

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: P647402

Luminaire Tested: **GALN-SA4D-835-U-T2R-GRSWH**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P647402
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-835-U-T2R-GRSWH
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH WHITE GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21056.4 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

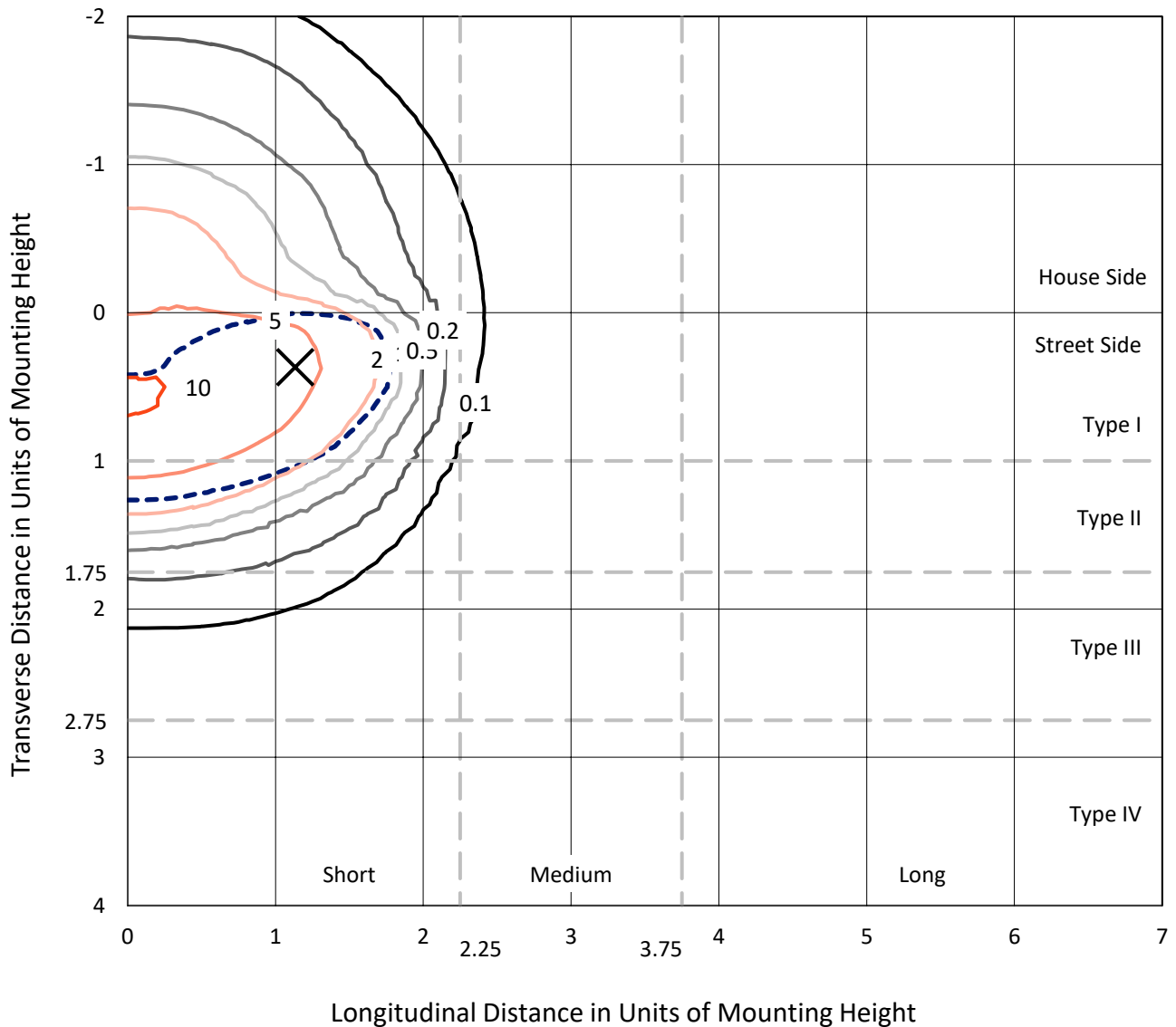
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

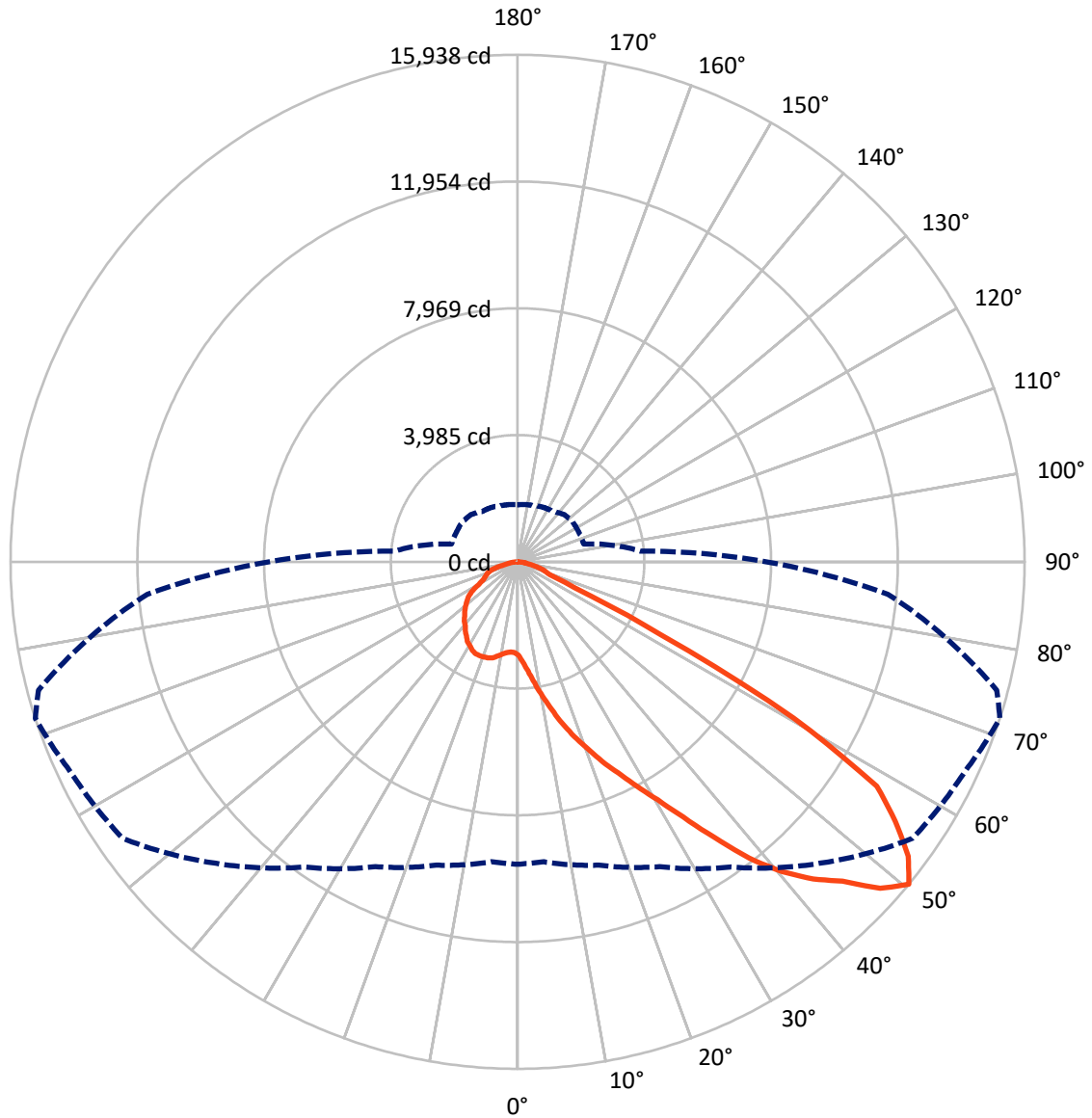
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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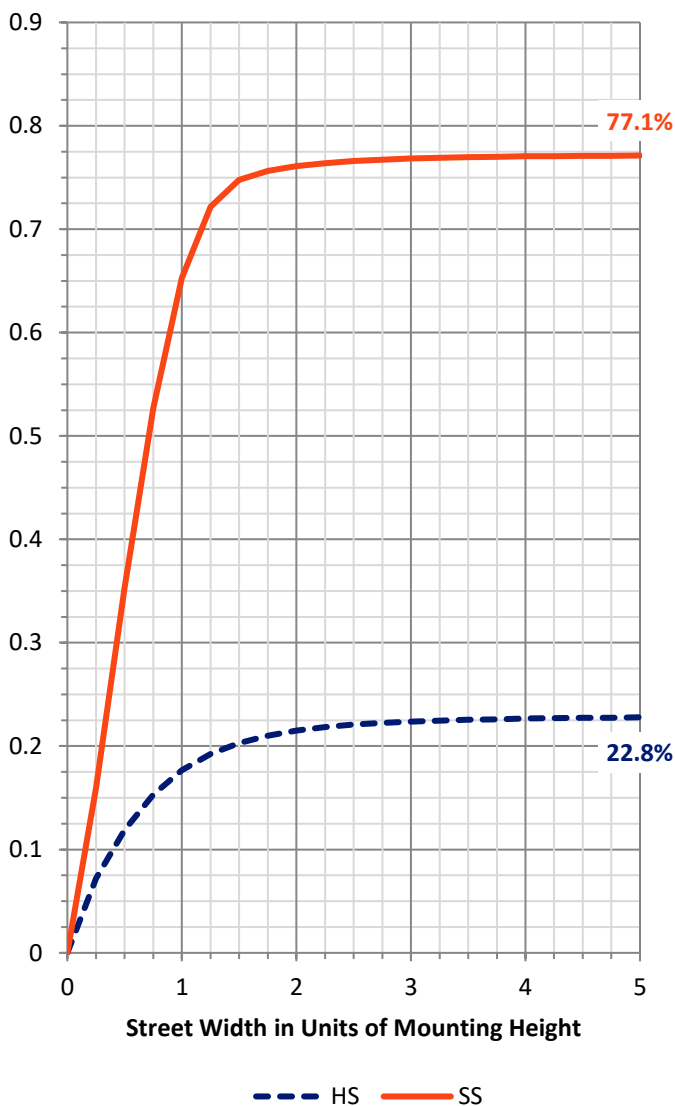
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4824.2	0.0	4824.2
	% Fixture	22.9	0.0	22.9
Street Side	Lumens	16232.3	0.0	16232.3
	% Fixture	77.1	0.0	77.1
Total	Lumens	21056.4	0.0	21056.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	344.8	1.6
10°-20°	1288.9	6.1
20°-30°	2499.1	11.9
30°-40°	4140.2	19.7
40°-50°	5793.1	27.5
50°-60°	4887.2	23.2
60°-70°	1489.6	7.1
70°-80°	522.6	2.5
80°-90°	90.9	0.4
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°	21056.4	100.0
0°-180°	21056.4	100.0

Coefficient of Utilization



