

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: P591259

Luminaire Tested: **CTN-CA8-230-727-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591259
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
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-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 21024 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

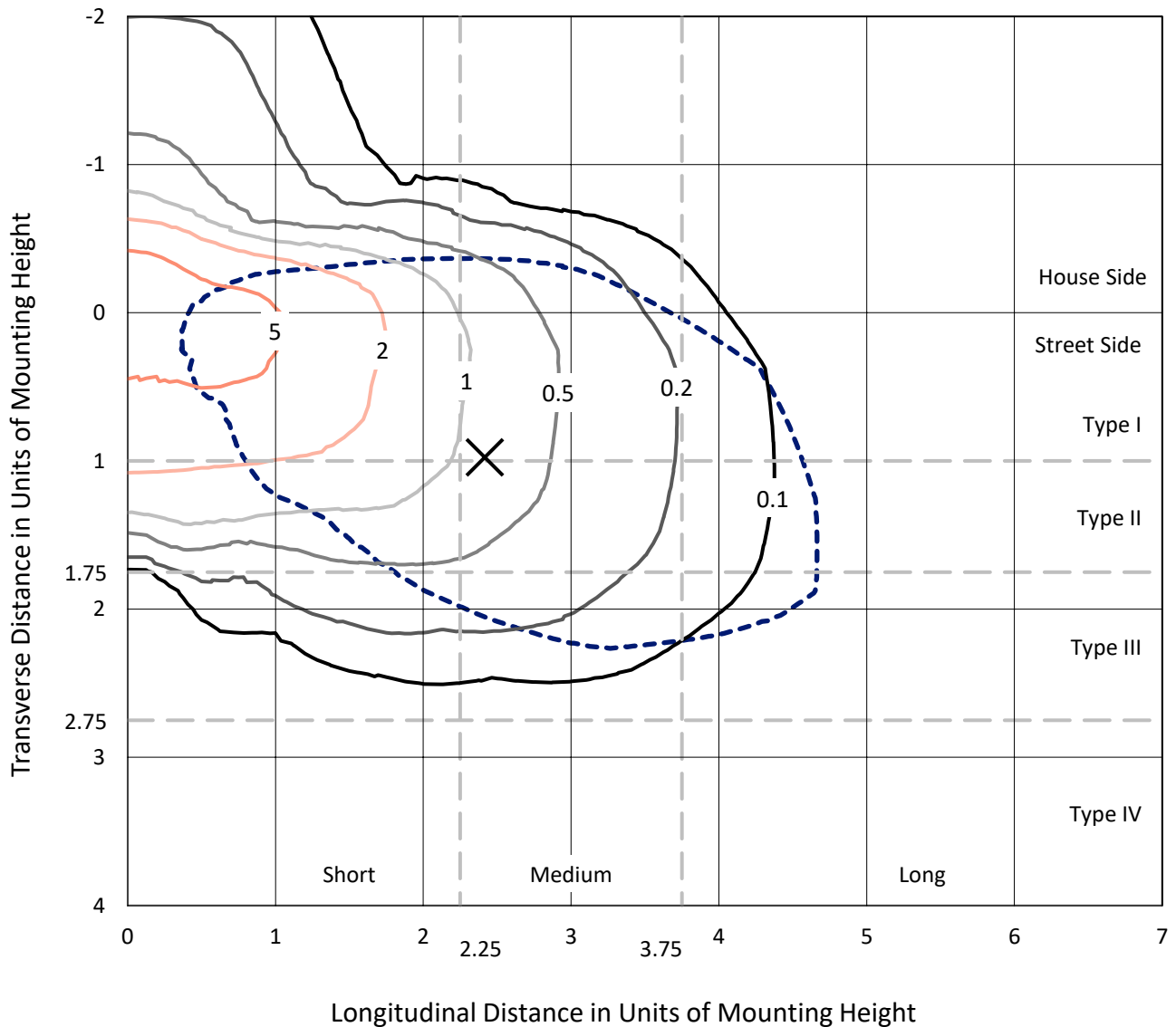
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591259
 CATALOG NUMBER: CTN-CA8-230-727-U-T3-SSS-HM-EX90

