

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: P458247

Luminaire Tested: **GALN-SA9C-827-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458247
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA9C-827-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47946 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

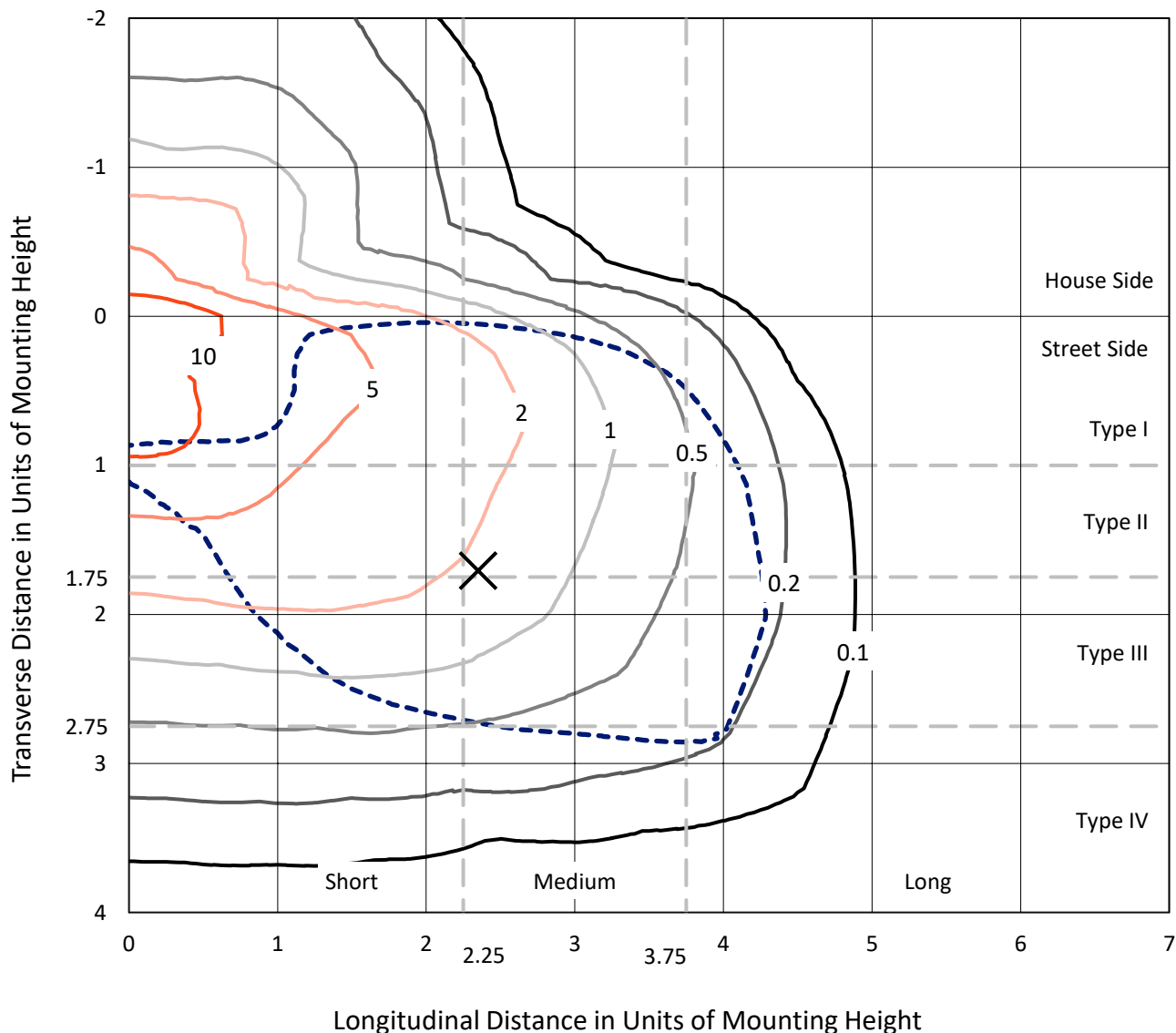
Input Watts (W): 481
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

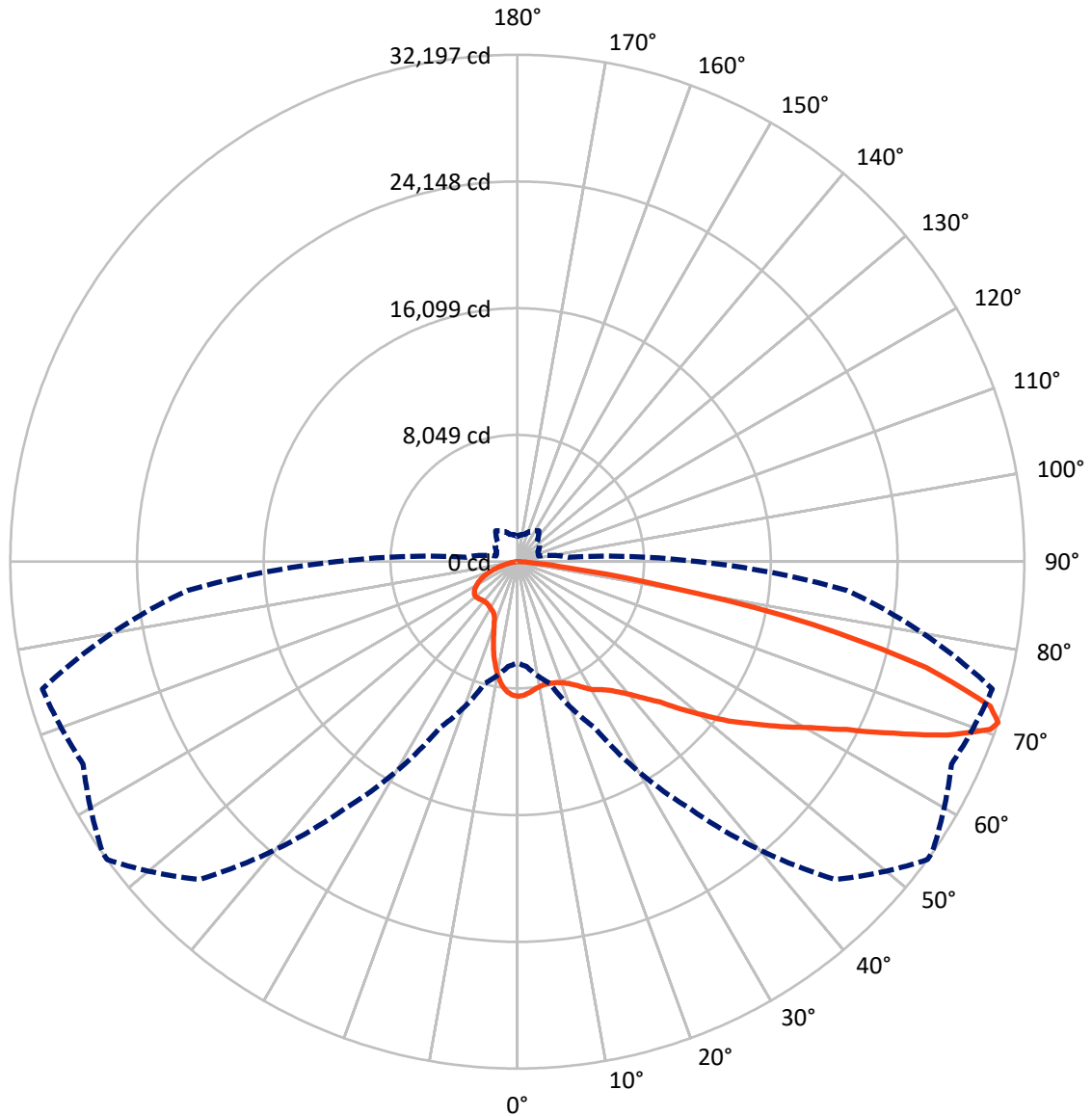
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.8 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical



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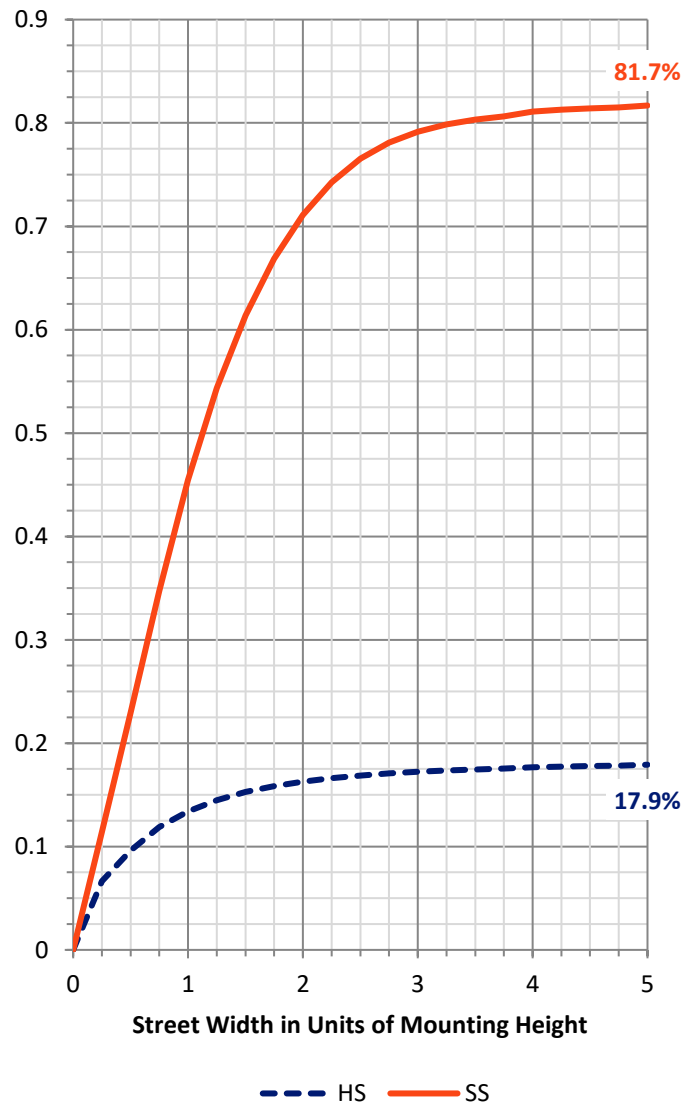
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8656.3	0.0	8656.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	39289.7	0.0	39289.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	47946.0	0.0	47946.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	762.3	1.6
10°-20°	2012.9	4.2
20°-30°	3351.5	7.0
30°-40°	4955.9	10.3
40°-50°	6980.5	14.6
50°-60°	9347.2	19.5
60°-70°	11781.4	24.6
70°-80°	8046.7	16.8
80°-90°	707.7	1.5
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°	47946.0	100.0
0°-180°	47946.0	100.0



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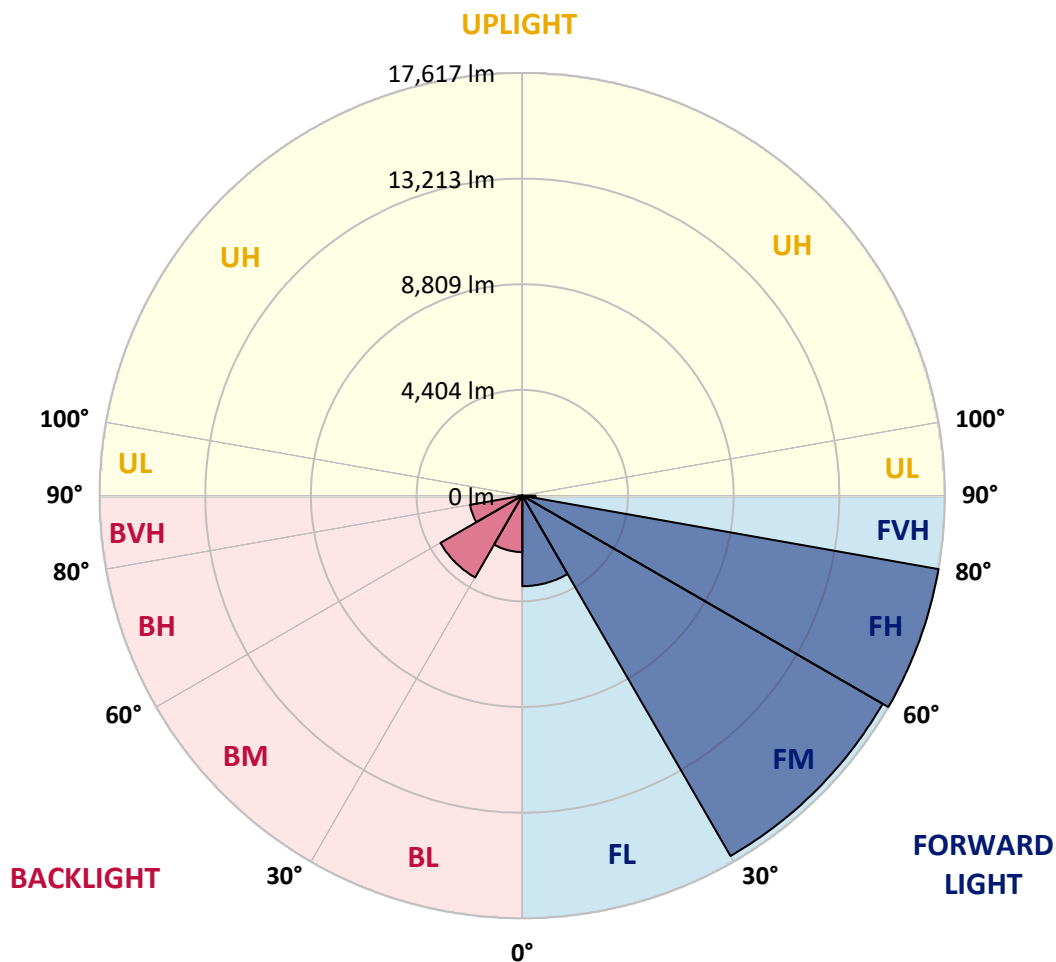
