

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: P510750

Luminaire Tested: **CST-CA8-230-760-U-T4-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510750  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA8-230-760-U-T4-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 5700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31617 lumens  
Efficiency: N/A  
Efficacy: 138.4 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

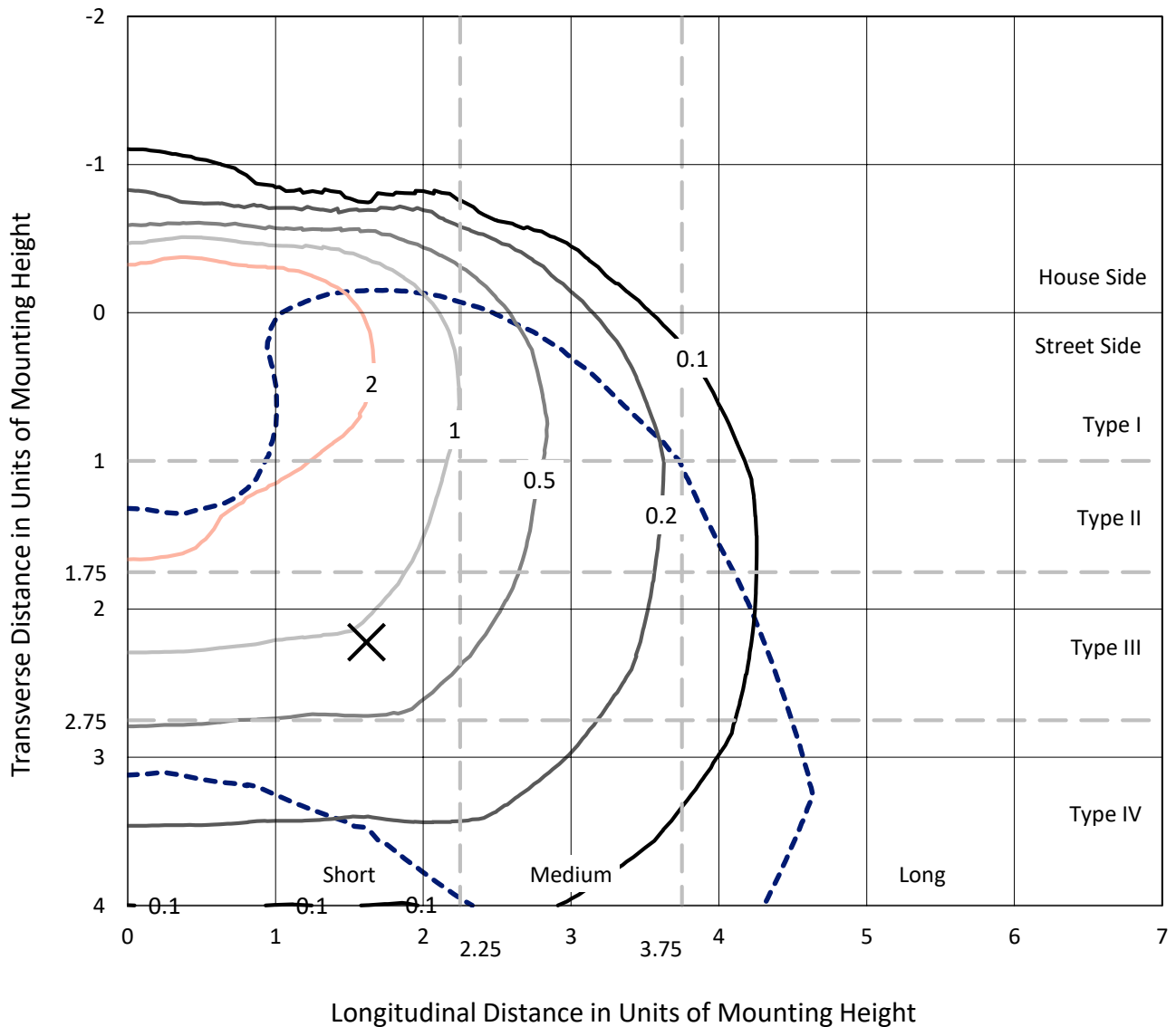
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

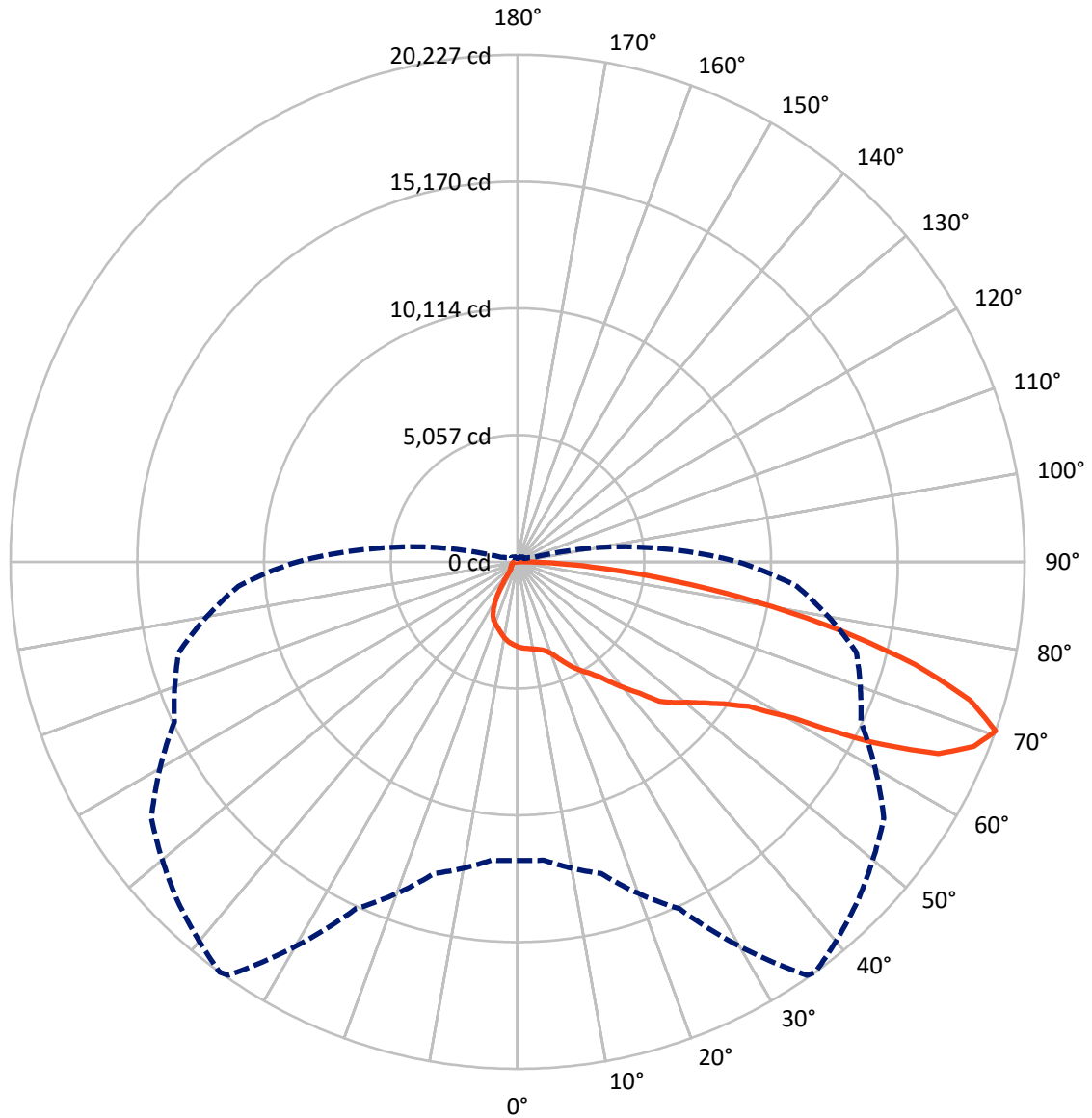
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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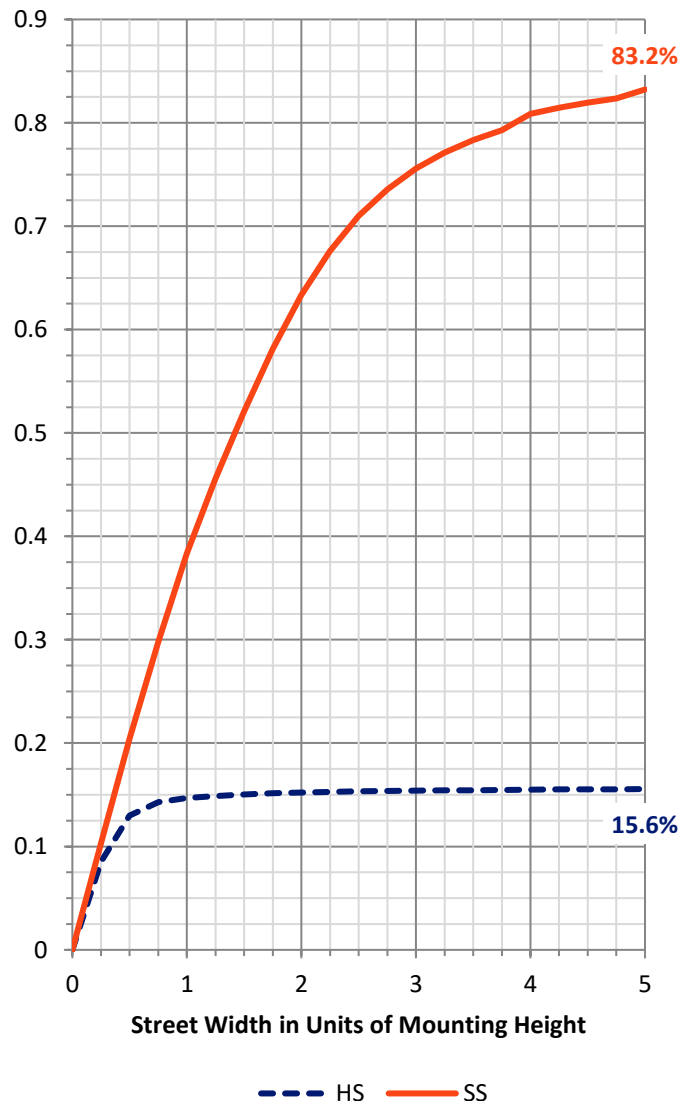
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4989.4	0.0	4989.4
	% Fixture	15.8	0.0	15.8
<b>Street Side</b>	Lumens	26627.6	0.0	26627.6
	% Fixture	84.2	0.0	84.2
<b>Total</b>	Lumens	31617.0	0.0	31617.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	321.3	1.0
10°-20°	955.4	3.0
20°-30°	1718.2	5.4
30°-40°	2718.9	8.6
40°-50°	4249.2	13.4
50°-60°	6101.8	19.3
60°-70°	8276.5	26.2
70°-80°	6125.5	19.4
80°-90°	1150.2	3.6
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°	31617.0	100.0
0°-180°	31617.0	100.0

