

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: P510456

Luminaire Tested: **CST-CA10-310-722-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510456
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA10-310-722-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35940 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

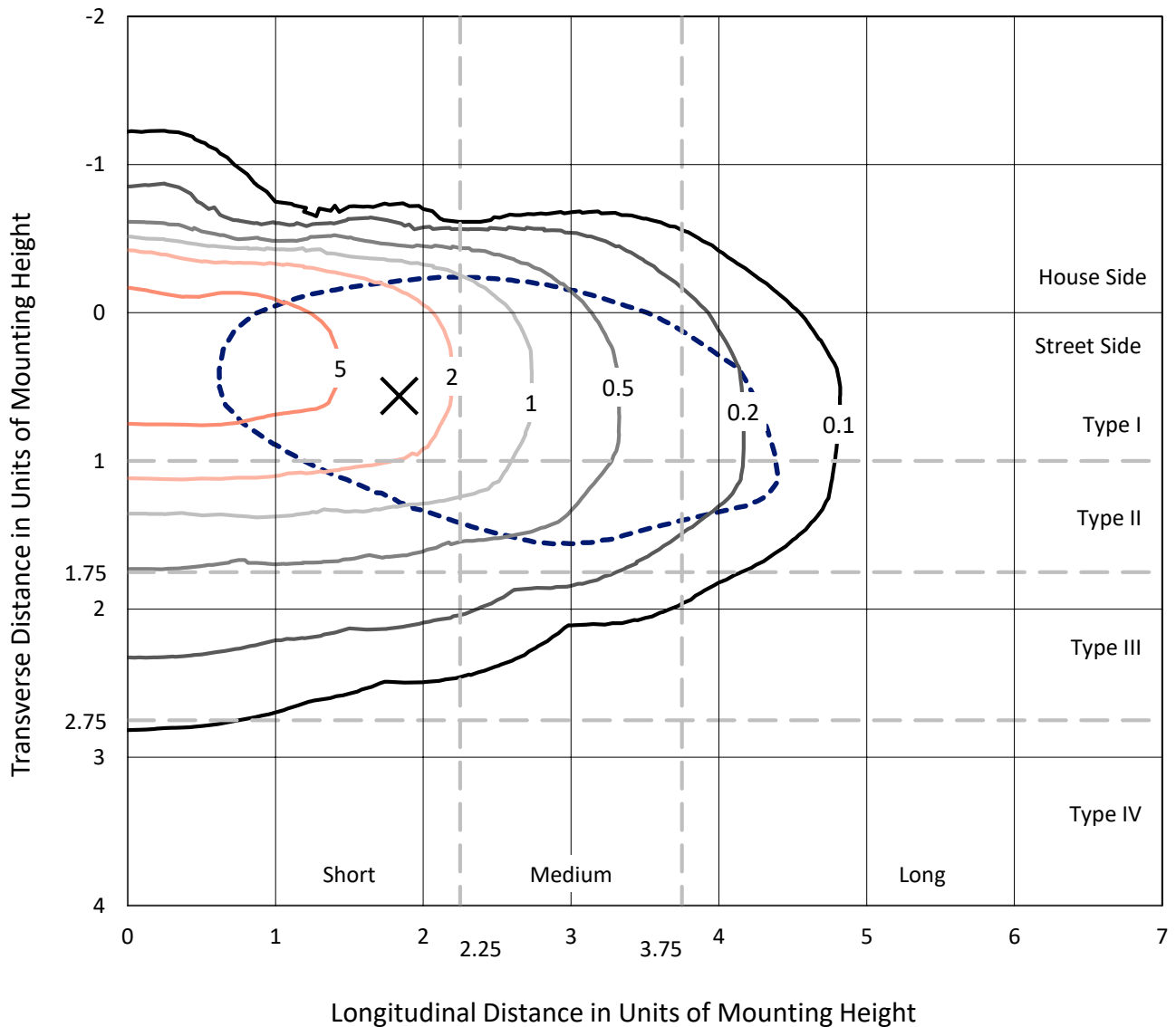
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

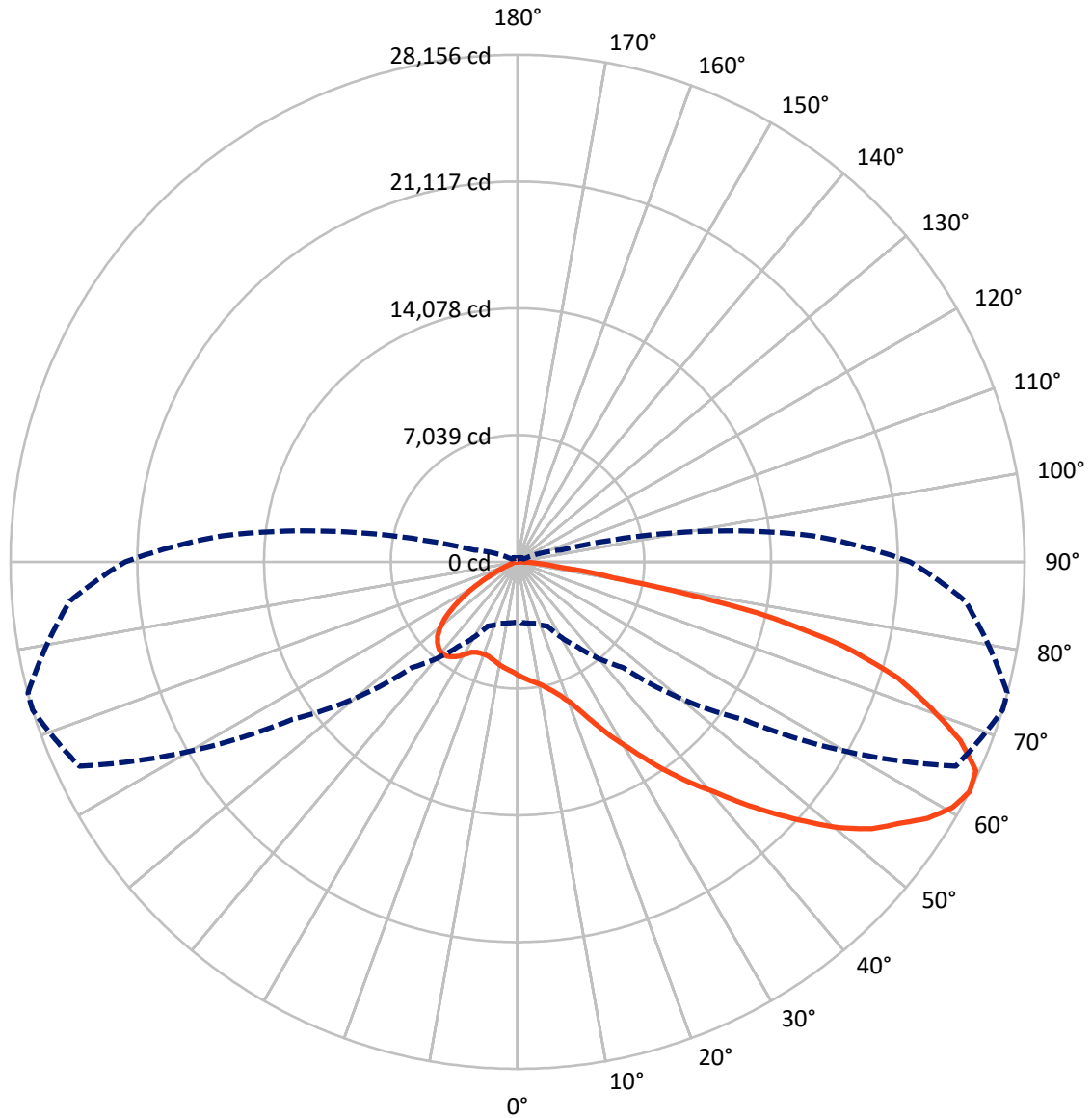
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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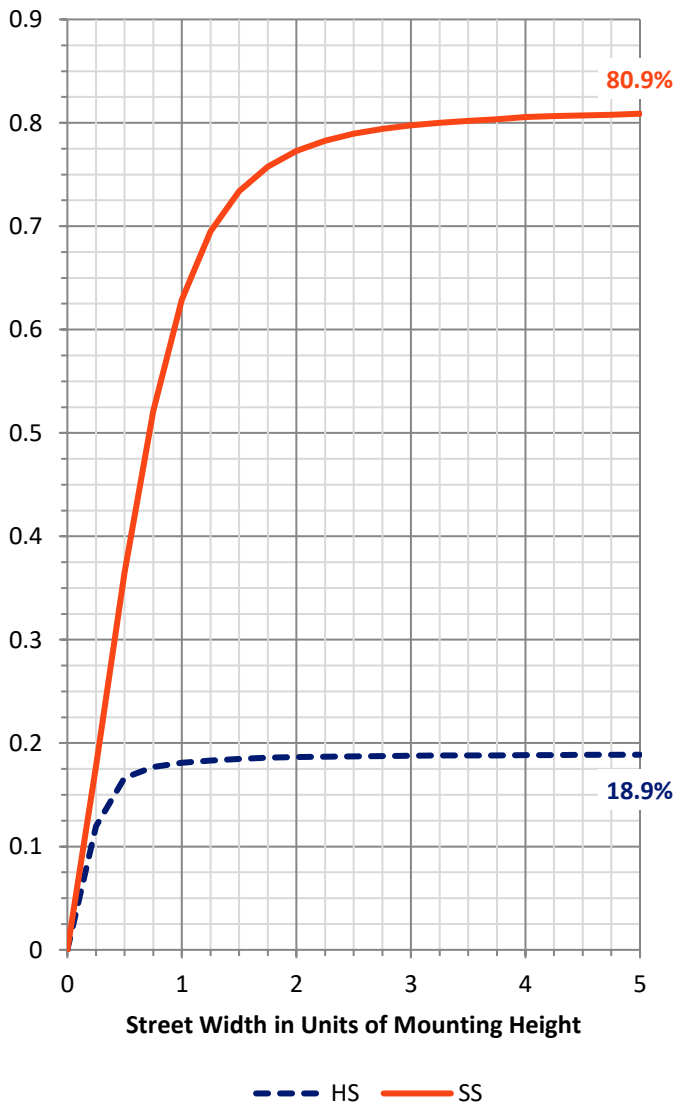
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6875.2	0.0	6875.2
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	29064.8	0.0	29064.8
	% Fixture	80.9	0.0	80.9
Total	Lumens	35940.0	0.0	35940.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	602.0	1.7
10°-20°	1810.8	5.0
20°-30°	3128.6	8.7
30°-40°	4704.6	13.1
40°-50°	6273.2	17.5
50°-60°	7387.9	20.6
60°-70°	7344.9	20.4
70°-80°	4216.9	11.7
80°-90°	471.1	1.3
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°	35940.0	100.0
0°-180°	35940.0	100.0



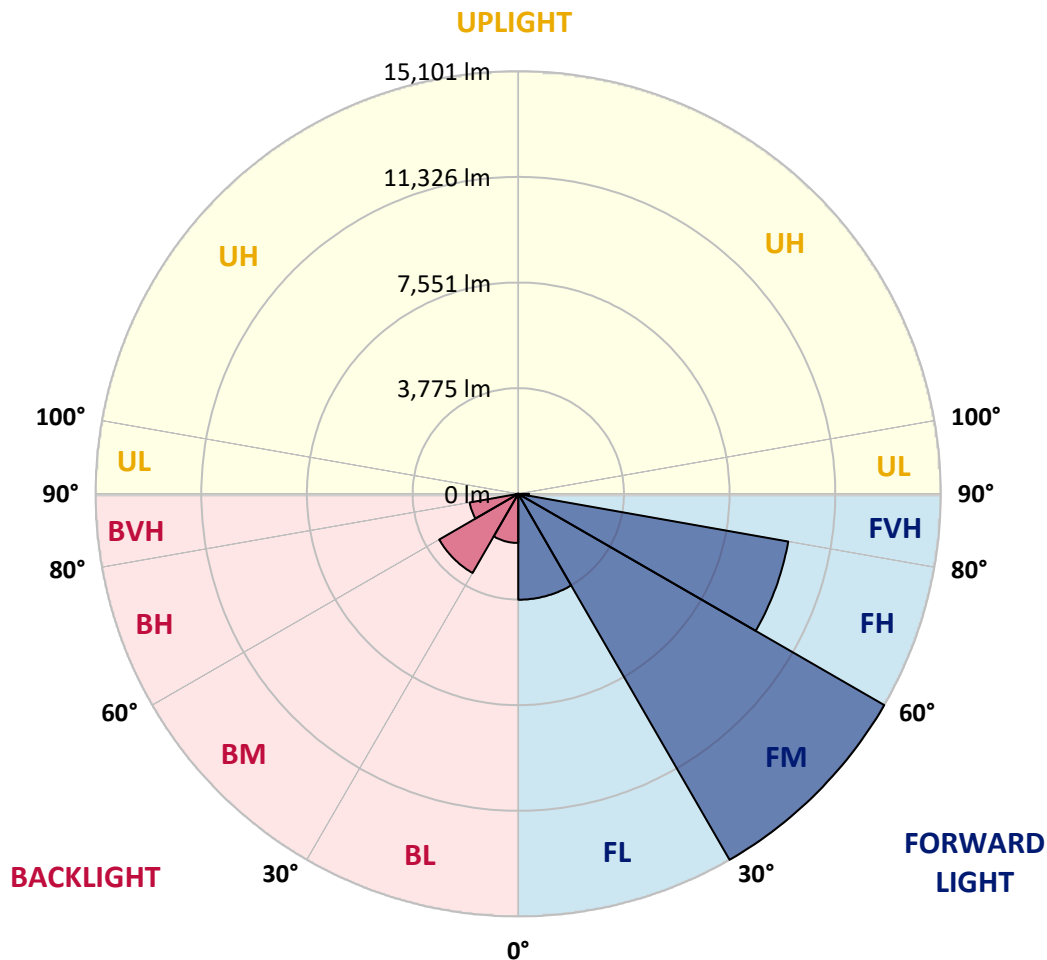
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3784.4	10.5			
