

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: P302924

Luminaire Tested: **GLNA-AF-08-LED-E1-T4W-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302924
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
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-T4W-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27021.4 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

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

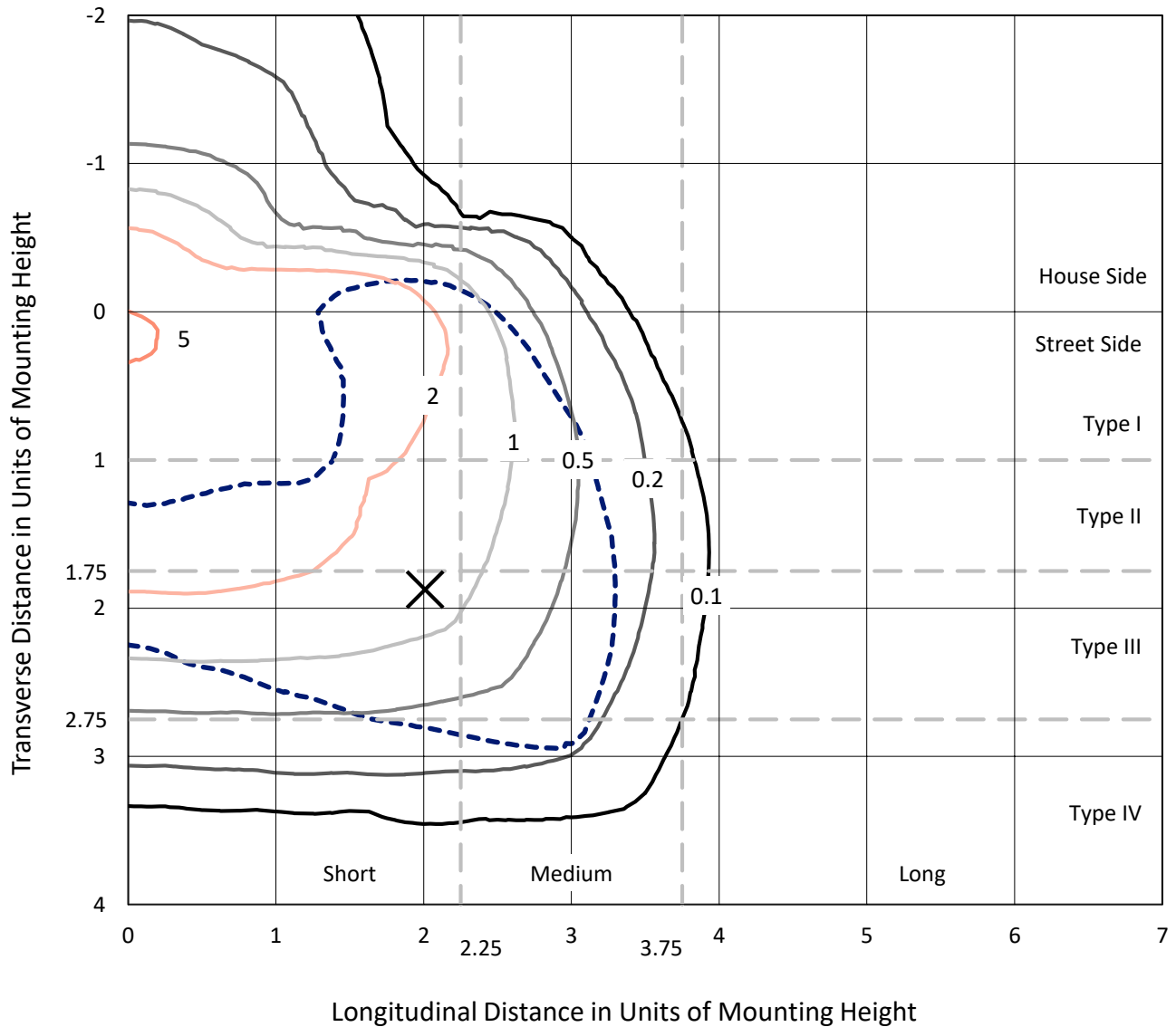


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Iso-Footcandle Lines of Horizontal Illumination

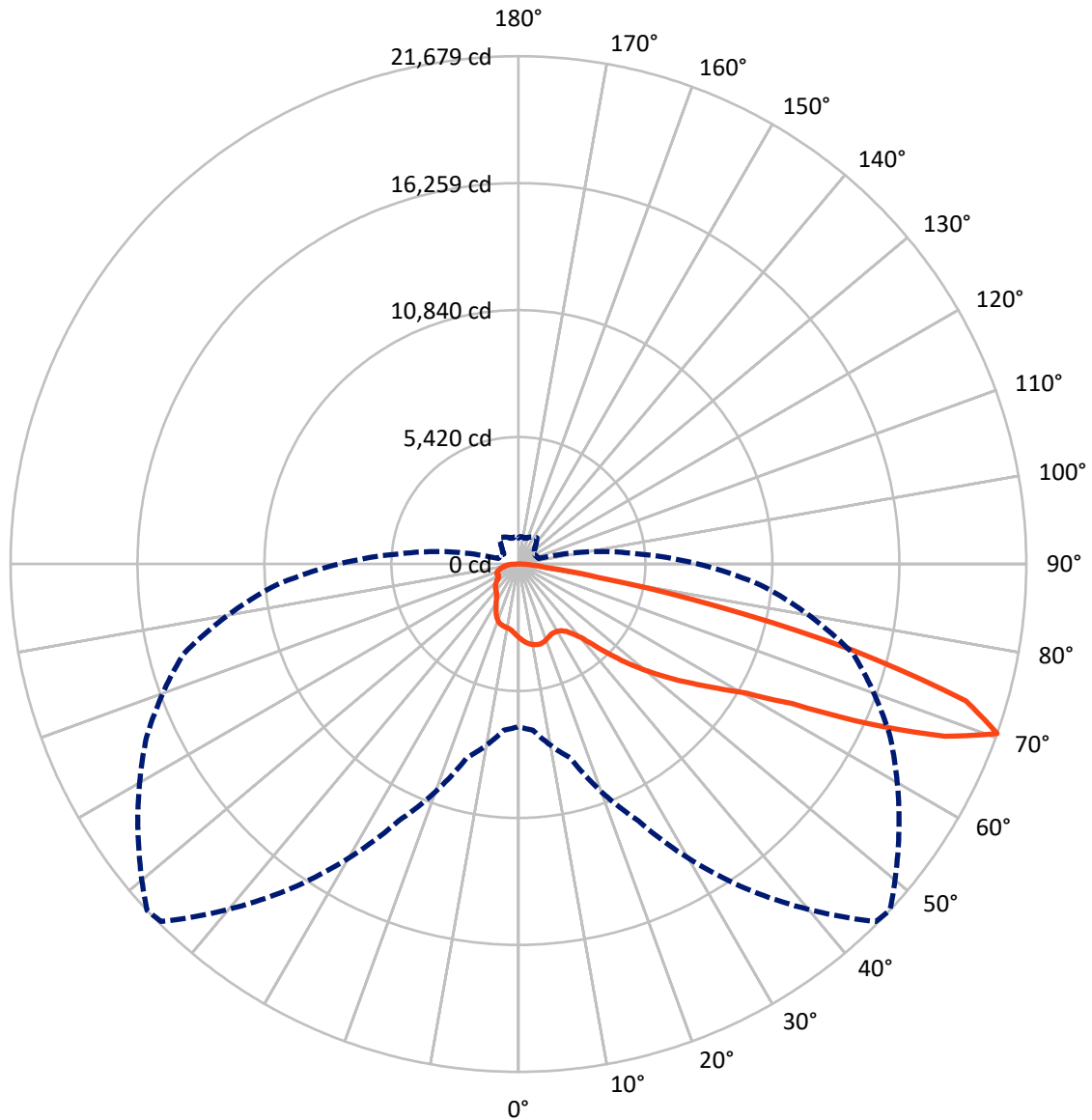
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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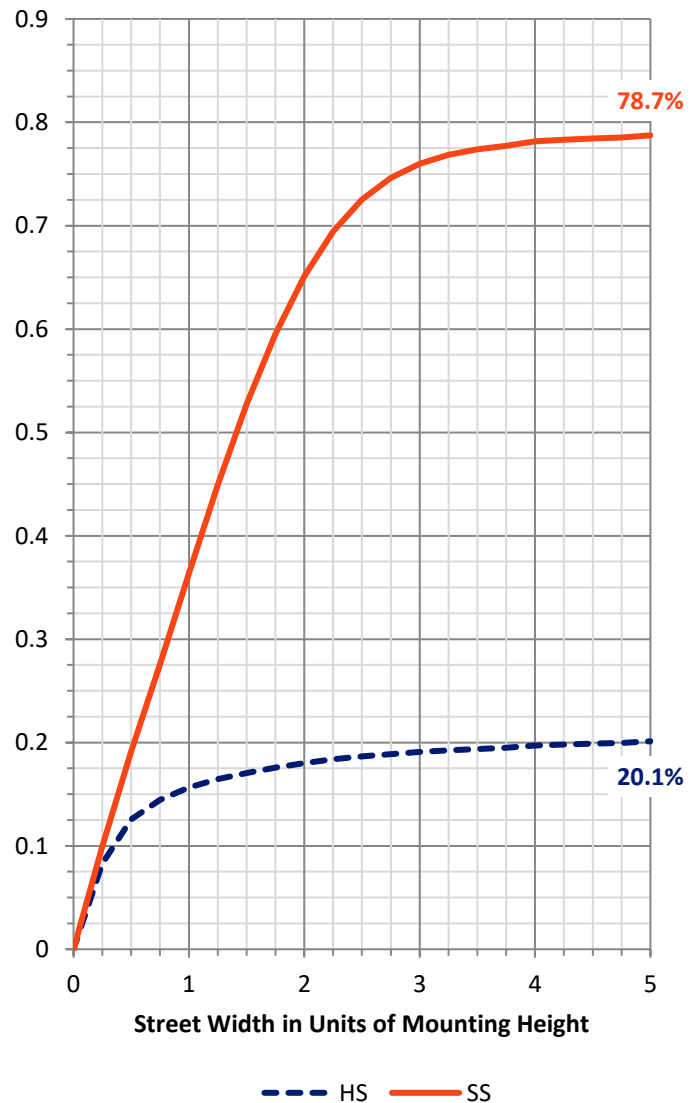
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5637.2	0.0	5637.2
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	21384.2	0.0	21384.2
	% Fixture	79.1	0.0	79.1
Total	Lumens	27021.4	0.0	27021.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.4	1.1
10°-20°	881.3	3.3
20°-30°	1301.5	4.8
30°-40°	1891.7	7.0
40°-50°	3404.4	12.6
50°-60°	5897.8	21.8
60°-70°	8417.9	31.2
70°-80°	4321.3	16.0
80°-90°	605.0	2.2
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°	27021.4	100.0
0°-180°	27021.4	100.0