**Coefficient of Utilization**

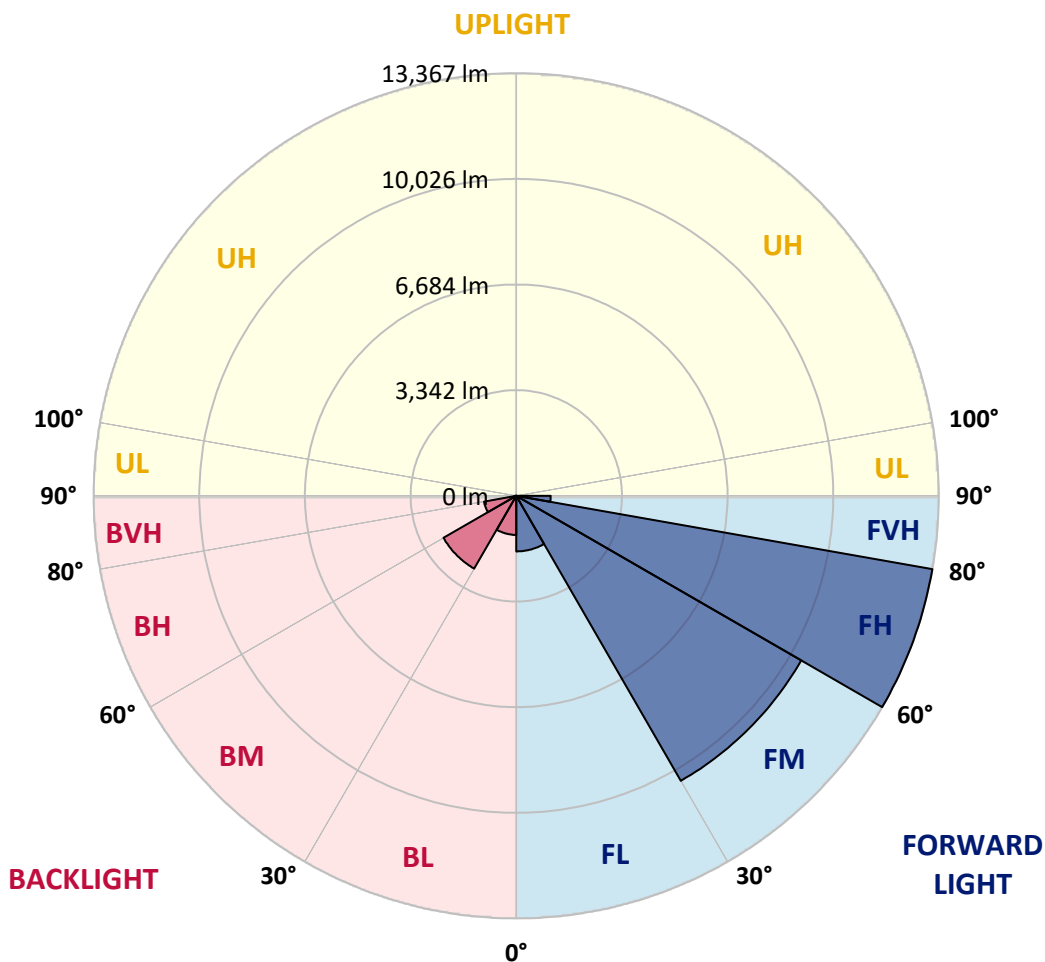


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1758.5	5.6			
FM (30°-60°)	10411.2	32.9			
FH (60°-80°)	13367.4	42.3			G5
FVH (80°-90°)	1090.5	3.4			G5
BL (0°-30°)	1236.3	3.9	B3/2500		
BM (30°-60°)	2658.7	8.4	B3/5000		
BH (60°-80°)	1034.7	3.3	B3/2500		G3/2500
BVH (80°-90°)	59.7	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6
2.5°	3456.2	3448.9	3443.1	3445.3	3440.9	3443.8	3437.2	3429.2	3410.2	3402.2	3398.6
5°	3486.9	3484.7	3478.8	3474.5	3466.4	3463.5	3456.2	3462.8	3452.6	3426.3	3411.0
7.5°	3505.1	3504.4	3497.8	3488.3	3492.7	3496.4	3503.7	3493.4	3480.3	3467.9	3436.5
10°	3513.2	3513.2	3505.1	3510.2	3532.9	3535.0	3538.7	3545.3	3532.9	3514.6	3483.2
12.5°	3533.6	3532.1	3535.0	3551.8	3575.2	3580.3	3598.6	3598.6	3600.0	3589.1	3552.6
15°	3584.7	3584.7	3591.3	3606.6	3646.7	3649.6	3676.7	3700.7	3703.7	3687.6	3659.9
17.5°	3702.9	3700.0	3696.4	3705.9	3748.9	3750.4	3797.1	3827.8	3835.8	3853.3	3848.9
20°	3927.8	3924.8	3924.1	3924.8	3921.9	3917.5	3963.5	3996.4	4037.2	4067.9	4083.2
22.5°	4249.7	4243.1	4243.1	4207.3	4179.6	4184.0	4191.3	4209.5	4263.5	4317.5	4375.2
25°	4596.4	4592.0	4595.6	4504.4	4467.2	4481.8	4472.3	4500.7	4571.6	4618.3	4679.6