Iso-Footcandle Lines of Horizontal Illumination

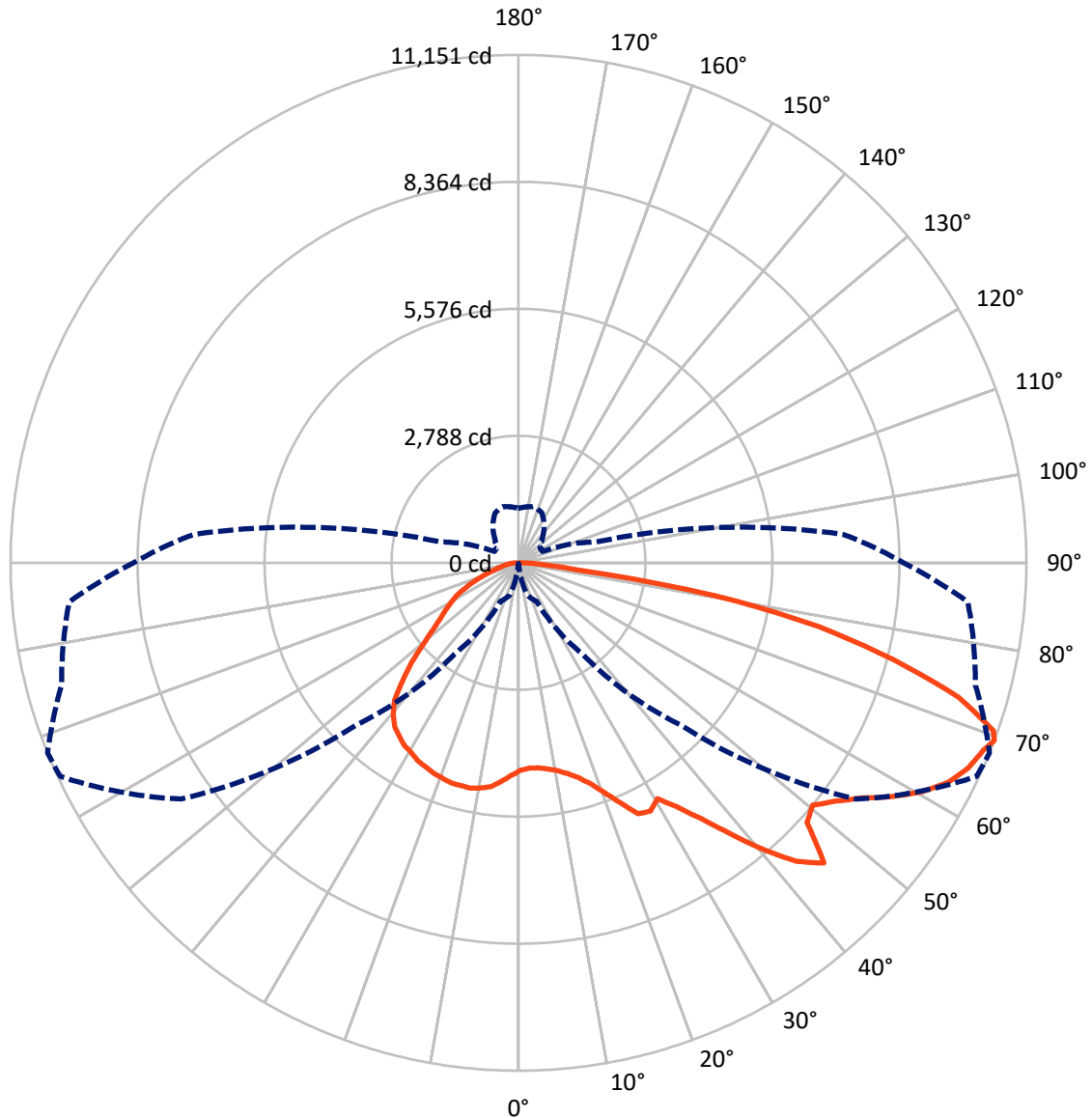
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Medium - N/A

REPORT NUMBER: P591259
CATALOG NUMBER: CTN-CA8-230-727-U-T3-SSS-HM-EX90

Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P591259
 CATALOG NUMBER: CTN-CA8-230-727-U-T3-SSS-HM-EX90

