

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: P510740

Luminaire Tested: **CST-CA8-230-750-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510740
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-CA8-230-750-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32302 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

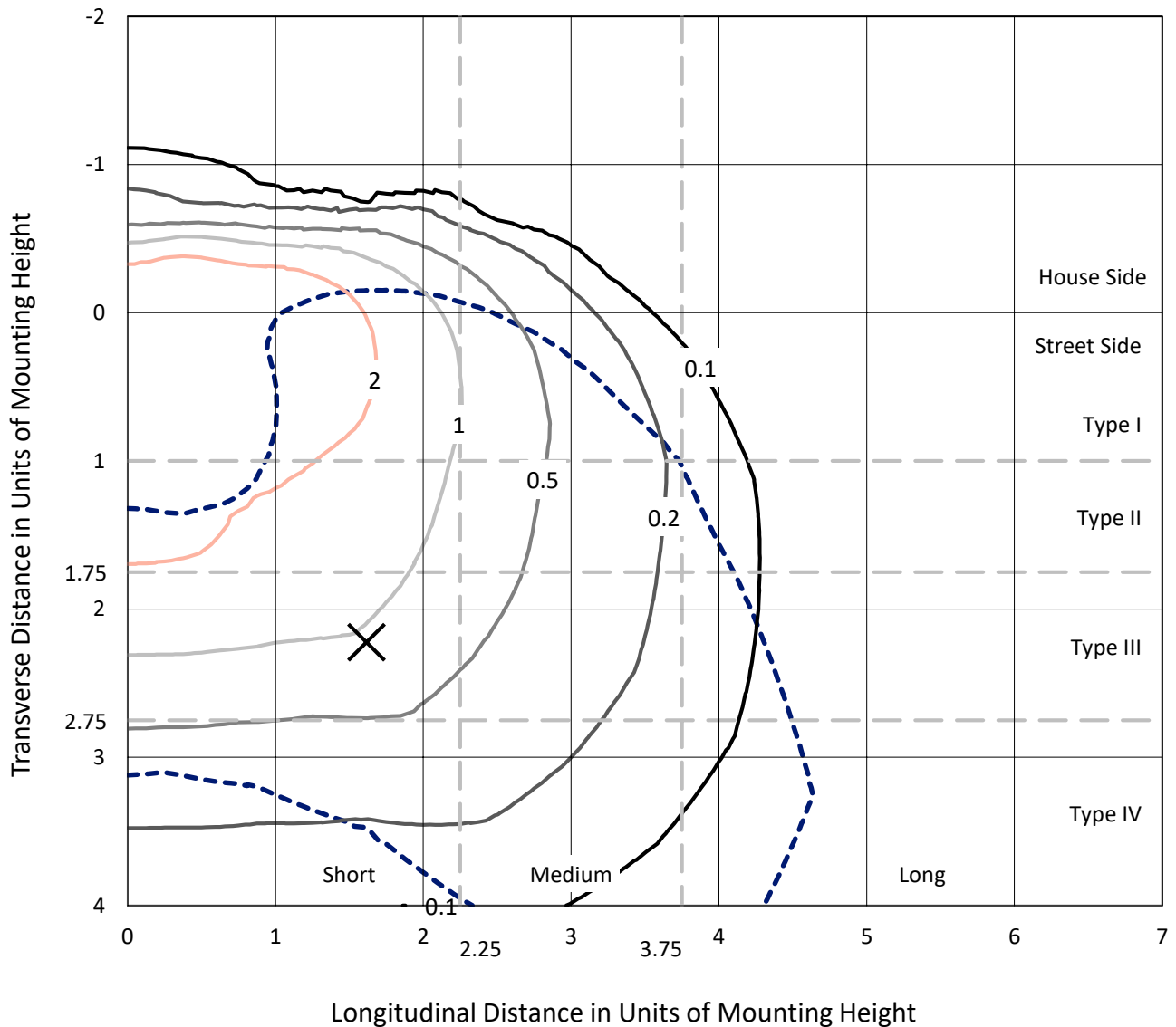
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