FM	(30°-60°)	15101.1	42.0			
FH	(60°-80°)	9796.7	27.3			G4/12000
FVH	(80°-90°)	382.6	1.1			G3/500
BL	(0°-30°)	1756.9	4.9	B3/2500		
BM	(30°-60°)	3264.6	9.1	B3/5000		
BH	(60°-80°)	1765.1	4.9	B3/2500		G3/2500
BVH	(80°-90°)	88.5	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-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1
2.5°	6743.5	6760.5	6740.3	6731.4	6721.8	6658.8	6585.4	6510.4	6449.9	6440.2	6361.1
5°	7217.1	7226.0	7192.9	7155.0	7089.6	6985.6	6854.1	6724.2	6603.2	6570.9	6426.5
7.5°	7580.9	7564.0	7555.9	7523.7	7466.4	7351.8	7152.6	6939.6	6752.4	6707.2	6487.8
10°	7922.2	7914.9	7853.6	7813.3	7722.1	7616.4	7452.7	7182.4	6918.6	6846.0	6541.0
12.5°	8291.7	8275.5	8250.5	8163.4	8089.2	7910.9	7713.2	7467.2	7173.5	7076.7	6632.2
15°	8624.0	8580.5	8566.8	8475.6	8400.6	8264.2	8065.8	7780.2	7466.4	7383.3	6805.7
17.5°	8940.3	8920.1	8889.5	8827.3	8743.4	8638.6	8479.6	8173.9	7849.6	7728.6	7100.1
20°	9208.9	9183.9	9157.3	9174.2	9155.7	9088.7	8988.7	8728.1	8332.0	8215.0	7458.3
22.5°	9396.1	9395.3	9501.8	9563.9	9599.4	9597.0	9572.8	9425.1	9026.6	8908.0	7994.0
25°	9551.8	9563.9	9698.6	9935.0	10146.4	10165.7	10336.8	10266.6	9927.7	9804.3	8799.9
27.5°	9597.8	9622.0	9866.4	10238.3	10559.4	10867.6	11118.5	11246.8	10932.9	10785.3	9666.4
