

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: P591257

Luminaire Tested: **CTN-CA8-230-727-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591257  
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-CA8-230-727-U-T3-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18151 lumens  
Efficiency: N/A  
Efficacy: 79.5 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

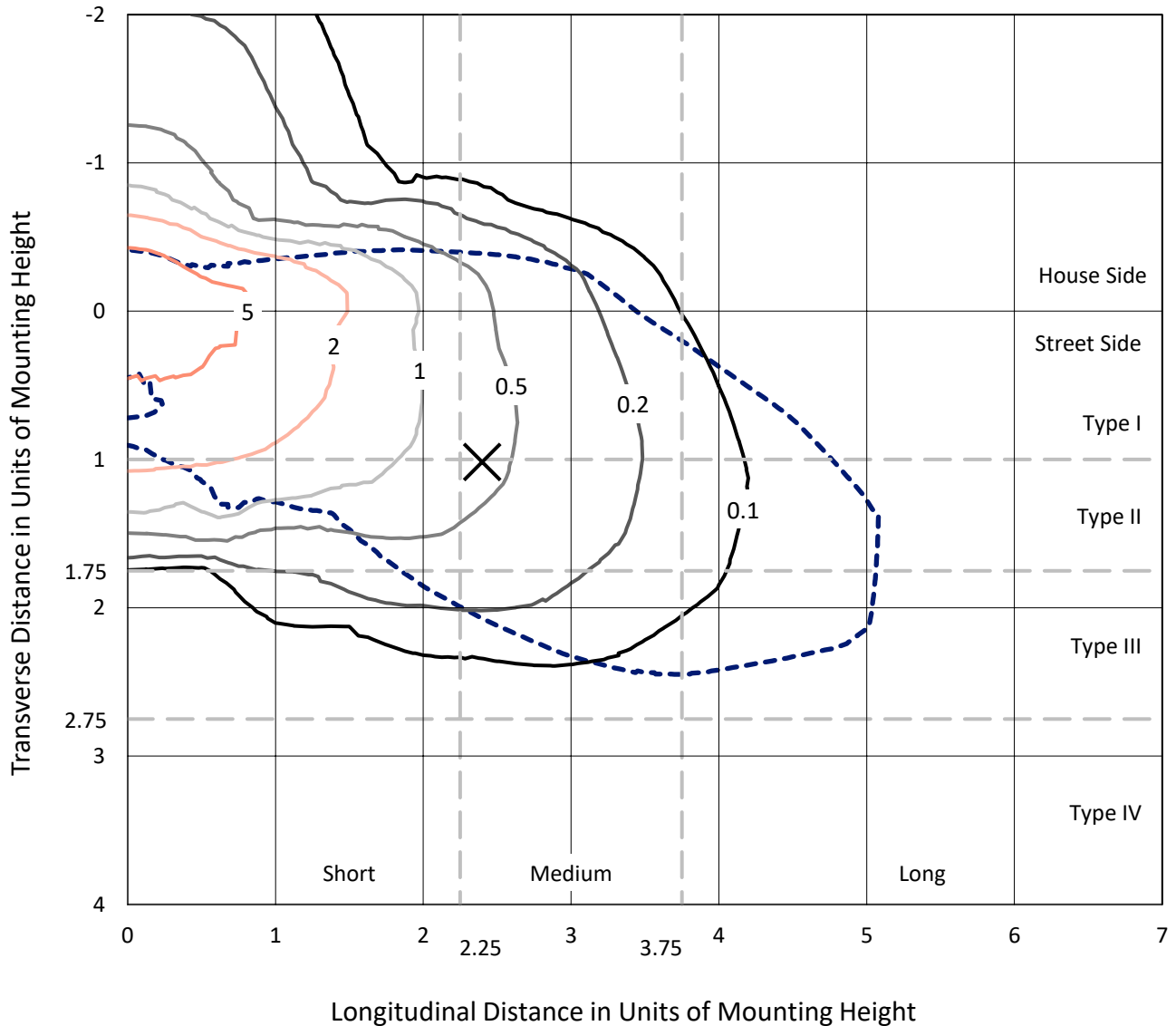
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

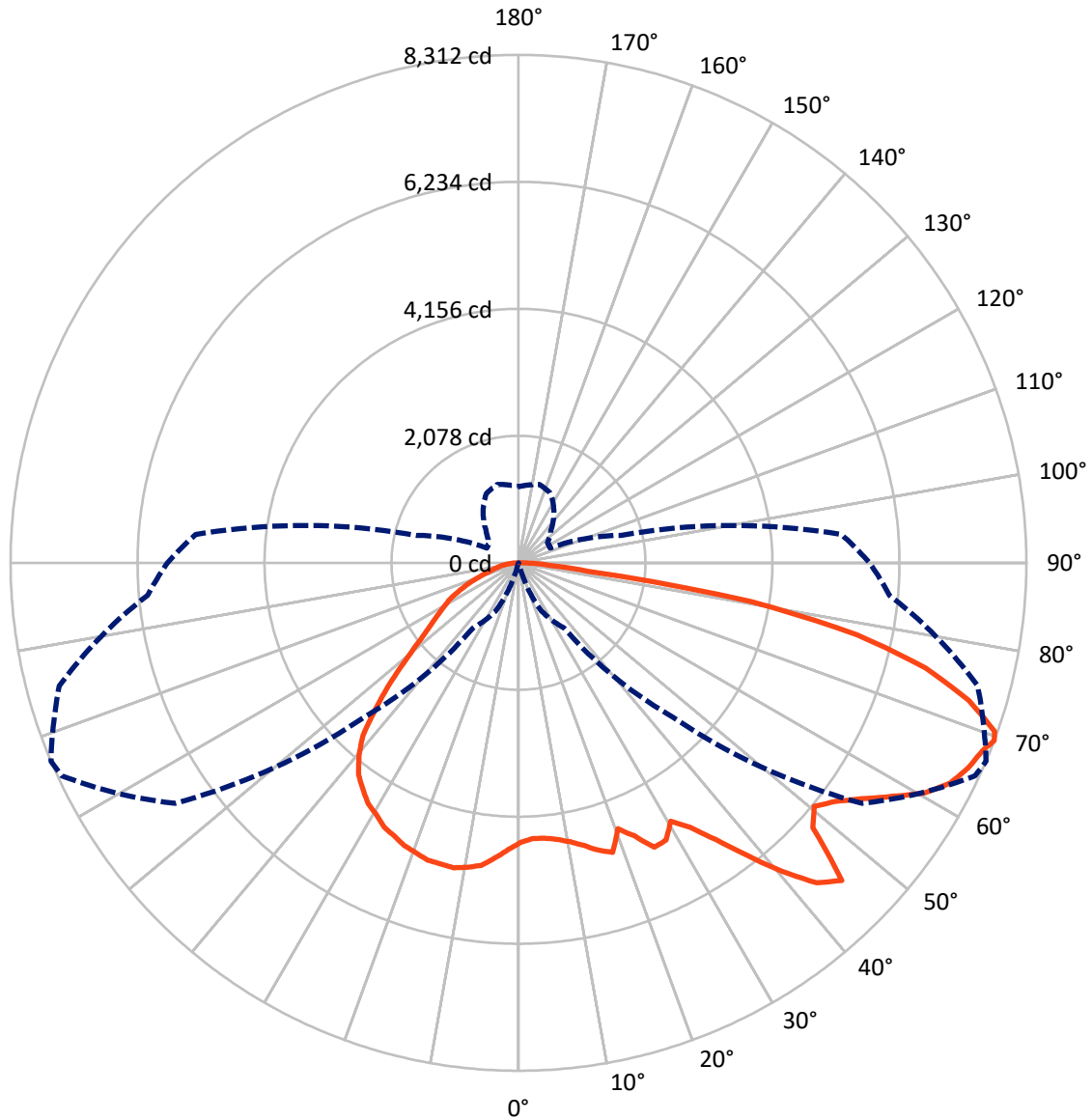
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 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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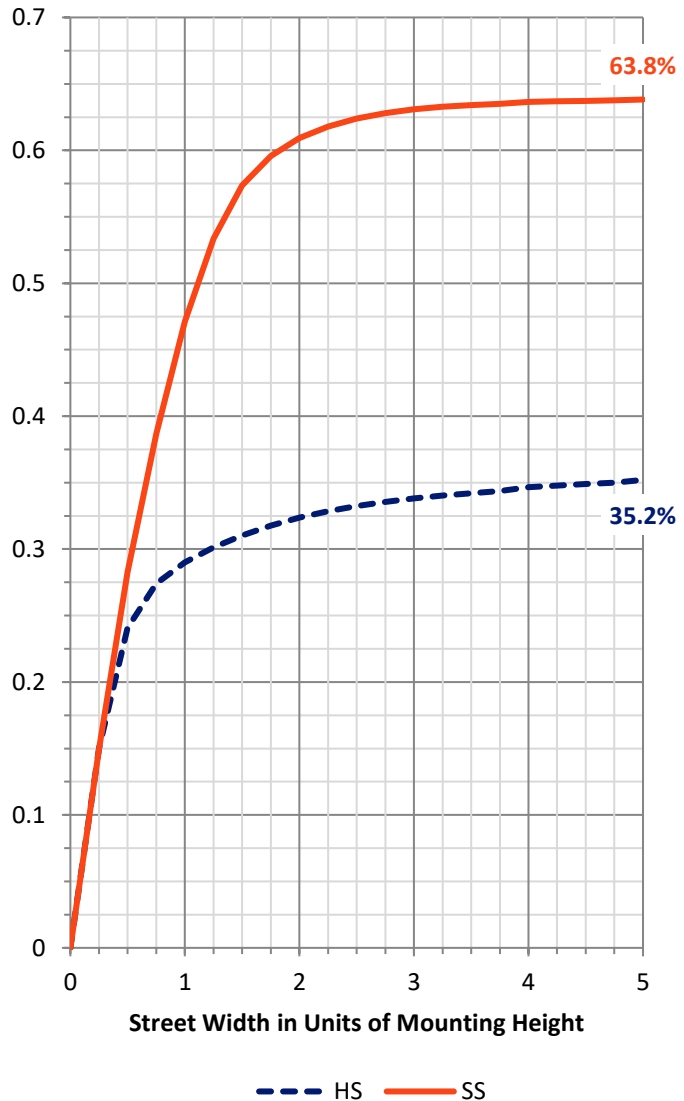
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6566.5	0.0	6566.5
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	11584.5	0.0	11584.5
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	18151.0	0.0	18151.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	457.3	2.5
10°-20°	1411.7	7.8
20°-30°	2083.6	11.5
30°-40°	2617.9	14.4
40°-50°	3070.6	16.9
50°-60°	3213.2	17.7
60°-70°	2870.6	15.8
70°-80°	2020.4	11.1
80°-90°	405.8	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°	18151.0	100.0
0°-180°	18151.0	100.0

