

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: P299671

Luminaire Tested: **GLNA-AF-07-LED-E1-5MQ-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299671  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-07-LED-E1-5MQ-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30939.7 lumens  
Efficiency: N/A  
Efficacy: 104.9 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

Input Watts (W): 295  
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: 25 FT

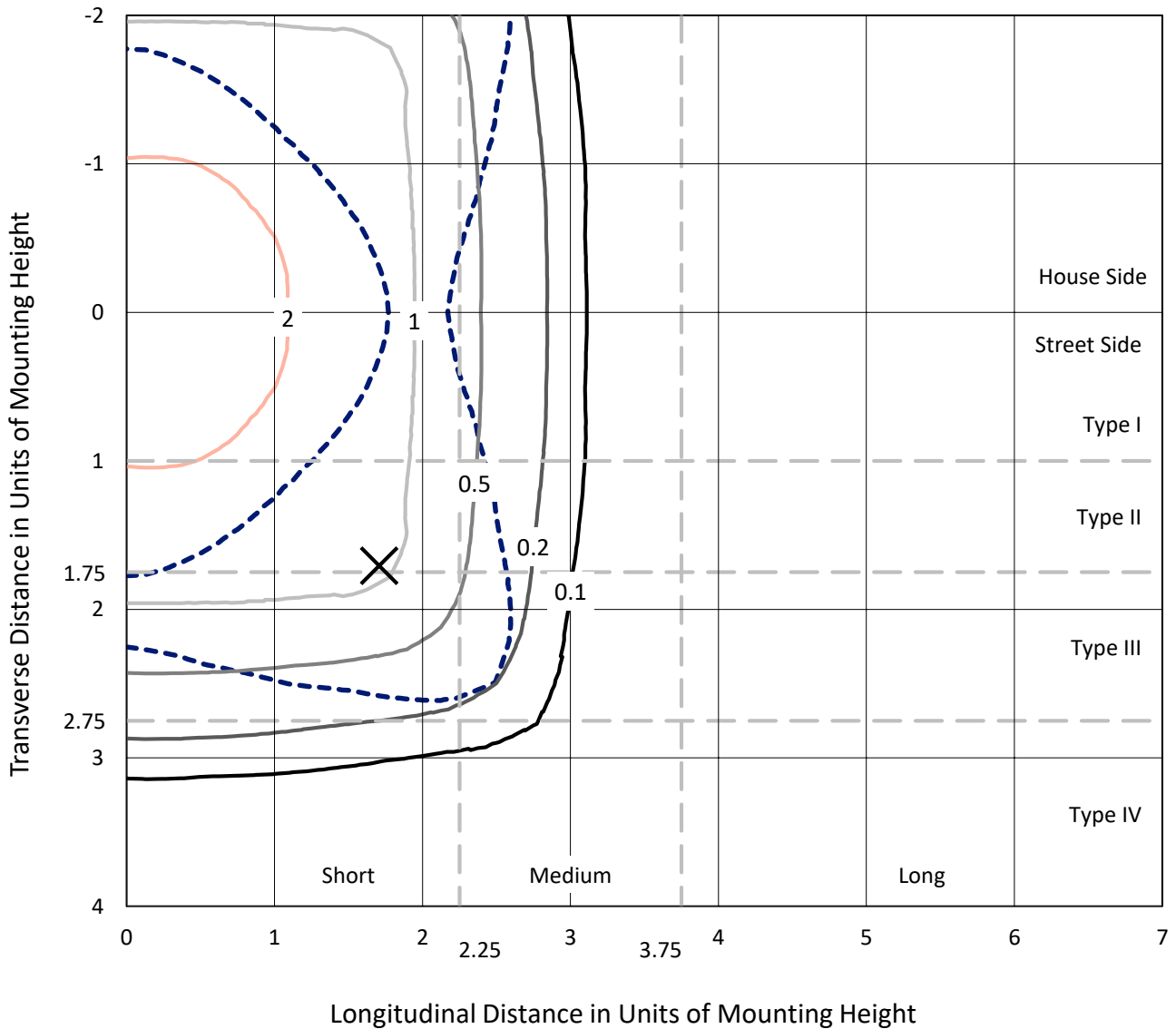


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

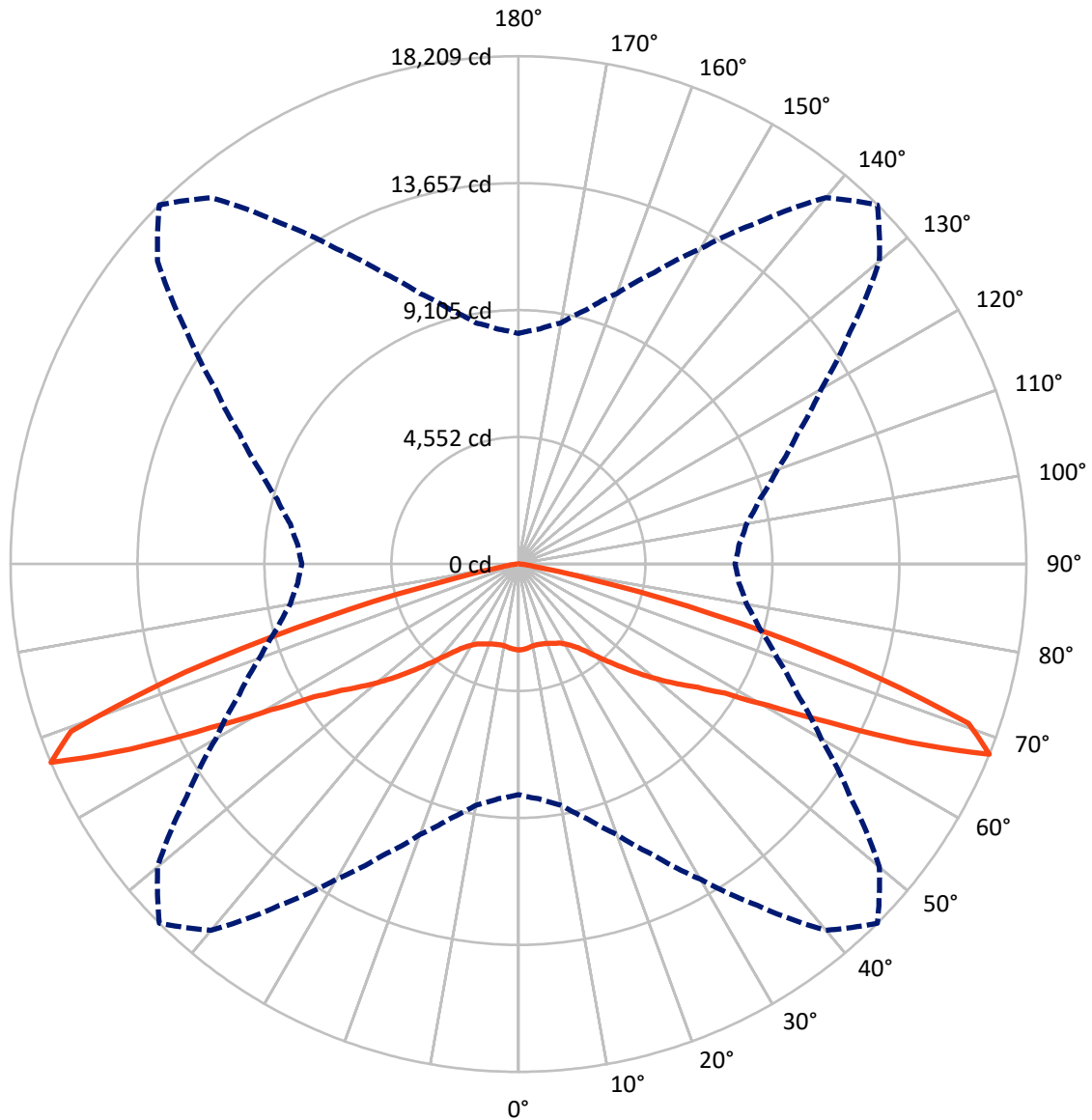


Based on 30 foot mounting height. Maximum calculated value = 3.4 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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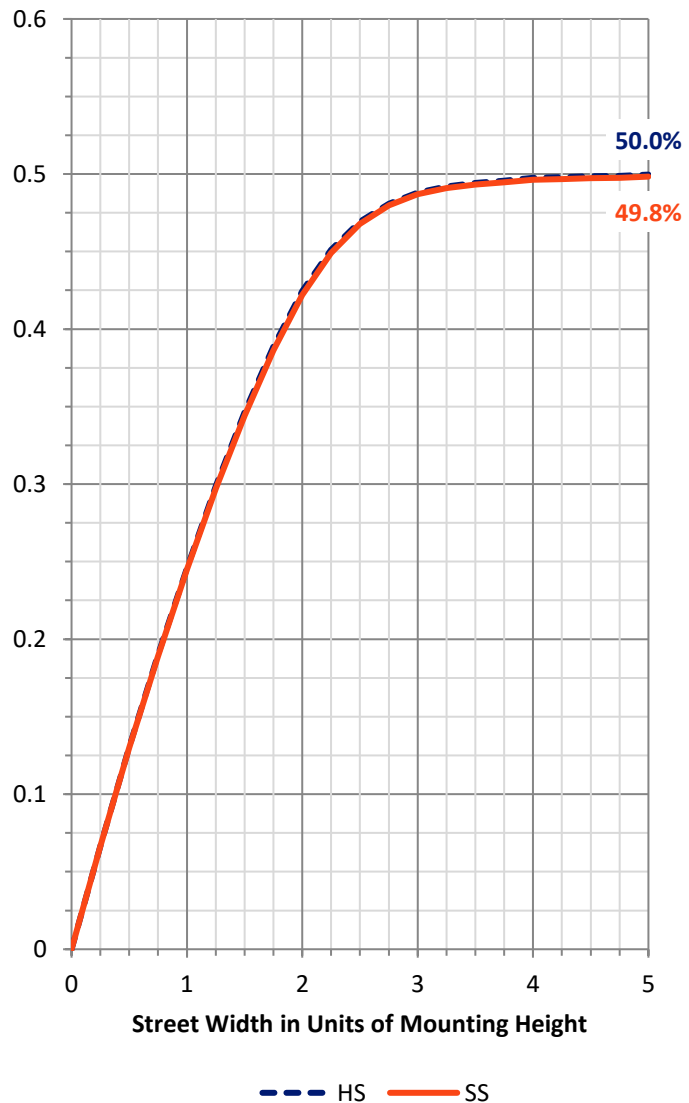
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	15469.8	0.0	15469.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	15469.8	0.0	15469.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	30939.7	0.0	30939.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.6	0.9
10°-20°	837.4	2.7
20°-30°	1423.6	4.6
30°-40°	2327.1	7.5
