

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: P510827

Luminaire Tested: **CST-CA8-480-727-U-T2**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510827  
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-CA8-480-727-U-T2  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 59736 lumens  
Efficiency: N/A  
Efficacy: 124.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G5

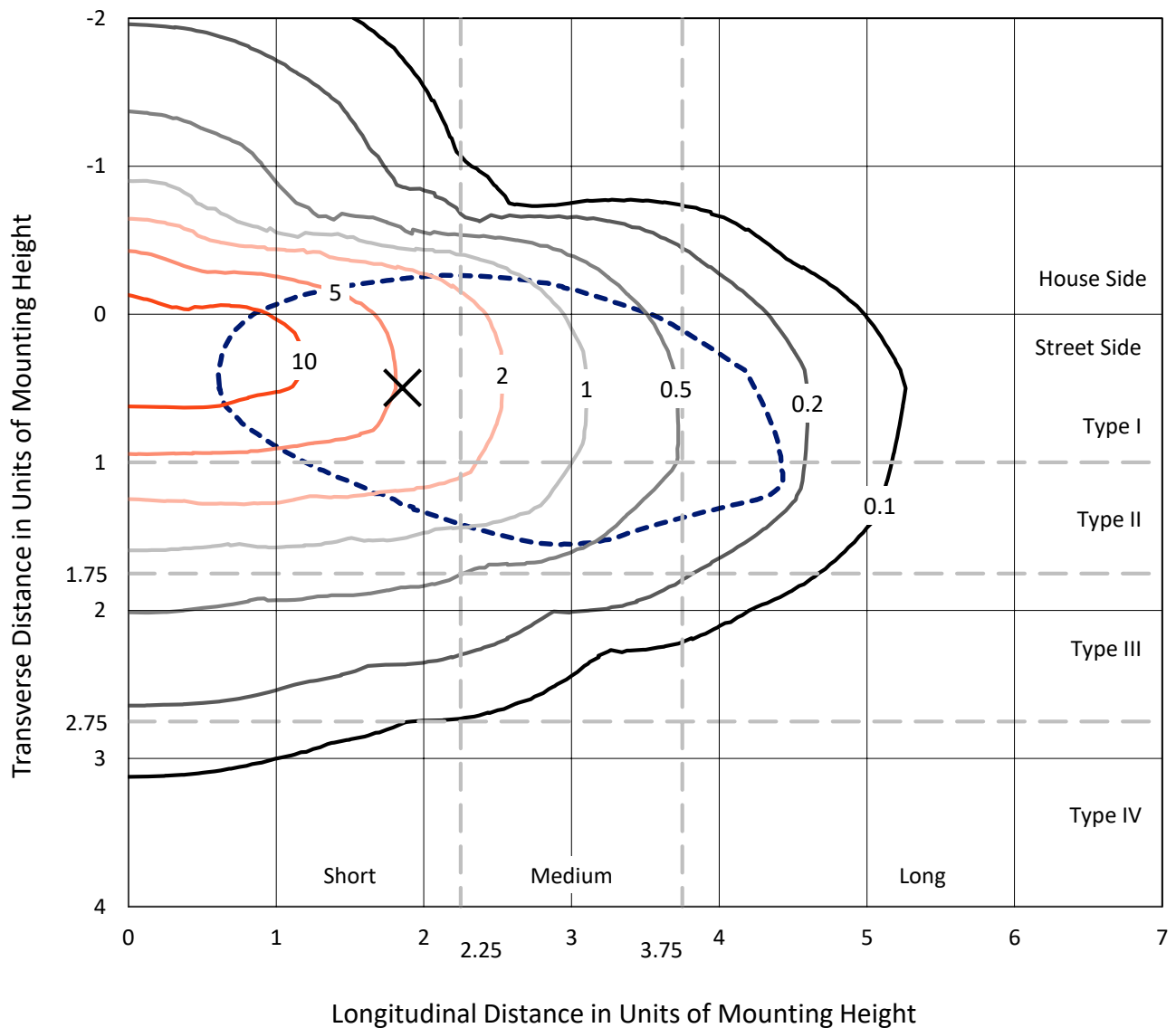
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

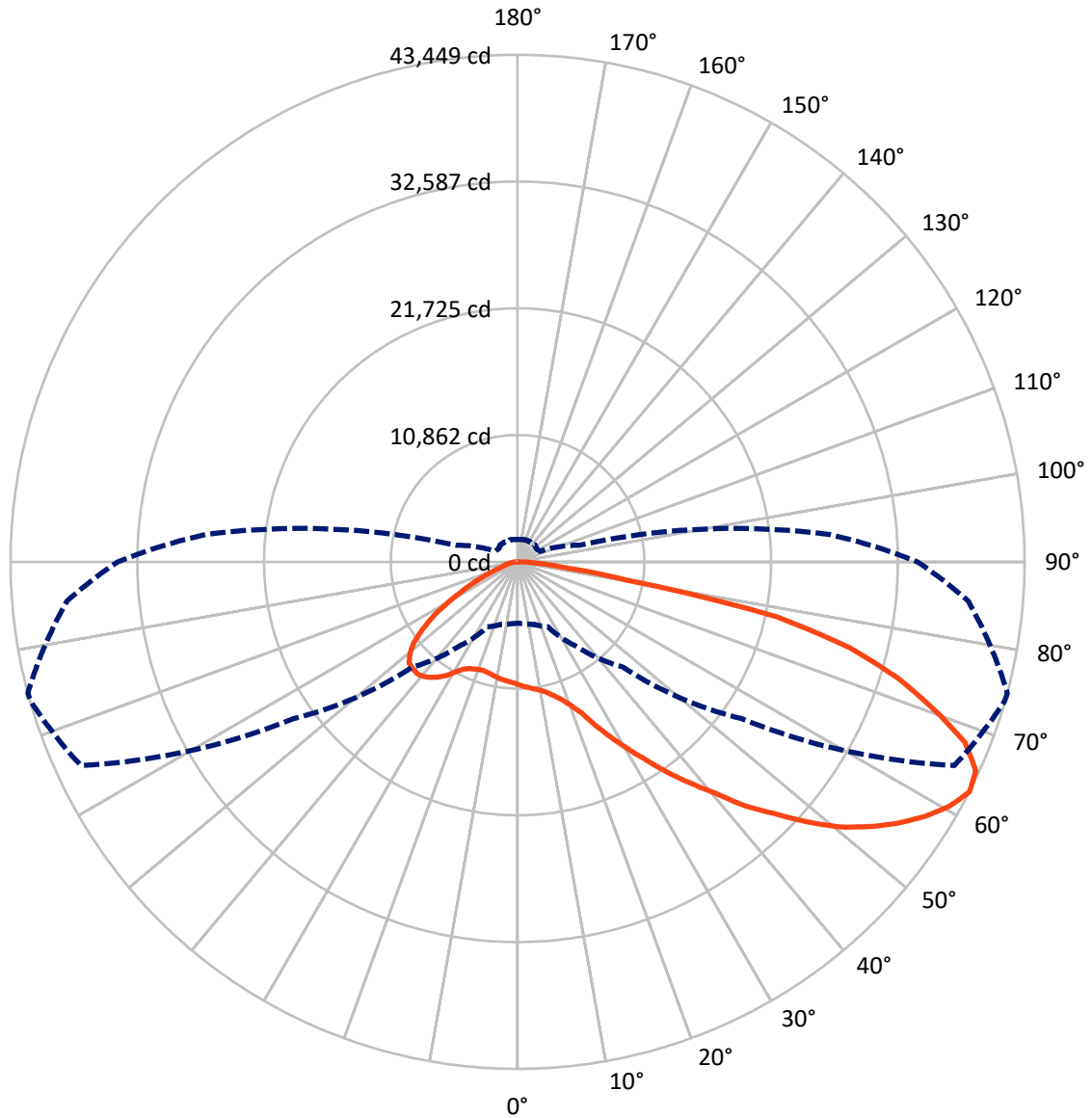
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.7 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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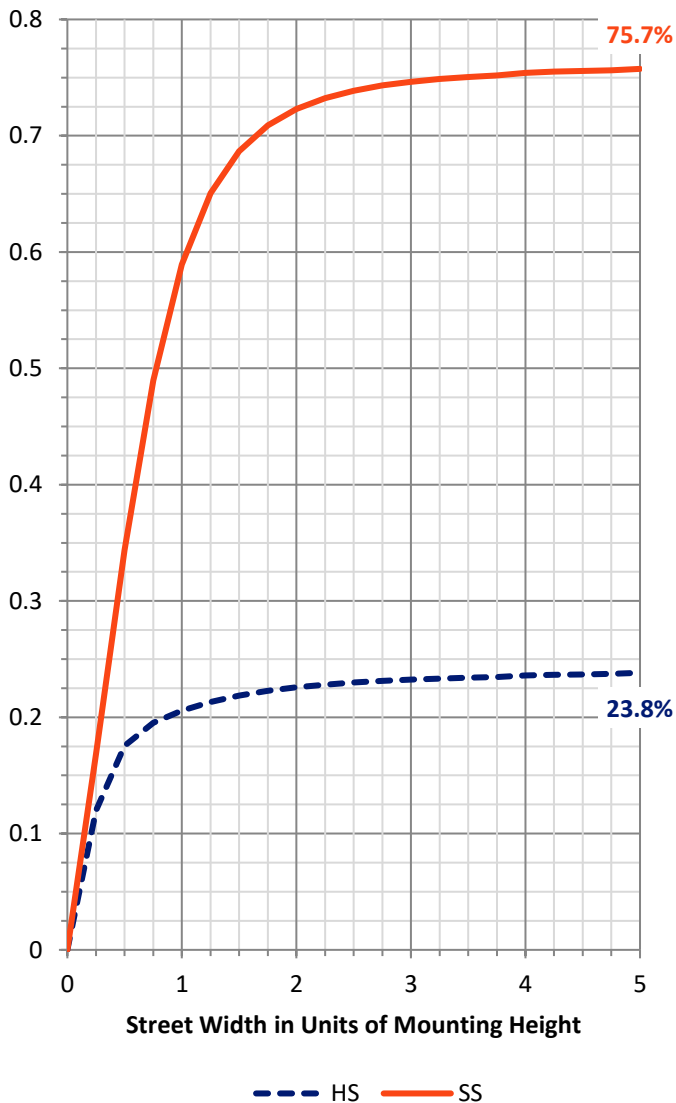
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14473.0	0.0	14473.0
	% Fixture	24.2	0.0	24.2
<b>Street Side</b>	Lumens	45263.0	0.0	45263.0
	% Fixture	75.8	0.0	75.8
<b>Total</b>	Lumens	59736.0	0.0	59736.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1013.0	1.7
10°-20°	3074.5	5.1
20°-30°	5302.7	8.9
30°-40°	7818.9	13.1
40°-50°	10307.0	17.3
50°-60°	12130.5	20.3
60°-70°	12068.6	20.2
70°-80°	7038.1	11.8
80°-90°	982.7	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°	59736.0	100.0
0°-180°	59736.0	100.0

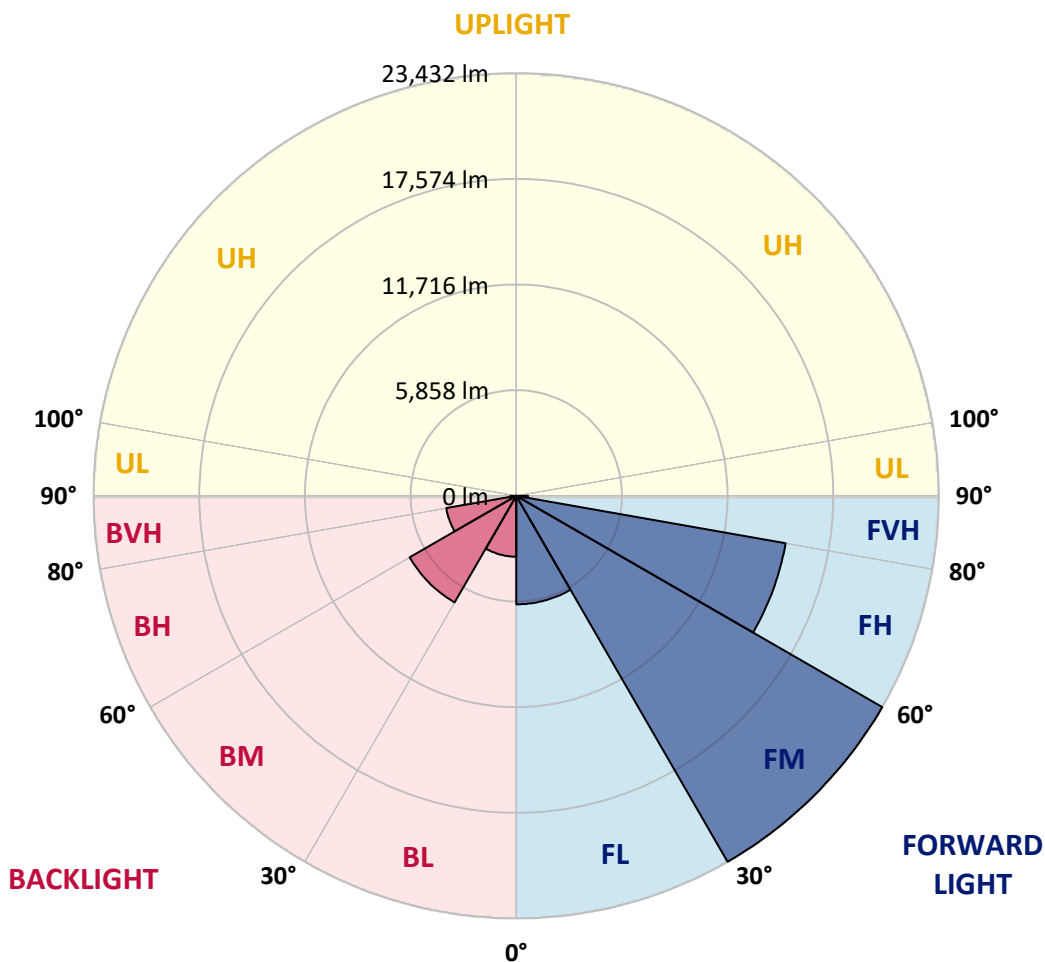


