

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: P591389

Luminaire Tested: **CTN-CA10-210-740-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591389  
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-CA10-210-740-U-T3-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: 20871 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

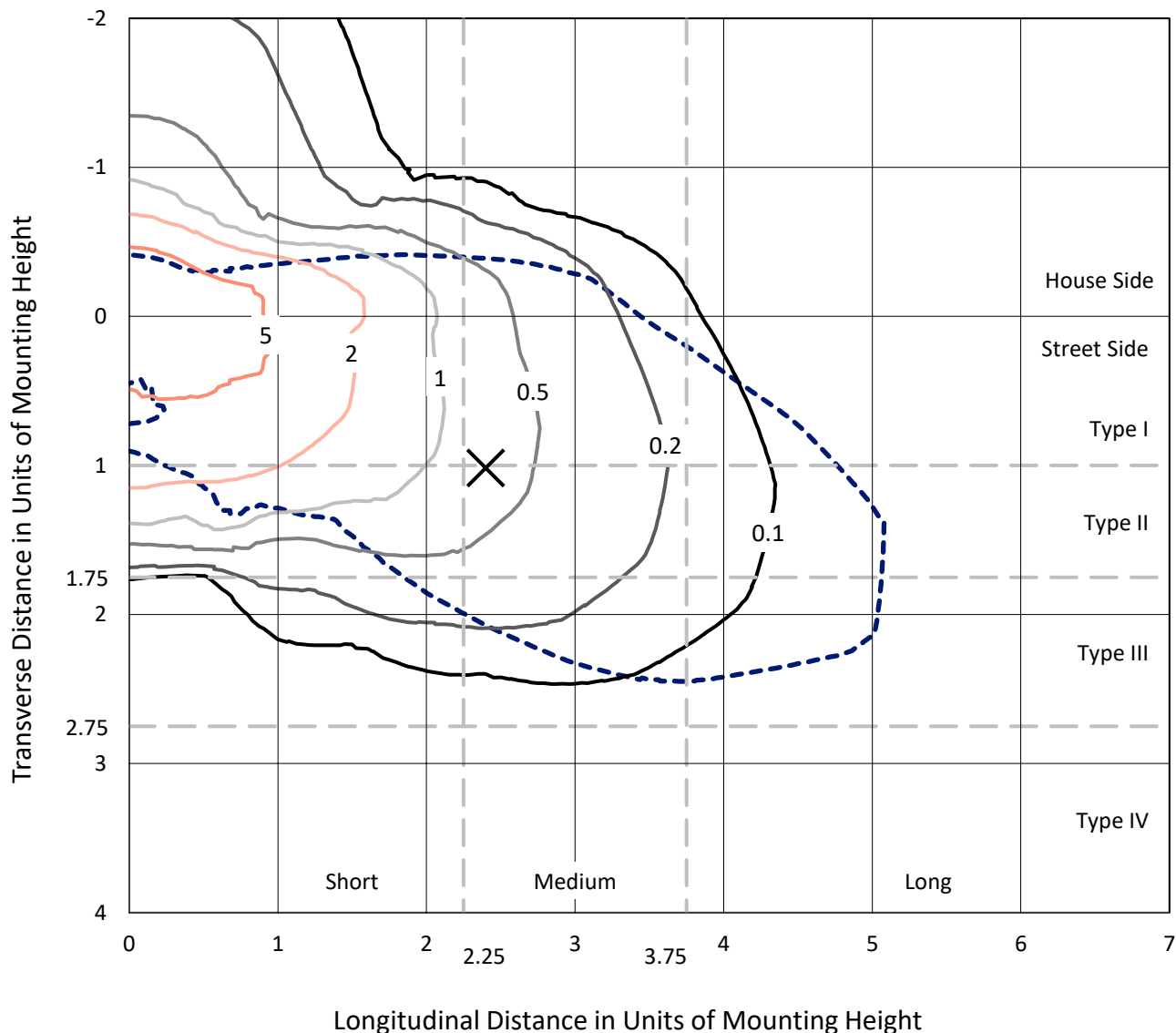
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

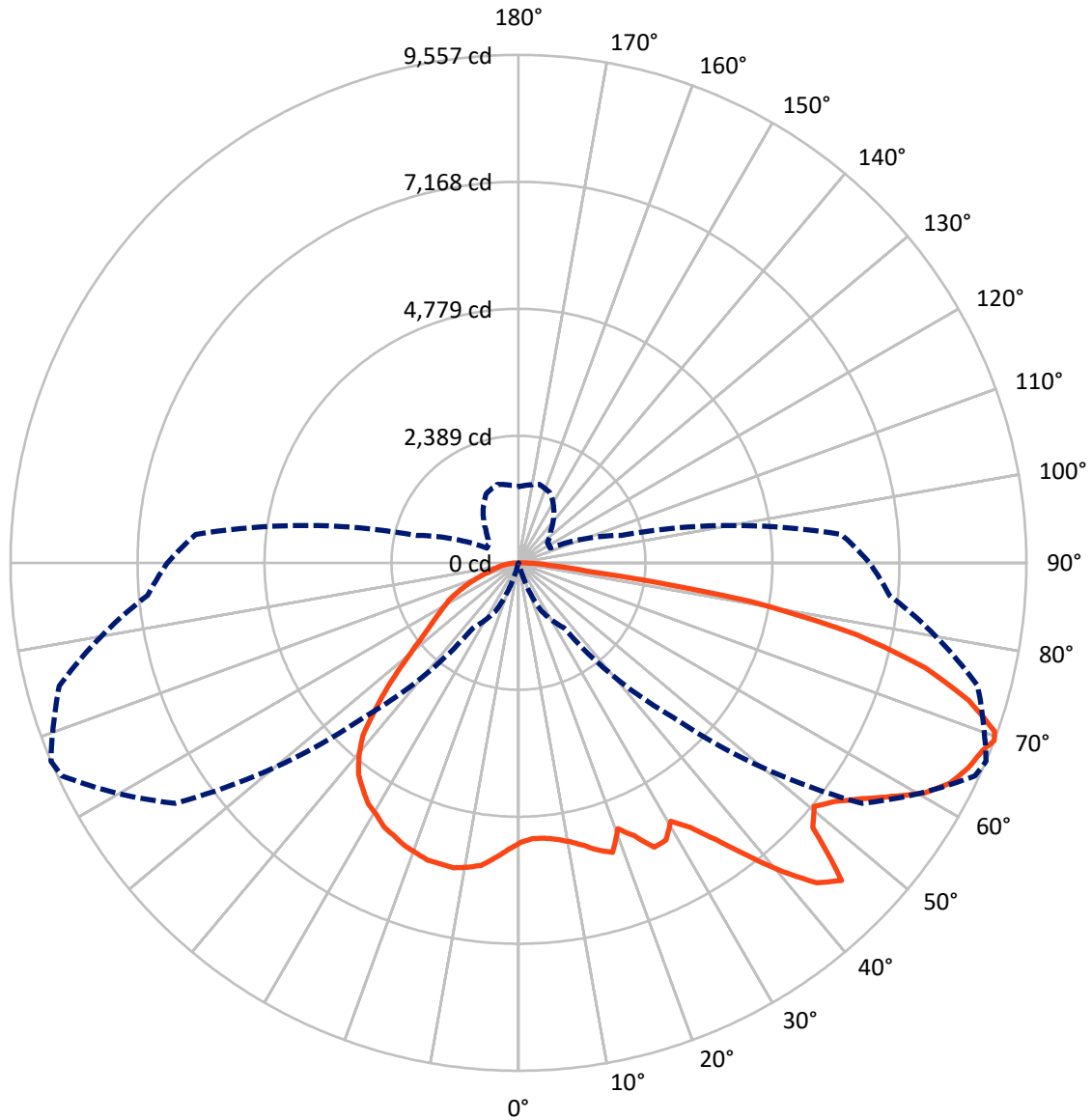
× Max cd  
 - - - 1/2 Max cd



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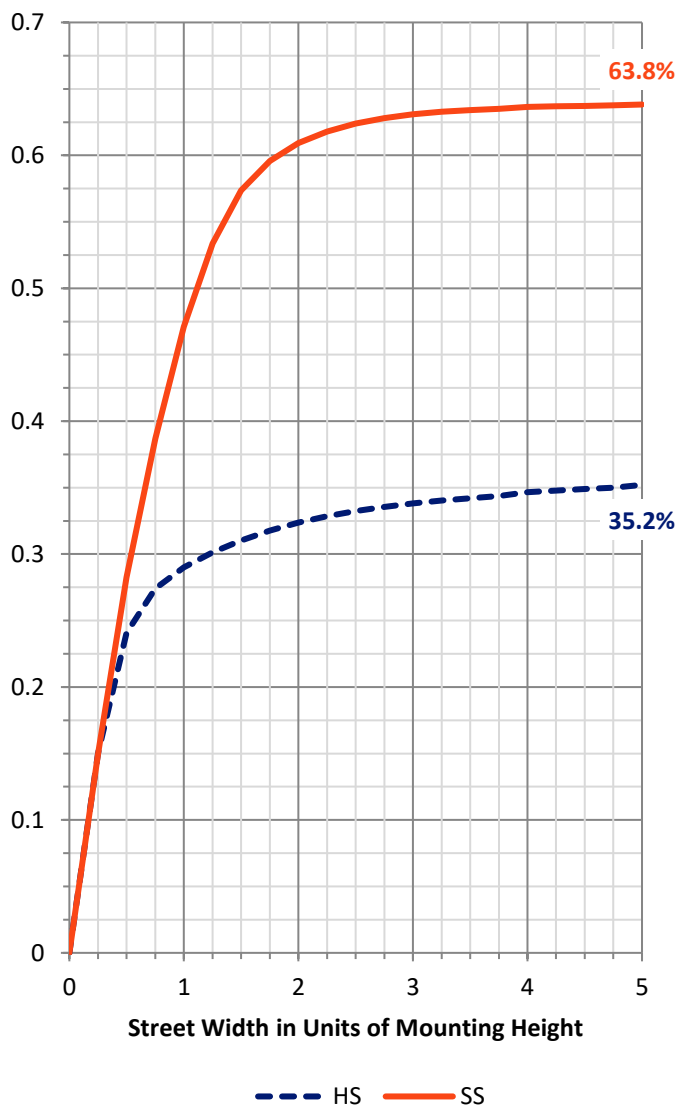
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7550.5	0.0	7550.5
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	13320.5	0.0	13320.5
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	20871.0	0.0	20871.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	525.8	2.5
10°-20°	1623.2	7.8
20°-30°	2395.8	11.5
30°-40°	3010.2	14.4
40°-50°	3530.8	16.9
50°-60°	3694.7	17.7
60°-70°	3300.8	15.8
70°-80°	2323.1	11.1
80°-90°	466.6	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°	20871.0	100.0
0°-180°	20871.0	100.0

**Coefficient of Utilization**



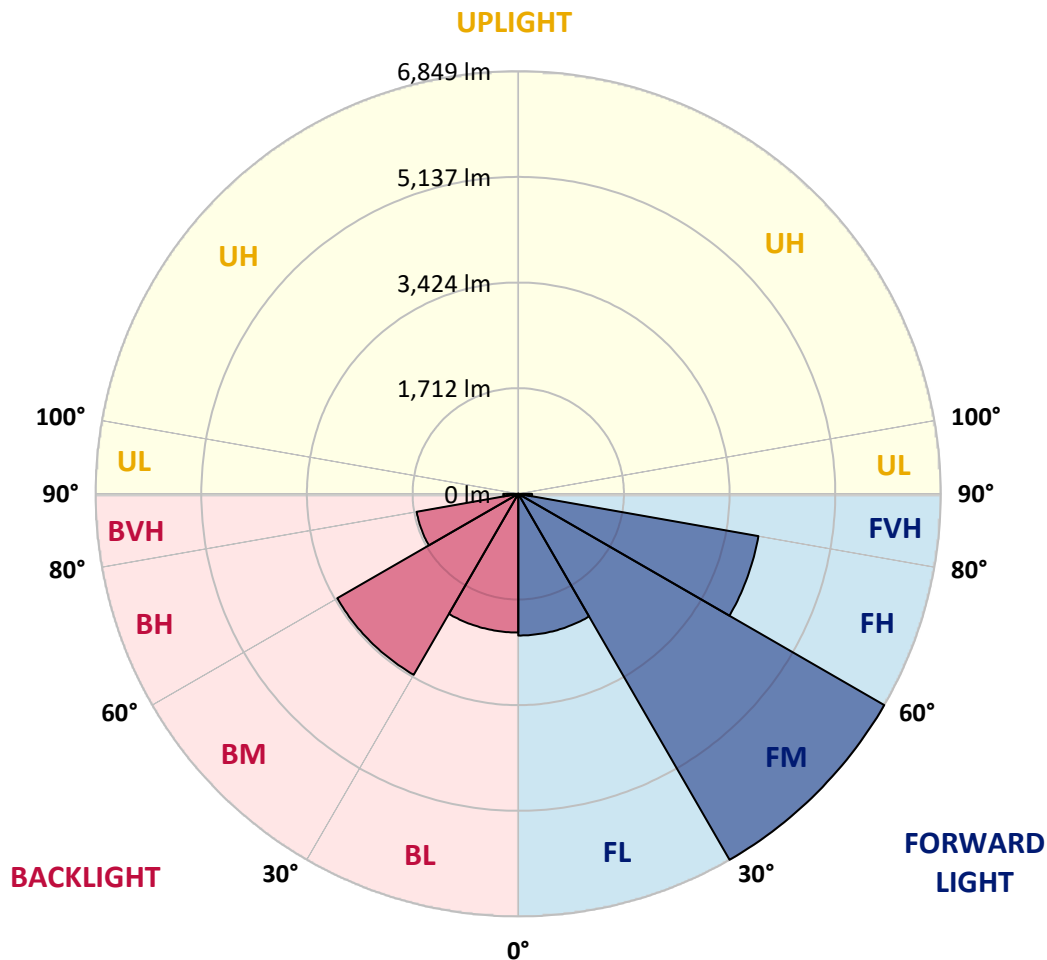
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2296.8	11.0			