40°-50°	4154.3	13.4
50°-60°	7004.3	22.6
60°-70°	10869.6	35.1
70°-80°	3819.1	12.3
80°-90°	215.8	0.7
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°	30939.7	100.0
0°-180°	30939.7	100.0



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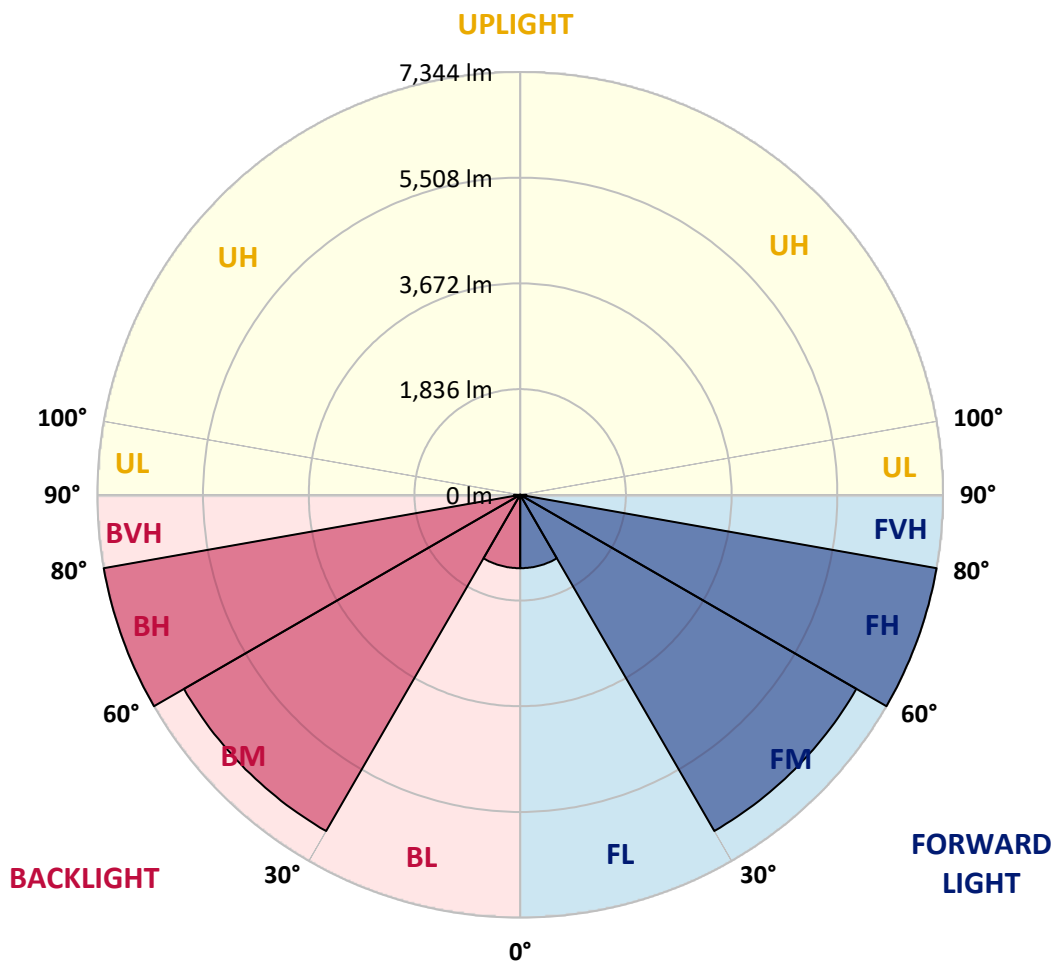
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1274.8	4.1			
FM	(30°-60°)	6742.8	21.8			
FH	(60°-80°)	7344.3	23.7			G3/7500
FVH	(80°-90°)	107.9	0.3			G2/225
BL	(0°-30°)	1274.8	4.1	B3/2500		
BM	(30°-60°)	6742.8	21.8	B4/8500		
BH	(60°-80°)	7344.3	23.7	B5		G3/7500
BVH	(80°-90°)	107.9	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3083.3	3083.3	3083.3	3083.3	3083.3	3083.3	3083.3	3083.3	3083.3	3083.3	3083.3
2.5°	3071.9	3074.7	3074.7	3074.7	3073.3	3073.3	3070.5	3073.3	3071.9	3067.6	3069.0
5°	3046.3	3049.1	3049.1	3047.7	3052.0	3050.5	3046.3	3049.1	3047.7	3044.9	3046.3
7.5°	3009.3	3013.6	3013.6	3012.1	3016.4	3015.0	3012.1	3013.6	3013.6	3009.3	3009.3
10°	2968.0	2970.9	2970.9	2969.4	2976.6	2976.6	2975.1	2979.4	2980.8	2976.6	2973.7
12.5°	2929.6	2933.9	2933.9	2939.6	2946.7	2949.5	2956.6	2962.3	2968.0	2966.6	2960.9
15°	2906.8	2909.7	2915.4	2922.5	2933.9	2943.8	2955.2	2968.0	2979.4	2982.2	2973.7