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6015.2	10.1			
FM (30°-60°)	23432.0	39.2			
FH (60°-80°)	15163.8	25.4			G5
FVH (80°-90°)	652.1	1.1			G4/750
BL (0°-30°)	3375.0	5.6	B4/5000		
BM (30°-60°)	6824.4	11.4	B4/8500		
BH (60°-80°)	3942.9	6.6	B4/5000		G4/5000
BVH (80°-90°)	330.6	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°	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1
2.5°	11106.7	11061.2	11067.4	11035.4	10987.4	10951.8	10858.4	10757.5	10697.3	10692.4	10606.3
5°	11664.9	11679.6	11683.3	11581.3	11480.4	11366.1	11223.5	11029.2	10870.6	10846.1	10678.9
7.5°	12173.8	12172.6	12165.2	12108.7	12062.0	11892.3	11607.1	11302.2	11044.0	11020.6	10748.9
10°	12695.1	12691.4	12617.7	12523.0	12417.3	12261.1	12016.5	11651.3	11233.3	11202.6	10814.1
12.5°	13263.1	13222.6	13175.8	13061.5	12936.1	12665.6	12408.7	12011.6	11575.1	11519.8	10929.7
15°	13731.5	13689.7	13624.6	13547.1	13415.6	13209.0	12936.1	12465.2	11996.8	11942.7	11189.1
17.5°	14195.0	14175.4	14128.6	14046.3	13945.5	13767.2	13516.4	13116.8	12503.3	12436.9	11620.6
20°	14574.9	14528.2	14493.8	14531.9	14540.5	14409.0	14271.3	13935.6	13259.4	13157.4	12150.5
22.5°	14791.3	14781.5	14969.6	15109.7	15166.3	15195.8	15152.8	14882.3	14270.0	14091.8	12888.1
25°	14996.6	14980.6	15236.4	15586.8	15919.9	16089.6	16203.9	16239.6	15677.7	15516.7	14074.5