**Coefficient of Utilization**

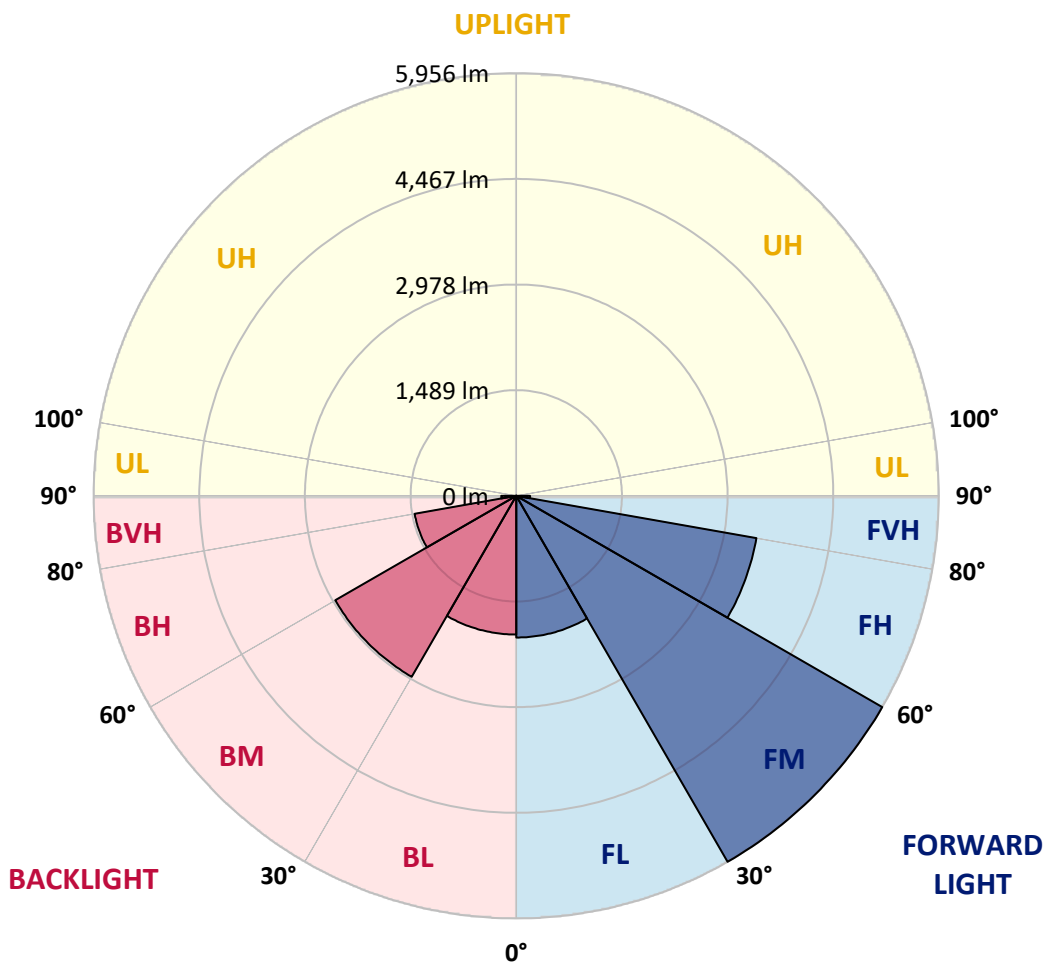


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1997.5	11.0			
FM (30°-60°)	5956.3	32.8			
FH (60°-80°)	3436.8	18.9			G2/5000
FVH (80°-90°)	193.9	1.1			G2/225
BL (0°-30°)	1955.1	10.8	B3/2500		
BM (30°-60°)	2945.3	16.2	B3/5000		
BH (60°-80°)	1454.2	8.0	B3/2500		G3/2500
BVH (80°-90°)	211.9	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4
2.5°	4463.6	4437.3	4449.5	4484.2	4412.0	4463.6	4444.8	4497.3	4517.0	4514.2	4589.3
5°	4499.2	4470.1	4474.8	4501.1	4422.3	4462.6	4444.8	4503.0	4525.5	4518.9	4621.2
7.5°	4625.9	4594.0	4583.6	4592.1	4506.7	4537.7	4499.2	4546.1	4570.5	4570.5	4686.8
10°	4825.7	4787.2	4764.7	4763.8	4663.4	4649.3	4602.4	4624.0	4641.8	4656.8	4786.3
12.5°	5034.9	5003.0	4973.9	4958.0	4825.7	4792.8	4724.4	4740.3	4745.9	4766.6	4895.1
15°	5225.3	5193.4	5185.0	5159.6	5028.3	4973.9	4878.2	4870.7	4878.2	4890.4	5018.0
17.5°	5152.1	5154.0	5200.9	5205.6	5034.9	4909.2	4842.6	4969.2	4981.4	5078.0	5160.6
20°	5013.3	4944.8	4699.0	4564.9	4584.6	4747.8	4626.8	4621.2	4646.5	4818.2	5236.6
22.5°	4175.6	4138.0	4273.1	4316.3	4472.0	4533.9	4821.9	4829.4	4854.8	4854.8	4976.7
25°	3605.2	3799.4	4062.1	4531.1	4482.3	4494.5	4611.8	5109.9	5157.8	5156.8	5139.0