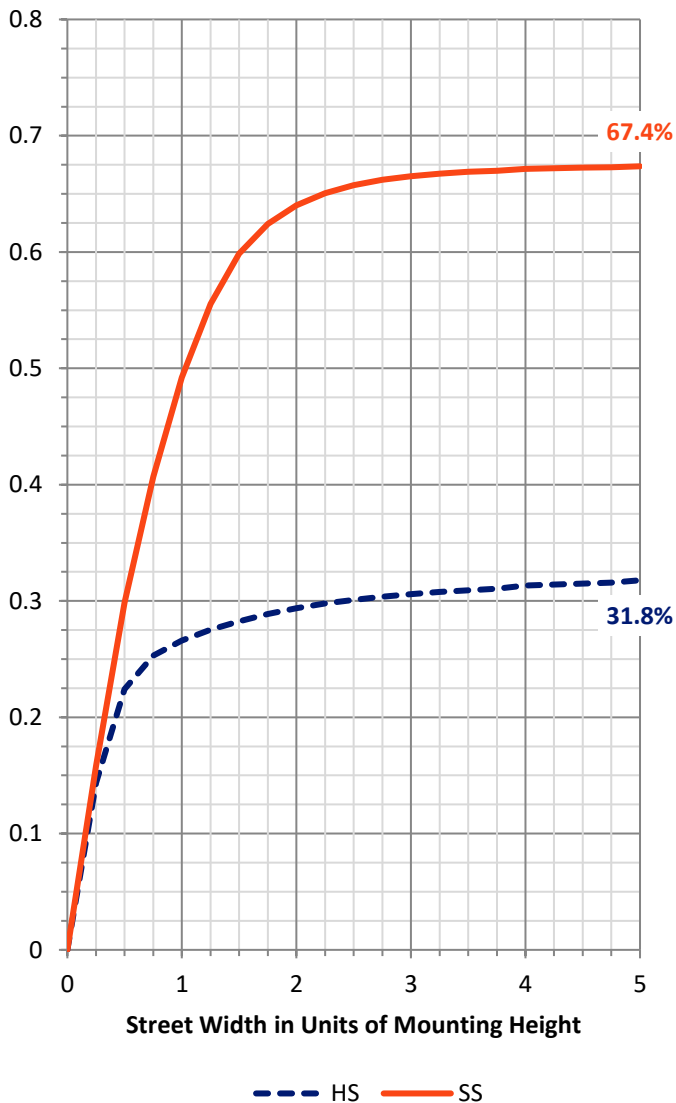
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6857.7	0.0	6857.7
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	14166.3	0.0	14166.3
	% Fixture	67.4	0.0	67.4
Total	Lumens	21024.0	0.0	21024.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	455.2	2.2
10°-20°	1408.4	6.7
20°-30°	2165.3	10.3
30°-40°	2812.3	13.4
40°-50°	3471.4	16.5
50°-60°	3898.7	18.5
60°-70°	3810.2	18.1
70°-80°	2558.7	12.2
80°-90°	443.8	2.1
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°	21024.0	100.0
0°-180°	21024.0	100.0

