

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: P591184

Luminaire Tested: **CTN-CA8-480-722-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591184
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-722-U-T2-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42085 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

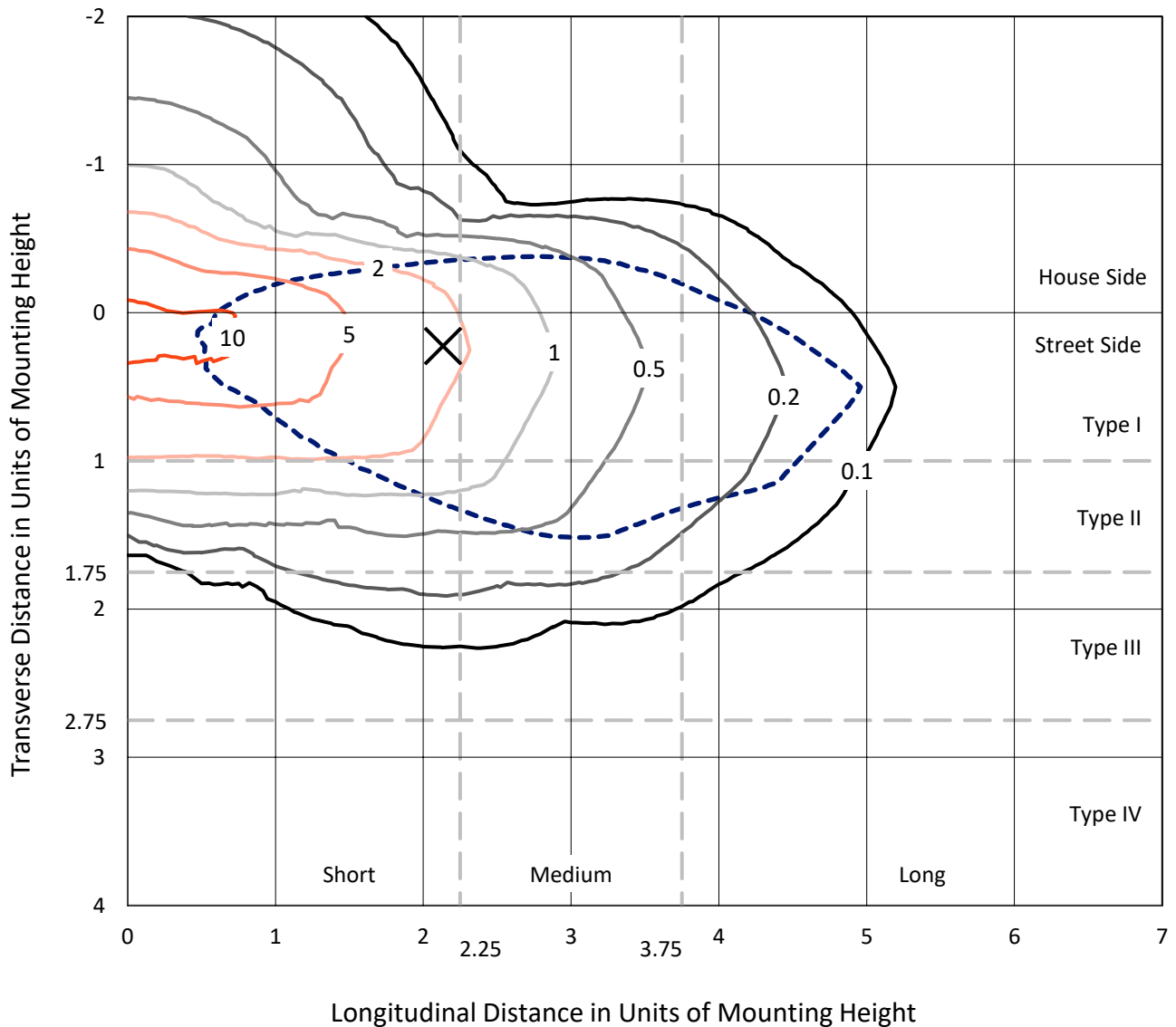
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

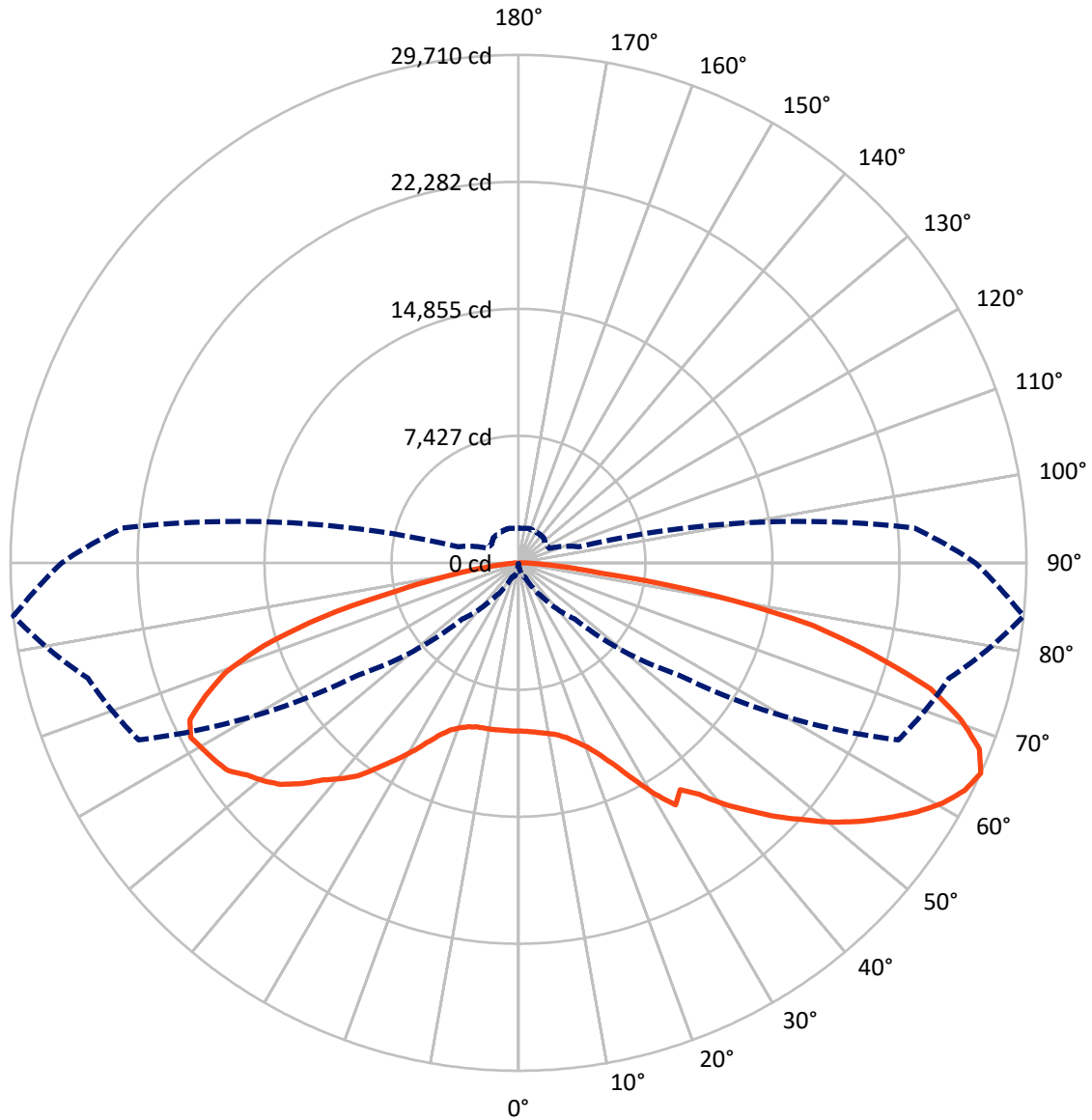
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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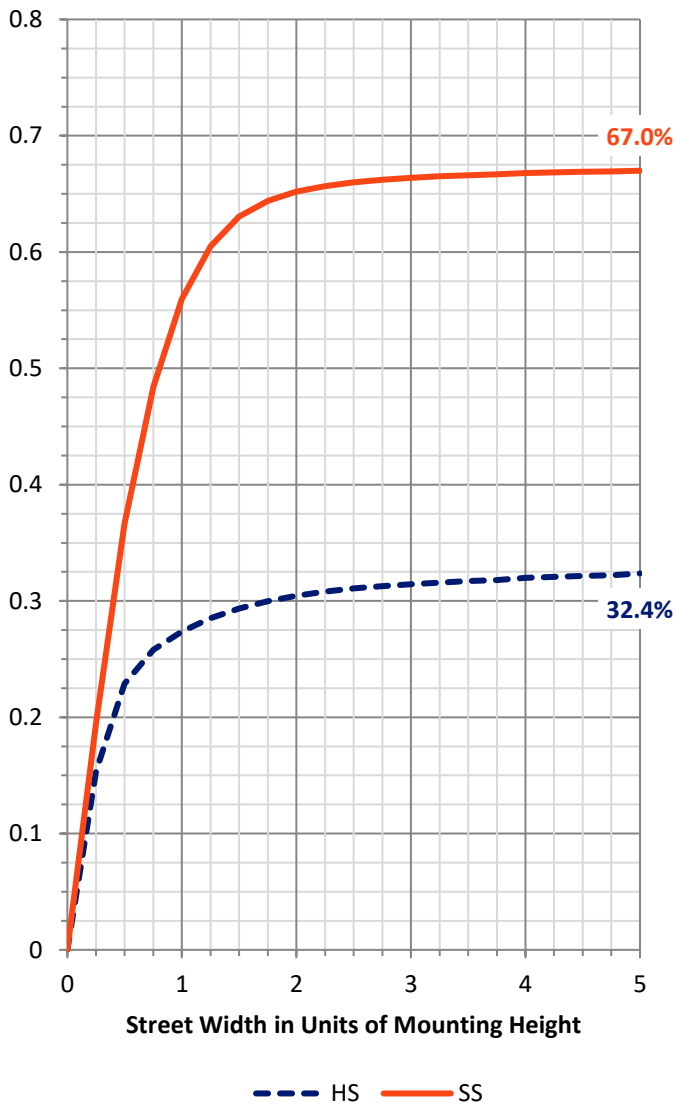
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13932.2	0.0	13932.2
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	28152.8	0.0	28152.8
	% Fixture	66.9	0.0	66.9
Total	Lumens	42085.0	0.0	42085.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	949.8	2.3
10°-20°	2827.0	6.7
20°-30°	4247.5	10.1
30°-40°	5648.4	13.4
40°-50°	6974.0	16.6
50°-60°	7836.9	18.6
60°-70°	7686.3	18.3
70°-80°	4997.9	11.9
80°-90°	917.2	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°	42085.0	100.0
0°-180°	42085.0	100.0

Coefficient of Utilization

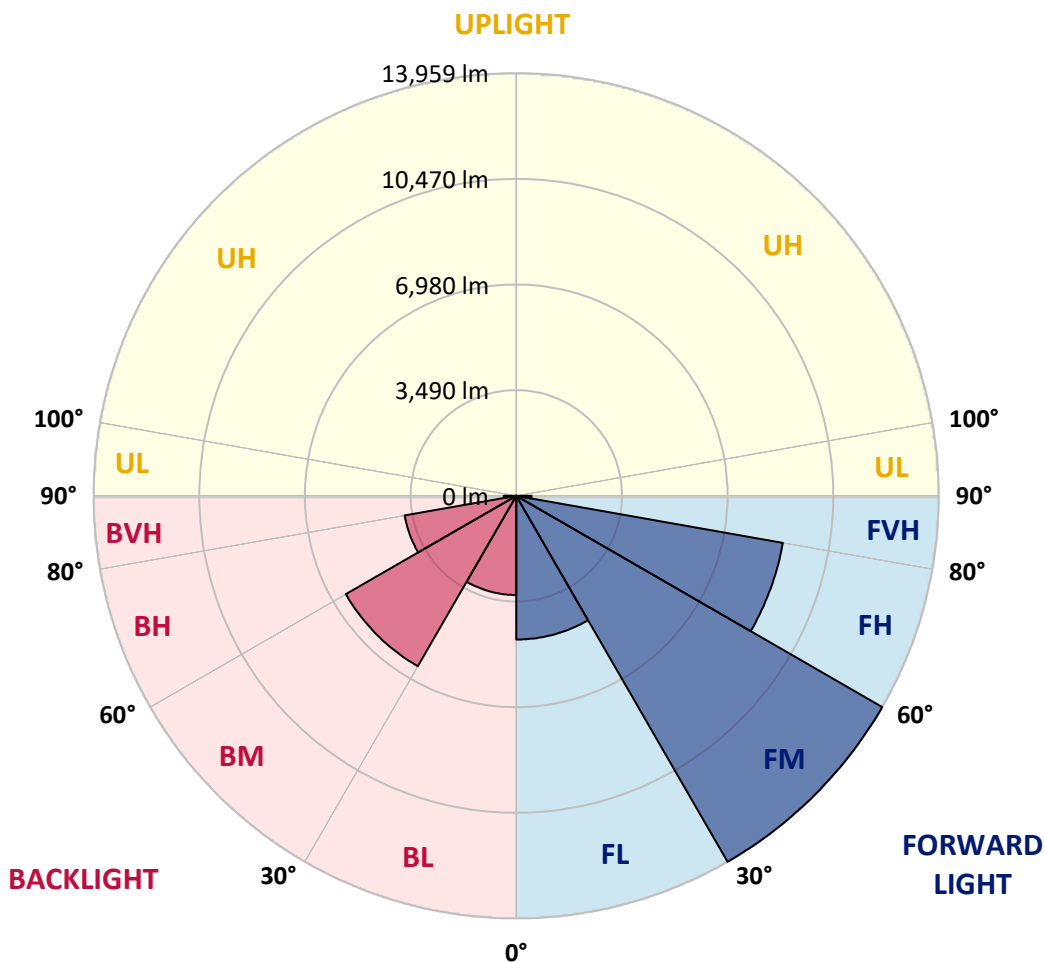


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4747.0	11.3			
