

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: P651377

Luminaire Tested: **GALN-SA4D-840-U-T4W**

Issue Date: 5/13/2021

Test Information

Test Method: LM-79-08
Report Number: P651377
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2011-042-41)
Test Lab: INNOVATION CENTER
Issue Date: 5/13/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-840-U-T4W
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25755.6 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

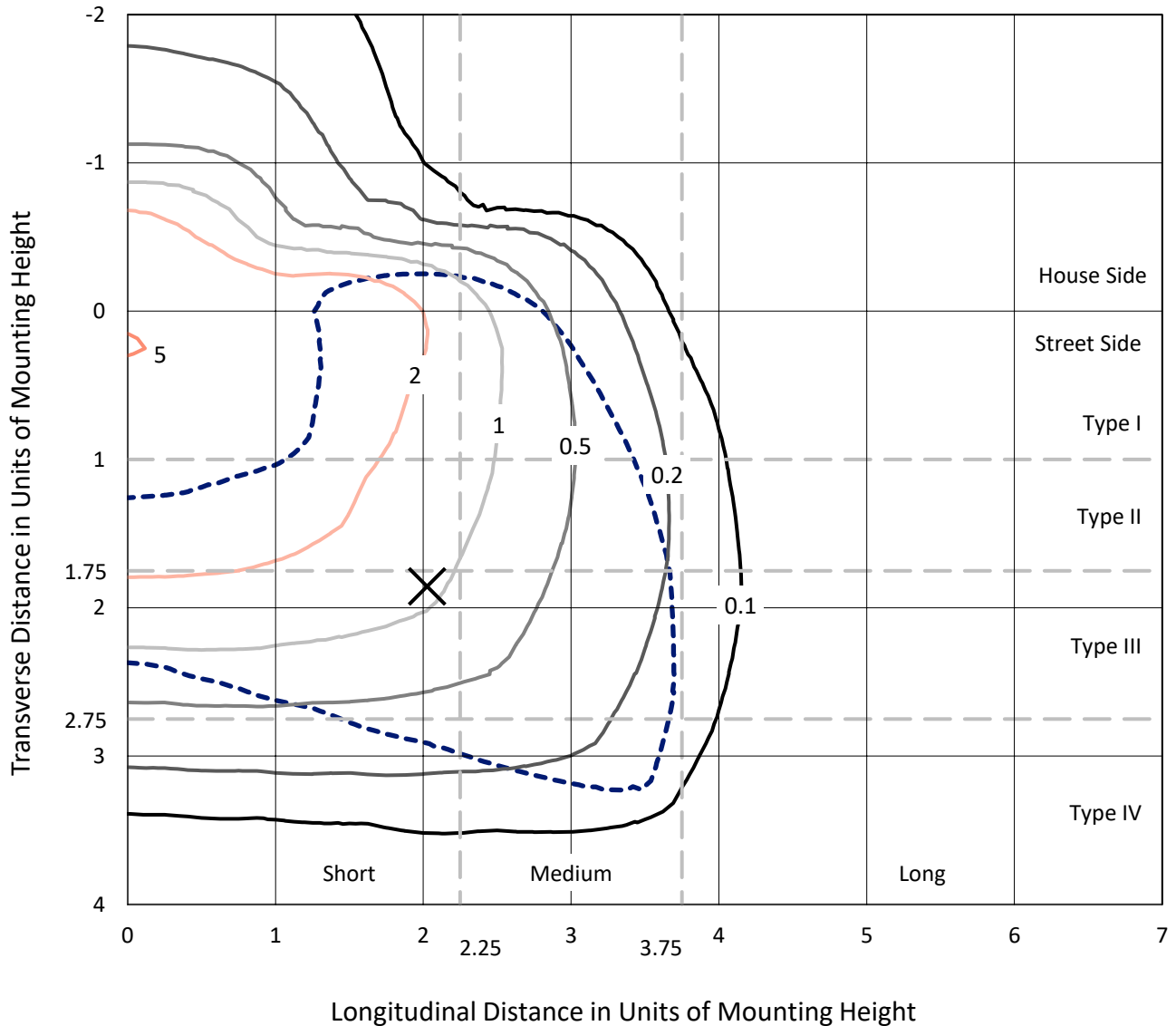
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

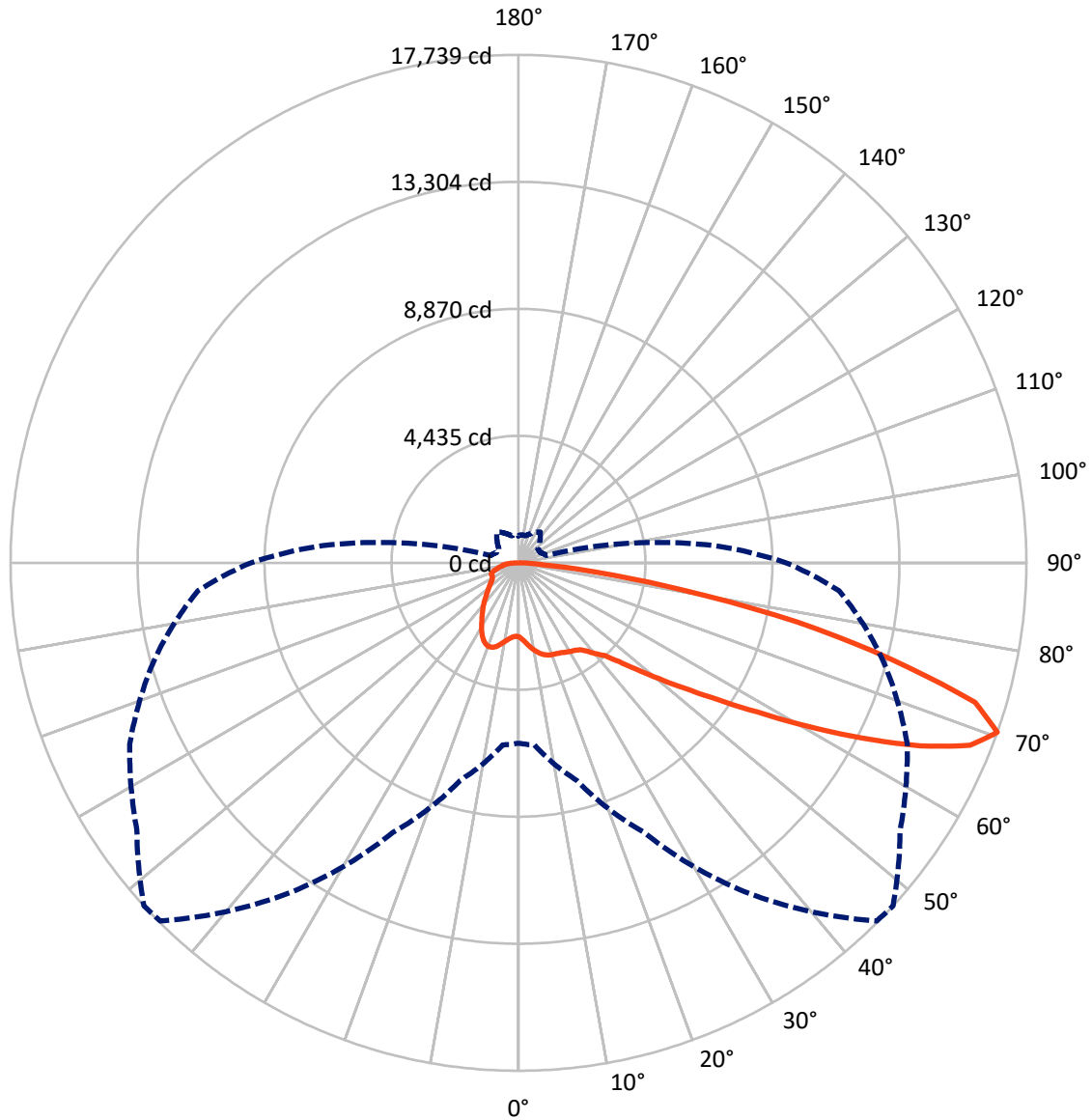
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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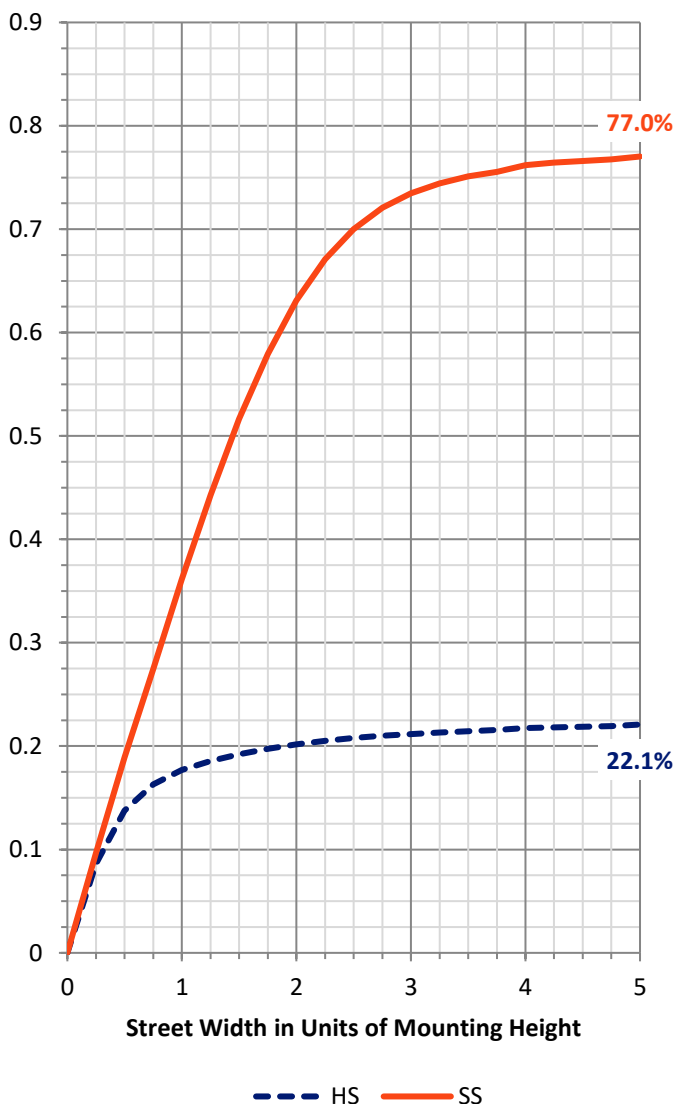
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5831.6	0.0	5831.6
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	19924.0	0.0	19924.0
	% Fixture	77.4	0.0	77.4
Total	Lumens	25755.6	0.0	25755.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.5	1.0
10°-20°	891.0	3.5
20°-30°	1481.7	5.8
30°-40°	2100.1	8.2
40°-50°	3100.2	12.0
50°-60°	5369.6	20.8
60°-70°	7584.8	29.4
70°-80°	4360.1	16.9
80°-90°	601.6	2.3
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°	25755.6	100.0
0°-180°	25755.6	100.0