30°	9630.9	9640.5	9880.1	10325.5	11002.3	11490.4	11938.9	12156.0	11885.7	11777.6	10632.0
32.5°	9397.7	9400.9	9768.0	10442.4	11327.4	12173.7	12704.5	13113.6	13042.6	12899.8	11688.0
35°	9076.6	9136.3	9557.4	10329.5	11595.3	12801.3	13524.2	14134.1	14276.1	14173.6	12743.3
37.5°	8679.7	8726.5	9177.5	10161.7	11654.2	13233.0	14161.5	15171.5	15542.6	15525.7	14017.1
40°	8191.6	8248.9	8788.6	9800.3	11625.1	13546.8	14909.4	16320.3	16791.5	16738.2	15280.5
42.5°	7614.8	7698.7	8222.3	9335.6	11412.9	13738.8	15521.7	17490.1	18338.0	18303.3	16398.6
45°	7044.5	7089.6	7567.2	8688.6	11022.5	13800.9	16097.7	19102.0	19924.1	19885.3	17745.9
47.5°	6456.3	6495.9	6994.4	8006.9	10344.8	13675.9	16553.5	20486.3	21540.0	21501.2	19084.2
50°	5088.1	5237.4	6259.5	7407.5	9572.8	13321.7	16983.5	22211.2	23230.9	23066.3	20256.4
52.5°	4353.2	4407.2	4937.2	6803.2	8802.3	12717.4	17270.7	23809.3	24621.7	24384.5	21455.2
55°	4069.2	4105.5	4365.3	5689.1	8078.7	11803.4	17608.7	25411.5	25664.8	25604.3	22433.0
57.5°	3853.8	3894.1	4079.7	4751.7	7316.3	10522.3	17503.0	26538.5	26855.6	26661.9	23471.3
60°	3548.8	3598.1	3844.1	4266.0	6449.9	9221.8	16572.9	27000.0	27721.2	27503.4	24261.1
62.5°	3356.8	3389.1	3530.3	3939.3	5731.9	8307.0	15249.0	26851.5	28156.0	28148.0	24946.0
