

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: P299737

Luminaire Tested: **GLNA-AF-08-LED-E1-5MQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299737
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-08-LED-E1-5MQ-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28585.5 lumens
Efficiency: N/A
Efficacy: 111.2 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): 257
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

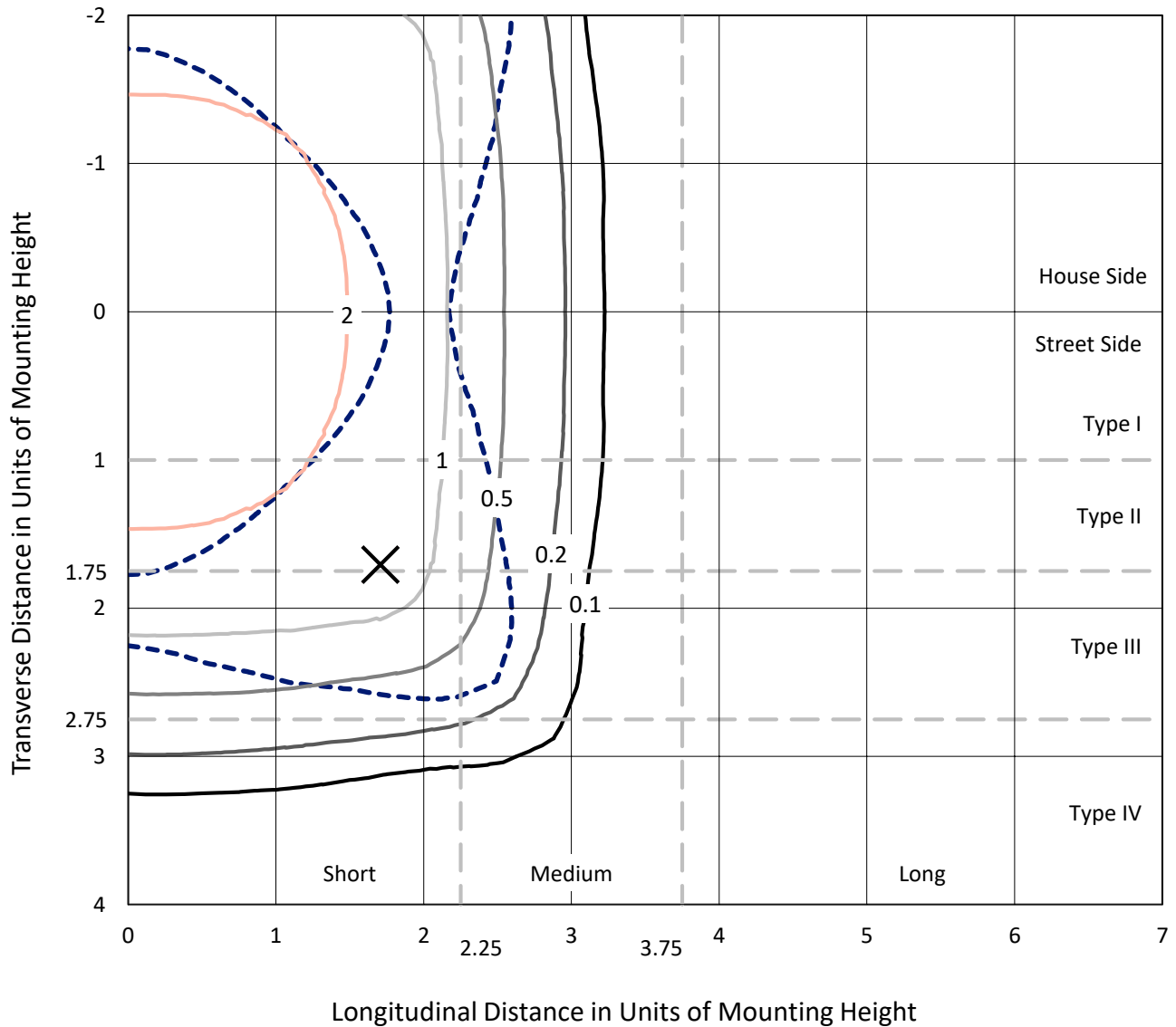


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

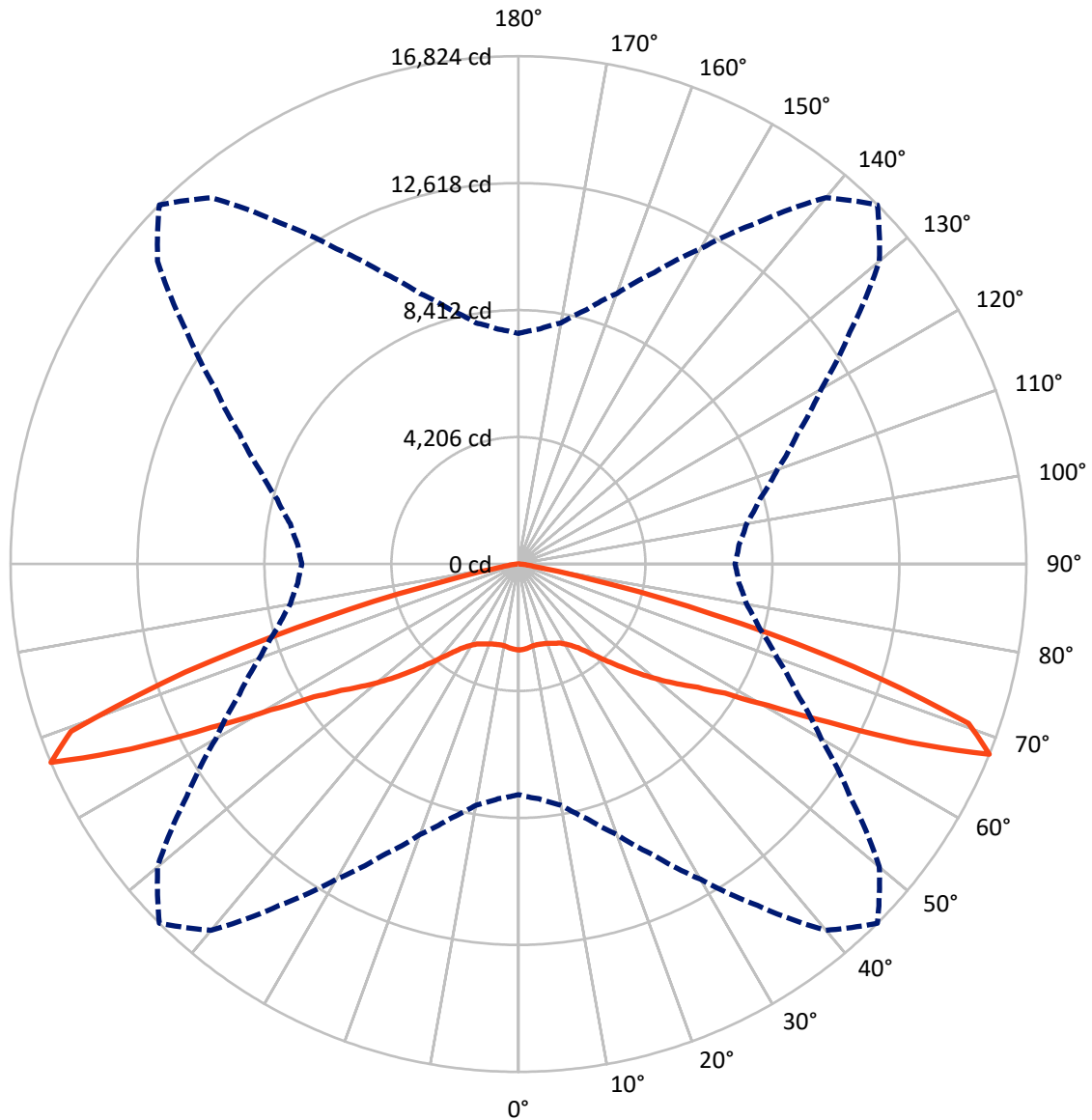


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type V - Short - Full Cutoff

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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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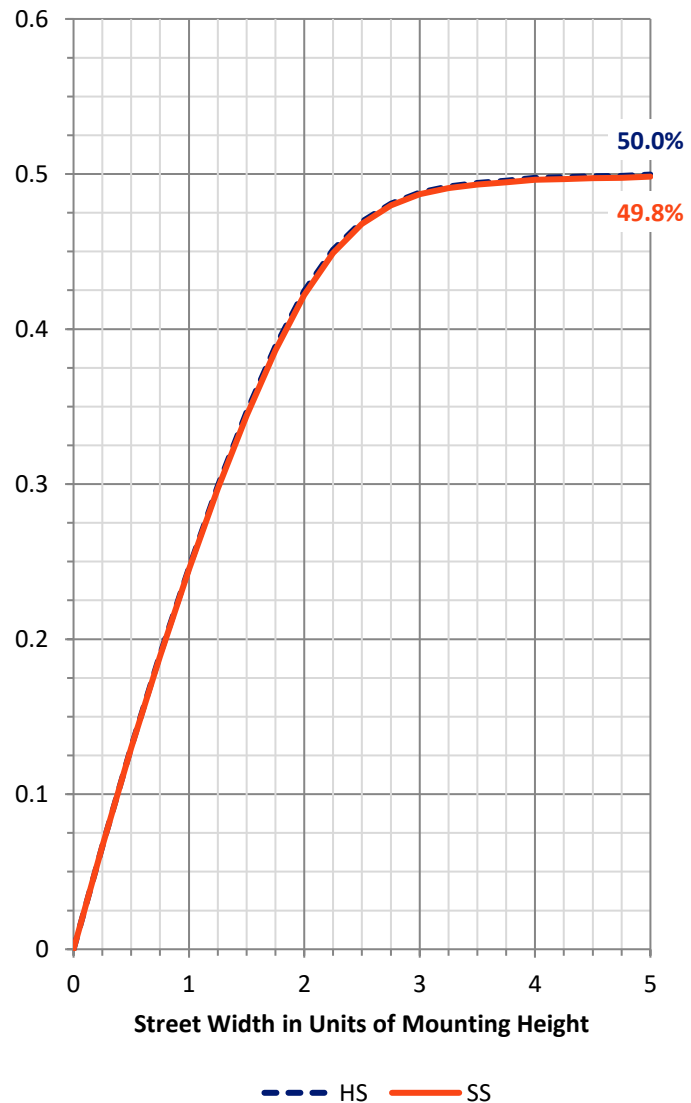
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14292.7	0.0	14292.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14292.7	0.0	14292.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	28585.5	0.0	28585.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.6	0.9
10°-20°	773.7	2.7