27.5°	15002.8	15047.0	15418.3	16006.0	16513.7	17031.3	17579.7	17642.4	17149.4	17021.5	15424.5
30°	15036.0	15055.6	15423.2	16098.2	17155.5	17985.4	18699.7	19052.5	18627.1	18568.1	16910.8
32.5°	14614.3	14640.1	15211.8	16259.2	17639.9	18972.6	19920.5	20444.2	20338.5	20263.5	18496.8
35°	14175.4	14197.5	14861.4	16030.6	18000.1	19868.9	21023.3	22052.3	22245.4	22188.8	20266.0
37.5°	13486.9	13560.6	14256.5	15757.6	18062.8	20527.8	22075.7	23654.3	24237.0	24067.4	22137.2
40°	12739.4	12793.5	13603.7	15186.0	17992.8	20960.6	23109.6	25427.1	26132.8	26041.8	23994.8
42.5°	11795.2	11940.3	12751.7	14455.7	17632.5	21229.8	24066.1	27437.3	28462.6	28584.3	25701.3
45°	10999.7	10996.0	11749.7	13398.4	16979.7	21293.8	24946.4	29469.5	30969.4	30740.7	27957.3
47.5°	10064.1	10102.3	10889.1	12346.0	16017.1	21090.9	25632.4	31871.8	33390.2	33266.0	29807.6
50°	7899.1	8173.3	9663.3	11441.1	14715.1	20525.4	26204.1	34211.4	35660.9	35717.5	31489.5
52.5°	6809.8	6915.6	7738.1	10530.1	13559.4	19576.3	26831.1	36843.6	37855.5	37711.6	33398.8
55°	6373.4	6429.9	6824.6	8893.7	12441.9	18107.1	27132.4	39247.2	39566.8	39543.5	34970.0
57.5°	6057.4	6100.4	6380.8	7422.1	11214.9	16221.1	26877.9	40811.0	41307.7	41155.3	36452.7
60°	5601.3	5635.7	6053.7	6688.1	9952.3	14316.7	25312.8	41520.4	42570.3	42513.8	37763.3
62.5°	5258.3	5317.3	5550.9	6145.9	8874.0	12748.0	23447.7	41299.1	43399.0	43449.4	38764.0