65°	3096.3	3143.9	3294.7	3626.3	5092.9	7597.9	14000.2	26118.2	27968.9	27976.1	25087.2
67.5°	2823.6	2843.0	3001.1	3267.3	4340.3	6948.4	12384.3	24863.7	26511.1	26677.3	24110.2
70°	2483.1	2473.5	2644.5	2838.9	3547.2	5899.7	9968.1	22632.3	24357.1	24425.7	22134.5
72.5°	1953.9	1962.8	2010.4	2145.1	2692.9	4642.8	7233.2	19121.3	22105.5	22227.3	19609.4
75°	1313.4	1327.9	1549.7	1681.2	1937.0	3336.7	4548.4	12907.0	18687.3	19031.0	16049.3
77.5°	1002.0	1010.8	1075.4	1219.0	1401.3	2378.3	2465.4	7033.2	13604.9	14420.5	12555.3
80°	709.9	713.2	649.4	577.6	746.2	1613.5	1456.2	2995.4	5421.3	6406.3	7374.4
82.5°	317.9	313.0	368.7	306.6	430.0	624.4	687.3	1453.7	2251.6	2420.2	2634.8
85°	147.6	165.4	189.6	158.9	255.7	241.2	267.8	619.6	1055.2	1164.9	1158.5
87.5°	36.3	39.5	50.0	63.7	92.8	82.3	80.7	182.3	235.6	234.8	360.6
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°	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1	6303.1
2.5°	6307.1	6265.1	6165.9	6069.9	5978.7	5918.2	5850.5	5779.5	5736.7	5716.6	5760.1
5°	6338.6	6258.7	6069.1	5878.7	5717.4	5579.4	5482.6	5400.3	5355.9	5360.0	5362.4
7.5°	6365.2	6253.0	5987.6	5719.0	5467.3	5296.2	5169.6	5080.8	5030.0	4991.3	5020.3