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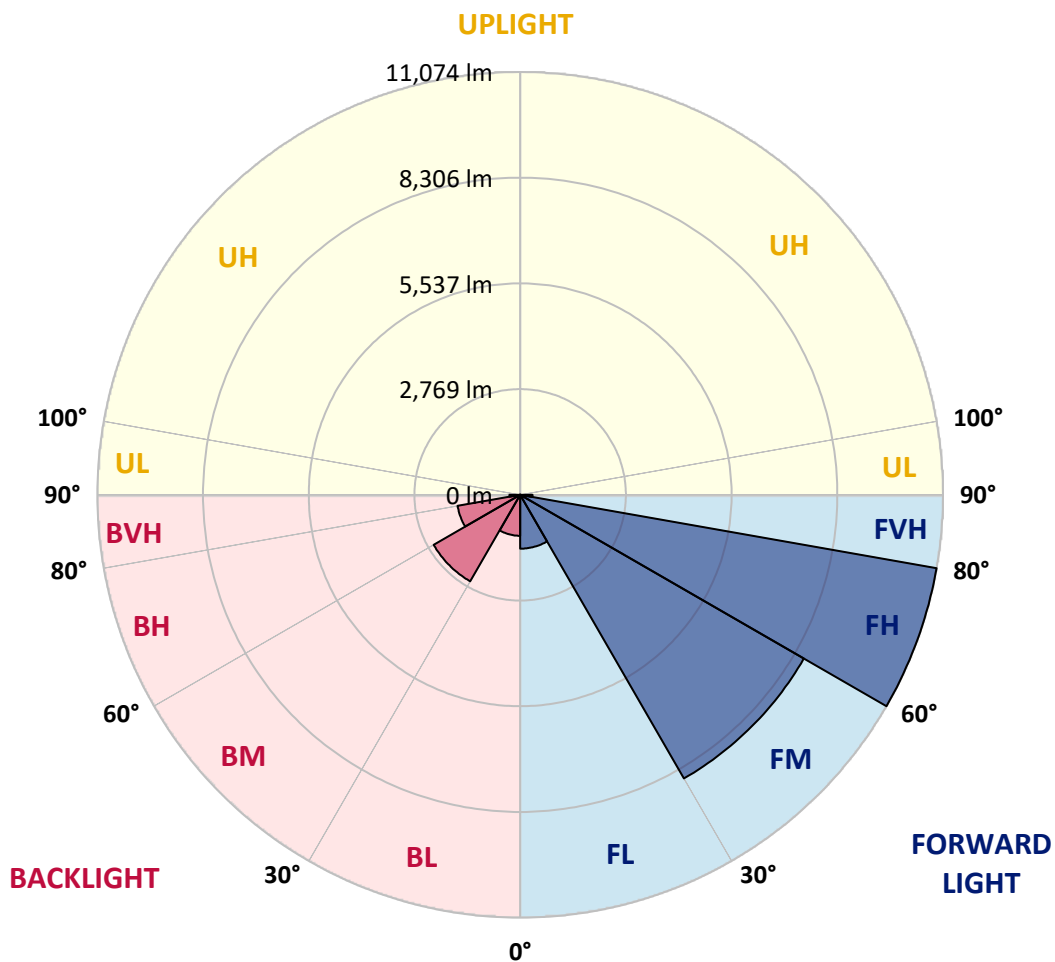
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1409.9	5.2			
FM	(30°-60°)	8577.3	31.7			
FH	(60°-80°)	11074.1	41.0			G4/12000
FVH	(80°-90°)	322.8	1.2			G3/500
BL	(0°-30°)	1073.3	4.0	B3/2500		
BM	(30°-60°)	2616.6	9.7	B3/5000		
BH	(60°-80°)	1665.1	6.2	B3/2500		G3/2500
BVH	(80°-90°)	282.2	1.0			G3/500
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°	55°	65°	75°	85°
0°	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2
2.5°	3319.5	3312.9	3310.3	3305.1	3298.5	3265.4	3258.8	3235.2	3202.5	3168.0	3132.6
5°	3537.8	3536.5	3521.6	3495.4	3453.5	3381.1	3364.0	3306.4	3228.7	3153.6	3078.9
7.5°	3729.5	3717.7	3690.2	3637.3	3564.0	3465.3	3441.7	3361.4	3254.9	3152.3	3051.0
10°	3870.1	3863.5	3803.3	3730.8	3634.7	3525.6	3498.1	3408.6	3291.6	3161.4	3035.3
12.5°	3950.4	3937.3	3867.4	3781.0	3666.6	3560.1	3532.1	3441.7	3310.3	3161.4	3013.0
15°	3945.1	3936.0	3866.1	3771.4	3656.1	3562.7	3537.8	3447.0	3306.4	3148.3	2984.2
17.5°	3839.9	3843.9	3784.9	3691.5	3596.7	3525.6	3503.3	3419.5	3279.8	3122.2	2950.1
20°	3656.1	3674.5	3634.7	3552.2	3499.4	3450.9	3436.5	3365.3	3239.2	3084.2	2913.0
22.5°	3471.9	3488.9	3473.2	3403.3	3395.5	3366.6	3358.8	3307.7	3203.8	3060.6	2890.8
