

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: STREETWORKS

Report Number: P721903

Luminaire Tested: **CST-CA8-430-727-U-T4**

Issue Date: 10/25/2023

Test Information

Test Method: LM-79-08
Report Number: P721903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-430-727-U-T4
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 54486 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

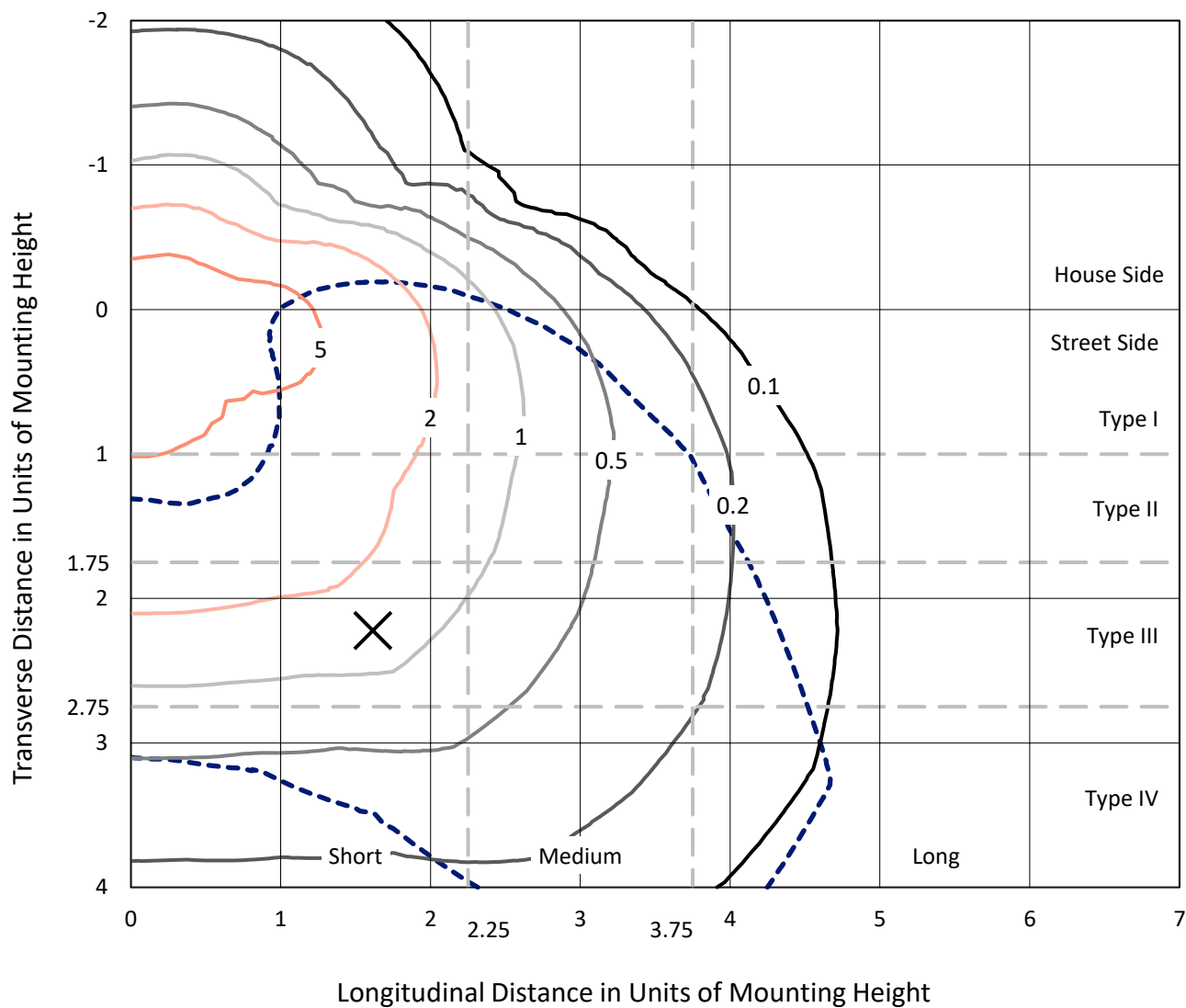
Input Watts (W): 434.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

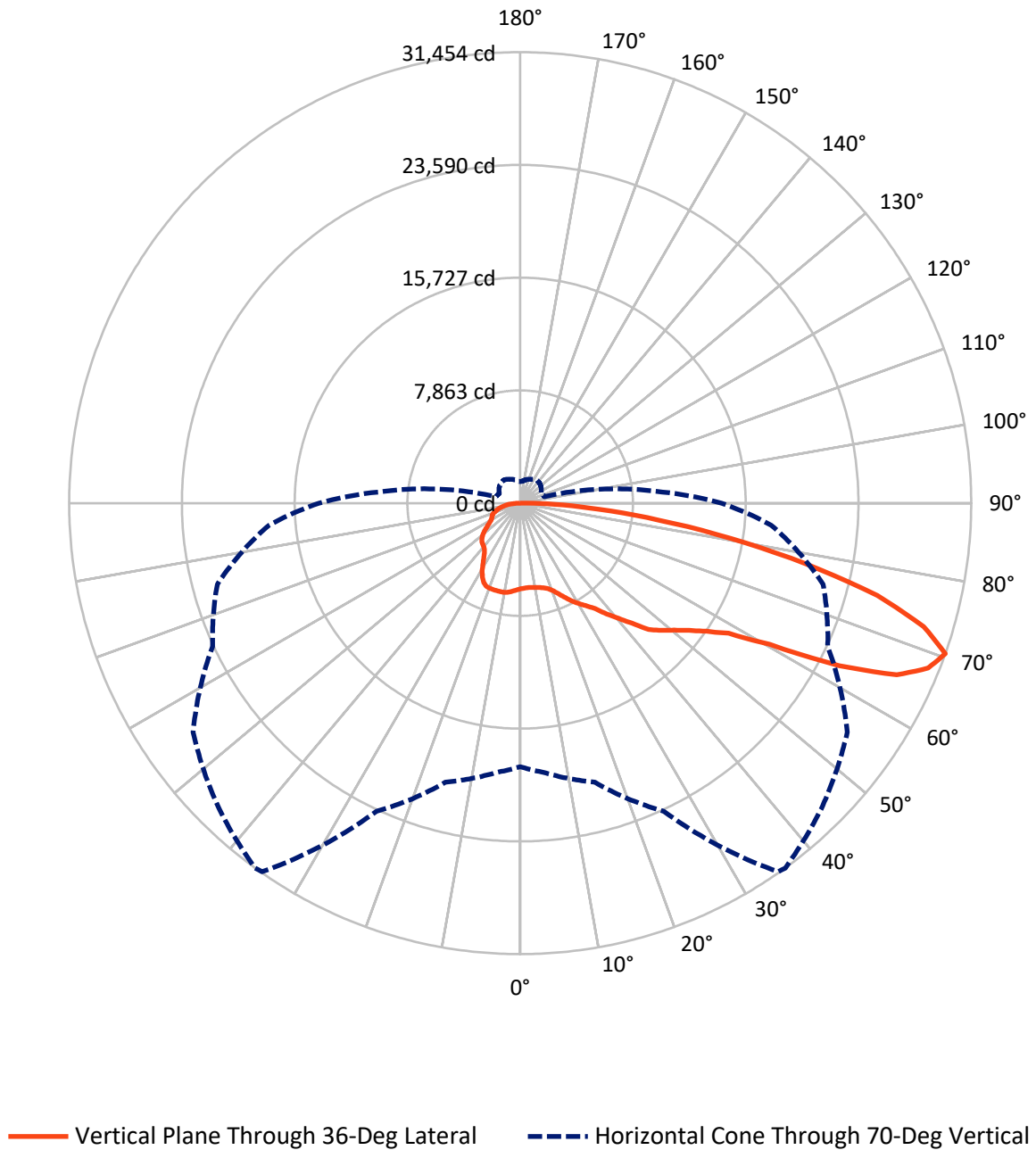
✕ Max cd
 --- 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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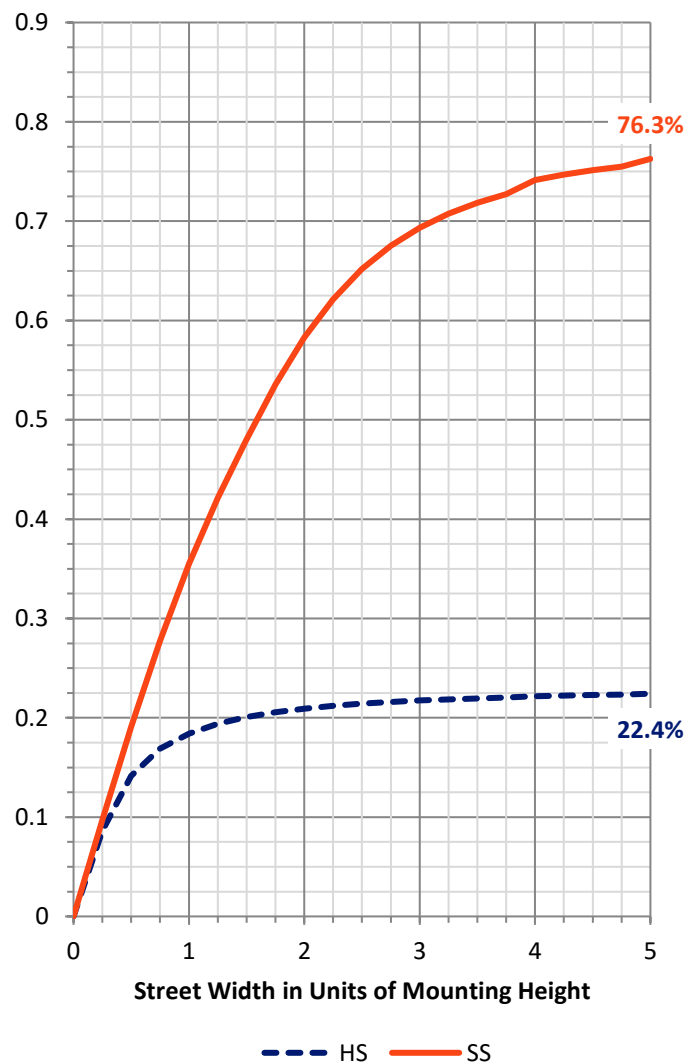
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12414.3	0.0	12414.3
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	42071.7	0.0	42071.7
	% Fixture	77.2	0.0	77.2
Total	Lumens	54486.0	0.0	54486.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	578.2	1.1
10°-20°	1787.4	3.3
20°-30°	3224.2	5.9
30°-40°	4993.6	9.2
40°-50°	7585.3	13.9
50°-60°	10513.7	19.3
60°-70°	13671.4	25.1
70°-80°	10096.2	18.5
80°-90°	2036.2	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°	54486.0	100.0
0°-180°	54486.0	100.0

Coefficient of Utilization