FM	(30°-60°)	6848.9	32.8			
FH	(60°-80°)	3951.8	18.9			G2/5000
FVH	(80°-90°)	223.0	1.1			G2/225
BL	(0°-30°)	2248.0	10.8	B3/2500		
BM	(30°-60°)	3386.7	16.2	B3/5000		
BH	(60°-80°)	1672.1	8.0	B3/2500		G3/2500
BVH	(80°-90°)	243.6	1.2			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: 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°	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6
2.5°	5132.4	5102.2	5116.3	5156.2	5073.1	5132.4	5110.9	5171.3	5193.9	5190.7	5277.0
5°	5173.4	5140.0	5145.4	5175.6	5085.0	5131.4	5110.9	5177.8	5203.6	5196.1	5313.7
7.5°	5319.1	5282.4	5270.5	5280.2	5182.1	5217.7	5173.4	5227.4	5255.4	5255.4	5389.2
10°	5548.8	5504.6	5478.7	5477.6	5362.2	5346.0	5292.1	5316.9	5337.4	5354.7	5503.5
12.5°	5789.4	5752.7	5719.3	5700.9	5548.8	5511.1	5432.3	5450.7	5457.1	5480.9	5628.7
15°	6008.4	5971.7	5962.0	5932.8	5781.8	5719.3	5609.2	5600.6	5609.2	5623.3	5770.0
17.5°	5924.2	5926.4	5980.3	5985.7	5789.4	5644.8	5568.2	5713.9	5727.9	5839.0	5933.9
20°	5764.6	5685.8	5403.2	5248.9	5271.6	5459.3	5320.1	5313.7	5342.8	5540.2	6021.3
22.5°	4801.3	4758.1	4913.5	4963.1	5142.2	5213.4	5544.5	5553.1	5582.3	5582.3	5722.5
25°	4145.4	4368.7	4670.8	5210.1	5154.0	5168.0	5302.9	5875.7	5930.7	5929.6	5909.1