20°-30°	1315.2	4.6
30°-40°	2150.0	7.5
40°-50°	3838.2	13.4
50°-60°	6471.3	22.6
60°-70°	10042.5	35.1
70°-80°	3528.5	12.3
80°-90°	199.4	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°	28585.5	100.0
0°-180°	28585.5	100.0



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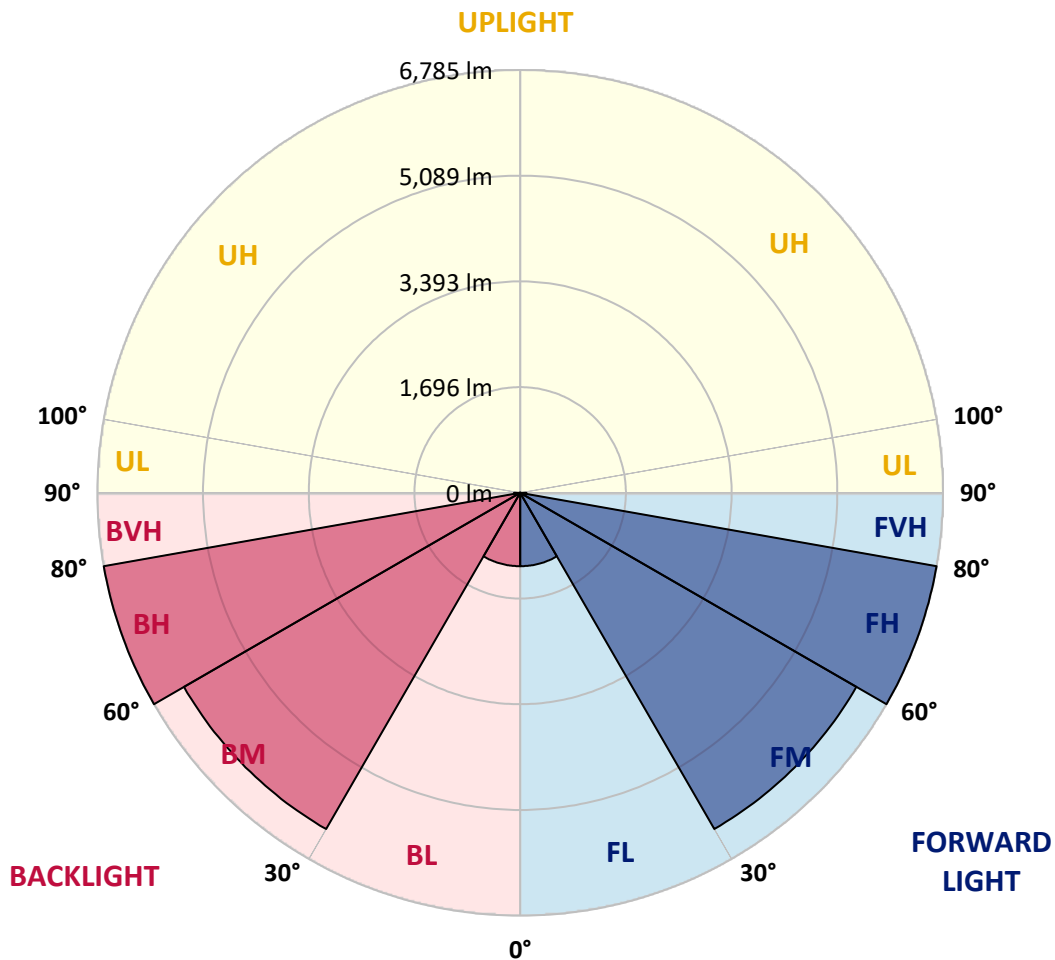
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1177.8	4.1			
FM	(30°-60°)	6229.8	21.8			
FH	(60°-80°)	6785.5	23.7			G3/7500
FVH	(80°-90°)	99.7	0.3			G1/100
BL	(0°-30°)	1177.8	4.1	B3/2500		
BM	(30°-60°)	6229.8	21.8	B4/8500		
BH	(60°-80°)	6785.5	23.7	B5		G3/7500
BVH	(80°-90°)	99.7	0.3			G1/100
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°	2848.7	2848.7	2848.7	2848.7	2848.7	2848.7	2848.7	2848.7	2848.7	2848.7	2848.7
2.5°	2838.1	2840.8	2840.8	2840.8	2839.5	2839.5	2836.8	2839.5	2838.1	2834.2	2835.5
5°	2814.5	2817.1	2817.1	2815.8	2819.7	2818.4	2814.5	2817.1	2815.8	2813.2	2814.5
7.5°	2780.3	2784.2	2784.2	2782.9	2786.9	2785.6	2782.9	2784.2	2784.2	2780.3	2780.3
10°	2742.2	2744.8	2744.8	2743.5	2750.1	2750.1	2748.8	2752.7	2754.0	2750.1	2747.4
12.5°	2706.7	2710.6	2710.6	2715.9	2722.5	2725.1	2731.7	2736.9	2742.2	2740.9	2735.6