FM (30°-60°)	13959.4	33.2			
FH (60°-80°)	8942.5	21.2			G4/12000
FVH (80°-90°)	503.9	1.2			G4/750
BL (0°-30°)	3277.4	7.8	B4/5000		
BM (30°-60°)	6499.9	15.4	B4/8500		
BH (60°-80°)	3741.6	8.9	B4/5000		G4/5000
BVH (80°-90°)	413.3	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2
2.5°	10260.7	10164.0	10174.8	10221.3	10042.3	10101.4	10001.1	10019.0	9899.1	9877.6	9890.1
5°	10982.1	10878.2	10878.2	10906.9	10606.2	10525.6	10246.4	10199.8	10022.6	9943.8	9947.4
7.5°	11354.4	11252.4	11232.7	11259.5	11042.9	11060.8	10774.4	10500.5	10185.5	10045.9	10038.7
10°	11902.2	11787.6	11719.6	11721.4	11429.6	11318.6	11107.4	10915.8	10434.3	10162.2	10128.2
12.5°	12344.3	12256.6	12220.8	12194.0	11871.7	11798.3	11400.9	11245.2	10731.5	10339.4	10294.7
15°	12600.3	12518.0	12466.0	12405.2	12226.2	12106.2	11934.4	11580.0	11084.1	10624.1	10568.6
17.5°	11932.6	11791.2	11545.9	11438.5	11397.4	11571.0	12310.3	12129.5	11538.8	11028.6	10969.5
20°	10171.2	10300.1	10486.2	10063.8	10194.4	11485.1	12872.4	12856.3	12174.3	11513.7	11436.8
22.5°	8653.2	8313.1	8900.2	9544.6	9956.4	11173.6	13090.8	13695.8	13035.3	12195.7	12106.2
25°	7094.0	7287.4	8078.6	9376.4	9952.8	10937.3	12970.8	14340.2	14136.2	13124.8	13019.2
27.5°	6882.8	6886.4	7647.2	8640.7	10149.7	11485.1	13101.5	14365.3	15380.3	14325.9	14121.9