10°	6388.6	6229.6	5892.4	5534.2	5260.7	5007.4	4835.6	4728.3	4634.7	4582.3	4623.4
12.5°	6413.6	6220.8	5785.9	5368.9	5014.7	4731.5	4496.0	4389.5	4297.5	4258.0	4283.0
15°	6522.5	6254.7	5686.7	5174.4	4771.9	4405.6	4151.5	4020.8	3948.2	3900.6	3911.1
17.5°	6709.7	6344.2	5623.0	4971.1	4500.8	4113.6	3784.4	3631.9	3511.7	3477.9	3469.0
20°	6975.9	6514.4	5623.0	4799.3	4193.4	3789.3	3410.1	3152.7	2965.6	2895.4	2949.4
22.5°	7422.8	6804.0	5678.6	4643.6	3928.8	3452.8	3001.1	2608.2	2355.7	2253.2	2312.9
25°	8048.0	7251.8	5769.0	4507.3	3687.6	3065.6	2482.3	2030.6	1752.2	1630.4	1628.8
27.5°	8864.5	7936.7	5951.3	4395.9	3398.8	2564.6	1941.0	1506.2	1244.8	1171.4	1181.9
30°	9769.6	8678.9	6295.8	4234.6	3047.9	2003.9	1413.4	1106.8	922.9	826.1	827.7
32.5°	10642.5	9447.7	6704.8	4129.7	2592.1	1511.0	1007.6	789.8	675.2	618.0	626.8
35°	11578.3	10110.9	7009.0	3953.8	2057.2	1092.3	712.4	592.1	544.5	514.7	516.3
37.5°	12589.2	10840.2	7259.0	3718.3	1555.4	750.3	526.0	507.4	487.3	449.4	446.1
40°	13645.2	11684.8	7408.3	3337.5	1081.0	519.5	446.9	467.9	456.6	407.4	403.4
42.5°	14540.7	12336.7	7445.4	2833.3	699.4	421.1	405.0	437.3	439.7	389.7	383.2
45°	15400.7	12917.5	7372.8	2169.3	484.9	396.1	379.2	423.5	426.8	381.6	371.1
47.5°	16363.1	13712.2	7241.3	1447.3	400.9	374.3	370.3	400.9	412.2	375.1	362.2