Coefficient of Utilization

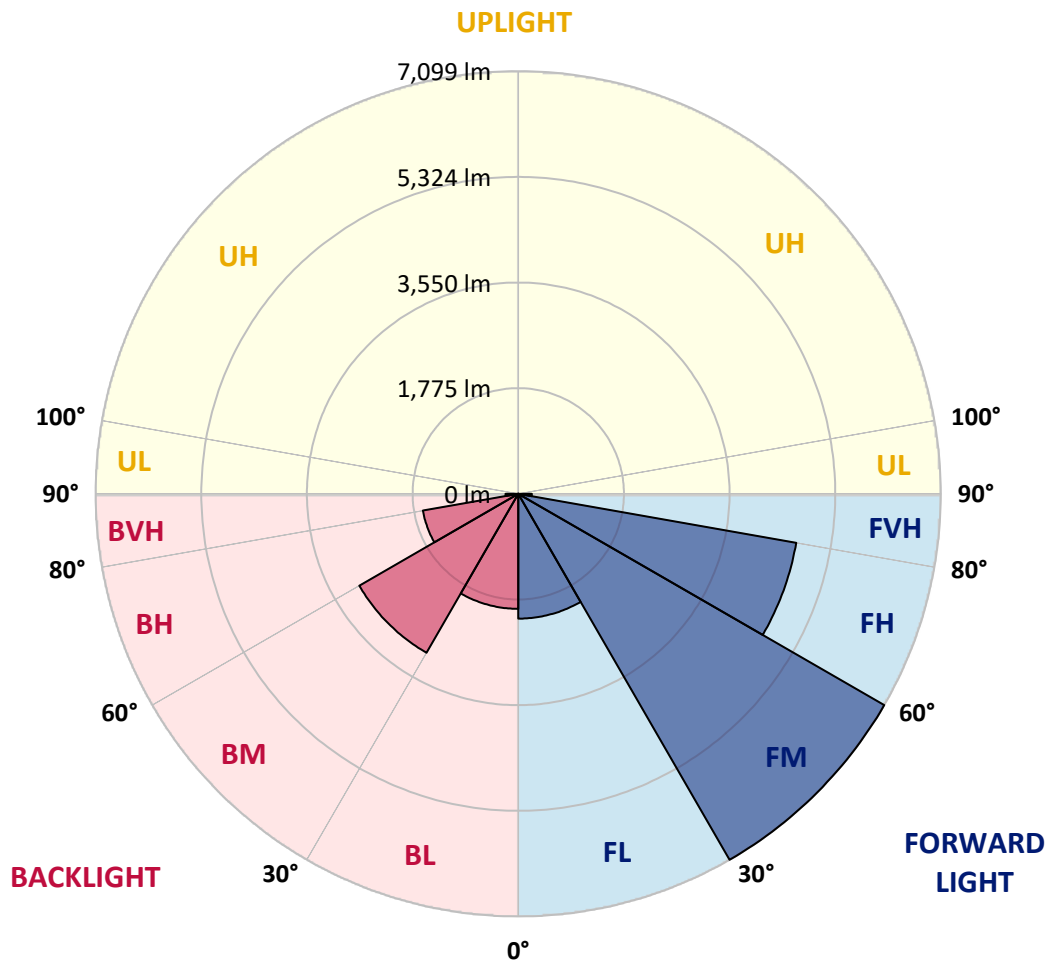


REPORT NUMBER: P591259
 CATALOG NUMBER: CTN-CA8-230-727-U-T3-SSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2096.3	10.0			
FM (30°-60°)	7099.3	33.8			
FH (60°-80°)	4742.0	22.6			G2/5000
FVH (80°-90°)	228.7	1.1			G3/500
BL (0°-30°)	1932.6	9.2	B3/2500		
BM (30°-60°)	3083.2	14.7	B3/5000		
BH (60°-80°)	1626.9	7.7	B3/2500		G3/2500
BVH (80°-90°)	215.0	1.0			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