65°	4895.6	4948.5	5146.4	5666.5	7896.6	11716.5	21436.4	40190.2	43017.9	43151.9	38926.3
67.5°	4448.1	4488.7	4723.5	5173.5	6754.5	10685.0	19168.1	38229.2	40903.2	41334.8	37310.8
70°	3885.0	3899.8	4187.4	4493.6	5608.7	9129.8	15241.3	35019.2	37843.2	37851.8	34260.6
72.5°	3092.0	3104.3	3180.5	3412.9	4213.3	7225.4	11202.6	29260.5	34122.9	34060.2	30449.4
75°	2102.3	2210.5	2474.8	2696.1	3039.2	5073.9	6967.2	19714.0	28910.1	29401.9	25011.6
77.5°	1661.0	1670.8	1780.2	1983.1	2279.4	3790.3	3904.7	10907.5	21553.2	22722.4	19659.9
80°	1158.1	1175.3	1116.3	1165.5	1589.7	2594.1	2281.8	4746.8	8988.4	9597.0	11803.8
82.5°	552.0	571.7	656.5	609.8	790.5	1102.8	1204.8	2452.7	3882.5	3984.6	4595.6
85°	363.9	363.9	365.1	345.5	461.0	480.7	547.1	1046.2	1895.8	1959.7	1948.7
87.5°	116.8	129.1	125.4	146.3	177.0	159.8	167.2	328.3	650.4	644.2	538.5
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°	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1	10530.1
2.5°	10544.8	10494.4	10376.4	10273.1	10171.1	10093.6	10027.3	9938.7	9896.9	9858.8	9938.7
5°	10575.6	10485.8	10274.4	10062.9	9868.7	9726.0	9638.8	9574.8	9517.0	9517.0	9544.1
7.5°	10611.2	10489.5	10187.1	9887.1	9595.7	9433.4	9309.3	9228.1	9181.4	9183.9	9241.6
10°	10634.6	10447.7	10087.5	9683.0	9365.8	9105.2	8983.5	8866.7	8778.2	8725.3	8784.3