27.5°	3727.1	3702.8	4095.8	4390.4	4738.4	4716.9	4589.3	4927.9	5139.9	5503.9	5419.5
30°	3873.5	3855.7	3884.7	4382.9	4959.8	4988.9	4870.7	4836.0	4908.2	5672.8	5740.3
32.5°	4009.5	3987.9	4020.8	4096.8	4649.3	5269.4	5178.4	5136.2	5162.5	5316.3	6153.1
35°	4129.6	4127.7	4165.2	4255.3	4726.2	5367.0	5493.6	5490.8	5561.2	5693.4	6213.2
37.5°	4215.0	4214.0	4244.0	4349.1	4455.1	4957.0	5789.1	5957.1	6069.6	6265.7	6069.6
40°	4214.0	4229.0	4307.8	4442.9	4583.6	4734.7	5919.5	6504.9	6640.0	6779.8	6453.3
42.5°	4125.8	4134.3	4273.1	4523.6	4698.1	4828.5	5401.7	7008.7	7159.7	7149.4	6755.4
45°	4044.2	4048.0	4202.8	4510.5	4793.8	5029.3	5295.7	7006.8	7414.9	7478.7	7039.6
47.5°	3938.2	3938.2	4091.1	4434.5	4880.1	5255.3	5579.0	6052.7	6478.6	7763.9	7275.1
50°	3802.2	3819.1	3631.5	4355.7	4921.4	5470.2	5819.1	6209.4	6268.5	6943.0	7493.7
52.5°	3585.5	3576.1	2837.8	4268.4	4938.3	5625.9	6068.7	6454.3	6486.1	6418.6	7279.8
55°	2259.9	2519.8	2509.5	4166.2	4927.9	5726.3	6260.1	6723.5	6813.6	6731.0	6124.0
57.5°	1365.0	1303.0	2144.5	3873.5	3957.9	5804.1	6519.9	7132.5	7211.3	7019.9	6227.2
60°	532.9	502.8	543.2	1762.7	2839.7	5399.8	6873.6	7566.9	7641.9	7294.8	6314.5
62.5°	66.6	57.2	48.8	1220.5	1804.9	4011.4	7061.2	7916.8	7930.9	7493.7	6331.4
65°	9.4	10.3	18.8	1088.2	1639.8	3942.9	7126.9	8059.4	8088.5	7637.2	6274.1