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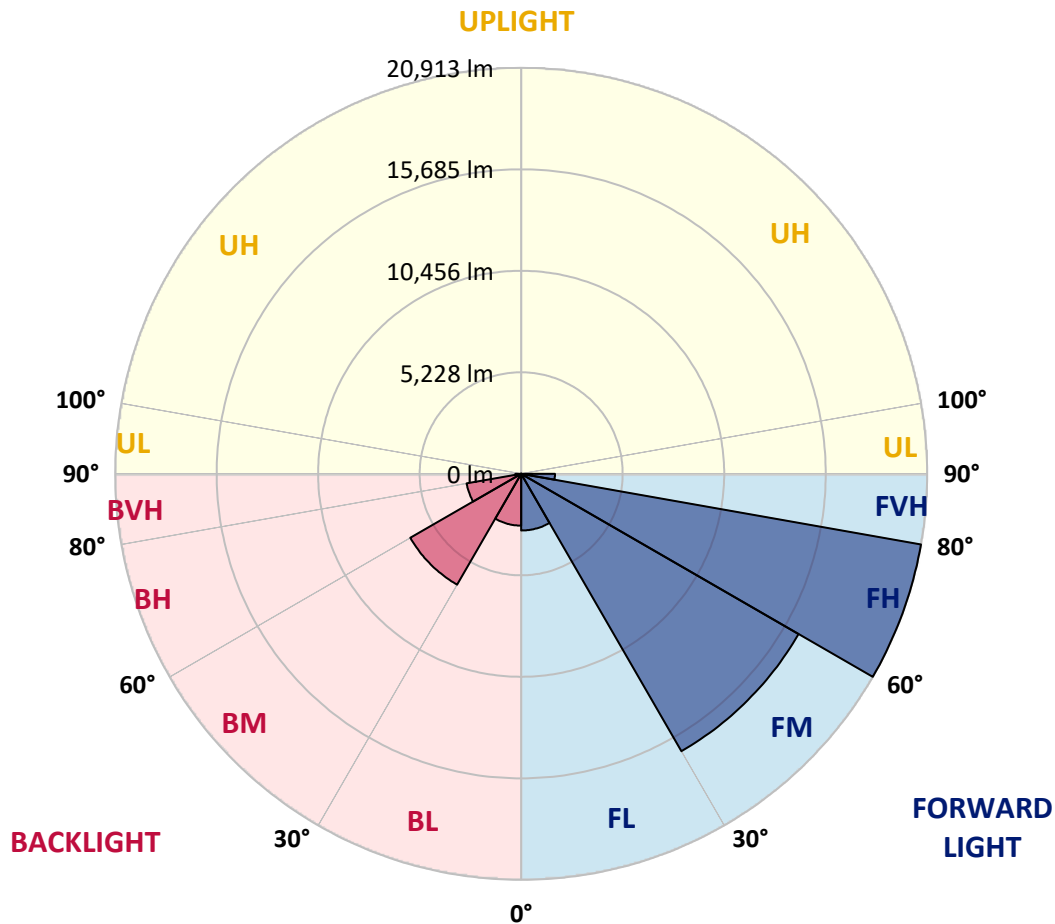
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2921.0	5.4			
FM	(30°-60°)	16498.2	30.3			
FH	(60°-80°)	20912.9	38.4			G5
FVH	(80°-90°)	1739.5	3.2			G5
BL	(0°-30°)	2668.7	4.9	B4/5000		
BM	(30°-60°)	6594.3	12.1	B4/8500		
BH	(60°-80°)	2854.6	5.2	B4/5000		G4/5000
BVH	(80°-90°)	296.6	0.5			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8
2.5°	5931.7	5923.8	5919.3	5928.4	5931.7	5932.9	5935.1	5932.9	5927.2	5947.5	5972.4
5°	5932.9	5928.4	5919.3	5911.4	5911.4	5911.4	5912.6	5938.5	5949.8	5947.5	5978.0
7.5°	5941.9	5938.5	5921.6	5915.9	5929.5	5934.0	5956.6	5948.7	5961.1	5981.4	6007.3
10°	5943.0	5938.5	5923.8	5936.3	5974.6	5981.4	5991.5	6014.1	6018.6	6043.4	6069.4
12.5°	5954.3	5954.3	5959.9	5987.0	6027.6	6035.5	6073.9	6091.9	6119.0	6131.4	6163.0
15°	6014.1	6013.0	6026.5	6057.0	6122.4	6126.9	6174.3	6228.4	6248.7	6279.2	6330.0
17.5°	6156.2	6163.0	6164.1	6186.7	6264.5	6266.8	6344.6	6395.4	6441.7	6495.8	6612.0
20°	6493.6	6481.1	6467.6	6467.6	6498.1	6513.9	6573.7	6654.9	6749.6	6845.5	6982.0
22.5°	6917.7	6942.6	6892.9	6867.0	6881.6	6863.6	6908.7	6974.1	7084.7	7228.0	7400.6
25°	7424.3	7426.5	7423.1	7318.2	7285.5	7296.8	7334.0	7394.9	7541.6	7655.5	7906.0
27.5°	7918.4	7908.2	7872.1	7761.6	7730.0	7745.8	7744.7	7912.7	8062.8	8208.3	8502.8