REPORT NUMBER: P591259

CATALOG NUMBER: CTN-CA8-230-727-U-T3-SSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4
2.5°	4465.4	4438.2	4448.6	4486.1	4410.1	4459.8	4436.4	4487.0	4513.3	4502.0	4573.3
5°	4507.7	4477.6	4479.5	4505.8	4424.2	4466.4	4440.1	4494.5	4523.6	4507.7	4603.3
7.5°	4636.2	4603.3	4594.0	4592.1	4515.2	4547.1	4494.5	4538.6	4568.6	4560.2	4668.1
10°	4833.2	4793.8	4776.0	4765.6	4673.7	4664.3	4598.7	4618.4	4640.9	4650.2	4766.6
12.5°	5049.9	4996.4	4985.2	4954.2	4836.0	4815.4	4735.6	4745.0	4745.0	4766.6	4882.0
15°	5233.8	5189.7	5189.7	5157.8	5042.4	5013.3	4903.5	4892.3	4890.4	4907.3	5010.5
17.5°	5115.6	5091.2	5069.6	5053.6	4875.4	4828.5	5125.9	5106.2	5096.8	5113.7	5173.7
20°	4718.7	4784.4	4645.6	4449.5	4477.6	5042.4	5412.0	5376.4	5382.0	5398.9	5382.0
22.5°	4153.0	3990.8	4245.9	4316.3	4433.5	4851.0	5672.8	5710.3	5721.6	5722.5	5634.3
25°	3559.2	3649.3	3995.4	4532.0	4517.0	4865.1	5514.3	6048.0	6104.3	6098.7	5945.8
27.5°	3730.0	3713.1	3980.4	4333.2	4778.8	5163.4	5611.8	5849.2	6171.9	6529.3	6322.0
30°	3879.1	3865.0	3893.2	4386.6	4951.4	5461.7	5976.7	5938.3	6006.8	6654.1	6765.7
32.5°	4012.3	4002.0	4034.8	4089.3	4664.3	5783.5	6367.9	6360.4	6383.9	6434.5	7289.2
35°	4138.0	4139.0	4179.3	4268.4	4700.9	5850.1	6754.4	6834.2	6896.1	7007.7	7199.1
37.5°	4224.3	4226.2	4258.1	4366.0	4547.1	5520.8	7145.6	7429.9	7540.6	7741.3	7470.2
40°	4223.4	4237.5	4314.4	4455.1	4697.2	5303.2	7266.7	8105.3	8283.6	8429.9	7974.0
42.5°	4135.2	4142.7	4286.3	4540.5	4830.4	5468.3	6890.5	8763.9	8961.8	8921.5	8390.5
45°	4054.5	4052.7	4215.9	4529.2	4949.5	5695.3	6941.1	8745.1	9402.8	9354.0	8773.3
47.5°	3946.7	3949.5	4122.1	4480.4	5058.3	5938.3	7316.4	7952.4	8521.9	9725.5	9084.7
50°	3811.6	3828.5	4003.9	4406.3	5112.7	6165.3	7641.0	8300.5	8368.0	8734.8	9389.6
52.5°	3587.4	3557.3	3877.2	4321.0	5151.2	6330.4	7950.5	8634.4	8698.2	8565.0	9700.1
55°	2036.7	2527.3	3718.7	4221.5	5162.5	6429.9	8190.7	9014.4	9113.8	8988.1	9952.5
57.5°	1279.6	1319.0	3221.5	3957.9	5067.7	6491.8	8485.3	9536.0	9683.2	9384.0	10143.9
60°	453.1	488.8	1566.7	1817.1	4154.0	6321.0	8933.7	10150.4	10199.2	9756.4	10284.6
62.5°	47.8	62.9	1061.9	1334.0	3225.2	5833.2	9243.3	10644.8	10600.7	10032.2	10360.6
65°	16.9	23.5	933.4	1193.3	3002.0	5681.2	9345.5	10855.9	10855.0	10208.6	10306.2
67.5°	13.1	17.8	811.5	1036.6	2679.3	5355.7	9175.7	11014.4	10999.4	10383.1	10162.6
69°	13.1	18.8	730.8	934.4	2445.7	5044.3	9044.4	11097.9	11151.4	10385.9	9902.8
70°	13.1	18.8	679.2	863.1	2255.2	4759.1	8855.8	11034.1	11061.3	10295.8	9633.5
72.5°	13.1	18.8	526.3	667.9	1714.9	3663.3	7758.2	10054.7	10106.3	9505.0	8657.9
75°	13.1	18.8	370.6	485.9	1125.7	2457.9	6177.5	8374.6	8514.4	8033.1	7094.0
77.5°	13.1	18.8	221.4	332.1	706.4	1349.0	4250.6	6418.6	6734.7	6286.3	5070.5
80°	13.1	17.8	104.1	181.1	402.5	714.8	1947.5	3951.4	4363.2	3932.6	2652.1
82.5°	13.1	17.8	85.4	130.4	203.6	355.5	760.8	1294.6	1271.1	1141.7	854.6
85°	12.2	15.9	70.4	95.7	146.3	225.1	424.0	527.2	502.8	444.7	447.5
87.5°	8.4	9.4	24.4	43.2	59.1	111.6	205.4	223.3	228.0	190.4	199.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P591259