15°	2685.7	2688.3	2693.5	2700.1	2710.6	2719.8	2730.4	2742.2	2752.7	2755.3	2747.4
17.5°	2672.5	2676.5	2684.3	2693.5	2708.0	2723.8	2739.6	2755.3	2769.8	2775.0	2765.8
20°	2668.6	2671.2	2679.1	2694.9	2714.6	2738.2	2760.6	2779.0	2798.7	2805.3	2798.7
22.5°	2676.5	2681.7	2690.9	2709.3	2735.6	2765.8	2792.1	2817.1	2842.1	2853.9	2844.7
25°	2711.9	2717.2	2729.0	2752.7	2781.6	2813.2	2843.4	2872.3	2894.7	2906.5	2899.9
27.5°	2777.7	2784.2	2798.7	2822.4	2853.9	2888.1	2921.0	2944.6	2963.0	2967.0	2959.1
30°	2876.3	2890.7	2907.8	2934.1	2970.9	2999.8	3032.7	3053.7	3076.1	3076.1	3069.5
32.5°	3030.1	3044.5	3062.9	3087.9	3116.8	3148.4	3177.3	3195.7	3219.4	3220.7	3204.9
35°	3260.1	3266.7	3282.5	3298.2	3324.5	3352.1	3377.1	3388.9	3408.7	3410.0	3395.5
37.5°	3563.8	3565.1	3575.6	3580.9	3604.5	3634.8	3658.4	3666.3	3684.7	3682.1	3667.6
40°	3917.4	3924.0	3927.9	3935.8	3960.8	3989.7	4014.7	4018.6	4038.3	4034.4	4016.0
42.5°	4326.2	4328.9	4351.2	4363.0	4386.7	4401.2	4432.7	4436.7	4460.3	4449.8	4428.8
45°	4785.0	4808.7	4829.7	4853.4	4878.3	4895.4	4920.4	4915.2	4930.9	4915.2	4903.3
47.5°	5267.5	5284.5	5331.9	5368.7	5409.4	5423.9	5459.4	5443.6	5459.4	5437.0	5433.1
