

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: P591262

Luminaire Tested: **CTN-CA8-230-727-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591262
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-727-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19254 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

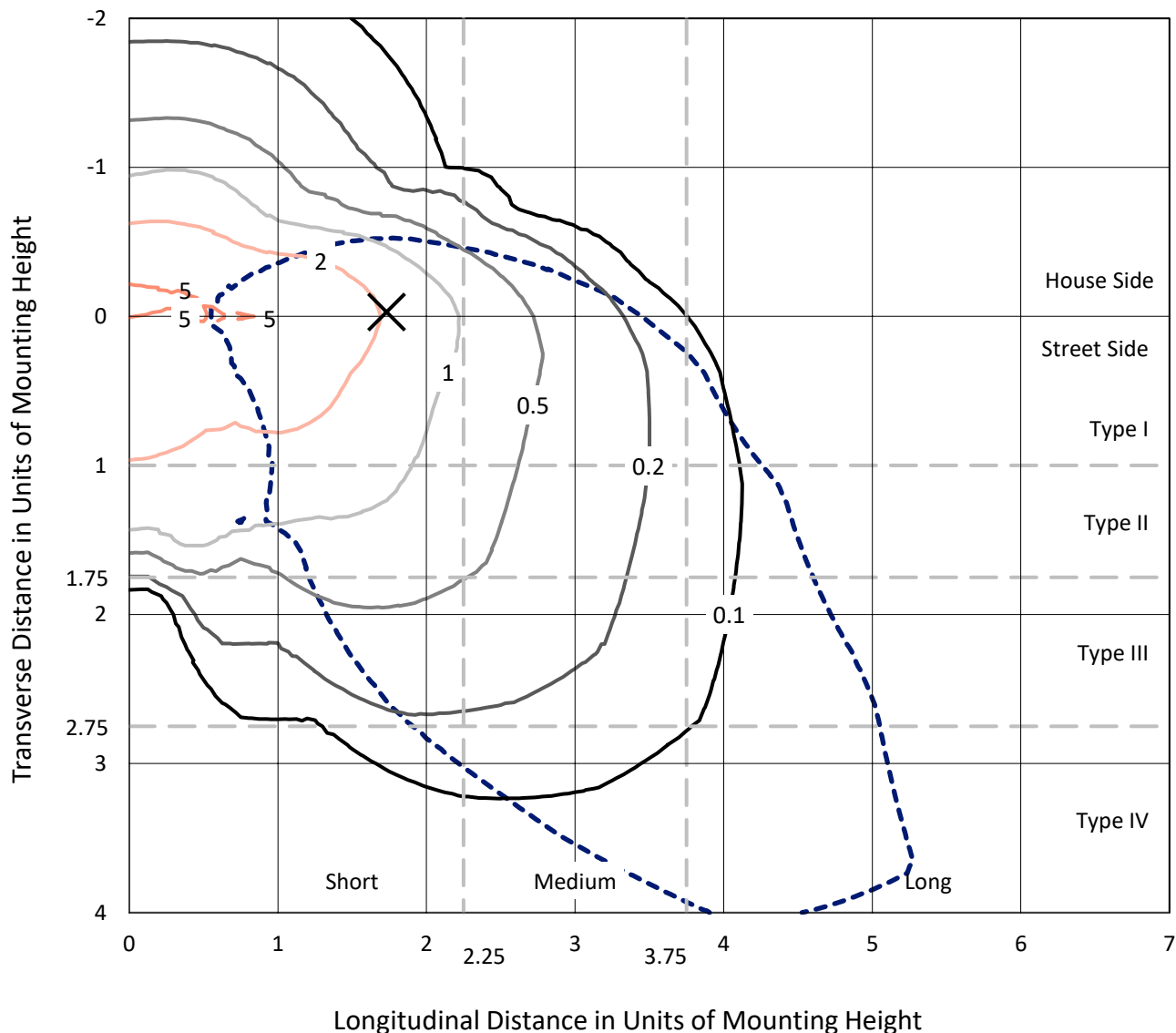
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

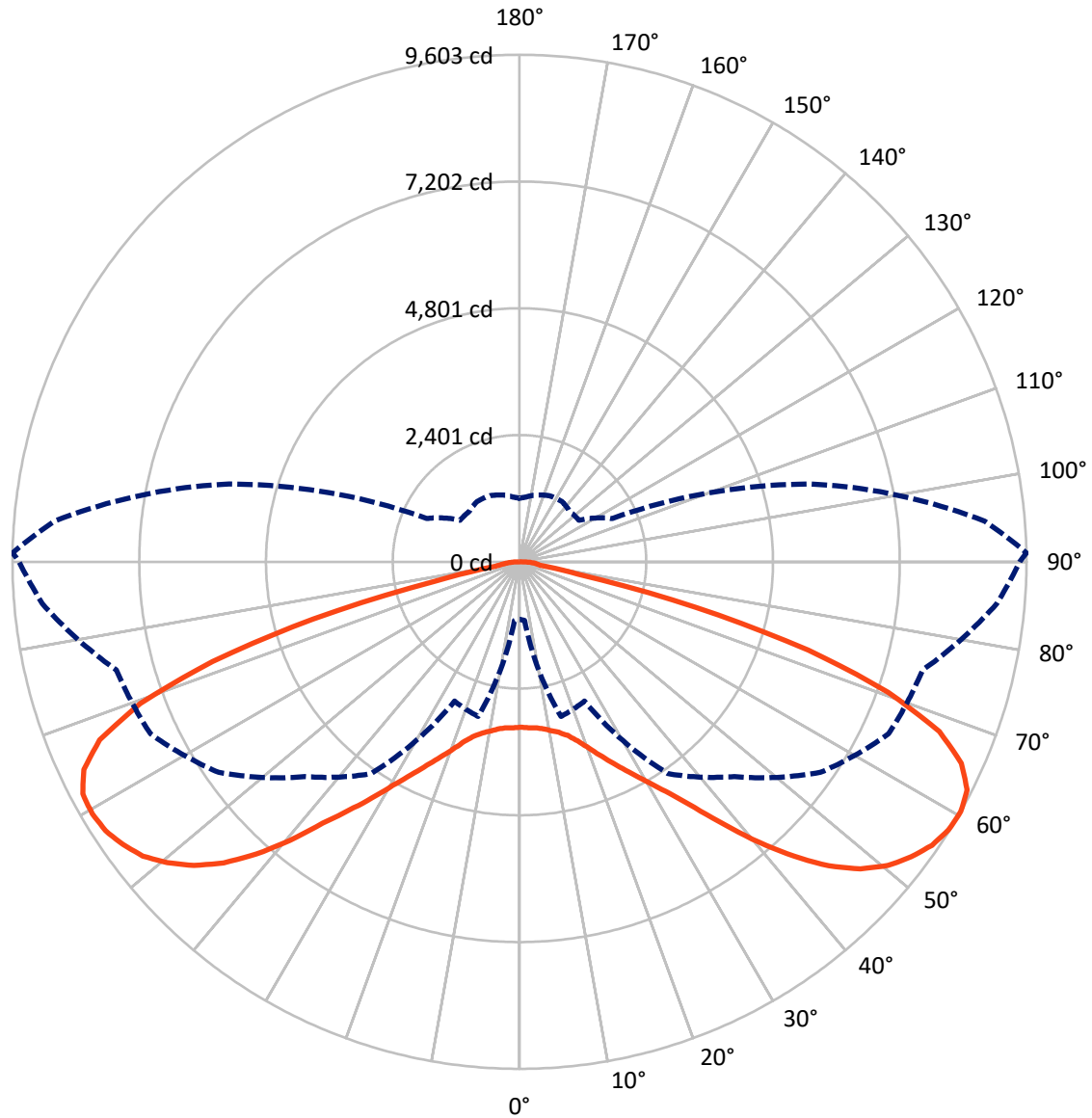
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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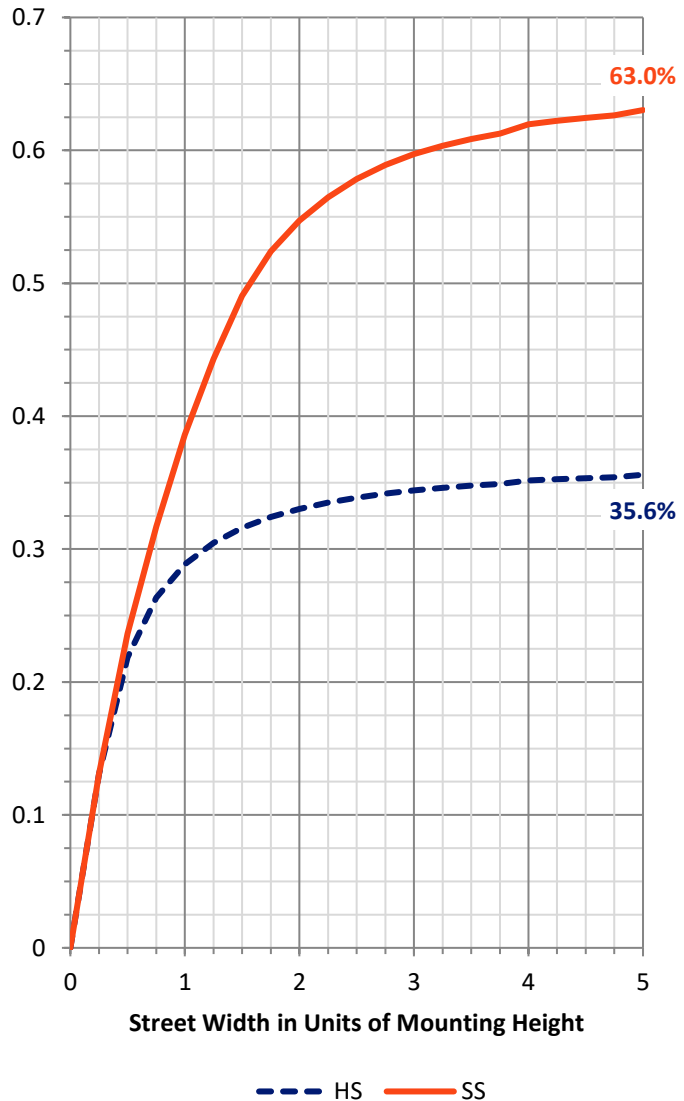
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6992.3	0.0	6992.3
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	12261.7	0.0	12261.7
	% Fixture	63.7	0.0	63.7
Total	Lumens	19254.0	0.0	19254.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.3	1.6
10°-20°	936.4	4.9
20°-30°	1534.9	8.0
30°-40°	2167.8	11.3
40°-50°	3051.6	15.8
50°-60°	3839.8	19.9
60°-70°	3865.0	20.1
70°-80°	2843.4	14.8
80°-90°	709.8	3.7
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°	19254.0	100.0
0°-180°	19254.0	100.0

Coefficient of Utilization

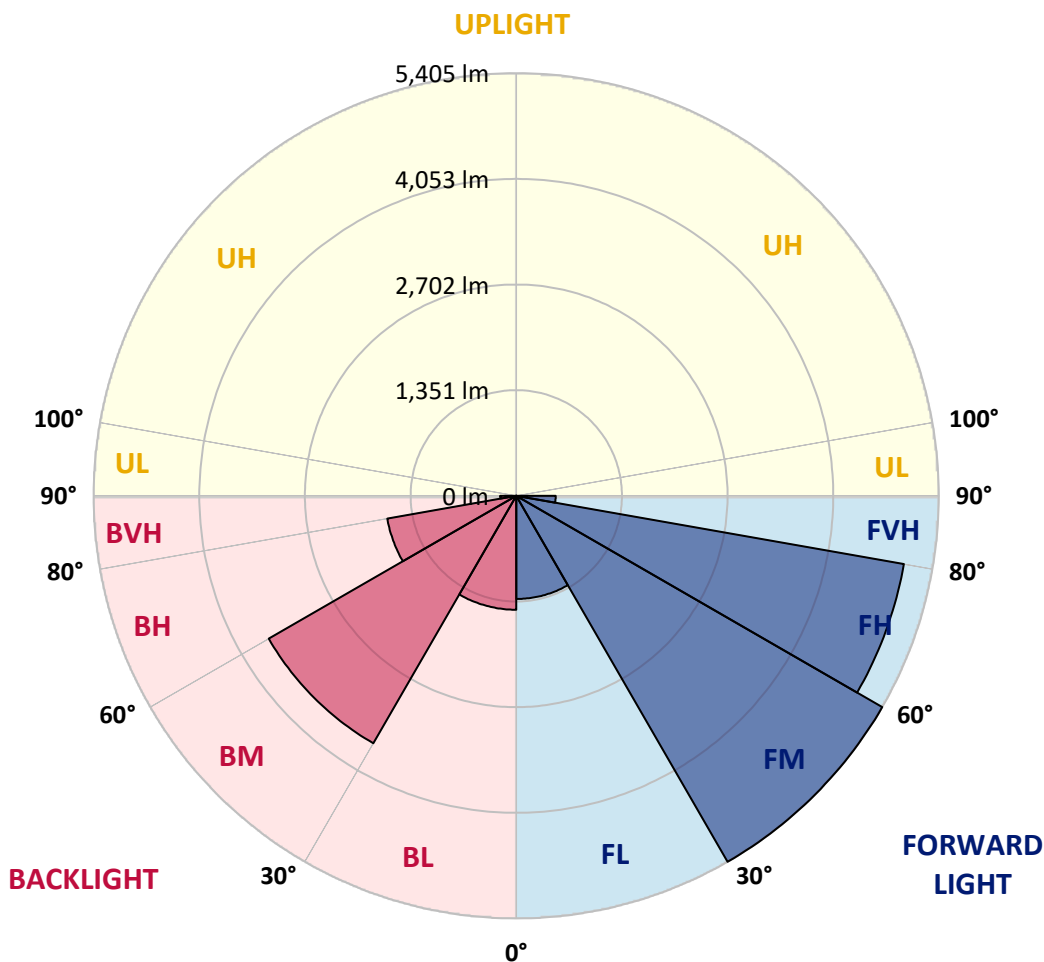


