

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: P510847

Luminaire Tested: **CST-CA8-480-740-U-T2**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510847  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-10)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA8-480-740-U-T2  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 70544 lumens  
Efficiency: N/A  
Efficacy: 146.7 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G5

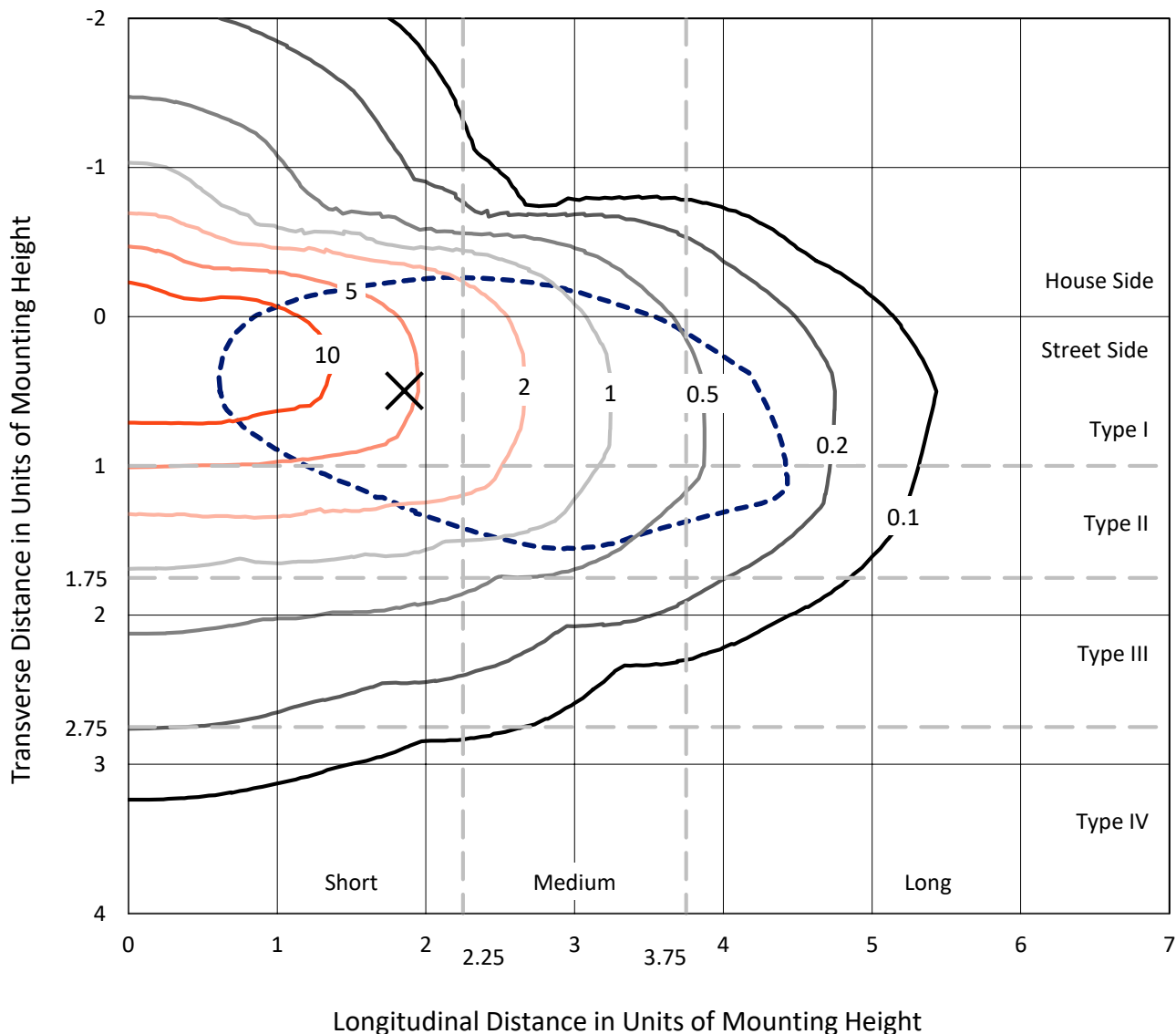
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

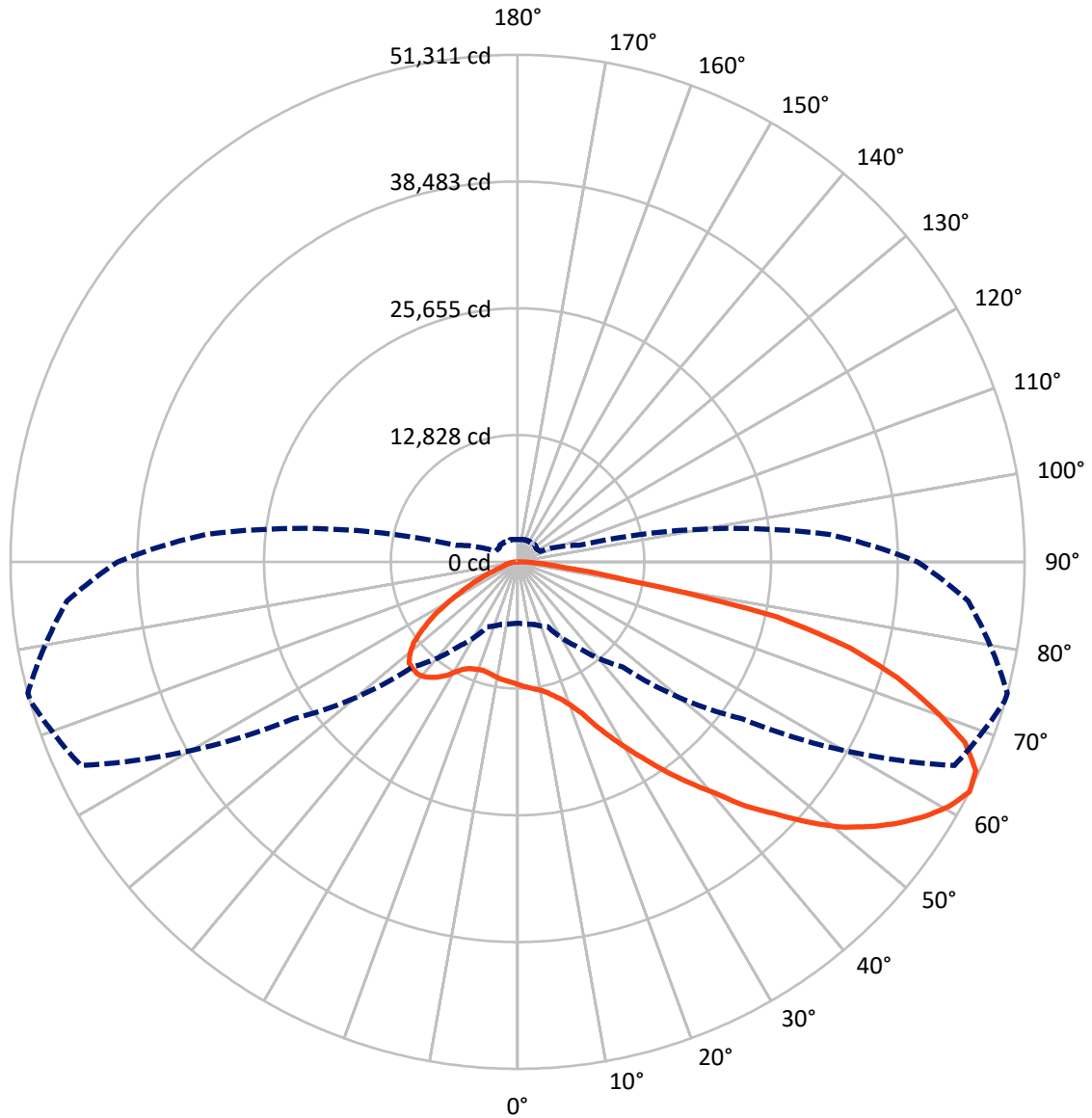
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.2 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

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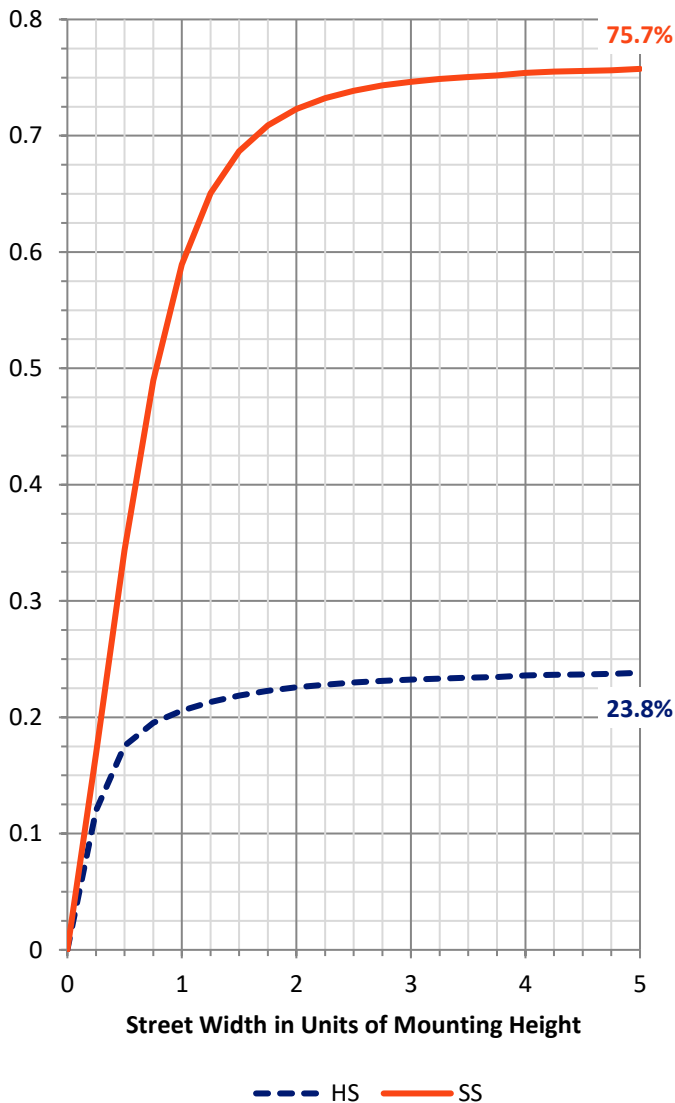
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	17091.6	0.0	17091.6
	% Fixture	24.2	0.0	24.2
<b>Street Side</b>	Lumens	53452.4	0.0	53452.4
	% Fixture	75.8	0.0	75.8
<b>Total</b>	Lumens	70544.0	0.0	70544.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1196.3	1.7
10°-20°	3630.7	5.1
20°-30°	6262.1	8.9
30°-40°	9233.6	13.1
40°-50°	12171.9	17.3
50°-60°	14325.2	20.3
60°-70°	14252.2	20.2
70°-80°	8311.5	11.8
80°-90°	1160.5	1.6
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°	70544.0	100.0
0°-180°	70544.0	100.0