50°	5798.5	5828.8	5869.5	5911.6	5955.0	5978.6	6024.6	6004.9	6026.0	6004.9	5993.1
52.5°	6321.7	6329.6	6419.0	6480.8	6541.3	6568.9	6596.5	6587.3	6588.6	6587.3	6575.5
55°	6818.6	6837.0	6926.4	7010.6	7115.7	7193.3	7240.6	7235.4	7223.5	7211.7	7192.0
57.5°	7378.7	7397.1	7499.6	7603.4	7723.1	7833.5	7929.5	8028.0	8066.2	8076.7	8033.3
60°	8135.8	8134.5	8271.2	8397.4	8568.3	8732.7	8943.0	9157.3	9403.1	9517.4	9366.3
62.5°	8906.2	8937.7	9134.9	9358.4	9710.7	10053.8	10441.6	10822.8	11211.9	11528.7	11192.2
65°	8814.2	8935.1	9228.2	9734.3	10385.1	11158.0	11994.1	12878.8	13678.0	14227.5	13611.0
67.5°	7638.9	7811.1	8109.5	8724.8	9538.5	10653.2	12057.2	13806.9	15840.5	16823.8	15605.2
70°	5536.9	5731.5	6044.4	6645.1	7451.0	8510.5	10035.4	12136.1	14828.3	15819.5	14477.3
72.5°	2755.3	2860.5	3053.7	3436.3	4046.2	4906.0	6288.9	8308.0	10690.0	11599.7	10373.2
75°	936.0	984.6	1017.5	1142.4	1335.6	1673.4	2361.0	3632.1	5540.9	6642.5	5462.0
77.5°	540.3	541.6	563.9	586.3	619.2	656.0	748.0	982.0	1698.4	2412.2	1757.6
80°	349.7	348.4	366.8	383.9	406.2	424.6	429.9	454.8	524.5	621.8	556.1
82.5°	181.4	203.8	244.5	266.9	308.9	316.8	306.3	297.1	314.2	326.0	333.9
85°	99.9	86.8	130.1	168.3	186.7	189.3	189.3	178.8	185.4	181.4	197.2