30°	8367.4	8394.5	8330.2	8144.0	8147.4	8145.1	8197.0	8413.6	8687.8	8958.5	9260.9
32.5°	9159.3	9077.0	8990.1	8622.3	8554.7	8546.8	8577.2	8899.9	9306.0	9762.9	10126.2
35°	9905.0	9884.7	9799.0	9425.6	9034.1	9027.3	8985.6	9378.2	9949.0	10795.1	11248.6
37.5°	10667.7	10638.3	10553.7	10235.6	9846.4	9809.1	9458.3	9888.1	10659.8	12002.2	12648.7
40°	11576.9	11558.9	11428.0	11020.8	10621.4	10565.0	10200.6	10424.0	11556.6	13609.8	14065.6
42.5°	12374.5	12371.1	12221.1	11843.2	11503.6	11447.2	11137.0	11369.4	12803.2	15184.7	15453.2
45°	12960.0	13049.2	13055.9	12840.4	12605.8	12556.2	12473.8	12794.2	14245.0	16614.1	16574.6
47.5°	13454.2	13530.9	13450.8	13340.2	13260.1	13263.5	13391.0	14027.2	15668.7	17859.5	17552.7
50°	14280.0	14232.6	13816.3	13750.9	13852.4	13912.2	14282.2	15358.4	17298.8	19028.3	18430.4
52.5°	15471.3	15289.6	14472.9	14339.7	14724.4	14747.0	15335.9	16548.6	18927.9	20031.2	19233.6
55°	17101.4	16951.4	16028.6	15413.7	15607.8	15760.1	16589.2	17768.1	20257.9	20974.3	19851.8
57.5°	19511.1	19522.4	18769.9	17623.7	16963.8	17126.2	17773.8	18953.8	21356.7	21764.0	20237.6
60°	21442.5	21800.1	21575.6	21052.2	20104.5	19994.0	19501.0	20189.1	22295.4	22435.2	20606.5
62.5°	22781.6	22944.0	23715.7	23826.2	24909.3	24955.5	22594.3	21636.5	23326.5	22875.2	20684.4