27.5°	4285.7	4257.6	4709.6	5048.3	5448.5	5423.7	5277.0	5666.4	5910.2	6328.7	6231.6
30°	4453.9	4433.5	4466.9	5039.7	5703.1	5736.5	5600.6	5560.7	5643.8	6522.9	6600.6
32.5°	4610.4	4585.5	4623.3	4710.7	5346.0	6059.1	5954.4	5905.9	5936.1	6113.0	7075.2
35°	4748.4	4746.3	4789.4	4893.0	5434.5	6171.2	6316.9	6313.6	6394.5	6546.6	7144.2
37.5°	4846.6	4845.5	4880.0	5000.8	5122.7	5699.8	6656.7	6849.7	6979.2	7204.6	6979.2
40°	4845.5	4862.8	4953.4	5108.7	5270.5	5444.2	6806.6	7479.7	7635.0	7795.8	7420.4
42.5°	4744.1	4753.8	4913.5	5201.5	5402.1	5552.1	6211.1	8059.0	8232.6	8220.8	7767.7
45°	4650.3	4654.6	4832.6	5186.4	5512.2	5782.9	6089.3	8056.8	8526.0	8599.4	8094.6
47.5°	4528.4	4528.4	4704.2	5099.0	5611.4	6042.9	6415.0	6959.8	7449.5	8927.3	8365.3
50°	4372.0	4391.4	4175.6	5008.4	5658.9	6289.9	6691.2	7139.9	7207.9	7983.5	8616.6
52.5°	4122.8	4112.0	3263.1	4908.1	5678.3	6469.0	6978.1	7421.4	7458.1	7380.5	8370.7
55°	2598.6	2897.4	2885.5	4790.5	5666.4	6584.4	7198.2	7731.0	7834.6	7739.7	7041.7
57.5°	1569.5	1498.3	2465.9	4453.9	4551.0	6673.9	7497.0	8201.3	8292.0	8071.9	7160.4
60°	612.7	578.2	624.6	2026.9	3265.2	6209.0	7903.6	8700.8	8787.1	8388.0	7260.7
62.5°	76.6	65.8	56.1	1403.4	2075.4	4612.5	8119.4	9103.1	9119.3	8616.6	7280.1
65°	10.8	11.9	21.6	1251.3	1885.6	4533.8	8194.9	9267.1	9300.5	8781.7	7214.3