87.5°	46.0	42.1	51.3	82.8	88.1	74.9	78.9	69.7	50.0	48.6	55.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2848.7	2848.7	2848.7	2848.7	2848.7	2848.7	2848.7	2848.7
2.5°	2835.5	2836.8	2836.8	2840.8	2842.1	2844.7	2847.3	2848.7
5°	2813.2	2817.1	2814.5	2818.4	2818.4	2821.1	2821.1	2822.4
7.5°	2780.3	2784.2	2784.2	2784.2	2782.9	2786.9	2786.9	2786.9
10°	2746.1	2748.8	2747.4	2744.8	2742.2	2746.1	2744.8	2743.5
12.5°	2735.6	2729.0	2723.8	2721.1	2715.9	2717.2	2713.3	2713.3
15°	2742.2	2730.4	2721.1	2717.2	2711.9	2709.3	2706.7	2708.0
17.5°	2759.3	2744.8	2733.0	2726.4	2719.8	2715.9	2710.6	2711.9
20°	2789.5	2772.4	2755.3	2742.2	2730.4	2723.8	2719.8	2718.5
22.5°	2834.2	2809.2	2784.2	2764.5	2748.8	2739.6	2735.6	2733.0
25°	2885.5	2857.9	2828.9	2806.6	2790.8	2779.0	2771.1	2771.1
27.5°	2949.9	2927.5	2901.2	2875.0	2860.5	2848.7	2843.4	2840.8
30°	3057.7	3036.6	3015.6	2990.6	2972.2	2960.4	2951.2	2943.3
32.5°	3195.7	3178.6	3161.5	3143.1	3126.0	3110.3	3095.8	3089.2
35°	3390.3	3377.1	3365.3	3344.3	3337.7	3328.5	3320.6	3314.0
37.5°	3658.4	3653.2	3653.2	3630.8	3625.6	3621.6	3613.7	3615.1
40°	4010.7	4016.0	4009.4	4001.5	3997.6	3987.1	3987.1	3996.3