30°	6838.1	6816.6	7022.4	8228.9	9802.4	11997.0	13942.8	14589.1	15682.8	15668.5	15396.4
32.5°	6628.6	6616.1	6830.9	7378.7	9059.5	12539.4	14739.4	15632.7	15573.6	16878.6	16805.2
35°	6329.7	6374.4	6641.2	7210.4	8710.5	12088.3	15557.5	16828.4	16928.7	16291.4	16583.2
37.5°	6018.2	6043.3	6301.0	6988.4	8126.9	11298.9	16180.4	18000.9	18344.6	17193.6	16960.9
40°	5594.0	5645.9	5948.4	6721.7	8008.8	10566.8	15740.1	19336.3	19871.6	18570.2	18212.2
42.5°	5144.7	5169.7	5538.5	6288.5	7811.9	10577.5	14836.1	20489.1	21278.6	19826.8	19463.4
45°	4750.8	4758.0	5103.5	5774.8	7423.4	10511.3	14265.1	20535.7	22963.0	21172.9	20716.5
47.5°	4269.3	4337.3	4679.2	5348.7	6927.6	10289.3	14531.8	19091.1	24652.8	22456.4	22039.3
50°	3274.0	3327.7	3990.1	4931.6	6385.2	9918.8	14714.4	20254.6	22769.7	23849.1	23550.1
52.5°	2815.8	2724.5	3200.6	4462.6	5889.3	9301.2	14791.3	21887.2	22766.1	25109.3	24810.4
55°	1204.7	1847.4	2883.8	3664.3	5436.4	8477.8	14735.8	23483.9	23875.9	26297.9	26194.1
57.5°	952.3	997.1	2119.4	2964.4	4899.4	7504.0	14485.2	24540.1	24849.7	27488.3	27192.9
60°	175.4	198.7	1041.8	1253.0	3547.9	6050.4	13572.3	24690.4	25560.4	28524.8	28147.0
62.5°	80.6	94.9	837.8	1043.6	2837.3	4976.4	12790.0	24642.1	26217.4	29294.5	28961.5
