

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: P721840

Luminaire Tested: **CST-CA8-400-727-U-T3-HSS**

Issue Date: 10/25/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P721840  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA8-400-727-U-T3-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 47969 lumens  
Efficiency: N/A  
Efficacy: 119.7 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G5

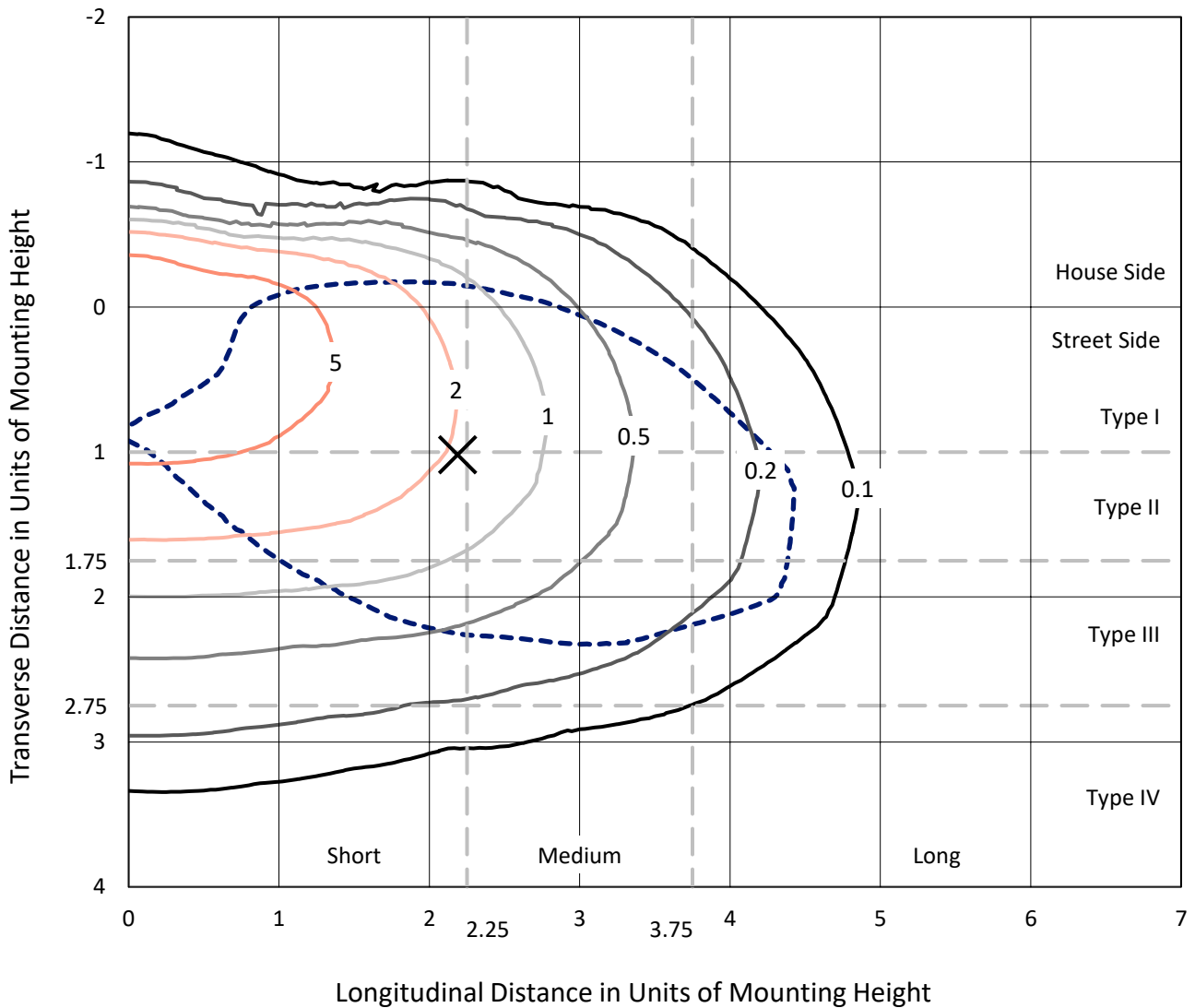
Input Watts (W): 400.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

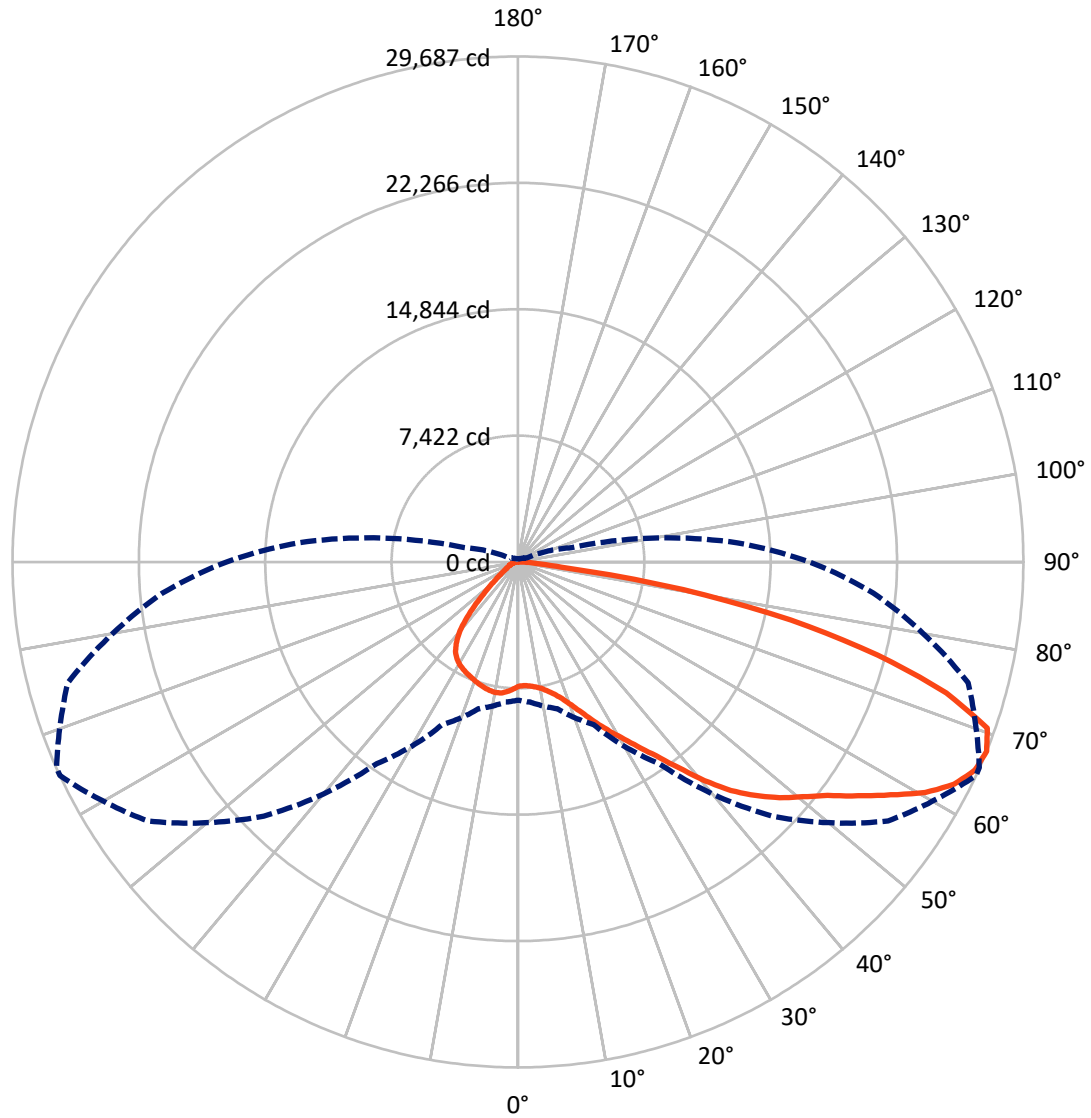
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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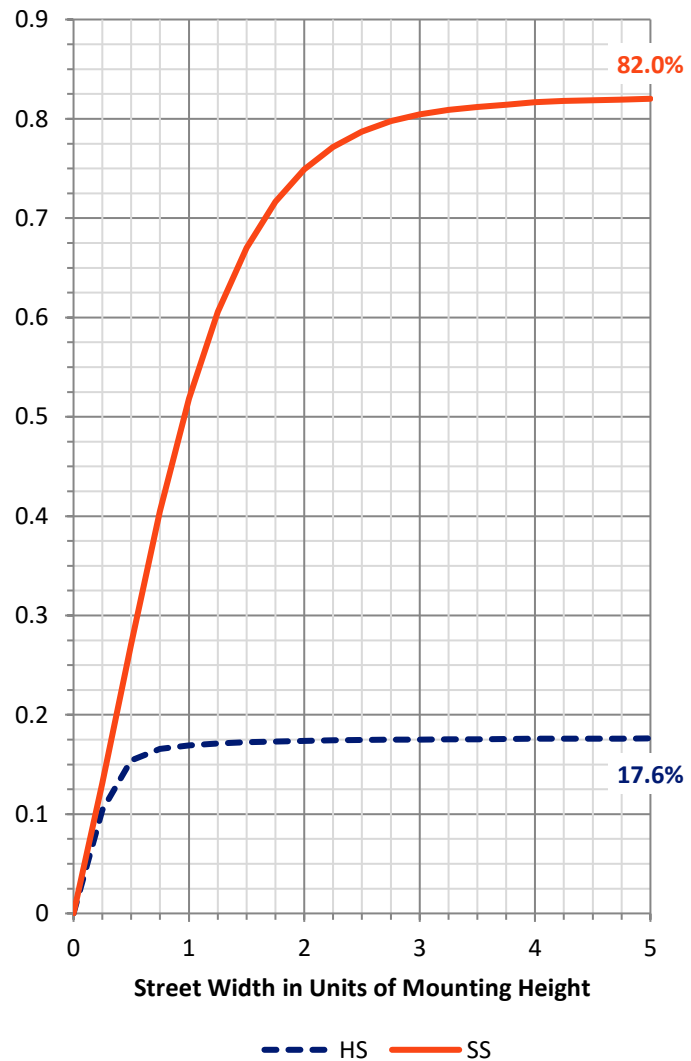
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8573.2	0.0	8573.2
	% Fixture	17.9	0.0	17.9
<b>Street Side</b>	Lumens	39395.8	0.0	39395.8
	% Fixture	82.1	0.0	82.1
<b>Total</b>	Lumens	47969.0	0.0	47969.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	721.1	1.5
10°-20°	2226.4	4.6
20°-30°	3862.4	8.1
30°-40°	5826.4	12.1
40°-50°	8078.7	16.8
50°-60°	9972.1	20.8
60°-70°	10625.1	22.1
70°-80°	6079.9	12.7
80°-90°	576.9	1.2
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°	47969.0	100.0
0°-180°	47969.0	100.0