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1319.1	6.9			
FM	(30°-60°)	5404.6	28.1			
FH	(60°-80°)	5033.8	26.1			G3/7500
FVH	(80°-90°)	504.2	2.6			G4/750
BL	(0°-30°)	1457.5	7.6	B3/2500		
BM	(30°-60°)	3654.6	19.0	B3/5000		
BH	(60°-80°)	1674.7	8.7	B3/2500		G3/2500
BVH	(80°-90°)	205.7	1.1			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°	55°	65°	75°	85°	90°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	3100.5	3080.8	3081.7	3110.8	3066.7	3094.8	3088.3	3133.3	3124.9	3140.8	3144.6
5°	3078.9	3062.9	3062.9	3097.6	3067.6	3092.0	3071.4	3110.8	3124.9	3148.3	3153.0
7.5°	3087.3	3070.4	3077.0	3107.0	3073.3	3098.6	3096.7	3131.4	3139.9	3179.3	3184.9
10°	3102.3	3087.3	3089.2	3114.5	3092.0	3138.9	3130.5	3180.2	3179.3	3241.2	3245.9
12.5°	3076.1	3064.8	3064.8	3098.6	3111.7	3161.4	3178.3	3229.9	3235.6	3305.0	3310.6
15°	3034.8	3016.0	3044.2	3094.8	3122.0	3199.9	3229.0	3310.6	3325.6	3391.3	3405.3
17.5°	2948.5	2956.9	3035.7	3000.1	2876.3	2991.6	3311.5	3415.7	3448.5	3526.4	3560.1
20°	2681.1	2577.0	2370.6	2426.9	2682.1	3011.3	3426.9	3548.9	3621.1	3713.1	3770.3
22.5°	2025.4	2091.1	2476.6	2517.0	2528.2	2747.7	3588.3	3712.1	3807.8	3924.1	4000.1
25°	2100.4	2093.9	2226.1	2639.8	2651.1	2776.8	3378.1	3925.1	4011.4	4172.7	4248.7