17.5°	2892.6	2896.9	2905.4	2915.4	2931.0	2948.1	2965.2	2982.2	2997.9	3003.6	2993.6
20°	2888.3	2891.2	2899.7	2916.8	2938.1	2963.8	2987.9	3007.9	3029.2	3036.3	3029.2
22.5°	2896.9	2902.6	2912.5	2932.4	2960.9	2993.6	3022.1	3049.1	3076.2	3089.0	3079.0
25°	2935.3	2941.0	2953.8	2979.4	3010.7	3044.9	3077.6	3108.9	3133.1	3145.9	3138.8
27.5°	3006.4	3013.6	3029.2	3054.8	3089.0	3126.0	3161.5	3187.1	3207.1	3211.3	3202.8
30°	3113.1	3128.8	3147.3	3175.8	3215.6	3246.9	3282.5	3305.2	3329.4	3329.4	3322.3
32.5°	3279.6	3295.3	3315.2	3342.2	3373.5	3407.7	3439.0	3458.9	3484.5	3485.9	3468.9
35°	3528.6	3535.7	3552.8	3569.9	3598.3	3628.2	3655.2	3668.1	3689.4	3690.8	3675.2
37.5°	3857.3	3858.7	3870.1	3875.8	3901.4	3934.1	3959.7	3968.3	3988.2	3985.3	3969.7
40°	4240.0	4247.1	4251.4	4259.9	4287.0	4318.3	4345.3	4349.6	4370.9	4366.7	4346.7
42.5°	4682.5	4685.4	4709.6	4722.4	4748.0	4763.6	4797.8	4802.0	4827.7	4816.3	4793.5
45°	5179.1	5204.7	5227.5	5253.1	5280.1	5298.6	5325.6	5320.0	5337.0	5320.0	5307.1
47.5°	5701.3	5719.8	5771.0	5810.8	5854.9	5870.6	5909.0	5891.9	5909.0	5884.8	5880.5
50°	6276.1	6308.8	6352.9	6398.5	6445.4	6471.0	6520.8	6499.5	6522.2	6499.5	6486.7