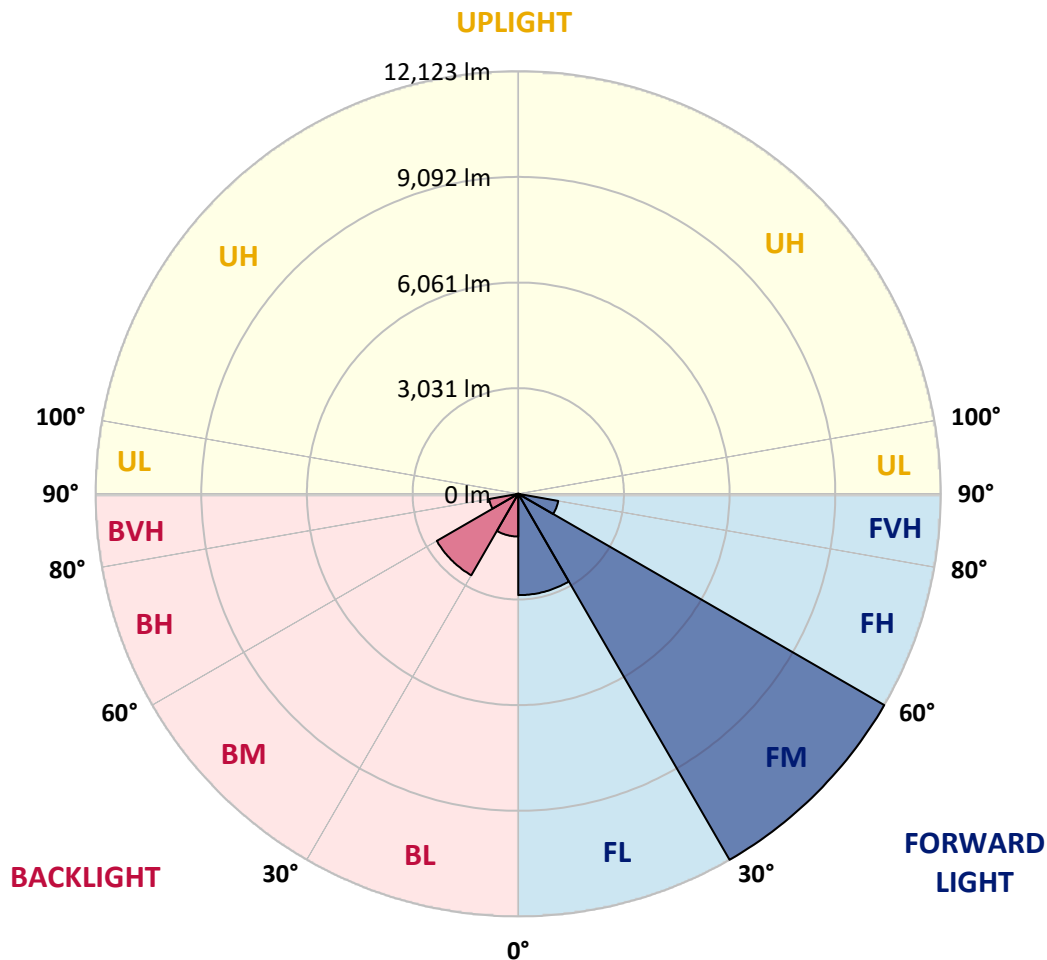
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2906.5	13.8			
FM (30°-60°)	12122.8	57.6			
FH (60°-80°)	1162.3	5.5			G1/1800
FVH (80°-90°)	40.7	0.2			G1/100
BL (0°-30°)	1226.3	5.8	B3/2500		
BM (30°-60°)	2697.7	12.8	B3/5000		
BH (60°-80°)	849.9	4.0	B2/1000		G2/1000
BVH (80°-90°)	50.2	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2
2.5°	3770.2	3746.7	3676.4	3653.0	3569.6	3418.5	3366.4	3212.6	3147.5	3087.6	3017.2
5°	4768.2	4658.7	4650.9	4518.0	4325.2	4213.2	3879.7	3655.6	3449.7	3345.5	3152.7
7.5°	5403.9	5406.5	5406.5	5297.1	5143.4	4859.3	4559.7	4155.9	3845.8	3692.1	3363.8
10°	6008.4	5956.3	5927.6	5917.2	5813.0	5536.7	5216.3	4716.0	4291.3	4111.5	3522.7
12.5°	6435.7	6391.4	6456.5	6422.6	6347.1	6167.3	5865.1	5294.5	4762.9	4520.7	3778.1
15°	6638.9	6670.2	6722.3	6816.1	6782.2	6714.5	6381.0	5888.6	5271.0	4997.4	4004.7
17.5°	6951.6	6865.6	6928.1	7045.4	7139.2	7107.9	6917.7	6318.4	5773.9	5437.8	4309.6
20°	7170.5	7120.9	7152.2	7287.7	7358.1	7535.2	7436.2	6881.2	6255.9	5901.5	4669.1
22.5°	7795.8	7722.8	7621.2	7642.1	7668.1	7793.2	7816.6	7498.7	6816.1	6440.9	5010.5
25°	8567.0	8499.3	8379.4	8257.0	8181.4	8157.9	8238.7	7983.4	7352.8	6964.6	5377.9