25°	3336.5	3352.2	3349.6	3288.9	3312.9	3311.6	3305.1	3279.8	3195.9	3060.6	2894.7
27.5°	3299.8	3305.1	3299.8	3244.4	3277.1	3303.8	3298.5	3294.2	3219.5	3098.6	2944.9
30°	3426.0	3418.2	3377.1	3265.4	3295.9	3332.6	3327.4	3330.0	3290.2	3198.6	3056.7
32.5°	3929.4	3893.6	3764.8	3450.9	3370.6	3390.2	3392.8	3436.5	3443.1	3352.2	3230.0
35°	4682.6	4643.3	4476.1	3947.8	3603.3	3535.2	3535.2	3600.7	3640.0	3573.2	3499.4
37.5°	5480.7	5437.0	5348.0	4636.7	4092.3	3786.2	3779.7	3825.5	3881.8	3898.0	3916.3
40°	6387.5	6341.7	6366.6	5409.5	4774.7	4221.1	4127.6	4094.9	4247.3	4348.6	4496.1
42.5°	7380.3	7359.0	7368.1	6270.5	5551.4	4872.1	4739.3	4569.5	4753.7	4933.6	5242.7
45°	8299.0	8317.3	8308.1	7192.2	6416.8	5665.8	5525.2	5196.5	5376.8	5685.4	6189.3
47.5°	9103.6	9027.2	9145.5	8199.0	7385.6	6554.7	6381.0	5940.9	6123.4	6504.5	7356.3
50°	10080.3	10069.8	9896.5	9542.8	8556.6	7447.1	7219.7	6709.7	6993.5	7523.6	8827.7
52.5°	11107.2	10916.4	10757.5	10587.6	9799.1	8362.3	8083.3	7476.0	8016.5	8682.7	10620.8
55°	11317.2	11232.1	11429.0	11714.5	10996.7	9312.8	8987.9	8436.9	9168.2	10008.3	12688.6
57.5°	11766.9	11765.6	12173.4	12682.0	12229.7	10320.9	9993.4	9597.9	10462.8	11526.3	14883.8
60°	12070.8	12155.9	12913.4	13900.6	13440.4	11485.7	11184.5	10937.4	11935.4	13223.4	16929.3