65°	37.6	48.3	750.0	946.9	2456.0	4643.4	11435.0	24511.4	26072.4	29709.8	29169.2
67.5°	28.6	41.2	689.2	850.3	2042.5	4312.3	10147.9	23140.2	25374.2	29067.1	28317.1
70°	28.6	41.2	630.1	773.3	1732.8	3891.6	8237.9	21423.5	23781.1	27443.5	26818.8
72.5°	30.4	41.2	560.3	699.9	1501.9	3360.0	6435.3	18683.0	21871.1	25202.4	24545.4
75°	30.4	41.2	483.3	619.4	1265.6	2814.0	4308.7	13353.9	18838.7	21450.4	20720.0
77.5°	30.4	41.2	401.0	517.3	1031.1	2248.3	2787.1	7199.7	14821.8	17591.0	16654.8
80°	30.4	41.2	298.9	392.0	775.1	1586.0	1664.8	3630.3	7974.8	11556.7	11719.6
82.5°	30.4	39.4	207.6	286.4	506.6	870.0	920.1	1752.5	2942.9	4740.1	4806.3
85°	28.6	34.0	148.6	189.7	277.5	327.6	447.5	871.8	1410.6	2022.8	2006.7
87.5°	17.9	17.9	48.3	75.2	112.8	128.9	200.5	322.2	486.9	667.7	630.1
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°	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2	9838.2
2.5°	9888.3	9847.2	9795.3	9780.9	9659.2	9601.9	9485.6	9537.5	9478.4	9430.1	9485.6
5°	9902.7	9841.8	9732.6	9603.7	9344.2	9226.0	9061.3	9079.2	8993.3	8927.1	8964.7
7.5°	9938.5	9863.3	9691.4	9401.4	9091.8	8905.6	8733.7	8868.0	8808.9	8758.8	8796.4
10°	9956.4	9897.3	9593.0	9286.9	8841.2	8739.1	8524.3	8508.2	8513.6	8508.2	8567.3
12.5°	10004.7	9920.6	9478.4	9088.2	8708.7	8438.4	8305.9	8304.1	8134.1	8060.7	8092.9