65°	22713.9	22814.3	24033.8	25518.4	28717.8	28861.1	27479.1	23826.2	24032.7	23071.5	20457.6
67.5°	21132.3	21283.4	22833.5	25608.7	30747.4	30693.2	29816.6	26874.5	24265.1	22756.8	19376.9
70°	18385.2	18851.2	20153.0	23705.5	31381.4	31453.6	29838.1	27848.0	23666.0	21866.7	17575.2
72.5°	15153.1	15299.8	16529.5	20505.0	29527.8	29421.8	28615.2	26563.1	22583.0	20256.8	14422.1
75°	11523.9	11523.9	13013.1	16341.1	25357.1	25729.4	26043.0	24058.6	20006.4	16510.3	9820.4
77.5°	7649.9	7924.0	9123.2	12279.8	20071.8	20347.1	21430.1	20507.3	16380.5	12107.2	4485.5
80°	4057.9	4091.8	5377.8	8159.8	14356.7	14875.6	16364.7	15816.5	11782.3	5672.3	1133.8
82.5°	1419.2	1548.9	2364.6	4729.1	9459.4	9783.2	10856.1	9398.5	4161.7	1255.6	627.2
85°	705.1	729.9	1041.3	2251.8	5325.9	5482.7	6342.4	3660.8	670.1	548.3	426.4
87.5°	339.6	347.5	399.4	805.5	2314.9	2422.1	2564.3	1191.3	248.2	208.7	185.0
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°	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8	5967.8
2.5°	5978.0	5988.1	6007.3	6013.0	5999.4	6024.2	6047.9	6069.4	6068.2	6076.1	6104.3
5°	5991.5	6013.0	6033.3	6069.4	6104.3	6124.7	6143.8	6161.9	6167.5	6184.4	6201.4
7.5°	6033.3	6054.7	6101.0	6164.1	6166.4	6217.2	6249.9	6255.5	6260.0	6260.0	6299.5
10°	6097.6	6137.1	6211.5	6255.5	6295.0	6278.1	6311.9	6290.5	6274.7	6281.5	6308.5