Coefficient of Utilization



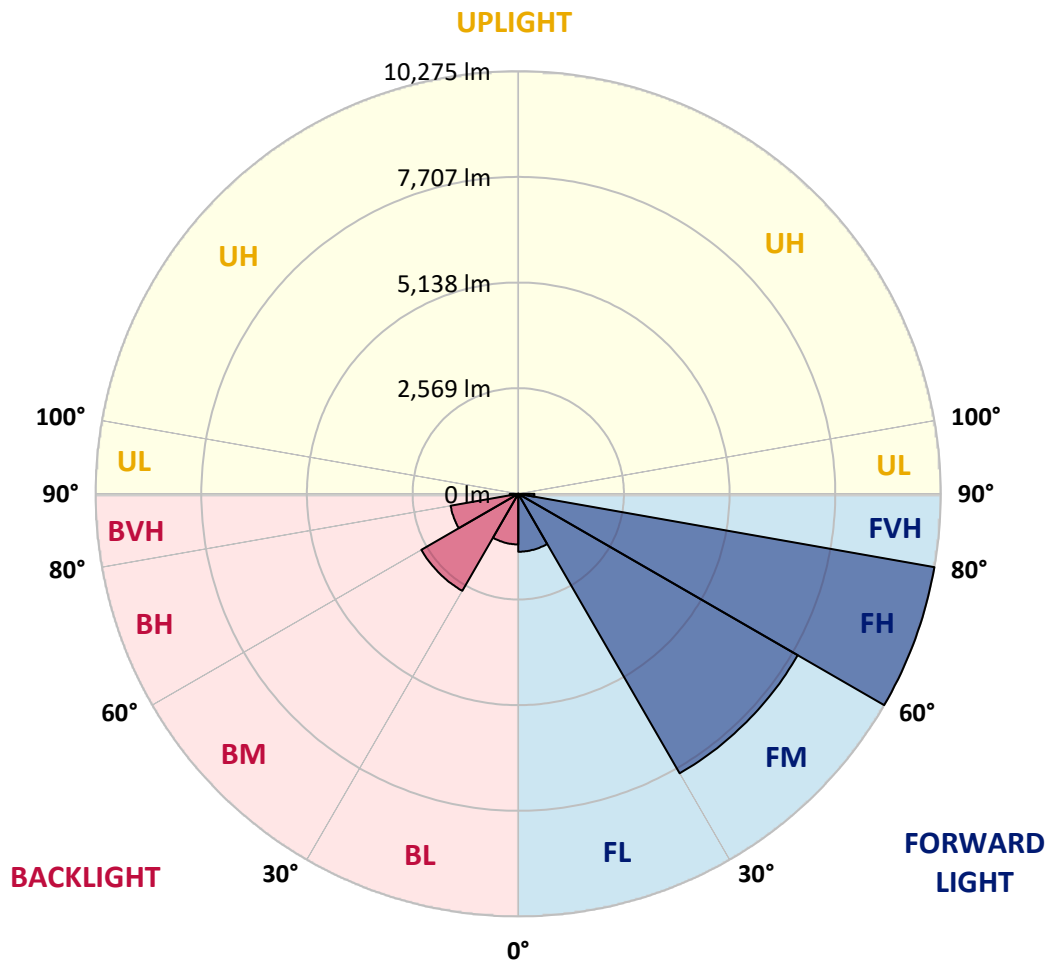
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1408.4	5.5			
FM (30°-60°)	7847.2	30.5			
FH (60°-80°)	10275.4	39.9			G4/12000
FVH (80°-90°)	393.0	1.5			G3/500
BL (0°-30°)	1230.8	4.8	B3/2500		
BM (30°-60°)	2722.7	10.6	B3/5000		
BH (60°-80°)	1669.5	6.5	B3/2500		G3/2500
BVH (80°-90°)	208.6	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47.5°	55°	65°	75°	85°
0°	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6
2.5°	2752.3	2742.7	2741.3	2720.6	2709.6	2688.9	2680.7	2661.3	2638.0	2614.5	2592.5
5°	2968.7	2968.7	2959.1	2930.1	2884.6	2837.8	2817.1	2779.9	2713.7	2660.0	2614.5
7.5°	3190.6	3193.4	3174.0	3131.3	3066.5	2990.8	2971.4	2916.3	2822.6	2744.0	2676.5
10°	3382.2	3382.2	3356.0	3298.1	3216.8	3134.1	3114.8	3052.7	2948.0	2850.1	2761.9
12.5°	3528.2	3528.2	3493.8	3418.0	3329.8	3255.3	3233.3	3174.0	3076.2	2967.3	2855.7
15°	3623.4	3616.5	3577.9	3492.4	3407.0	3342.2	3327.1	3277.5	3187.8	3077.6	2952.2
17.5°	3627.5	3624.7	3587.5	3515.9	3441.5	3397.3	3387.7	3354.6	3284.4	3179.6	3047.3
20°	3547.6	3553.1	3528.2	3477.3	3441.5	3422.1	3418.0	3407.0	3357.4	3259.5	3127.2
22.5°	3462.1	3471.7	3448.4	3420.8	3418.0	3437.3	3440.0	3442.8	3411.1	3316.0	3194.7