15°	10147.9	9965.3	9401.4	8851.9	8433.0	8254.0	7835.1	7836.9	7765.3	7681.2	7679.4
17.5°	10434.3	10099.6	9401.4	8692.6	8178.8	7817.2	7452.1	7253.4	7205.0	7215.8	7208.6
20°	10812.0	10325.1	9397.9	8458.1	7820.8	7446.7	6920.4	6752.1	6600.0	6610.7	6610.7
22.5°	11354.4	10658.1	9405.0	8243.3	7478.9	6970.5	6378.0	6165.0	6002.1	6007.5	6007.5
25°	12133.1	11229.1	9489.2	8112.6	7020.7	6410.2	5812.4	5481.2	5314.7	5316.5	5320.1
27.5°	13124.8	12025.7	9780.9	7835.1	6639.4	5747.9	5092.7	4849.3	4682.8	4639.9	4639.9
30°	14247.2	12981.6	10158.6	7654.3	6048.6	5001.5	4457.3	4276.5	4076.0	4016.9	4016.9
32.5°	15491.3	13941.1	10548.9	7432.4	5491.9	4360.6	3907.7	3741.2	3490.6	3417.2	3392.2
35°	16785.5	14932.8	11023.2	7120.9	4792.0	3832.5	3431.6	3229.3	3048.5	2951.8	2928.6
37.5°	17483.6	16062.3	11451.1	6805.8	4251.4	3415.5	2967.9	2810.4	2690.5	2622.5	2609.9
40°	18443.1	16883.9	11673.0	6284.9	3669.6	2991.2	2540.1	2532.9	2549.1	2488.2	2484.6
42.5°	19420.5	17694.8	11612.2	5586.8	3216.8	2558.0	2325.3	2448.8	2538.3	2484.6	2488.2
45°	20643.1	18786.8	11834.1	4852.9	2769.2	2318.1	2280.5	2425.5	2549.1	2536.5	2536.5
47.5°	21880.0	19842.9	11424.2	3954.3	2468.5	2248.3	2285.9	2388.0	2541.9	2583.1	2574.1
50°	22887.8	20566.1	11171.8	3191.7	2298.4	2250.1	2303.8	2341.4	2509.7	2575.9	2574.1