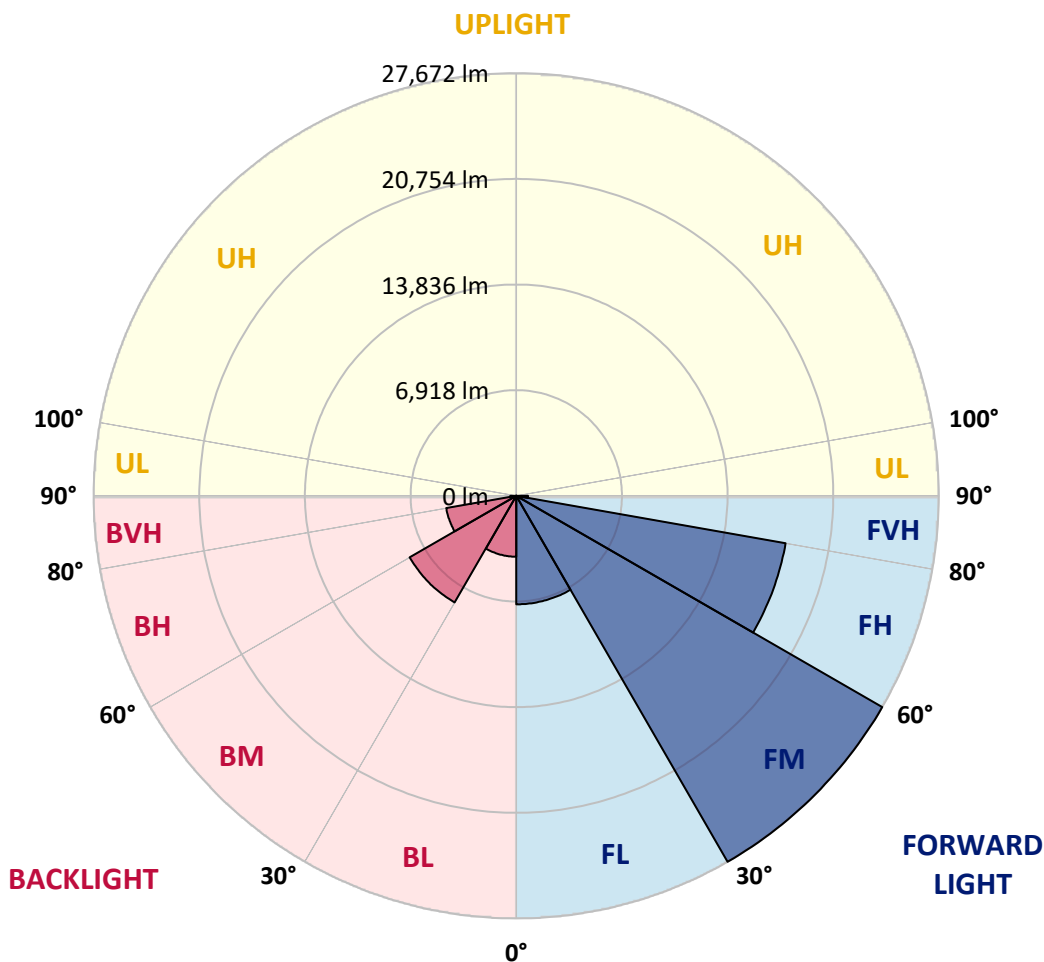


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7103.5	10.1			
FM (30°-60°)	27671.5	39.2			
FH (60°-80°)	17907.3	25.4			G5
FVH (80°-90°)	770.1	1.1			G5
BL (0°-30°)	3985.7	5.6	B4/5000		
BM (30°-60°)	8059.2	11.4	B4/8500		
BH (60°-80°)	4656.3	6.6	B4/5000		G4/5000
BVH (80°-90°)	390.4	0.6			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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3
2.5°	13116.2	13062.5	13069.8	13032.0	12975.4	12933.3	12822.9	12703.9	12632.8	12626.9	12525.3
5°	13775.4	13792.8	13797.2	13676.6	13557.6	13422.6	13254.2	13024.8	12837.5	12808.4	12611.0
7.5°	14376.5	14375.0	14366.3	14299.5	14244.3	14044.0	13707.1	13347.1	13042.2	13014.6	12693.7
10°	14992.0	14987.7	14900.6	14788.8	14663.9	14479.5	14190.6	13759.4	13265.8	13229.5	12770.7
12.5°	15662.8	15614.9	15559.7	15424.7	15276.6	14957.2	14653.8	14184.8	13669.4	13604.1	12907.2
15°	16216.0	16166.6	16089.7	15998.2	15842.8	15598.9	15276.6	14720.5	14167.4	14103.5	13213.5
17.5°	16763.3	16740.1	16684.9	16587.7	16468.6	16258.1	15961.9	15490.0	14765.6	14687.2	13723.1
20°	17212.0	17156.8	17116.1	17161.1	17171.3	17016.0	16853.3	16457.0	15658.5	15537.9	14348.9
22.5°	17467.5	17455.9	17678.0	17843.5	17910.3	17945.2	17894.3	17574.9	16851.9	16641.4	15220.0
25°	17710.0	17691.1	17993.1	18406.9	18800.3	19000.7	19135.7	19177.8	18514.3	18324.1	16621.0