62.5°	12229.7	12345.4	13378.8	14394.8	15151.9	13424.7	13123.9	12767.6	13883.6	15085.1	18125.6
65°	11568.7	11795.7	13306.4	14822.2	16650.7	16567.8	16432.4	15806.8	16319.4	16556.0	17693.4
67.5°	9738.4	9971.1	11730.2	14423.6	17720.9	19599.6	19628.4	18559.6	17818.2	16682.2	14876.0
70°	6938.5	7121.0	8576.6	12093.0	16905.7	21580.4	21679.1	19827.9	17519.6	14794.3	10393.3
72.5°	3294.2	3405.9	4783.9	7870.6	13415.5	19772.9	19963.7	18208.5	14896.9	10953.1	5669.7
75°	1210.7	1244.8	1616.7	3348.3	7781.1	14581.7	14806.5	13052.7	9875.1	5453.2	2159.9
77.5°	725.6	747.9	907.3	1413.3	3060.6	8334.8	8667.0	7098.7	4315.8	2029.8	1062.3
80°	507.3	523.1	650.5	879.3	1446.0	3176.3	3471.9	2897.3	1719.3	1284.5	772.8
82.5°	343.2	351.0	457.6	594.2	961.0	1134.3	1223.8	1288.4	1159.6	955.7	490.3
85°	224.9	232.7	310.4	391.6	611.2	586.4	599.5	758.4	846.6	649.2	272.0
87.5°	128.8	134.0	186.9	209.1	299.9	248.4	251.0	399.5	541.8	437.9	165.5
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°	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2	3135.2
2.5°	3123.5	3106.4	3068.4	3044.4	3022.2	3016.9	3007.8	3006.5	3005.1	3005.1	3001.2
5°	3053.6	3024.8	2965.8	2932.7	2905.2	2902.5	2901.2	2907.8	2910.4	2913.0	2909.1
7.5°	3009.1	2969.8	2896.0	2848.8	2816.1	2807.8	2821.3	2851.5	2871.1	2879.0	2875.0
10°	2981.6	2932.7	2847.5	2796.0	2768.5	2764.6	2781.6	2817.4	2858.0	2873.7	2872.4