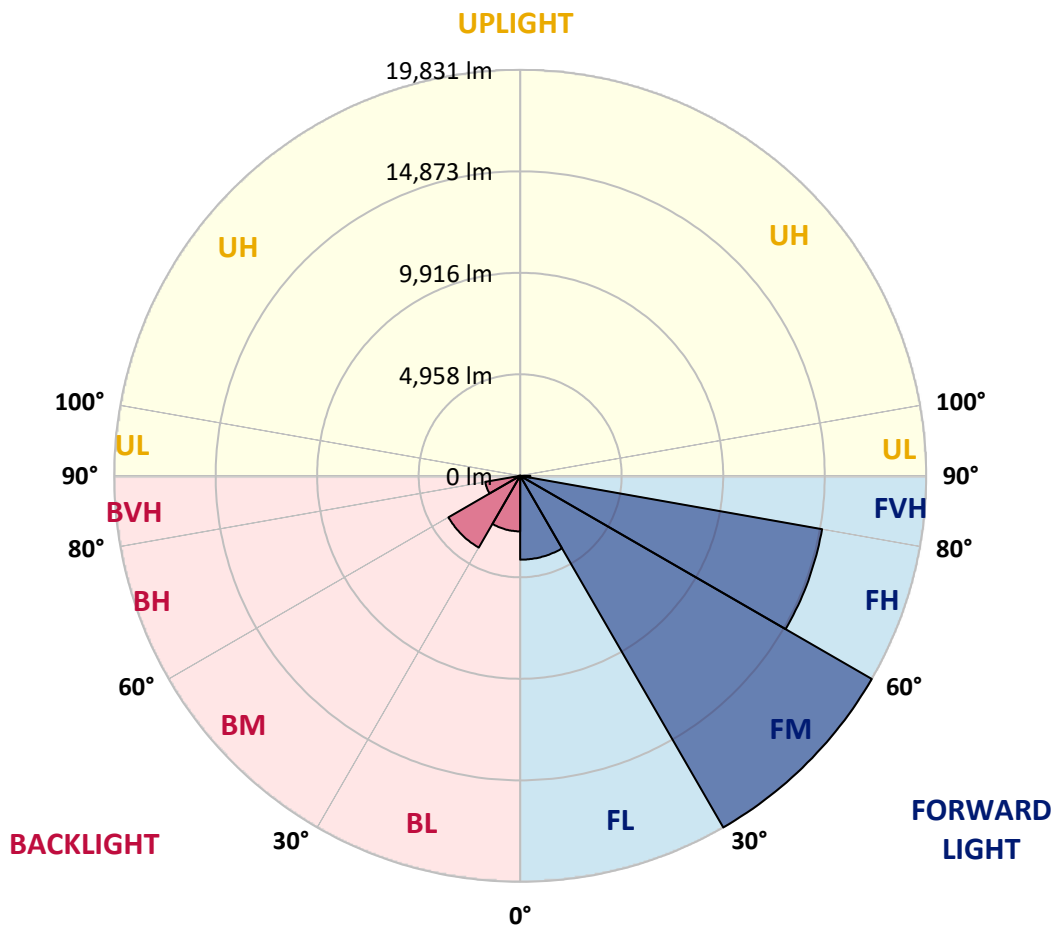


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4097.2	8.5			
FM (30°-60°)	19831.1	41.3			
FH (60°-80°)	14974.6	31.2			G5
FVH (80°-90°)	492.9	1.0			G3/500
BL (0°-30°)	2712.8	5.7	B4/5000		
BM (30°-60°)	4046.1	8.4	B3/5000		
BH (60°-80°)	1730.4	3.6	B3/2500		G3/2500
BVH (80°-90°)	84.0	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2
2.5°	7218.8	7209.3	7200.9	7215.6	7224.1	7237.7	7257.7	7271.3	7275.5	7288.2	7303.9
5°	7334.4	7333.3	7321.8	7315.5	7297.6	7291.3	7295.5	7312.3	7313.4	7329.1	7378.5
7.5°	7561.4	7559.3	7530.9	7518.3	7480.4	7438.4	7406.9	7410.0	7409.0	7424.8	7491.0
10°	7903.9	7887.1	7847.2	7808.3	7734.7	7655.9	7598.1	7545.6	7545.6	7568.7	7642.3
12.5°	8290.6	8313.7	8259.1	8200.2	8077.3	7935.4	7834.6	7775.7	7769.4	7781.0	7833.5
15°	8770.8	8770.8	8734.0	8650.0	8541.7	8344.2	8136.1	8061.5	8051.0	8075.2	8072.0
17.5°	9311.9	9327.7	9258.3	9216.3	9050.3	8831.7	8571.1	8441.9	8441.9	8426.1	8353.6
20°	10002.3	9916.1	9923.5	9854.1	9732.2	9414.9	9150.1	8962.0	8959.9	8928.4	8724.6
22.5°	10752.5	10705.3	10664.3	10603.3	10435.2	10151.5	9783.7	9597.7	9593.5	9515.8	9213.2
25°	11492.3	11528.0	11482.8	11371.5	11248.5	10939.6	10534.0	10351.2	10350.1	10220.9	9792.1
27.5°	12253.0	12291.9	12277.2	12176.3	12012.4	11770.7	11387.2	11148.7	11134.0	11049.9	10510.9