27.5°	17717.2	17769.5	18207.9	18901.9	19501.6	20112.8	20760.3	20834.4	20252.2	20101.2	18215.2
30°	17756.4	17779.6	18213.8	19010.8	20259.4	21239.5	22083.0	22499.7	21997.3	21927.6	19970.5
32.5°	17258.4	17288.9	17964.0	19201.0	20831.5	22405.3	23524.7	24143.2	24018.3	23929.8	21843.4
35°	16740.1	16766.2	17550.2	18931.0	21256.9	23463.7	24827.0	26042.3	26270.2	26203.4	23932.7
37.5°	15927.1	16014.2	16835.9	18608.7	21330.9	24241.9	26069.8	27934.0	28622.2	28421.9	26142.4
40°	15044.3	15108.2	16065.0	17933.5	21248.2	24753.0	27290.9	30027.6	30861.0	30753.6	28336.2
42.5°	13929.3	14100.6	15058.8	17071.1	20822.8	25071.0	28420.4	32401.5	33612.3	33756.1	30351.4
45°	12989.9	12985.6	13875.6	15822.5	20051.8	25146.4	29460.0	34801.4	36572.7	36302.6	33015.6
47.5°	11885.0	11930.0	12859.2	14579.7	18915.0	24906.9	30270.1	37638.4	39431.4	39284.8	35200.7
50°	9328.3	9652.1	11411.7	13511.1	17377.5	24239.0	30945.2	40401.3	42113.0	42179.8	37186.8
52.5°	8041.9	8166.8	9138.1	12435.3	16012.7	23118.2	31685.7	43509.7	44704.6	44534.8	39441.6
55°	7526.5	7593.3	8059.3	10502.9	14693.0	21383.2	32041.4	46348.2	46725.6	46698.1	41297.1
57.5°	7153.4	7204.2	7535.2	8765.0	13244.0	19156.0	31740.9	48194.9	48781.5	48601.5	43048.0
60°	6614.7	6655.4	7149.0	7898.2	11752.9	16907.1	29892.6	49032.7	50272.6	50205.8	44595.7