27.5°	4879.6	4886.1	4865.7	4794.9	4770.8	4781.8	4759.9	4841.6	4919.7	5001.5	5094.2
30°	5232.1	5197.1	5146.7	5060.6	5051.8	5053.3	5051.8	5183.2	5345.3	5462.1	5590.5
32.5°	5692.7	5698.6	5585.4	5382.5	5308.0	5297.8	5327.0	5519.7	5738.7	5997.8	6167.2
35°	6158.4	6167.9	6085.4	5873.7	5661.3	5629.2	5586.2	5836.5	6152.6	6672.3	6927.8
37.5°	6652.6	6686.2	6588.3	6399.3	6147.5	6117.5	5913.9	6159.9	6627.0	7470.8	7805.9
40°	7313.9	7278.1	7159.9	6919.7	6685.4	6637.3	6400.8	6530.0	7237.3	8470.8	8713.9
42.5°	7801.5	7791.3	7691.3	7454.0	7218.3	7179.6	6989.1	7129.2	8005.9	9484.7	9593.5
45°	8188.4	8251.1	8248.9	8100.0	7967.2	7945.3	7832.9	8039.4	8935.1	10441.6	10388.4
47.5°	8532.1	8570.8	8508.8	8443.8	8381.8	8389.1	8472.3	8897.1	9884.7	11277.4	11041.6
50°	9094.9	9045.3	8767.2	8717.6	8805.1	8808.8	9062.1	9716.1	10930.7	12000.0	11594.9
52.5°	9845.3	9791.3	9219.7	9135.1	9342.4	9357.7	9778.9	10532.2	12009.5	12690.6	12145.3
55°	10962.1	10836.5	10224.1	9844.6	9939.5	10001.5	10511.7	11316.8	12854.1	13299.3	12562.1
57.5°	12333.6	12424.9	12111.0	11253.3	10858.4	10881.8	11350.4	12067.9	13599.3	13832.2	12805.9
60°	13783.3	13761.4	13892.8	13531.4	12775.2	12649.7	12411.0	12834.4	14176.7	14281.1	13057.0
62.5°	14577.4	14705.2	15143.1	15215.4	15897.9	15831.4	14204.4	13784.7	14843.9	14562.8	13125.6