12.5°	10661.6	10434.2	9953.5	9497.4	9111.3	8816.3	8563.0	8475.7	8389.7	8323.3	8355.2
15°	10828.8	10485.8	9841.6	9261.3	8813.8	8446.2	8114.3	7954.4	7929.8	7884.4	7895.4
17.5°	11101.8	10624.8	9769.1	8972.4	8456.0	8022.0	7601.6	7395.0	7345.9	7322.5	7334.8
20°	11508.7	10889.1	9791.2	8769.5	8052.8	7567.2	7023.8	6781.6	6618.0	6627.9	6675.8
22.5°	12130.8	11315.7	9911.7	8547.0	7616.3	6979.5	6431.2	6101.7	5936.9	5901.3	5955.4
25°	13121.7	12003.0	10044.5	8334.3	7194.6	6345.1	5737.8	5381.2	5169.8	5156.2	5216.5
27.5°	14391.7	13056.6	10333.4	8149.9	6670.9	5582.9	4979.2	4674.3	4449.3	4422.3	4402.6
30°	15691.3	14227.0	10855.9	7869.6	6059.9	4796.0	4271.0	4032.5	3780.5	3678.5	3700.6
32.5°	17068.2	15317.5	11468.1	7672.9	5376.3	4103.8	3647.7	3420.3	3189.1	3041.6	3007.2
35°	18455.0	16401.9	11983.3	7379.1	4728.4	3554.3	3117.8	2883.0	2681.4	2560.9	2552.3
37.5°	20077.9	17530.5	12396.4	7066.8	4055.9	3124.0	2599.0	2463.8	2366.7	2260.9	2272.0
40°	21703.2	18846.0	12727.1	6550.4	3497.7	2661.7	2211.7	2238.8	2259.7	2171.2	2163.8
42.5°	23053.1	19951.2	12878.3	5881.6	3003.5	2259.7	2040.9	2163.8	2254.8	2197.0	2189.6
45°	24423.9	20881.9	12819.3	5051.7	2592.9	2067.9	2027.3	2152.7	2269.5	2256.0	2249.9
47.5°	25914.0	22101.5	12717.3	4106.3	2299.0	2049.5	2056.8	2115.9	2263.4	2288.0	2278.1