12.5°	6208.1	6243.1	6350.3	6398.8	6362.7	6355.9	6322.1	6273.6	6218.3	6212.6	6237.5
15°	6381.9	6447.3	6543.2	6589.4	6499.2	6419.1	6305.2	6205.9	6098.7	6059.2	6075.0
17.5°	6661.6	6740.6	6845.5	6813.9	6649.2	6491.3	6302.9	6093.1	5885.5	5741.1	5778.3
20°	7071.2	7129.8	7215.6	7088.1	6847.8	6587.2	6278.1	5946.4	5595.6	5332.7	5302.2
22.5°	7501.0	7590.1	7538.2	7302.4	6987.7	6624.4	6226.2	5733.2	5190.6	4861.1	4811.5
25°	8018.8	8048.1	7868.8	7513.4	7027.2	6565.8	6058.1	5421.8	4776.5	4466.3	4451.6
27.5°	8568.2	8501.6	8167.7	7610.4	6983.2	6392.0	5720.8	4930.0	4402.0	4127.9	4085.0
30°	9188.7	9034.1	8414.8	7620.6	6817.3	6053.6	5294.3	4545.3	4097.4	3822.1	3778.1
32.5°	9987.4	9623.0	8643.8	7515.6	6467.6	5557.2	4782.2	4217.0	3823.3	3546.9	3507.4
35°	11008.4	10393.5	8886.3	7326.1	6036.7	5060.8	4358.0	3938.3	3601.0	3268.2	3215.2
37.5°	12185.0	11468.6	9176.3	7087.0	5564.0	4624.2	4071.4	3761.2	3436.3	3059.5	2996.3
40°	13552.3	12544.9	9623.0	6801.5	5139.8	4309.5	3932.7	3700.3	3344.9	2952.3	2880.1
42.5°	14736.8	13683.2	10154.4	6494.7	4739.3	4047.8	3870.6	3659.7	3287.4	2872.2	2789.9
45°	15832.3	14622.9	10673.3	6122.4	4317.4	3868.4	3796.2	3558.1	3185.9	2773.0	2687.2
47.5°	16722.4	15382.1	11124.6	5780.6	3980.1	3703.7	3633.7	3365.2	3015.5	2653.4	2590.2
50°	17406.0	15953.0	11371.6	5508.7	3623.6	3516.4	3423.9	3147.5	2811.3	2498.8	2444.7