27.5°	2169.9	2169.9	2162.3	2492.6	2778.7	2902.5	3487.9	3768.4	4278.7	4454.2	4543.3
30°	2285.2	2289.0	2246.8	2245.8	2883.8	3017.9	3699.9	3838.8	4515.1	4847.2	4867.9
32.5°	2514.1	2501.0	2448.5	2367.8	2494.4	3152.1	3907.2	4093.0	4287.2	5289.1	5270.3
35°	2679.3	2668.9	2631.4	2575.1	2517.0	3213.0	4101.4	4359.4	4677.4	5419.5	5779.7
37.5°	2879.1	2862.2	2820.0	2753.4	2715.8	2774.0	4301.2	4660.5	5165.2	5574.3	6354.8
40°	3097.6	3093.0	3028.2	2941.9	2890.3	2933.5	4454.2	5035.8	5770.3	6231.9	6988.9
42.5°	3265.6	3261.8	3208.3	3158.6	3134.2	3221.5	4074.2	5533.0	6462.7	6829.5	7599.7
45°	3416.6	3411.0	3409.1	3392.2	3411.9	3623.9	4490.7	5839.8	7142.8	7343.5	8155.0
47.5°	3531.1	3514.2	3466.3	3471.0	3526.4	3883.8	4924.2	5377.3	7694.4	7796.7	8588.4
50°	3803.1	3786.2	3621.1	3626.7	3733.7	4206.5	5297.5	5912.9	7181.3	8188.8	8920.5
52.5°	4046.1	3906.3	3816.2	3820.0	3966.3	4549.8	5721.5	6467.3	7059.3	8499.3	9188.8
55°	3494.5	3404.4	4280.6	4158.7	4239.3	4924.2	6133.4	6947.7	7394.2	8736.6	9342.7
57.5°	2050.7	2039.5	4711.2	4817.2	4723.4	5328.5	6549.9	7347.3	7687.8	8958.0	9445.9
60°	1088.2	1114.5	3030.1	2911.9	4896.0	5750.6	6953.3	7710.3	7905.5	9072.5	9474.0
62.5°	100.4	89.1	1991.6	2262.7	4388.5	6302.2	7431.7	8080.0	8052.8	9133.5	9424.3
