9179.9	9196.2	8689.3	7341.5
65°	10.9	12.0	21.8	1261.8	1901.5	4572.0	8264.0	9345.2	9379.0	8855.7	7275.2
67.5°	4.4	5.4	17.4	1097.6	1668.7	4361.0	8075.8	9459.5	9498.6	9016.7	7211.0
69°	4.4	5.4	17.4	986.6	1509.9	4128.2	7955.0	9560.6	9637.9	9020.0	7064.1
70°	4.4	5.4	16.3	907.2	1385.9	3931.3	7838.7	9521.5	9583.5	8933.0	6901.0
72.5°	4.4	5.4	16.3	698.4	1054.1	3156.8	7102.2	8966.7	8935.2	8384.7	6265.7
75°	5.4	5.4	16.3	490.6	731.0	2245.2	5993.8	7962.7	7976.8	7464.5	5270.4
77.5°	5.4	5.4	16.3	312.2	461.2	1298.8	4340.3	6530.0	6570.3	6218.9	3946.5
80°	5.4	5.4	16.3	142.5	286.1	678.8	2134.3	4255.5	4471.9	4175.0	2165.8
82.5°	5.4	5.4	15.2	89.2	156.6	305.7	842.0	1334.7	1321.7	1301.0	688.6
85°	4.4	4.4	12.0	63.1	104.4	177.3	467.8	598.3	590.7	523.2	355.7
87.5°	2.2	2.2	6.5	26.1	43.5	80.5	233.9	271.9	258.9	221.9	152.3
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°	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9	5301.9
2.5°	5361.7	5369.4	5405.3	5452.0	5466.2	5527.1	5536.9	5637.0	5652.2	5677.2	5688.1
5°	5416.1	5445.5	5523.8	5633.7	5727.2	5823.0	5826.2	5948.1	5979.6	5973.1	6004.6
7.5°	5493.4	5542.3	5662.0	5814.3	5848.0	5972.0	5963.3	6084.0	6086.2	6068.8	6116.7
10°	5611.9	5672.9	5781.6	5875.2	5939.4	6019.9	6009.0	6123.2	6106.9	6088.4	6141.7
12.5°	5733.8	5765.3	5831.7	5936.1	5950.2	5978.5	5964.4	6069.9	6052.5	6029.6	6081.9
15°	5840.4	5855.6	5855.6	5912.2	5876.3	5899.1	5851.3	5936.1	5895.9	5885.0	5935.0
17.5°	5978.5	5953.5	5902.4	5898.0	5804.5	5769.7	5697.9	5720.7	5644.6	5652.2	5678.3
20°	6134.1	6078.6	5943.7	5808.8	5635.9	5553.2	5410.7	5399.8	5329.1	5316.1	5341.1
22.5°	6191.7	6240.7	5993.8	5732.7	5434.6	5249.7	5081.1	5000.6	4897.3	4830.9	4839.6
25°	6366.9	6455.0	6069.9	5596.7	5197.5	4892.9	4639.4	4455.6	4300.1	4220.6	4237.0
27.5°	6604.0	6747.6	6113.4	5502.1	4886.4	4488.2	4064.0	3822.5	3661.5	3578.8	3576.7
30°	6943.4	7124.0	6197.2	5304.1	4540.5	3956.3	3433.1	3148.1	3016.5	2962.1	2966.4
32.5°	7367.6	7585.2	6371.2	5138.7	4164.1	3387.4	2791.3	2542.2	2482.3	2472.6	2467.1
35°	7930.0	8145.4	6509.4	4884.2	3675.7	2742.3	2240.9	2064.6	2074.4	2072.3	2078.8
37.5°	7838.7	8655.6	6667.1	4635.1	3091.5	2149.5	1811.2	1712.2	1715.5	1753.5	1761.1
40°	7494.9	8209.6	6902.1	4222.8	2408.4	1651.3	1428.3	1405.4	1499.0	1582.7	1598.0
42.5°	7764.7	7940.9	6933.6	3777.9	1762.2	1266.2	1194.4	1289.0	1440.2	1537.1	1554.5
45°	8034.5	8177.0	6750.9	3112.2	1264.0	1083.4	1136.7	1272.7	1440.2	1543.6	1555.5
47.5°	8308.6	8307.5	6537.6	2495.4	1033.4	1035.6	1122.6	1273.8	1448.9	1553.4	1559.9
50°	8482.6	8413.0	5980.7	1954.8	961.6	1007.3	1115.0	1280.3	1446.8	1522.9	1526.2
52.5°	8569.7	8466.3	5489.0	1562.1	927.9	984.5	1116.1	1295.6	1434.8	1477.2	1475.1
55°	8422.8	8436.9	5082.2	1298.8	896.3	966.0	1121.5	1306.4	1440.2	1483.8	1483.8
57.5°	8240.0	8243.3	4758.0	1099.8	864.8	950.7	1128.0	1322.8	1540.3	1621.9	1609.9
60°	8111.7	7964.8	4299.0	974.7	828.9	936.6	1136.7	1393.5	1775.3	1858.0	1829.7
62.5°	7900.7	7701.6	3826.9	887.6	788.7	925.7	1142.2	1492.5	1806.8	1811.2	1741.6
65°	7530.8	7245.8	3089.3	801.7	747.3	910.5	1138.9	1529.4	1664.3	1599.1	1579.5
67.5°	6995.6	6623.6	2421.4	715.8	701.6	887.6	1160.7	1462.0	1571.9	1518.6	1492.5
69°	6661.7	6151.5	2010.2	664.6	672.3	870.2	1171.6	1448.9	1539.2	1474.0	1443.5
70°	6408.2	5742.5	1702.4	630.9	647.2	855.0	1149.8	1441.3	1524.0	1443.5	1407.6
72.5°	5441.2	4616.6	1090.0	552.6	582.0	816.9	1091.1	1393.5	1490.3	1435.9	1391.3
75°	4206.5	3390.7	695.1	480.8	515.6	760.4	1030.1	1359.7	1505.5	1407.6	1309.7
77.5°	2831.5	1893.9	530.8	403.6	437.3	686.4	933.3	1265.1	1453.3	1367.4	1246.6
80°	1290.1	722.3	410.1	327.4	353.5	552.6	805.0	1119.3	1373.9	1372.8	1285.8
82.5°	516.7	483.0	304.6	250.2	278.5	412.3	637.4	958.3	1211.8	1264.0	1350.0
85°	301.3	304.6	202.3	174.0	207.8	303.5	454.7	740.8	985.5	1090.0	1162.9
87.5°	122.9	137.1	94.6	91.4	114.2	162.1	208.9	359.0	530.8	651.6	696.2
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)