30°	13093.7	13059.0	13104.2	13061.1	12979.1	12585.1	12238.3	11960.9	11996.7	11971.4	11327.3
32.5°	13705.2	13727.3	13875.4	13879.6	13793.5	13501.4	13077.9	12907.7	12964.4	12930.8	12330.8
35°	14257.9	14293.6	14484.9	14673.0	14736.0	14416.6	13985.8	13975.3	14048.8	14253.7	13713.6
37.5°	14732.9	14758.1	15026.0	15270.9	15474.7	15256.2	14943.0	15316.0	15424.3	15843.5	15140.6
40°	15017.6	15050.2	15397.0	15741.6	16105.2	16027.4	15998.0	16880.6	16982.6	17351.4	16181.9
42.5°	14856.9	14921.0	15498.9	16129.3	16664.2	16819.7	17222.1	18357.0	18473.6	18505.1	17205.3
45°	14570.0	14649.9	15296.1	16316.4	17188.5	17687.6	18453.7	19560.1	19624.2	19534.9	18053.3
47.5°	14261.1	14346.2	15068.1	16260.7	17609.9	18697.4	19553.8	20692.8	20738.0	20463.8	18907.6
50°	13910.1	13988.9	14765.4	16130.4	17927.2	19650.5	20684.4	21672.2	21841.3	21299.1	19571.7
52.5°	13483.5	13567.6	14391.4	15926.5	18205.7	20357.6	21681.6	22778.6	22790.2	22343.6	20319.8
55°	12930.8	13076.9	13921.7	15573.5	18351.7	20965.0	22550.6	24242.4	24317.0	23885.1	20946.1
57.5°	12316.1	12443.2	13356.4	15102.7	18220.4	21426.3	23948.1	25812.2	25802.7	24935.9	21493.5
60°	11503.8	11594.2	12619.8	14487.0	17796.9	21984.2	25403.5	27494.5	27477.7	25965.6	21845.5