42.5°	4427.5	4431.4	4445.9	4432.7	4447.2	4434.0	4426.1	4432.7
45°	4911.2	4925.7	4954.6	4941.4	4950.6	4928.3	4900.7	4902.0
47.5°	5454.1	5467.3	5479.1	5469.9	5471.2	5434.4	5397.6	5388.4
50°	6018.1	6023.3	6029.9	6016.8	6019.4	5978.6	5936.6	5937.9
52.5°	6575.5	6600.4	6626.7	6591.2	6583.3	6537.3	6478.2	6454.5
55°	7213.0	7248.5	7218.3	7156.5	7094.7	7032.9	6955.4	6942.2
57.5°	7999.1	7938.7	7844.0	7727.0	7641.6	7554.8	7475.9	7443.1
60°	9092.8	8865.4	8694.5	8521.0	8411.9	8305.4	8201.6	8185.8
62.5°	10638.8	10245.7	9905.2	9546.4	9253.2	9024.5	8841.8	8790.5
65°	12576.4	11647.0	10841.2	10089.3	9435.9	8943.0	8632.7	8496.0
67.5°	13409.9	11574.7	10193.1	9125.7	8271.2	7674.4	7339.2	7172.3
70°	11783.8	9598.9	8096.4	7027.7	6249.4	5613.2	5309.5	5130.7
72.5°	8106.9	6106.2	4828.4	3941.1	3319.3	2786.9	2576.5	2560.8
75°	3640.0	2410.9	1661.6	1280.4	1077.9	937.3	893.9	861.0
77.5°	1018.8	753.2	671.7	628.4	586.3	537.7	519.3	523.2
80°	495.6	468.0	449.6	422.0	383.9	343.1	324.7	332.6
82.5°	328.6	324.7	336.5	316.8	261.6	222.2	186.7	170.9
85°	199.8	202.4	206.4	207.7	176.2	123.6	84.1	94.6
87.5°	78.9	90.7	98.6	102.5	96.0	59.2	47.3	48.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)