12.5°	2950.1	2894.7	2803.9	2750.2	2734.4	2742.3	2764.6	2797.3	2839.7	2864.6	2865.9
15°	2918.3	2854.1	2760.6	2713.5	2706.9	2717.4	2738.4	2763.3	2796.0	2821.3	2824.0
17.5°	2880.3	2813.0	2720.0	2671.1	2665.9	2671.1	2672.4	2685.5	2706.9	2730.5	2737.1
20°	2839.7	2771.1	2673.8	2625.3	2601.7	2580.8	2556.7	2559.4	2565.9	2589.9	2595.2
22.5°	2810.4	2742.3	2638.4	2571.2	2508.3	2445.0	2397.8	2391.3	2393.9	2413.5	2420.1
25°	2813.0	2741.0	2629.2	2513.5	2375.6	2274.3	2211.0	2200.5	2199.2	2213.6	2223.2
27.5°	2864.6	2792.1	2663.3	2454.1	2231.0	2080.9	2014.1	2006.2	1995.7	1999.6	2010.1
30°	2978.9	2911.7	2746.2	2393.9	2074.3	1891.8	1821.9	1814.1	1799.7	1793.1	1801.0
32.5°	3165.4	3110.4	2867.2	2335.8	1918.0	1729.8	1659.1	1642.1	1632.9	1625.0	1631.6
35°	3475.8	3452.2	3028.7	2273.0	1780.0	1605.0	1540.8	1514.6	1501.5	1515.9	1526.4
37.5°	3962.2	3975.3	3240.5	2174.3	1673.5	1522.4	1468.3	1438.2	1418.5	1430.3	1442.1
40°	4651.1	4660.3	3474.5	2035.0	1581.4	1473.5	1415.9	1388.4	1360.5	1339.5	1338.2
42.5°	5555.3	5462.3	3704.6	1883.9	1474.8	1443.4	1379.2	1344.7	1302.8	1244.8	1233.0
45°	6628.1	6301.1	3879.2	1710.2	1355.2	1406.7	1338.2	1291.0	1225.1	1162.2	1155.7
47.5°	7864.1	7201.3	3964.8	1530.3	1243.4	1352.6	1288.4	1213.3	1130.4	1098.9	1095.0