CATALOG NUMBER: CTN-CA8-230-727-U-T3-SSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4	4557.4
2.5°	4607.1	4612.7	4639.9	4688.7	4687.8	4740.3	4726.2	4848.2	4852.9	4851.0	4860.4
5°	4649.3	4681.2	4741.2	4845.4	4905.4	4984.2	4969.2	5092.1	5099.6	5089.3	5115.6
7.5°	4722.5	4761.9	4860.4	4988.9	5004.9	5104.3	5083.7	5183.1	5178.4	5159.6	5204.7
10°	4825.7	4872.6	4961.7	5034.9	5080.8	5139.0	5116.5	5200.9	5185.0	5164.3	5207.5
12.5°	4930.7	4953.3	5003.0	5085.5	5089.3	5102.4	5076.2	5144.6	5126.8	5095.9	5140.9
15°	5031.1	5033.9	5025.5	5063.0	5023.6	5032.1	4974.8	5018.0	4987.0	4973.0	5002.0
17.5°	5161.5	5127.8	5067.7	5051.8	4958.9	4919.5	4835.1	4833.2	4778.8	4759.1	4778.8
20°	5318.2	5245.0	5106.2	4973.9	4813.5	4732.8	4589.3	4550.8	4506.7	4464.5	4488.0
22.5°	5534.9	5393.2	5154.0	4907.3	4641.8	4483.3	4306.9	4198.1	4115.5	4033.9	4058.3
25°	5781.6	5583.7	5221.6	4793.8	4436.4	4155.9	3927.0	3741.2	3623.0	3503.9	3557.3
27.5°	6115.6	5842.6	5262.8	4709.4	4169.0	3792.8	3427.9	3185.8	3063.0	2977.6	2950.4
30°	6504.9	6177.5	5337.0	4543.3	3854.7	3346.3	2882.8	2612.7	2482.3	2441.9	2458.8
32.5°	6979.6	6584.6	5488.0	4404.5	3535.8	2872.5	2332.2	2121.1	2027.3	2020.7	2018.8
35°	7614.7	7104.4	5617.4	4188.7	3113.6	2320.0	1855.6	1681.1	1677.4	1674.5	1681.1
37.5°	8102.5	7633.5	5755.4	3977.6	2612.7	1811.5	1484.1	1378.1	1366.8	1399.7	1408.1
40°	8487.1	8012.5	5961.7	3621.1	2025.4	1352.8	1139.8	1100.4	1180.2	1252.4	1267.4
42.5°	8834.3	8331.4	6006.8	3241.2	1475.7	1038.5	944.7	1010.4	1133.2	1215.8	1231.7
45°	9159.8	8666.3	5835.1	2676.4	1055.4	880.0	898.7	997.2	1135.1	1223.3	1232.7
47.5°	9515.3	8890.5	5649.3	2152.0	867.8	843.4	889.3	1001.9	1146.4	1235.5	1240.2
50°	9749.9	9051.0	5185.0	1683.0	813.3	820.9	885.6	1012.2	1148.3	1212.0	1215.8
52.5°	9845.5	9179.5	4764.7	1347.1	786.1	804.0	890.3	1030.1	1143.6	1179.2	1177.3
55°	9905.6	9238.6	4403.5	1121.1	761.8	790.8	898.7	1043.2	1153.9	1190.5	1190.5
57.5°	9867.1	9106.3	4135.2	955.0	737.4	781.5	909.0	1062.9	1251.4	1316.2	1309.6
60°	9839.0	8858.6	3754.3	843.4	708.3	771.1	922.2	1131.4	1459.7	1525.4	1503.8
62.5°	9693.6	8649.4	3341.6	772.1	675.4	765.5	933.4	1223.3	1488.8	1485.0	1442.8
65°	9323.0	8223.5	2690.5	699.8	641.7	758.0	937.2	1263.6	1369.7	1310.6	1298.4
67.5°	8797.7	7609.1	2123.0	627.6	604.1	742.1	968.1	1215.8	1303.0	1252.4	1233.6
69°	8454.3	7154.1	1763.7	582.6	579.8	728.9	980.3	1211.1	1278.7	1221.4	1197.0
70°	8177.6	6760.1	1522.6	553.5	561.0	718.6	968.1	1210.2	1268.3	1197.0	1169.8
72.5°	6989.9	5476.7	983.1	484.1	505.6	691.4	922.2	1179.2	1246.8	1199.9	1162.3
75°	5416.7	3987.0	636.0	418.4	447.5	645.4	876.2	1159.5	1266.5	1181.1	1100.4
77.5°	3475.7	2133.3	492.5	351.8	384.6	580.7	793.6	1079.8	1229.9	1152.9	1048.8
80°	1514.1	791.8	379.9	285.2	311.5	471.9	681.1	959.7	1166.1	1157.6	1087.3
82.5°	642.6	510.3	292.7	218.6	247.7	349.0	533.8	822.7	1030.1	1070.4	1147.3
85°	364.0	305.8	195.1	150.1	183.9	257.0	379.9	631.4	838.7	929.7	994.4
87.5°	156.7	127.6	90.1	80.7	104.1	133.2	163.2	296.4	447.5	546.0	587.3
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)