67.5°	3.8	4.7	15.0	946.6	1439.1	3760.9	6964.6	8157.9	8191.6	7776.1	6218.8
69°	3.8	4.7	15.0	850.9	1302.1	3560.2	6860.5	8245.1	8311.7	7778.9	6092.1
70°	3.8	4.7	14.1	782.4	1195.2	3390.4	6760.1	8211.3	8264.8	7703.8	5951.4
72.5°	3.8	4.7	14.1	602.3	909.0	2722.4	6125.0	7732.9	7705.7	7231.0	5403.6
75°	4.7	4.7	14.1	423.1	630.4	1936.3	5169.0	6867.0	6879.2	6437.4	4545.2
77.5°	4.7	4.7	14.1	269.2	397.8	1120.1	3743.1	5631.5	5666.2	5363.2	3403.5
80°	4.7	4.7	14.1	122.9	246.7	585.4	1840.6	3669.9	3856.6	3600.5	1867.8
82.5°	4.7	4.7	13.1	76.9	135.1	263.6	726.1	1151.1	1139.8	1122.0	593.8
85°	3.8	3.8	10.3	54.4	90.1	152.9	403.4	516.0	509.4	451.2	306.8
87.5°	1.9	1.9	5.6	22.5	37.5	69.4	201.7	234.5	223.3	191.4	131.3
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°	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4	4572.4
2.5°	4624.0	4630.6	4661.5	4701.8	4714.0	4766.6	4775.0	4861.3	4874.5	4896.0	4905.4
5°	4670.9	4696.2	4763.8	4858.5	4939.2	5021.7	5024.6	5129.6	5156.8	5151.2	5178.4
7.5°	4737.5	4779.7	4882.9	5014.2	5043.3	5150.3	5142.8	5246.9	5248.8	5233.8	5275.0
10°	4839.8	4892.3	4986.1	5066.8	5122.1	5191.5	5182.2	5280.7	5266.6	5250.6	5296.6
12.5°	4944.8	4972.0	5029.3	5119.3	5131.5	5155.9	5143.7	5234.7	5219.7	5200.0	5245.0