65°	14573.0	14628.5	15443.9	16340.2	18472.3	18453.4	17697.1	15159.2	15340.9	14713.2	12988.4
67.5°	13631.4	13717.6	14670.9	16422.0	19662.1	19639.5	19116.9	17091.3	15497.1	14532.2	12348.2
70°	11914.6	11943.8	12873.8	15270.9	20140.2	20227.1	19165.8	17832.9	15108.8	13994.2	11181.1
72.5°	9829.2	9768.6	10678.1	13040.9	18922.7	18870.9	18355.5	16947.5	14454.8	12949.7	9119.0
75°	7237.3	7405.9	8221.9	10470.8	16201.5	16391.3	16619.8	15592.8	12838.0	10672.3	6305.9
77.5°	4778.9	4993.4	5818.3	7851.1	12826.3	13121.2	13713.2	13262.1	10443.8	7655.5	3002.9
80°	2469.4	2631.4	3373.7	5209.5	9194.9	9620.5	10705.9	10044.6	7404.4	3461.3	672.3
82.5°	934.3	913.1	1511.7	2981.8	5895.6	6282.5	7071.6	6023.4	2635.0	608.0	312.4
85°	410.2	434.3	626.3	1359.9	3370.8	3421.2	4005.9	2348.2	386.1	290.5	212.4
87.5°	177.4	203.7	262.8	391.2	1137.2	1313.1	1624.8	746.0	116.8	100.7	106.6
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°	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6	3387.6
2.5°	3392.0	3387.6	3380.3	3362.1	3332.1	3328.5	3325.6	3322.6	3316.8	3319.7	3336.5
5°	3399.3	3391.3	3365.0	3338.7	3312.4	3289.1	3260.6	3249.6	3235.0	3225.6	3243.1
7.5°	3424.1	3407.3	3368.6	3332.9	3261.3	3227.0	3190.5	3147.5	3116.8	3097.1	3114.6