27.5°	9416.4	9301.8	9226.2	8973.5	8770.2	8739.0	8699.9	8561.8	7988.6	7569.1	5792.1
30°	10242.4	10151.2	10049.6	9645.7	9434.7	9400.8	9208.0	9247.1	8679.1	8212.7	6261.1
32.5°	10867.7	10875.6	10643.6	10338.8	10140.8	9961.0	9890.6	10002.7	9565.0	9189.8	6784.9
35°	11373.2	11396.6	11175.2	10899.0	10685.4	10810.4	10779.1	10831.2	10622.8	10164.2	7394.5
37.5°	11865.7	11748.4	11511.3	11378.4	11266.4	11472.2	11738.0	11782.3	11821.3	11282.0	8103.3
40°	11946.4	11956.8	11818.8	11912.6	11771.9	12081.9	12699.4	12642.1	12801.0	12329.4	8871.9
42.5°	11831.8	11855.2	11909.9	12042.9	12381.5	12754.1	13671.3	13436.7	13629.6	13210.1	9619.6
45°	11644.1	11547.8	11615.5	12121.0	12707.2	13535.8	14559.8	14377.4	14314.9	13963.1	10510.8
47.5°	10747.8	10846.9	11057.9	11680.6	12561.4	13671.3	15190.3	15148.6	15336.2	15088.7	11321.1
50°	9505.0	9465.9	9872.4	10573.3	11709.3	13405.5	15156.5	15534.3	15938.1	15594.1	11683.2
52.5°	7118.3	7326.8	7675.9	8546.2	10166.9	11956.8	14416.4	15047.0	15375.3	15302.3	11391.4
55°	4499.7	4562.3	4773.3	5807.7	7266.9	9596.2	12358.1	13819.8	14406.0	14679.6	11123.1
57.5°	2186.1	2068.8	2326.8	3157.9	4197.5	6454.0	9531.1	12037.6	13311.7	13806.8	10539.4
60°	1141.2	1185.5	1287.2	1584.2	2170.4	3350.7	5940.6	8022.5	9968.8	10729.6	7988.6