62.5°	10461.5	10551.8	11516.5	13521.3	17174.9	22358.3	26391.2	28754.4	28706.0	26714.8	21953.8
65°	9253.1	9414.9	10252.4	12267.8	16074.7	22112.4	26868.2	29496.2	29418.5	27286.4	21695.3
67.5°	8120.4	8258.0	8921.1	10542.4	14451.3	21115.3	26532.0	29687.4	29664.3	27369.4	20965.0
70°	6516.9	6567.3	7174.7	8562.7	12024.0	18980.1	25369.8	29246.1	29256.6	26604.5	19498.1
72.5°	4460.5	4583.5	4853.5	5949.5	8749.8	15094.3	21866.6	26320.8	26322.9	23855.7	16987.8
75°	2398.9	2589.1	2904.3	3447.6	4891.3	9686.0	17560.5	21840.3	21881.3	19890.1	13502.4
77.5°	1189.5	1257.8	1440.6	1844.1	2242.3	4569.8	11293.7	16394.1	16491.9	15267.7	9209.0
80°	544.3	555.9	569.5	566.4	858.5	2004.9	4848.3	9845.7	9875.2	9080.8	4204.1
82.5°	425.6	423.5	429.8	390.9	393.0	773.4	1678.1	2578.6	2749.9	2164.6	1333.4
85°	257.4	256.4	276.4	214.4	263.7	418.2	846.9	1028.7	1041.3	846.9	690.4
87.5°	97.7	94.6	87.2	76.7	88.3	117.7	293.2	378.3	369.9	262.7	238.5
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°	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2	7289.2
2.5°	7317.6	7351.2	7413.2	7460.5	7476.2	7526.7	7575.0	7583.4	7618.1	7631.8	7676.9
5°	7409.0	7465.7	7562.4	7626.5	7654.9	7738.9	7793.6	7820.9	7811.4	7816.7	7867.1
7.5°	7542.4	7596.0	7673.8	7751.5	7765.2	7779.9	7774.7	7770.5	7733.7	7702.2	7749.4