25°	3441.5	3448.4	3424.9	3400.1	3415.2	3466.3	3477.3	3488.3	3463.5	3383.5	3274.7
27.5°	3546.2	3540.7	3495.2	3441.5	3451.0	3520.0	3535.1	3547.6	3535.1	3466.3	3373.9
30°	3842.5	3824.6	3733.6	3576.5	3526.9	3575.1	3590.3	3624.7	3624.7	3573.7	3481.4
32.5°	4338.6	4304.2	4137.5	3828.7	3656.4	3627.5	3642.6	3699.1	3728.1	3688.1	3587.5
35°	4941.0	4905.1	4666.7	4251.8	3893.5	3732.3	3728.1	3791.5	3868.7	3779.1	3648.2
37.5°	5546.0	5508.8	5222.1	4756.3	4239.4	3952.8	3928.0	3950.0	3983.1	3819.1	3732.3
40°	6151.0	6106.9	5856.1	5320.0	4662.5	4244.9	4180.2	4081.0	4067.2	3950.0	3894.8
42.5°	6750.5	6710.6	6583.8	5952.6	5169.7	4530.2	4431.0	4260.1	4312.5	4242.2	4194.0
45°	7355.6	7358.3	7223.3	6662.3	5781.6	5056.7	4923.0	4655.7	4779.7	4753.5	4781.1
47.5°	7891.7	7884.9	7836.6	7351.4	6541.0	5734.8	5562.5	5252.5	5464.6	5561.1	5772.0
50°	8411.3	8407.2	8409.9	8132.9	7423.2	6541.0	6350.9	6025.6	6503.9	6838.8	7216.4
52.5°	9155.5	9179.0	9012.2	8939.2	8495.4	7493.4	7283.9	6947.7	7731.8	8259.7	8997.1
55°	9902.6	9883.3	9752.3	9828.2	9617.3	8620.8	8401.7	8134.3	9099.0	9676.5	10784.6
57.5°	10342.2	10349.1	10482.8	10853.5	11002.4	10026.6	9828.2	9621.4	10635.8	11045.1	12375.1
60°	10737.8	10769.5	11154.0	11854.1	12258.0	11753.6	11577.1	11375.9	12045.7	12208.4	13756.1
62.5°	10861.9	10959.7	11630.9	12678.3	13481.8	13702.3	13483.2	13039.4	13388.1	13324.7	14691.9