62.5°	945.8	961.4	1029.2	1177.7	1443.5	1928.1	3032.9	3910.9	5083.4	5768.7	4544.1
65°	802.5	810.3	883.3	982.3	1151.6	1357.5	1560.8	1633.7	1977.6	2029.7	1615.4
67.5°	669.6	677.5	755.6	849.4	958.9	1013.6	1065.7	1060.4	1099.6	1083.9	1081.3
70°	515.9	523.7	604.5	703.5	758.2	726.9	888.5	925.0	940.6	953.6	974.4
72.5°	372.6	388.2	450.8	521.1	492.4	565.4	732.2	786.8	807.7	815.6	841.6
75°	271.0	276.2	291.8	271.0	312.7	393.5	515.9	583.6	609.7	617.6	656.6
77.5°	119.9	122.5	125.0	156.4	200.6	244.9	307.5	362.1	398.6	409.0	419.5
80°	62.6	65.1	80.8	106.8	143.3	179.8	224.1	255.3	278.8	281.4	291.8
82.5°	39.1	41.7	57.3	75.6	101.6	132.9	164.1	190.2	208.4	211.0	213.7
85°	18.2	23.4	33.9	46.9	67.7	86.0	88.6	75.6	80.8	83.4	78.1
87.5°	5.2	7.8	10.4	7.8	10.4	10.4	13.0	15.7	15.7	15.7	18.2
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°	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2	2931.2
2.5°	2978.1	2954.7	2863.5	2829.6	2741.0	2756.6	2709.7	2707.1	2696.7	2694.1	2691.6
5°	3051.1	2978.1	2868.7	2785.3	2735.8	2730.6	2696.7	2696.7	2707.1	2715.0	2696.7
7.5°	3170.9	3087.6	2902.6	2824.4	2780.1	2772.3	2748.9	2730.6	2754.0	2746.2	2725.4
10°	3309.0	3163.2	2967.7	2900.0	2827.0	2808.8	2808.8	2816.6	2777.5	2790.5	2769.7