65°	19.7	26.3	1954.1	2235.5	4876.3	7216.9	8213.2	8364.2	8132.5	9060.3	9163.5
67.5°	15.0	22.5	1846.2	2211.1	5175.6	7568.7	9112.8	8464.6	8137.2	8826.7	8589.4
70°	15.0	23.5	1629.5	2066.7	5317.2	7583.7	9325.8	8425.2	8032.1	8297.6	7507.7
72.5°	15.0	23.5	1368.7	1790.9	5076.1	7258.2	8952.4	8206.6	7640.9	7144.7	5855.7
75°	15.0	21.6	1074.1	1455.0	4387.6	6756.3	8311.7	7255.4	6431.7	5228.1	3757.1
77.5°	15.0	20.6	791.8	1138.9	3661.5	5958.9	7228.2	5963.6	4848.2	2737.4	1382.8
80°	14.1	20.6	482.2	803.0	2820.9	4806.9	5680.3	4406.3	2547.9	688.6	399.6
82.5°	14.1	19.7	229.8	514.1	1982.2	3434.4	3706.5	1887.5	542.2	318.0	318.0
85°	12.2	17.8	122.9	279.6	1295.5	2251.5	1788.0	319.9	212.0	214.8	244.8
87.5°	7.5	9.4	58.2	125.7	746.7	1203.6	688.6	117.3	88.2	92.9	138.8
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	3147.4	3142.7	3153.0	3185.8	3180.2	3203.7	3184.9	3217.7	3224.3	3214.9	3229.9
5°	3157.7	3164.3	3199.0	3229.9	3213.0	3250.6	3260.9	3306.8	3305.9	3297.5	3316.2
7.5°	3191.5	3209.3	3244.0	3282.5	3290.9	3320.9	3317.2	3375.3	3368.8	3365.0	3383.8
10°	3249.6	3276.8	3309.7	3373.5	3352.8	3403.5	3368.8	3408.2	3404.4	3395.0	3411.9
12.5°	3314.4	3351.9	3391.3	3449.4	3441.0	3440.1	3409.1	3421.3	3411.0	3388.5	3402.5