65°	10243.0	10376.7	11579.9	12987.1	14574.8	15551.9	15412.8	14588.6	14532.1	14150.2	14844.9
67.5°	8613.9	8747.6	10292.6	12339.2	15026.8	17153.5	17014.2	15718.7	15226.6	14227.4	13687.2
70°	6302.6	6386.7	7864.2	10389.0	14118.5	17690.9	17739.1	16270.0	14978.5	13178.6	11238.0
72.5°	3631.6	3817.7	4852.7	7308.7	11534.4	16332.0	16666.9	15123.3	13410.2	10994.1	7857.3
75°	1561.6	1565.7	2243.8	4031.3	7811.8	13127.6	13451.5	12536.4	10531.0	7602.3	4195.3
77.5°	742.9	756.6	986.8	1800.0	4300.0	9070.1	9943.9	8856.5	6735.4	3652.3	1584.9
80°	482.4	492.1	603.7	893.1	2108.7	5259.3	5868.5	5109.1	2971.4	1305.1	683.6
82.5°	292.2	294.9	403.8	545.8	1160.5	2381.5	2807.4	2217.5	1268.0	781.5	402.4
85°	177.8	179.1	245.3	337.7	704.3	822.8	844.9	838.0	744.2	511.3	215.0
87.5°	85.4	88.2	126.8	159.9	277.0	255.0	241.2	279.8	351.5	275.7	92.3
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°	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6	2585.6
2.5°	2582.8	2578.7	2569.0	2564.9	2562.1	2563.5	2562.1	2562.1	2563.5	2563.5	2563.5
5°	2595.2	2588.3	2573.1	2573.1	2581.4	2600.7	2618.6	2632.4	2647.6	2646.2	2646.2
7.5°	2649.0	2636.5	2618.6	2624.2	2644.8	2675.1	2706.8	2737.1	2767.5	2770.3	2768.8
10°	2727.5	2715.1	2695.8	2702.7	2735.8	2781.3	2821.2	2865.4	2898.4	2908.1	2905.3