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3774.1	7.9			
FM	(30°-60°)	17345.1	36.2			
FH	(60°-80°)	17617.2	36.7			G5
FVH	(80°-90°)	553.1	1.2			G4/750
BL	(0°-30°)	2352.6	4.9	B3/2500		
BM	(30°-60°)	3938.4	8.2	B3/5000		
BH	(60°-80°)	2210.8	4.6	B3/2500		G3/2500
BVH	(80°-90°)	154.5	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3
2.5°	8264.2	8303.1	8313.4	8339.3	8393.7	8437.7	8481.8	8476.6	8538.7	8564.6	8587.9
5°	7896.5	7906.8	7945.7	7997.5	8093.3	8215.0	8334.1	8336.7	8489.5	8611.3	8670.8
7.5°	7627.1	7660.8	7686.7	7741.1	7842.1	7974.1	8163.2	8178.7	8450.7	8691.5	8818.4
10°	7451.0	7489.8	7518.3	7585.7	7686.7	7834.3	8038.9	8067.4	8422.2	8818.4	9041.2
12.5°	7290.4	7329.3	7355.2	7443.2	7575.3	7756.6	7987.1	8020.8	8432.6	8966.1	9284.6
15°	7388.8	7419.9	7409.6	7435.5	7523.5	7730.7	8007.8	8041.5	8471.4	9108.5	9525.5
17.5°	7826.5	7852.4	7767.0	7668.5	7627.1	7779.9	8072.6	8108.8	8549.1	9256.1	9771.5
20°	8471.4	8541.3	8354.9	8134.7	7935.3	7956.0	8207.2	8246.1	8657.9	9403.7	10022.7
22.5°	9310.5	9362.3	9134.4	8771.8	8404.1	8215.0	8409.2	8432.6	8821.0	9595.4	10297.2
25°	10297.2	10328.3	10012.4	9546.2	9015.3	8657.9	8686.4	8727.8	9090.4	9812.9	10540.7
27.5°	11255.5	11353.9	10988.7	10419.0	9719.7	9124.0	9067.1	9093.0	9383.0	9934.7	10709.0
30°	12392.4	12384.7	11998.8	11338.4	10442.3	9631.7	9427.1	9421.9	9541.0	9994.2	10830.8