52.5°	6842.4	6850.9	6947.7	7014.5	7080.0	7109.9	7139.8	7129.8	7131.2	7129.8	7117.0
55°	7380.2	7400.1	7496.9	7587.9	7701.8	7785.7	7836.9	7831.2	7818.4	7805.6	7784.3
57.5°	7986.3	8006.3	8117.2	8229.6	8359.1	8478.6	8582.5	8689.2	8730.5	8741.9	8694.9
60°	8805.9	8804.5	8952.4	9089.0	9274.0	9451.8	9679.5	9911.4	10177.5	10301.3	10137.7
62.5°	9639.7	9673.8	9887.2	10129.1	10510.4	10881.8	11301.5	11714.1	12135.3	12478.2	12114.0
65°	9540.1	9671.0	9988.3	10536.0	11240.3	12077.0	12981.9	13939.4	14804.5	15399.3	14732.0
67.5°	8268.1	8454.4	8777.4	9443.3	10324.0	11530.6	13050.2	14944.0	17145.1	18209.4	16890.4
70°	5993.0	6203.5	6542.2	7192.4	8064.6	9211.4	10861.9	13135.6	16049.5	17122.3	15669.6
72.5°	2982.2	3096.1	3305.2	3719.3	4379.5	5310.0	6806.8	8992.3	11570.4	12555.0	11227.5
75°	1013.1	1065.7	1101.3	1236.4	1445.6	1811.3	2555.4	3931.3	5997.2	7189.6	5911.9
77.5°	584.8	586.2	610.4	634.6	670.2	710.0	809.6	1062.9	1838.3	2610.9	1902.3
80°	378.5	377.0	397.0	415.5	439.7	459.6	465.3	492.3	567.7	673.0	601.9
82.5°	196.4	220.5	264.6	288.8	334.4	342.9	331.5	321.6	340.1	352.9	361.4
85°	108.1	93.9	140.9	182.1	202.0	204.9	204.9	193.5	200.6	196.4	213.4