12.5°	2817.1	2792.3	2775.7	2795.1	2847.5	2908.1	2946.6	2979.7	3003.1	3016.9	3011.5
15°	2908.1	2884.6	2865.4	2905.3	2968.7	3025.2	3044.5	3050.1	3054.2	3068.0	3065.2
17.5°	2996.2	2964.6	2957.7	3010.0	3070.7	3095.5	3084.5	3061.1	3043.2	3054.2	3052.7
20°	3074.9	3050.1	3047.3	3099.7	3123.1	3099.7	3052.7	3011.5	2979.7	2982.5	2981.1
22.5°	3149.2	3129.9	3132.7	3154.8	3117.6	3037.6	2960.4	2903.9	2869.5	2876.4	2880.5
25°	3232.0	3212.6	3219.5	3183.7	3061.1	2921.8	2810.2	2761.9	2748.2	2761.9	2771.6
27.5°	3339.4	3327.1	3322.9	3185.1	2960.4	2750.9	2624.2	2606.3	2618.6	2649.0	2664.1
30°	3455.2	3455.2	3433.1	3161.7	2822.6	2545.6	2435.4	2438.1	2480.8	2523.5	2538.7
32.5°	3566.8	3590.3	3521.4	3098.2	2644.8	2345.7	2261.7	2264.4	2301.6	2354.0	2367.8
35°	3659.2	3726.7	3597.2	2982.5	2435.4	2177.6	2114.2	2077.0	2078.4	2118.3	2129.3
37.5°	3786.0	3911.4	3641.3	2810.2	2212.1	2034.3	1962.6	1897.8	1855.1	1838.6	1838.6
40°	4006.5	4191.2	3652.3	2555.2	2001.2	1897.8	1795.9	1718.7	1636.0	1561.6	1547.8
42.5°	4380.0	4613.0	3630.3	2261.7	1811.0	1747.6	1648.4	1553.2	1438.9	1334.2	1325.8
45°	5041.5	5161.5	3571.0	1957.1	1641.5	1602.9	1506.4	1403.0	1281.8	1188.0	1181.1
47.5°	6101.5	5931.9	3492.4	1687.0	1487.1	1476.1	1401.7	1281.8	1160.5	1095.7	1088.8