67.5°	4.3	5.4	17.3	1088.4	1654.7	4324.5	8008.3	9380.4	9419.2	8941.3	7150.7
69°	4.3	5.4	17.3	978.4	1497.2	4093.7	7888.5	9480.7	9557.3	8944.6	7005.1
70°	4.3	5.4	16.2	899.6	1374.3	3898.4	7773.1	9441.9	9503.3	8858.3	6843.3
72.5°	4.3	5.4	16.2	692.5	1045.3	3130.4	7042.8	8891.7	8860.4	8314.6	6213.3
75°	5.4	5.4	16.2	486.5	724.9	2226.4	5943.6	7896.1	7910.1	7402.0	5226.3
77.5°	5.4	5.4	16.2	309.6	457.4	1288.0	4304.0	6475.4	6515.3	6166.9	3913.5
80°	5.4	5.4	16.2	141.3	283.7	673.1	2116.4	4219.9	4434.5	4140.0	2147.7
82.5°	5.4	5.4	15.1	88.5	155.3	303.1	834.9	1323.6	1310.6	1290.1	682.8
85°	4.3	4.3	11.9	62.6	103.6	175.8	463.8	593.3	585.7	518.9	352.7
87.5°	2.2	2.2	6.5	25.9	43.1	79.8	231.9	269.7	256.7	220.1	151.0
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°	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6	5257.6
2.5°	5316.9	5324.5	5360.1	5406.4	5420.5	5480.9	5490.6	5589.8	5604.9	5629.7	5640.5
5°	5370.8	5400.0	5477.6	5586.6	5679.3	5774.3	5777.5	5898.3	5929.6	5923.1	5954.4
7.5°	5447.4	5496.0	5614.6	5765.6	5799.1	5922.1	5913.4	6033.2	6035.3	6018.1	6065.5
10°	5565.0	5625.4	5733.3	5826.1	5889.7	5969.5	5958.7	6072.0	6055.8	6037.5	6090.3
12.5°	5685.8	5717.1	5782.9	5886.5	5900.5	5928.5	5914.5	6019.1	6001.9	5979.2	6031.0