15°	5036.8	5049.9	5049.9	5098.7	5067.7	5087.4	5046.1	5119.3	5084.6	5075.2	5118.4
17.5°	5155.9	5134.3	5090.2	5086.5	5005.8	4975.8	4913.9	4933.6	4867.9	4874.5	4897.0
20°	5290.0	5242.2	5125.9	5009.6	4860.4	4789.1	4666.2	4656.8	4595.8	4584.6	4606.2
22.5°	5339.8	5382.0	5169.0	4943.9	4686.8	4527.4	4381.9	4312.5	4223.4	4166.2	4173.7
25°	5490.8	5566.8	5234.7	4826.6	4482.3	4219.7	4001.1	3842.5	3708.4	3639.9	3654.0
27.5°	5695.3	5819.1	5272.2	4745.0	4214.0	3870.7	3504.8	3296.5	3157.7	3086.4	3084.5
30°	5988.0	6143.7	5344.5	4574.3	3915.7	3411.9	2960.7	2714.9	2601.4	2554.5	2558.2
32.5°	6353.9	6541.5	5494.6	4431.7	3591.1	2921.3	2407.2	2192.4	2140.8	2132.3	2127.7
35°	6838.9	7024.6	5613.7	4212.2	3169.9	2365.0	1932.5	1780.5	1789.0	1787.1	1792.7
37.5°	6760.1	7464.6	5749.7	3997.3	2666.1	1853.7	1562.0	1476.6	1479.4	1512.2	1518.8
40°	6463.6	7080.0	5952.4	3641.8	2077.0	1424.1	1231.7	1212.0	1292.7	1365.0	1378.1
42.5°	6696.3	6848.3	5979.6	3258.1	1519.8	1092.0	1030.1	1111.7	1242.1	1325.6	1340.6
45°	6928.9	7051.8	5822.0	2684.0	1090.1	934.4	980.3	1097.6	1242.1	1331.2	1341.5
47.5°	7165.3	7164.4	5638.1	2152.0	891.2	893.1	968.1	1098.5	1249.6	1339.6	1345.3
50°	7315.4	7255.4	5157.8	1685.8	829.3	868.7	961.6	1104.2	1247.7	1313.4	1316.2