50°	7649.1	7144.7	3481.4	1491.3	1363.1	1368.6	1307.9	1197.7	1091.5	1037.8	1029.6
52.5°	9512.6	8609.8	3554.5	1353.4	1254.2	1274.9	1244.5	1142.6	1048.8	1003.3	995.1
55°	11320.8	9927.3	3598.6	1245.9	1152.2	1190.8	1194.9	1109.4	1024.0	978.5	973.0
57.5°	12788.6	10919.7	3402.9	1148.0	1064.0	1123.2	1153.6	1090.2	1011.6	977.2	971.7
60°	13809.8	11388.3	2846.0	1061.3	999.2	1069.5	1138.4	1091.5	1041.9	1046.0	1048.8
62.5°	14135.1	11180.2	2134.9	996.4	955.1	1051.6	1163.2	1148.0	1097.1	1128.8	1134.3
65°	13596.2	10320.2	1547.8	945.5	916.5	1064.0	1237.6	1189.4	1077.7	1101.2	1101.2
67.5°	11792.1	8891.0	1204.6	898.6	872.5	1087.4	1312.0	1185.3	1032.3	1059.8	1035.0
70°	9354.0	6877.4	1003.3	846.2	825.5	1052.9	1318.9	1142.6	978.5	984.1	937.2
72.5°	6207.5	4522.0	862.8	796.6	753.9	946.9	1262.4	1087.4	926.2	894.5	847.6
75°	3041.7	2254.8	752.5	734.6	660.2	824.2	1185.3	1035.0	869.7	820.1	793.8
77.5°	1178.4	959.2	642.3	656.1	574.7	726.3	1083.3	960.6	795.2	727.7	707.0
80°	572.0	544.4	526.5	547.2	472.7	618.8	989.6	895.8	726.3	651.9	621.6
82.5°	355.6	336.3	403.8	425.9	363.8	565.1	938.6	840.7	639.5	540.3	515.4
85°	180.6	192.9	270.1	290.8	260.5	449.3	773.2	631.3	461.7	383.2	385.9
87.5°	68.9	92.3	142.0	153.0	139.2	237.1	425.9	368.0	296.3	201.3	186.0
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)