10°	7664.3	7714.8	7763.1	7774.7	7705.3	7666.4	7597.1	7543.5	7472.0	7439.5	7477.3
12.5°	7835.6	7846.1	7798.8	7735.8	7586.6	7447.9	7335.4	7237.7	7149.4	7088.5	7138.9
15°	8016.3	7975.4	7837.7	7653.8	7422.7	7224.1	7040.2	6877.3	6731.2	6695.5	6709.2
17.5°	8255.9	8144.5	7867.1	7558.2	7198.8	6889.9	6653.5	6447.5	6256.3	6176.4	6169.1
20°	8548.0	8368.3	7927.0	7437.4	6934.0	6523.2	6157.5	5849.6	5585.9	5369.4	5374.7
22.5°	8928.4	8667.8	8017.4	7311.3	6640.9	6093.4	5561.7	5038.4	4604.5	4417.4	4371.2
25°	9430.7	9041.9	8145.6	7196.7	6313.0	5547.0	4795.7	4057.0	3597.8	3416.1	3396.1
27.5°	10055.9	9544.2	8341.0	7069.6	5962.1	4898.7	3818.5	3094.5	2673.2	2481.9	2417.8
30°	10766.2	10163.1	8541.7	6937.2	5537.6	4065.4	2911.7	2202.4	1770.6	1599.3	1577.2
32.5°	11685.6	10946.9	8840.1	6729.1	4917.6	3195.4	2031.1	1374.4	1081.2	1007.7	986.7
35°	12991.7	12007.2	9209.0	6466.4	4121.1	2231.8	1258.8	804.9	648.3	611.5	604.2
37.5°	14209.6	13047.4	9580.9	6030.4	3129.2	1393.3	719.8	515.9	481.3	482.3	484.4
40°	15175.2	13758.8	9881.5	5456.7	2058.5	791.2	500.2	428.7	429.8	426.6	424.5
42.5°	16034.8	14326.2	10017.0	4608.7	1192.6	529.6	434.0	395.1	385.6	388.8	386.7
45°	16746.1	14905.2	9754.3	3655.6	703.0	474.9	409.8	366.7	356.2	373.0	375.1
47.5°	17494.3	15454.7	9351.9	2754.1	570.6	451.8	387.7	345.7	340.4	361.5	363.6