15°	5791.5	5806.6	5806.6	5862.7	5827.1	5849.8	5802.3	5886.5	5846.5	5835.8	5885.4
17.5°	5928.5	5903.7	5853.0	5848.7	5755.9	5721.4	5650.2	5672.9	5597.4	5604.9	5630.8
20°	6082.8	6027.8	5894.0	5760.3	5588.7	5506.8	5365.4	5354.7	5284.5	5271.6	5296.4
22.5°	6140.0	6188.5	5943.6	5684.7	5389.2	5205.8	5038.6	4958.8	4856.3	4790.5	4799.1
25°	6313.6	6401.0	6019.1	5549.9	5154.0	4852.0	4600.7	4418.4	4264.1	4185.4	4201.5
27.5°	6548.8	6691.2	6062.3	5456.1	4845.5	4450.7	4030.0	3790.5	3630.9	3548.9	3546.8
30°	6885.3	7064.4	6145.3	5259.7	4502.5	3923.2	3404.4	3121.8	2991.2	2937.3	2941.6
32.5°	7306.0	7521.8	6317.9	5095.8	4129.3	3359.1	2767.9	2520.9	2461.6	2451.9	2446.5
35°	7863.7	8077.3	6454.9	4843.4	3644.9	2719.4	2222.1	2047.4	2057.1	2054.9	2061.4
37.5°	7773.1	8583.2	6611.3	4596.3	3065.7	2131.5	1796.0	1697.9	1701.1	1738.9	1746.4
40°	7432.2	8140.9	6844.3	4187.5	2388.2	1637.5	1416.3	1393.7	1486.4	1569.5	1584.6
42.5°	7699.8	7874.5	6875.6	3746.3	1747.5	1255.6	1184.4	1278.3	1428.2	1524.2	1541.5
45°	7967.3	8108.6	6694.4	3086.2	1253.4	1074.4	1127.2	1262.1	1428.2	1530.7	1542.5
47.5°	8239.1	8238.0	6483.0	2474.5	1024.8	1026.9	1113.2	1263.2	1436.8	1540.4	1546.9
50°	8411.7	8342.7	5930.7	1938.4	953.6	998.9	1105.7	1269.6	1434.7	1510.2	1513.4