87.5°	49.8	45.5	55.5	89.6	95.3	81.1	85.4	75.4	54.1	52.6	59.8
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3083.3	3083.3	3083.3	3083.3	3083.3	3083.3	3083.3	3083.3
2.5°	3069.0	3070.5	3070.5	3074.7	3076.2	3079.0	3081.8	3083.3
5°	3044.9	3049.1	3046.3	3050.5	3050.5	3053.4	3053.4	3054.8
7.5°	3009.3	3013.6	3013.6	3013.6	3012.1	3016.4	3016.4	3016.4
10°	2972.3	2975.1	2973.7	2970.9	2968.0	2972.3	2970.9	2969.4
12.5°	2960.9	2953.8	2948.1	2945.3	2939.6	2941.0	2936.7	2936.7
15°	2968.0	2955.2	2945.3	2941.0	2935.3	2932.4	2929.6	2931.0
17.5°	2986.5	2970.9	2958.1	2950.9	2943.8	2939.6	2933.9	2935.3
20°	3019.2	3000.7	2982.2	2968.0	2955.2	2948.1	2943.8	2942.4
22.5°	3067.6	3040.6	3013.6	2992.2	2975.1	2965.2	2960.9	2958.1
25°	3123.1	3093.2	3061.9	3037.7	3020.7	3007.9	2999.3	2999.3
27.5°	3192.8	3168.6	3140.2	3111.7	3096.1	3083.3	3077.6	3074.7
30°	3309.5	3286.7	3264.0	3236.9	3217.0	3204.2	3194.2	3185.7
32.5°	3458.9	3440.4	3421.9	3402.0	3383.5	3366.4	3350.8	3343.6
35°	3669.5	3655.2	3642.4	3619.7	3612.6	3602.6	3594.1	3587.0
37.5°	3959.7	3954.0	3954.0	3929.9	3924.2	3919.9	3911.4	3912.8
40°	4341.0	4346.7	4339.6	4331.1	4326.8	4315.4	4315.4	4325.4