50°	9373.0	8270.1	4005.4	1355.2	1146.5	1281.9	1215.9	1127.7	1058.3	1051.8	1047.8
52.5°	11091.5	9555.9	4018.9	1212.0	1066.2	1189.7	1157.0	1071.4	1016.0	1021.7	1021.7
55°	12889.8	10883.7	3839.9	1108.1	992.4	1095.0	1117.3	1049.2	1002.9	1024.3	1032.1
57.5°	14540.6	12060.3	3277.1	1028.2	923.0	1023.0	1102.9	1070.1	1038.7	1123.8	1129.1
60°	15808.1	12755.4	2447.6	955.7	871.5	997.6	1141.3	1150.5	1158.3	1361.8	1389.7
62.5°	16073.6	12524.4	1682.7	899.4	847.9	1019.0	1210.7	1212.0	1202.8	1344.7	1361.8
65°	14855.0	11060.9	1223.8	867.5	828.2	1057.0	1270.1	1242.1	1181.9	1289.7	1257.9
67.5°	11797.0	8333.4	1019.0	844.0	799.4	1054.4	1333.0	1270.1	1170.1	1263.5	1212.0
70°	7657.6	5038.8	907.3	824.3	764.9	1004.2	1369.6	1267.5	1135.6	1175.3	1114.6
72.5°	3736.0	2253.3	832.2	795.5	729.6	934.8	1368.3	1243.4	1100.2	1097.6	1064.9
75°	1461.7	1032.1	763.6	751.8	669.3	855.7	1331.6	1209.4	1058.3	1016.0	1004.2
77.5°	855.7	736.1	677.2	687.7	596.8	776.7	1277.9	1150.5	1000.3	950.5	937.4
80°	623.0	551.0	577.2	594.2	510.0	698.1	1205.5	1078.0	936.1	961.0	942.6
82.5°	399.5	355.0	468.0	485.1	424.8	617.8	1126.4	1001.6	845.3	767.5	749.2
85°	203.9	224.9	348.4	369.4	327.5	507.3	1030.8	900.7	742.7	638.8	649.2
87.5°	114.4	153.7	222.2	248.4	231.4	390.3	836.1	742.7	606.0	492.9	434.0
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)