62.5°	6209.7	6279.4	6555.2	7257.9	10479.6	15054.5	27690.1	48771.3	51251.1	51310.7	45777.6
65°	5781.4	5843.8	6077.5	6691.7	9325.4	13836.4	25314.9	47461.7	50801.1	50959.3	45969.2
67.5°	5252.9	5300.8	5578.1	6109.5	7976.6	12618.2	22636.2	45146.0	48303.8	48813.4	44061.5
70°	4587.9	4605.3	4945.1	5306.6	6623.4	10781.6	17998.9	41355.2	44690.1	44700.3	40459.4
72.5°	3651.5	3666.0	3756.0	4030.4	4975.6	8532.7	13229.5	34554.6	40296.7	40222.7	35958.6
75°	2482.7	2610.5	2922.6	3184.0	3589.0	5991.9	8227.8	23280.8	34140.8	34721.6	29536.9
77.5°	1961.5	1973.1	2102.3	2341.9	2691.8	4476.1	4611.2	12881.0	25452.8	26833.5	23216.9
80°	1367.7	1388.0	1318.3	1376.4	1877.3	3063.5	2694.7	5605.7	10614.6	11333.3	13939.4
82.5°	651.9	675.1	775.3	720.1	933.6	1302.3	1422.8	2896.5	4585.0	4705.5	5427.1
85°	429.8	429.8	431.2	408.0	544.5	567.7	646.1	1235.5	2238.8	2314.3	2301.2
87.5°	137.9	152.4	148.1	172.8	209.1	188.7	197.5	387.7	768.0	760.8	635.9
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°	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3	12435.3
2.5°	12452.7	12393.2	12253.8	12131.9	12011.3	11919.9	11841.5	11736.9	11687.6	11642.6	11736.9
5°	12489.0	12383.0	12133.3	11883.6	11654.2	11485.8	11382.7	11307.2	11239.0	11239.0	11270.9
7.5°	12531.1	12387.4	12030.2	11676.0	11331.9	11140.2	10993.6	10897.8	10842.6	10845.5	10913.7
10°	12558.7	12338.0	11912.6	11435.0	11060.4	10752.6	10608.8	10470.9	10366.4	10303.9	10373.6