42.5°	4792.1	4796.4	4812.0	4797.8	4813.4	4799.2	4790.7	4797.8
45°	5315.7	5331.3	5362.6	5348.4	5358.4	5334.2	5304.3	5305.7
47.5°	5903.3	5917.5	5930.3	5920.4	5921.8	5882.0	5842.1	5832.2
50°	6513.7	6519.4	6526.5	6512.3	6515.1	6471.0	6425.5	6426.9
52.5°	7117.0	7144.0	7172.5	7134.1	7125.5	7075.7	7011.7	6986.1
55°	7807.1	7845.5	7812.8	7745.9	7679.0	7612.1	7528.2	7514.0
57.5°	8657.9	8592.5	8490.0	8363.4	8270.9	8177.0	8091.6	8056.1
60°	9841.7	9595.6	9410.6	9222.8	9104.7	8989.4	8877.0	8860.0
62.5°	11514.9	11089.5	10721.0	10332.6	10015.3	9767.7	9569.9	9514.5
65°	13612.2	12606.3	11734.1	10920.2	10213.1	9679.5	9343.7	9195.7
67.5°	14514.3	12528.0	11032.6	9877.3	8952.4	8306.5	7943.7	7763.0
70°	12754.2	10389.5	8763.2	7606.4	6764.1	6075.5	5746.8	5553.3
72.5°	8774.6	6609.0	5226.0	4265.6	3592.6	3016.4	2788.7	2771.7
75°	3939.8	2609.5	1798.5	1385.8	1166.7	1014.5	967.5	932.0
77.5°	1102.7	815.3	727.1	680.1	634.6	581.9	562.0	566.3
80°	536.4	506.5	486.6	456.7	415.5	371.4	351.4	360.0
82.5°	355.7	351.4	364.2	342.9	283.1	240.5	202.0	185.0
85°	216.3	219.1	223.4	224.8	190.7	133.7	91.1	102.4
87.5°	85.4	98.2	106.7	111.0	103.9	64.0	51.2	52.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)