52.5°	8498.0	8395.5	5443.1	1549.0	920.1	976.2	1106.7	1284.7	1422.8	1464.9	1462.7
55°	8352.4	8366.4	5039.7	1288.0	888.8	957.9	1112.1	1295.5	1428.2	1471.3	1471.3
57.5°	8171.1	8174.4	4718.2	1090.6	857.6	942.8	1118.6	1311.7	1527.4	1608.3	1596.5
60°	8043.9	7898.2	4263.0	966.5	822.0	928.8	1127.2	1381.8	1760.4	1842.4	1814.4
62.5°	7834.6	7637.2	3794.9	880.2	782.1	918.0	1132.6	1480.0	1791.7	1796.0	1727.0
65°	7467.8	7185.2	3063.5	795.0	741.1	902.9	1129.4	1516.7	1650.4	1585.7	1566.3
67.5°	6937.1	6568.2	2401.2	709.8	695.8	880.2	1151.0	1449.8	1558.7	1505.9	1480.0
69°	6606.0	6100.0	1993.4	659.1	666.6	863.0	1161.8	1436.8	1526.4	1461.6	1431.4
70°	6354.6	5694.5	1688.2	625.6	641.8	847.9	1140.2	1429.3	1511.3	1431.4	1395.8
72.5°	5395.7	4578.0	1080.9	548.0	577.1	810.1	1081.9	1381.8	1477.8	1423.9	1379.7
75°	4171.3	3362.3	689.3	476.8	511.3	754.0	1021.5	1348.4	1492.9	1395.8	1298.8
77.5°	2807.9	1878.0	526.4	400.2	433.6	680.7	925.5	1254.5	1441.1	1355.9	1236.2
80°	1279.3	716.3	406.7	324.7	350.6	548.0	798.2	1110.0	1362.4	1361.3	1275.0
82.5°	512.4	478.9	302.0	248.1	276.1	408.8	632.1	950.3	1201.7	1253.4	1338.7
85°	298.8	302.0	200.6	172.6	206.0	301.0	450.9	734.6	977.3	1080.9	1153.1
87.5°	121.9	135.9	93.8	90.6	113.3	160.7	207.1	356.0	526.4	646.1	690.4
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)