50°	18123.7	15853.0	8665.7	2075.3	544.3	426.6	367.8	324.7	323.6	342.6	342.6
52.5°	18650.1	16093.6	7851.4	1602.4	526.4	404.5	347.8	304.7	304.7	311.0	312.1
55°	19021.1	16045.3	7365.9	1260.9	507.5	383.5	326.8	285.8	273.2	269.0	271.1
57.5°	19088.3	15917.1	6802.7	983.5	485.5	363.6	307.9	263.7	240.6	237.5	236.4
60°	19045.2	15635.5	6159.6	821.7	460.2	344.7	289.0	240.6	217.5	210.2	212.3
62.5°	18865.6	15136.4	5416.7	720.8	435.0	329.9	267.9	224.9	203.8	194.4	194.4
65°	18323.4	14421.8	4313.4	631.5	403.5	314.2	251.1	218.6	195.4	184.9	182.8
67.5°	17131.8	12939.2	3241.6	553.8	373.0	297.4	249.0	217.5	191.2	176.5	174.4
70°	15533.6	11115.1	2212.9	486.5	339.4	281.6	248.0	218.6	187.0	168.1	166.0
72.5°	12967.6	8762.4	1274.6	423.5	305.8	266.9	243.8	219.6	179.7	156.6	153.4
75°	9743.8	6146.0	748.1	363.6	273.2	244.8	232.2	213.3	168.1	142.9	139.8
77.5°	5860.2	2869.7	563.2	301.6	234.3	215.4	207.0	195.4	153.4	132.4	129.2
80°	2149.9	1089.7	442.4	241.7	186.0	187.0	178.6	171.3	139.8	121.9	119.8
82.5°	937.3	666.2	326.8	183.9	146.1	167.1	147.1	140.8	119.8	109.3	105.1
85°	568.5	397.2	210.2	125.0	100.9	113.5	103.0	108.2	92.5	86.2	83.0
87.5°	188.1	118.7	93.5	60.9	50.4	47.3	46.2	55.7	52.5	48.3	48.3
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)