50°	27736.0	23224.0	12113.6	3197.8	2156.4	2079.0	2123.2	2092.5	2217.9	2268.3	2276.9
52.5°	29549.4	24088.3	11305.9	2771.1	2099.9	2107.2	2215.4	2110.9	2166.3	2210.5	2251.1
55°	30948.5	24968.6	9999.0	2514.2	2081.4	2120.8	2241.3	2150.3	2149.0	2149.0	2162.6
57.5°	32380.8	26147.6	8692.1	2348.2	2049.5	2135.5	2210.5	2157.7	2140.4	2115.9	2099.9
60°	33377.9	26584.0	7012.7	2238.8	2016.3	2114.6	2124.5	2117.1	2064.2	2040.9	2022.4
62.5°	34263.1	26821.3	5459.9	2113.4	1970.8	2065.4	2013.8	1997.8	1967.1	1910.5	1920.4
65°	34025.8	26312.3	4160.4	1972.0	1938.8	2006.4	1916.7	1878.6	1881.0	1822.0	1841.7
67.5°	32498.8	24029.3	2987.5	1755.6	1851.5	1889.6	1806.0	1777.8	1736.0	1706.5	1733.5
70°	29414.2	21301.2	2015.0	1456.9	1652.4	1734.7	1679.4	1630.2	1565.1	1545.4	1574.9
72.5°	24757.1	17781.3	1390.5	1171.6	1426.1	1533.1	1512.2	1461.8	1415.1	1463.0	1520.8
75°	20338.5	13154.9	1134.8	960.2	1096.7	1277.4	1338.9	1353.6	1493.8	1960.9	2008.9
77.5°	14640.1	8154.8	1020.4	780.7	875.4	1021.7	1144.6	1195.0	1824.5	1747.0	1743.3
80°	8536.0	4753.0	778.2	615.9	708.2	748.7	895.0	1402.8	1573.7	1349.9	1316.7
82.5°	3894.8	2097.4	542.2	493.0	491.8	495.5	609.8	1349.9	1207.3	1063.5	1024.1
85°	1432.3	737.7	329.5	285.2	327.0	284.0	399.6	989.7	699.5	688.5	574.1
87.5°	352.8	151.2	111.9	93.4	76.2	72.5	121.7	325.8	170.9	156.1	150.0
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)