12.5°	12590.6	12322.1	11754.4	11215.7	10759.8	10411.4	10112.3	10009.2	9907.6	9829.2	9866.9
15°	12788.1	12383.0	11622.2	10937.0	10408.5	9974.4	9582.4	9393.6	9364.6	9310.9	9323.9
17.5°	13110.4	12547.1	11536.6	10595.8	9986.0	9473.5	8976.9	8733.0	8674.9	8647.4	8661.9
20°	13591.0	12859.2	11562.7	10356.2	9509.8	8936.3	8294.6	8008.5	7815.4	7827.0	7883.7
22.5°	14325.6	13363.0	11705.0	10093.4	8994.4	8242.3	7594.8	7205.6	7011.1	6969.0	7032.9
25°	15495.8	14174.6	11861.8	9842.3	8496.4	7493.1	6775.9	6354.9	6105.1	6089.2	6160.3
27.5°	16995.6	15418.9	12203.0	9624.5	7877.9	6593.0	5880.1	5520.0	5254.3	5222.4	5199.2
30°	18530.3	16801.1	12820.0	9293.4	7156.3	5663.8	5043.8	4762.1	4464.5	4344.0	4370.1
32.5°	20156.4	18088.9	13543.1	9061.1	6349.0	4846.4	4307.7	4039.1	3766.2	3591.9	3551.3
35°	21794.1	19369.4	14151.4	8714.1	5583.9	4197.4	3682.0	3404.6	3166.5	3024.3	3014.1
37.5°	23710.5	20702.3	14639.2	8345.4	4789.7	3689.2	3069.3	2909.6	2794.9	2670.0	2683.1
40°	25629.9	22255.8	15029.8	7735.6	4130.6	3143.3	2611.9	2643.9	2668.5	2564.0	2555.3
42.5°	27224.1	23561.0	15208.4	6945.8	3546.9	2668.5	2410.1	2555.3	2662.7	2594.5	2585.8
45°	28842.9	24660.1	15138.7	5965.7	3062.0	2442.1	2394.1	2542.2	2680.2	2664.2	2656.9
47.5°	30602.6	26100.3	15018.2	4849.3	2715.0	2420.3	2429.0	2498.7	2672.9	2701.9	2690.3