12.5°	3462.7	3267.4	3051.1	2972.9	2886.9	2876.5	2871.3	2814.0	2834.9	2824.4	2772.3
15°	3658.2	3387.2	3157.9	3025.0	2952.1	2905.2	2837.4	2827.0	2814.0	2787.9	2764.5
17.5°	3869.2	3517.5	3207.4	3040.7	2931.2	2897.3	2845.3	2790.5	2751.5	2756.6	2738.5
20°	4049.0	3637.3	3225.6	3056.3	2915.6	2850.4	2769.7	2735.8	2694.1	2691.6	2688.9
22.5°	4262.7	3798.9	3251.7	3014.6	2868.7	2800.9	2746.2	2686.3	2657.7	2621.2	2639.4
25°	4518.0	3861.4	3257.0	2991.1	2834.9	2715.0	2686.3	2621.2	2610.8	2558.6	2569.1
27.5°	4703.0	3895.3	3215.2	2918.2	2756.6	2665.5	2613.3	2566.4	2548.2	2509.1	2498.7
30°	4950.5	3947.4	3126.7	2827.0	2678.5	2576.9	2545.6	2535.2	2483.0	2441.4	2436.1
32.5°	5231.9	3981.2	3069.4	2733.2	2597.8	2519.5	2535.2	2485.7	2420.6	2384.1	2373.7
35°	5456.0	3994.3	2926.0	2626.4	2543.0	2493.5	2475.3	2464.8	2371.1	2337.2	2311.1
37.5°	5797.3	3965.7	2806.2	2550.9	2483.0	2464.8	2449.2	2378.8	2272.0	2222.5	2186.1
40°	6196.0	3957.8	2652.4	2444.0	2425.7	2446.6	2399.7	2290.3	2141.7	2087.0	2061.0
42.5°	6579.0	4012.6	2556.0	2386.7	2363.3	2371.1	2305.9	2141.7	2068.8	2037.5	1995.9
45°	7220.0	4127.2	2397.1	2298.1	2287.7	2282.4	2204.3	2032.4	1990.6	1951.5	1943.7
47.5°	7798.4	4051.6	2295.5	2206.9	2217.3	2188.6	2021.9	1967.2	1920.3	1881.2	1868.2