32.5°	13298.9	13405.1	13026.9	12307.0	11268.4	10157.4	9675.7	9665.3	9662.7	10097.8	11012.0
35°	14329.6	14345.2	13998.1	13273.0	12161.9	10817.8	10022.7	9970.9	9911.4	10320.6	11258.1
37.5°	15251.6	15324.1	15005.6	14192.4	13039.9	11504.1	10499.3	10465.6	10284.3	10706.4	11651.7
40°	15971.6	16026.0	15834.3	15060.0	13904.9	12244.8	11105.3	11043.1	10823.0	11338.4	12177.5
42.5°	16207.3	16318.6	16393.8	16013.0	14899.4	13122.8	11851.2	11773.5	11605.1	12296.6	12783.5
45°	16225.4	16401.5	16797.8	16815.9	15899.1	14174.3	12721.3	12667.0	12654.0	13524.2	13635.6
47.5°	16088.2	16266.9	16932.4	17292.4	16790.0	15236.1	13977.4	13892.0	13899.7	15041.9	14591.2
50°	15756.7	15969.0	16777.1	17598.0	17486.7	16339.4	15303.4	15274.9	15435.5	16774.5	15583.1
52.5°	15132.5	15388.9	16616.5	17789.7	18004.6	17289.8	16810.7	16730.4	17137.0	18654.7	16668.3
55°	13405.1	13791.0	16028.6	17895.9	18496.7	18198.9	18167.8	18312.8	18851.5	20705.9	17862.2
57.5°	12503.8	12793.9	14751.8	17914.0	19118.3	19255.5	19752.8	19789.0	20731.8	22883.9	19211.5
60°	12011.7	12268.1	14052.5	17794.9	19985.9	20563.4	21374.0	21503.5	22568.0	25243.3	20610.0
62.5°	11581.8	11801.9	13633.0	17383.1	20964.8	22503.2	23474.4	23536.6	24652.8	27848.7	21990.4
65°	10569.2	10820.4	12788.7	16971.3	21809.1	24927.3	26261.1	26188.6	26872.3	30096.7	22855.4