50°	32754.3	27425.9	14305.3	3776.3	2546.6	2455.1	2507.4	2471.1	2619.2	2678.7	2688.9
52.5°	34895.8	28446.6	13351.4	3272.5	2479.8	2488.5	2616.3	2492.9	2558.2	2610.5	2658.4
55°	36548.0	29486.1	11808.1	2969.1	2458.0	2504.5	2646.8	2539.3	2537.9	2537.9	2553.8
57.5°	38239.4	30878.4	10264.7	2773.1	2420.3	2521.9	2610.5	2548.0	2527.7	2498.7	2479.8
60°	39416.9	31393.9	8281.5	2643.9	2381.1	2497.2	2508.8	2500.1	2437.7	2410.1	2388.3
62.5°	40462.3	31674.1	6447.8	2495.8	2327.4	2439.1	2378.2	2359.3	2323.0	2256.2	2267.8
65°	40182.1	31073.0	4913.1	2328.8	2289.6	2369.5	2263.5	2218.5	2221.4	2151.7	2174.9
67.5°	38378.8	28376.9	3528.1	2073.3	2186.5	2231.5	2132.8	2099.4	2050.0	2015.2	2047.1
70°	34736.1	25155.2	2379.6	1720.5	1951.3	2048.6	1983.3	1925.2	1848.2	1825.0	1859.8
72.5°	29236.4	20998.4	1642.1	1383.6	1684.2	1810.5	1785.8	1726.3	1671.1	1727.7	1796.0
75°	24018.3	15535.0	1340.1	1133.9	1295.1	1508.5	1581.1	1598.5	1764.0	2315.7	2372.4
77.5°	17288.9	9630.3	1205.1	921.9	1033.7	1206.5	1351.7	1411.2	2154.6	2063.1	2058.8
80°	10080.4	5612.9	919.0	727.4	836.3	884.2	1057.0	1656.6	1858.4	1594.2	1555.0
82.5°	4599.5	2476.9	640.3	582.2	580.7	585.1	720.1	1594.2	1425.7	1255.9	1209.4
85°	1691.4	871.1	389.1	336.8	386.2	335.4	471.9	1168.8	826.1	813.0	678.0
87.5°	416.7	178.6	132.1	110.3	90.0	85.7	143.7	384.7	201.8	184.4	177.1
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)