15°	3411.9	3457.9	3512.3	3549.8	3500.1	3481.3	3432.6	3406.3	3370.6	3318.1	3326.5
17.5°	3563.9	3618.3	3676.5	3683.0	3606.1	3557.3	3439.1	3345.3	3252.4	3182.1	3188.6
20°	3768.4	3818.1	3861.3	3830.3	3726.2	3617.4	3439.1	3290.9	3117.3	2987.9	2978.5
22.5°	4007.6	4022.6	4063.9	3987.9	3808.7	3656.8	3429.7	3209.3	2926.9	2754.3	2733.7
25°	4265.6	4263.7	4245.9	4088.3	3860.3	3635.2	3358.4	3069.5	2709.3	2529.2	2514.1
27.5°	4546.1	4522.6	4400.7	4172.7	3838.8	3557.3	3223.4	2834.0	2511.3	2356.5	2351.8
30°	4862.2	4800.3	4553.6	4181.2	3758.1	3403.5	3003.8	2596.7	2335.0	2197.1	2183.9
32.5°	5230.9	5109.9	4675.6	4154.0	3612.7	3168.9	2736.5	2410.0	2190.5	2039.5	2010.4
35°	5712.2	5500.2	4788.1	4064.8	3396.9	2890.3	2489.8	2244.0	2056.3	1901.6	1870.6
37.5°	6317.3	6005.8	4957.9	3934.4	3150.2	2641.7	2319.0	2134.2	1963.5	1780.5	1743.0
40°	6988.9	6600.6	5156.8	3807.8	2915.7	2456.9	2207.4	2082.6	1903.4	1702.7	1667.0
42.5°	7625.0	7199.1	5455.1	3643.6	2692.4	2308.7	2167.0	2067.6	1875.3	1668.9	1630.4
45°	8212.2	7725.4	5762.8	3478.5	2465.4	2187.7	2133.3	2023.5	1832.1	1629.5	1585.4
47.5°	8691.6	8140.0	6034.9	3307.8	2265.5	2092.9	2068.5	1939.1	1756.1	1565.7	1524.4
50°	9039.7	8458.0	6194.4	3149.2	2073.2	1998.2	1955.0	1819.0	1649.2	1490.7	1460.6