50°	17532.1	14358.4	6851.6	889.0	378.4	360.6	360.6	379.2	394.5	362.2	355.8
52.5°	18730.9	14921.5	6274.8	609.9	364.6	346.1	356.6	364.6	370.3	341.3	346.9
55°	19590.1	15420.8	5414.8	490.5	356.6	336.4	361.4	345.3	337.2	312.2	306.6
57.5°	20543.6	16014.6	4535.5	434.8	346.1	342.1	345.3	314.6	292.0	266.2	260.6
60°	21209.2	16334.1	3459.3	409.0	334.0	336.4	318.7	277.5	236.4	217.8	213.8
62.5°	21790.0	16516.4	2535.6	375.9	322.7	321.9	288.8	237.2	194.4	174.3	171.0
65°	21702.1	16231.6	1643.3	349.3	313.8	303.3	259.0	203.3	162.2	146.8	145.2
67.5°	20734.8	14971.5	1035.0	321.9	298.5	279.9	232.3	181.5	149.2	131.5	129.9
70°	18704.3	13231.3	633.3	286.4	265.4	247.7	205.7	170.2	141.2	120.2	116.2
72.5°	15897.6	11332.3	447.7	252.5	231.5	210.6	174.3	162.2	134.7	108.1	104.9
75°	13061.1	8347.3	375.1	220.2	197.7	169.4	148.4	150.9	126.7	98.4	96.0
77.5°	9197.6	5204.3	349.3	179.9	155.7	134.7	128.3	138.0	116.2	90.4	87.9
80°	5368.0	2922.8	288.8	142.0	117.0	104.1	107.3	117.0	101.6	81.5	78.3
82.5°	2166.9	1156.9	203.3	110.5	85.5	83.1	87.9	95.2	83.9	68.6	67.0
85°	773.7	361.4	115.4	72.6	54.9	57.3	56.5	67.8	60.5	50.0	49.2
87.5°	203.3	71.8	51.6	29.0	23.4	23.4	21.8	31.5	29.0	22.6	25.0
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)