67.5°	9204.3	9522.9	11211.5	15549.5	22226.1	27576.7	29400.0	29309.3	29063.3	31570.3	23104.1
70°	7461.4	7632.3	9194.0	13091.7	20560.8	28967.5	31878.5	31782.6	30420.4	31764.5	21928.3
71°	6420.2	6687.0	8005.2	11628.4	19175.3	28542.7	32197.0	32171.1	30423.0	31228.4	21042.5
72.5°	5011.4	5174.5	6340.0	9010.1	16297.9	26129.0	31409.7	31508.1	29762.6	29739.3	19216.7
75°	3170.0	3242.5	3978.0	5304.0	8942.8	18504.5	26812.7	27079.5	26426.8	24342.0	14290.8
77.5°	1841.4	1934.6	2382.7	3125.9	3864.1	10043.4	19185.6	19475.7	18362.0	13402.5	5850.5
80°	1072.2	1175.8	1569.4	1815.5	1774.0	3726.8	9768.9	10263.6	7950.8	3384.9	1642.0
82.5°	595.7	665.6	1103.3	1105.9	945.3	1217.2	3074.2	3216.6	2268.7	1364.9	670.8
85°	432.5	489.5	712.2	644.9	453.2	523.1	1069.6	1121.4	916.8	574.9	217.5
87.5°	152.8	217.5	391.1	310.8	124.3	108.8	308.2	251.2	233.1	160.6	49.2
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°	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3	8554.3
2.5°	8600.9	8606.1	8580.2	8533.6	8486.9	8427.4	8360.0	8308.2	8284.9	8282.3	8279.8
5°	8694.1	8707.1	8608.7	8463.6	8303.1	8106.2	7937.9	7746.2	7697.0	7619.3	7642.6
7.5°	8844.3	8836.6	8642.3	8334.1	7958.6	7541.6	7189.4	6984.8	6772.5	6712.9	6715.5
10°	9059.3	9010.1	8642.3	8070.0	7443.2	6824.3	6332.2	6021.4	5853.1	5713.2	5661.4