52.5°	7390.5	7301.4	4733.7	1347.1	800.2	849.0	962.5	1117.3	1237.4	1274.0	1272.1
55°	7263.8	7276.0	4382.9	1120.1	773.0	833.0	967.2	1126.7	1242.1	1279.6	1279.6
57.5°	7106.2	7109.1	4103.3	948.4	745.8	819.9	972.8	1140.8	1328.4	1398.7	1388.4
60°	6995.5	6868.9	3707.4	840.6	714.8	807.7	980.3	1201.7	1531.0	1602.3	1577.9
62.5°	6813.6	6641.9	3300.3	765.5	680.1	798.3	985.0	1287.1	1558.2	1562.0	1501.9
65°	6494.6	6248.8	2664.3	691.4	644.5	785.2	982.2	1319.0	1435.3	1379.0	1362.1
67.5°	6033.0	5712.2	2088.3	617.3	605.1	765.5	1001.0	1260.8	1355.6	1309.6	1287.1
69°	5745.0	5305.1	1733.6	573.2	579.8	750.5	1010.4	1249.6	1327.4	1271.2	1244.9
70°	5526.5	4952.3	1468.2	544.1	558.2	737.4	991.6	1243.0	1314.3	1244.9	1213.9
72.5°	4692.5	3981.4	940.0	476.6	501.9	704.5	940.9	1201.7	1285.2	1238.3	1199.9
75°	3627.7	2924.1	599.5	414.6	444.7	655.7	888.4	1172.6	1298.4	1213.9	1129.5
77.5°	2441.9	1633.3	457.8	348.0	377.1	592.0	804.9	1091.0	1253.3	1179.2	1075.1
80°	1112.6	622.9	353.7	282.4	304.9	476.6	694.2	965.3	1184.8	1183.9	1108.9
82.5°	445.6	416.5	262.7	215.8	240.2	355.5	549.7	826.5	1045.1	1090.1	1164.2
85°	259.9	262.7	174.5	150.1	179.2	261.7	392.1	638.9	849.9	940.0	1002.8
87.5°	106.0	118.2	81.6	78.8	98.5	139.8	180.1	309.6	457.8	561.9	600.4
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)