52.5°	23702.3	21255.3	10230.2	2694.1	2201.8	2257.3	2361.1	2334.3	2452.4	2522.2	2563.4
55°	24855.1	22209.4	9158.0	2502.5	2151.7	2250.1	2380.8	2359.3	2407.6	2439.9	2470.3
57.5°	25746.6	22683.8	7722.4	2379.0	2106.9	2239.4	2364.7	2366.5	2389.7	2377.2	2364.7
60°	26494.8	23117.0	6317.2	2259.1	2049.6	2216.1	2296.7	2321.7	2314.6	2298.4	2266.2
62.5°	26860.0	23586.0	4906.6	2132.0	1988.8	2148.1	2185.7	2214.3	2198.2	2144.5	2140.9
65°	26722.2	23249.4	3637.4	1994.1	1915.4	2072.9	2071.1	2083.6	2090.8	2022.8	2029.9
67.5°	25948.8	21770.8	2771.0	1818.7	1831.2	1965.5	1956.5	1963.7	1944.0	1897.5	1904.6
70°	23700.5	20091.7	1965.5	1523.3	1659.4	1797.2	1809.8	1840.2	1795.4	1713.1	1718.5
72.5°	20376.4	17206.1	1378.4	1213.7	1457.1	1632.5	1625.4	1623.6	1562.7	1595.0	1634.3
75°	17379.8	13176.7	1047.2	977.4	1151.0	1405.2	1485.8	1491.1	1500.1	1822.3	1845.6
77.5°	13379.0	7971.2	891.5	771.5	893.2	1165.3	1315.7	1376.6	1890.3	1958.3	1922.5
80°	7973.0	4604.1	689.2	601.5	721.4	889.7	1124.2	1453.5	1899.3	1697.0	1623.6
82.5°	3880.9	2135.6	501.2	458.3	531.7	646.2	882.5	1693.4	1607.5	1312.1	1294.2
85°	1448.2	721.4	300.7	313.3	354.4	424.2	671.3	1616.4	1233.4	1068.7	1009.6
87.5°	361.6	132.5	121.7	125.3	159.3	213.0	343.7	778.7	597.9	495.8	485.1
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)