50°	7832.3	3871.9	2152.2	2136.6	2139.2	2089.7	1930.7	1894.2	1834.3	1808.3	1790.0
52.5°	7655.1	3577.4	2019.3	2024.5	2032.4	1951.5	1818.7	1792.6	1743.1	1706.6	1696.2
55°	7157.4	3118.8	1889.0	1909.9	1930.7	1777.0	1735.3	1670.1	1631.1	1579.0	1581.6
57.5°	6305.4	2511.7	1706.6	1740.5	1784.8	1615.4	1584.2	1503.4	1446.0	1404.4	1399.1
60°	4226.2	1787.4	1433.0	1446.0	1545.1	1477.4	1474.7	1394.0	1315.8	1279.3	1258.5
62.5°	2493.5	1365.3	1237.6	1224.6	1222.0	1261.1	1326.2	1297.6	1196.0	1125.6	1146.5
65°	1305.3	1180.3	1151.6	1107.3	1081.3	1070.9	1120.4	1133.4	1065.7	990.1	984.9
67.5°	1096.9	1096.9	1073.5	1057.8	1021.3	977.1	945.8	904.1	893.7	872.9	846.8
70°	997.9	1024.0	1016.2	979.7	948.4	898.9	818.2	750.4	685.3	661.8	677.5
72.5°	870.2	896.3	896.3	878.1	836.4	760.8	682.6	604.5	549.7	508.1	502.8
75°	669.6	682.6	713.9	693.1	638.4	591.5	510.7	429.9	377.8	338.7	330.9
77.5°	427.3	448.2	448.2	445.5	406.5	362.1	310.1	252.8	213.7	185.0	177.2
80°	284.0	297.1	307.5	297.1	271.0	237.1	198.0	158.9	130.3	106.8	101.6
82.5°	208.4	224.1	231.9	221.4	195.4	169.4	140.7	112.0	83.4	65.1	59.9
85°	80.8	83.4	93.8	112.0	109.5	106.8	86.0	62.6	46.9	33.9	31.2
87.5°	20.8	18.2	20.8	20.8	18.2	15.7	15.7	15.7	15.7	7.8	10.4
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)