52.5°	9286.4	8732.9	6274.1	3131.4	1898.7	1870.6	1822.8	1695.2	1559.1	1436.3	1400.6
55°	9476.8	8883.0	6205.6	3027.3	1733.6	1710.2	1660.5	1581.7	1500.0	1385.6	1362.1
57.5°	9580.0	8951.5	6049.0	2553.5	1558.2	1517.9	1511.3	1494.4	1423.1	1309.6	1291.8
60°	9602.5	8842.7	5694.3	1941.9	1374.3	1348.1	1397.8	1376.2	1312.4	1228.0	1202.7
62.5°	9514.3	8610.0	5021.7	1452.2	1221.4	1264.6	1315.2	1282.4	1208.3	1125.7	1109.8
65°	9196.3	8076.2	4047.0	1130.4	1151.1	1225.2	1270.2	1230.8	1140.7	1046.9	1036.6
67.5°	8574.4	7245.0	2664.2	1016.9	1118.2	1192.3	1243.0	1180.1	1089.1	987.8	975.6
70°	7408.3	5727.2	1269.3	948.4	1055.4	1128.5	1168.9	1097.6	1009.4	910.0	896.8
72.5°	5721.5	3892.2	700.8	873.4	977.5	1045.1	1074.1	989.7	908.1	866.8	863.1
75°	3443.8	1672.7	633.2	799.3	877.1	940.0	991.6	927.8	856.5	775.8	755.2
77.5°	1137.0	485.9	595.7	711.1	799.3	875.3	899.7	837.7	748.6	680.1	674.5
80°	398.7	407.1	555.4	591.9	696.1	759.9	787.1	715.8	673.6	602.3	588.2
82.5°	324.6	364.9	448.4	446.5	549.7	624.8	666.1	648.2	592.9	535.7	530.0
85°	265.5	334.0	284.2	312.4	394.0	475.6	554.4	556.3	514.1	455.9	417.5
87.5°	157.6	170.7	141.7	159.5	208.3	267.4	309.6	295.5	242.0	204.5	199.8
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)