52.5°	18105.5	16524.9	11493.5	5522.2	3291.9	3237.8	3143.0	2906.1	2648.9	2408.6	2349.9
55°	18512.7	16759.6	11364.8	5193.9	2987.3	2924.1	2841.8	2718.8	2565.4	2352.2	2296.9
57.5°	18750.8	16905.1	10973.4	4236.2	2620.7	2560.9	2574.4	2564.3	2437.9	2213.4	2162.6
60°	18922.2	16589.2	10171.3	3113.7	2308.2	2263.0	2374.7	2338.6	2229.2	2054.3	2011.5
62.5°	18783.5	15987.9	8727.3	2340.9	2053.2	2149.1	2247.2	2180.7	2031.8	1872.7	1823.1
65°	17937.4	14807.9	6633.4	1880.6	1970.9	2102.8	2181.8	2074.6	1923.5	1735.1	1712.5
67.5°	16397.5	12669.0	3912.4	1723.8	1908.8	2048.7	2114.1	1972.0	1838.9	1658.4	1631.3
70°	14047.6	9484.2	1747.5	1605.3	1800.5	1939.3	1982.1	1847.9	1703.5	1534.3	1507.2
72.5°	10455.6	5718.5	1177.8	1482.4	1640.3	1763.3	1810.7	1668.5	1565.9	1489.1	1481.2
75°	5806.5	1985.5	1086.4	1342.5	1465.4	1576.0	1634.7	1534.3	1453.0	1348.1	1305.3
77.5°	1849.0	843.8	1032.2	1200.3	1356.0	1447.4	1438.4	1287.2	1261.3	1133.8	1122.5
80°	737.8	735.5	954.4	982.6	1157.5	1234.2	1213.9	1023.2	1057.1	982.6	953.3
82.5°	578.7	673.5	764.9	750.2	900.3	990.5	962.3	751.3	849.5	780.7	714.1
85°	440.0	590.0	490.7	488.5	628.4	735.5	753.6	577.6	578.7	526.8	469.3
87.5°	226.8	217.7	188.4	187.3	209.8	299.0	366.6	328.3	259.5	195.2	187.3
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)