12.5°	9287.2	9162.9	8559.5	7699.6	6780.2	6021.4	5493.1	5073.5	4964.7	4850.8	4853.4
15°	9504.8	9297.6	8396.3	7179.1	6065.4	5164.2	4651.4	4400.2	4366.5	4379.4	4376.8
17.5°	9701.6	9393.4	8147.7	6598.9	5231.5	4428.6	4156.7	4174.8	4265.5	4330.2	4338.0
20°	9901.0	9450.4	7777.3	5822.0	4444.2	3983.2	3993.5	4136.0	4273.3	4361.3	4374.3
22.5°	10090.1	9476.3	7342.2	5070.9	3874.4	3794.1	3946.9	4099.7	4234.4	4319.9	4332.8
25°	10214.4	9416.7	6725.8	4286.2	3594.7	3726.8	3887.4	4016.9	4130.8	4218.9	4239.6
27.5°	10248.0	9225.0	5961.8	3651.7	3465.2	3662.0	3809.7	3905.5	3993.5	4076.4	4092.0
30°	10229.9	8942.8	5122.7	3278.8	3390.1	3586.9	3700.9	3770.8	3877.0	3941.8	3954.7
32.5°	10201.4	8613.8	4247.4	3079.3	3328.0	3517.0	3584.4	3646.5	3643.9	3618.0	3636.2
35°	10211.8	8220.2	3537.7	2960.2	3273.6	3465.2	3522.2	3444.5	3221.8	3211.4	3201.1
37.5°	10266.2	7831.7	3022.4	2877.3	3245.1	3457.5	3488.5	3131.1	2934.3	2843.7	2820.3
40°	10406.0	7378.5	2683.1	2815.2	3242.5	3517.0	3335.7	2973.1	2595.0	2418.9	2406.0
42.5°	10592.5	6933.0	2475.9	2776.3	3273.6	3607.7	3273.6	2750.4	2338.6	2235.0	2219.5
45°	10869.6	6422.8	2361.9	2758.2	3320.2	3641.3	3252.9	2587.3	2235.0	2152.2	2152.2
47.5°	11183.0	5935.9	2299.8	2745.2	3379.8	3618.0	3069.0	2535.5	2185.8	2196.2	2245.4
50°	11493.8	5513.8	2253.2	2716.8	3431.6	3605.1	2993.9	2532.9	2198.8	2330.9	2418.9