10°	3465.7	3444.5	3396.4	3322.6	3238.7	3144.5	3080.3	3008.8	2950.4	2934.3	2950.4
12.5°	3533.6	3502.2	3446.0	3346.0	3197.1	3073.7	2951.8	2857.7	2763.5	2736.5	2744.5
15°	3643.8	3619.0	3532.9	3394.9	3197.8	3009.5	2828.5	2676.7	2553.3	2510.2	2507.3
17.5°	3820.5	3794.2	3694.9	3492.0	3224.1	2959.1	2707.3	2475.9	2289.1	2194.2	2178.8
20°	4073.7	4037.2	3886.9	3635.1	3281.0	2937.2	2594.9	2284.0	1993.4	1815.3	1788.3
22.5°	4355.5	4316.8	4094.9	3745.3	3321.9	2894.2	2487.6	2071.5	1689.1	1471.5	1440.9
25°	4705.9	4621.2	4294.2	3849.6	3312.4	2803.7	2313.1	1783.2	1368.6	1180.3	1159.9
27.5°	5051.8	4944.5	4497.1	3904.4	3270.8	2659.9	2057.7	1446.0	1071.5	938.0	921.2
30°	5481.0	5273.7	4677.4	3929.9	3165.7	2444.5	1715.3	1099.3	802.2	710.2	694.2
32.5°	5991.3	5677.4	4846.7	3901.5	2990.5	2116.1	1333.6	805.1	596.4	538.7	538.0
35°	6664.3	6172.3	5032.9	3808.0	2721.9	1762.1	935.0	550.4	465.0	445.3	448.9
37.5°	7451.1	6842.4	5221.9	3654.8	2418.3	1348.2	623.4	424.1	408.8	409.5	410.2
40°	8281.1	7582.5	5476.7	3439.4	2049.6	975.9	448.9	381.0	380.3	387.6	389.8
42.5°	9073.8	8301.5	5790.5	3152.6	1663.5	645.3	389.1	363.5	354.0	356.9	359.1
45°	9810.3	8918.3	6057.7	2873.0	1249.6	460.6	381.8	343.1	328.5	327.0	328.5
47.5°	10403.7	9412.4	6220.5	2544.5	890.5	382.5	366.4	324.1	303.7	299.3	297.1
50°	10855.5	9779.6	6279.6	2172.3	602.2	365.0	346.0	302.2	277.4	278.1	278.1
52.5°	11296.4	10113.2	6211.0	1797.1	443.1	349.6	332.1	284.7	258.4	272.3	275.9
55°	11613.9	10253.3	6011.0	1391.2	369.3	330.7	316.8	264.2	246.0	268.6	275.9
57.5°	11799.3	10363.5	5643.8	1004.4	338.7	312.4	297.1	245.3	228.5	234.3	238.0
60°	11914.6	10209.5	5158.4	686.9	322.6	297.8	277.4	232.8	210.2	196.4	194.2
62.5°	11851.1	9824.1	4519.0	472.3	305.8	281.8	260.6	221.2	191.2	173.0	171.5
65°	11333.6	9111.0	3469.4	382.5	295.6	274.5	250.4	210.2	178.1	160.6	158.4
67.5°	10373.8	7829.2	2026.3	340.1	291.2	267.2	242.3	200.0	170.8	151.8	148.9
70°	8796.4	5889.1	678.8	303.7	290.5	266.4	235.8	192.7	162.8	143.1	140.1
72.5°	6346.0	3553.3	330.7	267.2	271.5	255.5	230.7	186.9	157.7	132.8	127.7
75°	3606.6	1156.9	298.5	230.7	252.6	243.8	227.7	187.6	159.9	120.4	114.6
77.5°	1026.3	338.0	288.3	196.4	238.7	251.8	213.1	169.3	163.5	111.7	104.4
80°	346.7	300.7	278.1	152.6	192.7	208.0	184.7	148.9	165.0	101.5	94.2
82.5°	278.1	302.2	233.6	121.9	146.7	157.7	146.7	133.6	133.6	90.5	84.7
85°	222.6	280.3	148.2	97.1	109.5	121.2	103.7	100.0	93.4	75.9	73.7
87.5°	129.2	87.6	61.3	49.6	46.0	46.7	40.1	48.2	59.1	51.8	51.1
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)