52.5°	11853.7	5216.0	2196.2	2670.1	3431.6	3522.2	2970.6	2584.7	2235.0	2273.9	2312.7
55°	12288.8	5122.7	2123.7	2569.1	3369.4	3315.0	2957.6	2659.8	2260.9	2170.3	2185.8
57.5°	12863.8	5272.9	2053.8	2442.2	3227.0	3100.1	2952.4	2680.5	2201.4	2126.3	2110.7
60°	13532.0	5570.8	2033.0	2312.7	3032.7	2916.2	2921.4	2620.9	2118.5	2040.8	2053.8
62.5°	14000.7	5749.5	2020.1	2214.3	2820.3	2714.2	2846.2	2548.4	2082.2	2014.9	2027.9
65°	14000.7	5531.9	1901.0	2064.1	2545.8	2470.7	2755.6	2457.8	2035.6	1957.9	1945.0
67.5°	13469.8	4897.4	1719.7	1838.8	2242.8	2193.6	2628.7	2349.0	1965.7	1906.1	1875.1
70°	12086.8	3713.8	1491.8	1574.6	1859.5	1903.5	2465.5	2201.4	1849.2	1776.6	1730.0
71°	11478.2	3234.7	1395.9	1440.0	1711.9	1776.6	2387.8	2139.2	1797.4	1693.8	1610.9
72.5°	10305.0	2724.5	1250.9	1269.0	1463.3	1579.8	2224.7	2020.1	1698.9	1551.3	1458.1
75°	7829.1	1989.0	1007.5	997.1	1082.6	1253.5	1882.8	1799.9	1489.2	1289.7	1235.4
77.5°	3382.3	1082.6	753.6	761.4	735.5	950.5	1481.4	1546.1	1276.8	1048.9	999.7
80°	1025.6	624.2	515.4	525.7	492.1	637.1	1043.7	1212.1	1025.6	815.8	748.5
82.5°	525.7	372.9	352.2	347.0	313.4	360.0	631.9	828.8	732.9	510.2	450.6
85°	227.9	199.4	173.5	168.3	147.6	129.5	225.3	414.4	388.5	284.9	271.9
87.5°	57.0	51.8	33.7	31.1	18.1	2.6	0.0	0.0	0.0	0.0	0.0
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)