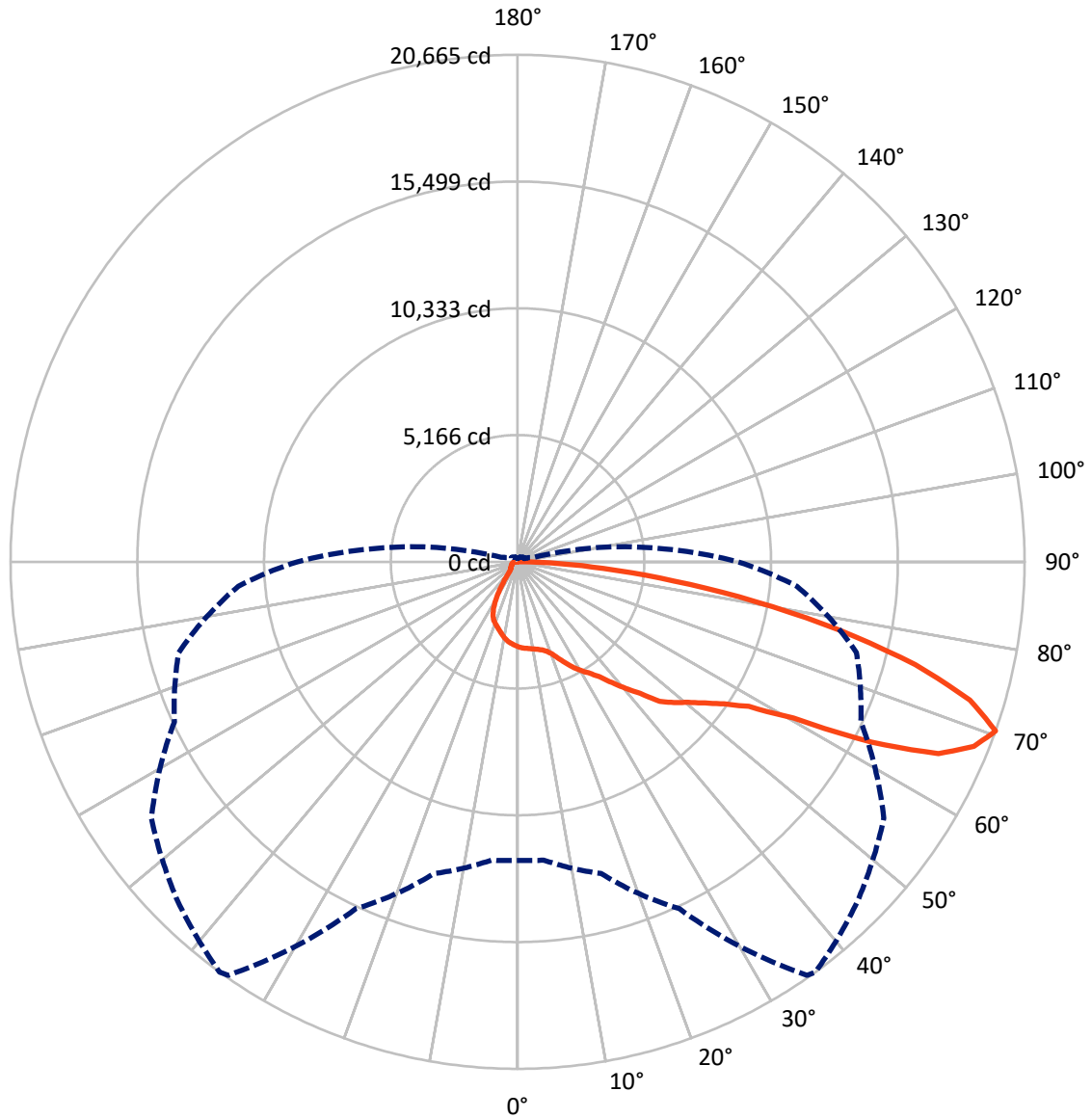
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 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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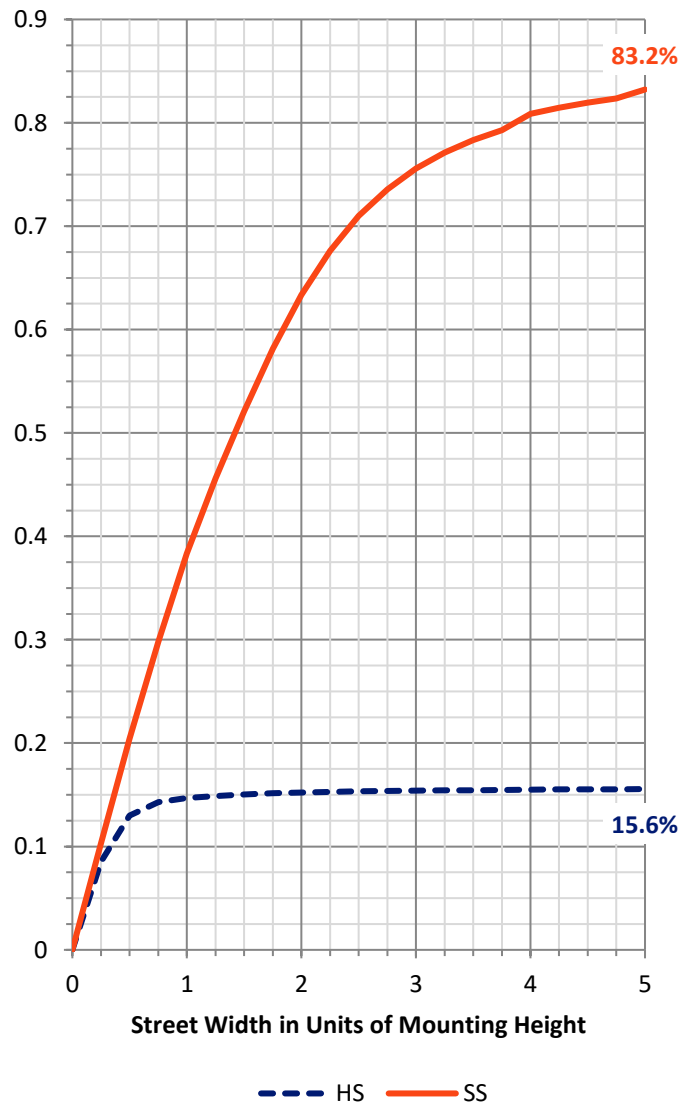
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5097.5	0.0	5097.5
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	27204.5	0.0	27204.5
	% Fixture	84.2	0.0	84.2
Total	Lumens	32302.0	0.0	32302.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.2	1.0
10°-20°	976.1	3.0
20°-30°	1755.4	5.4
30°-40°	2777.8	8.6
40°-50°	4341.3	13.4
50°-60°	6234.0	19.3
60°-70°	8455.8	26.2
70°-80°	6258.2	19.4
80°-90°	1175.1	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°	32302.0	100.0
0°-180°	32302.0	100.0

Coefficient of Utilization

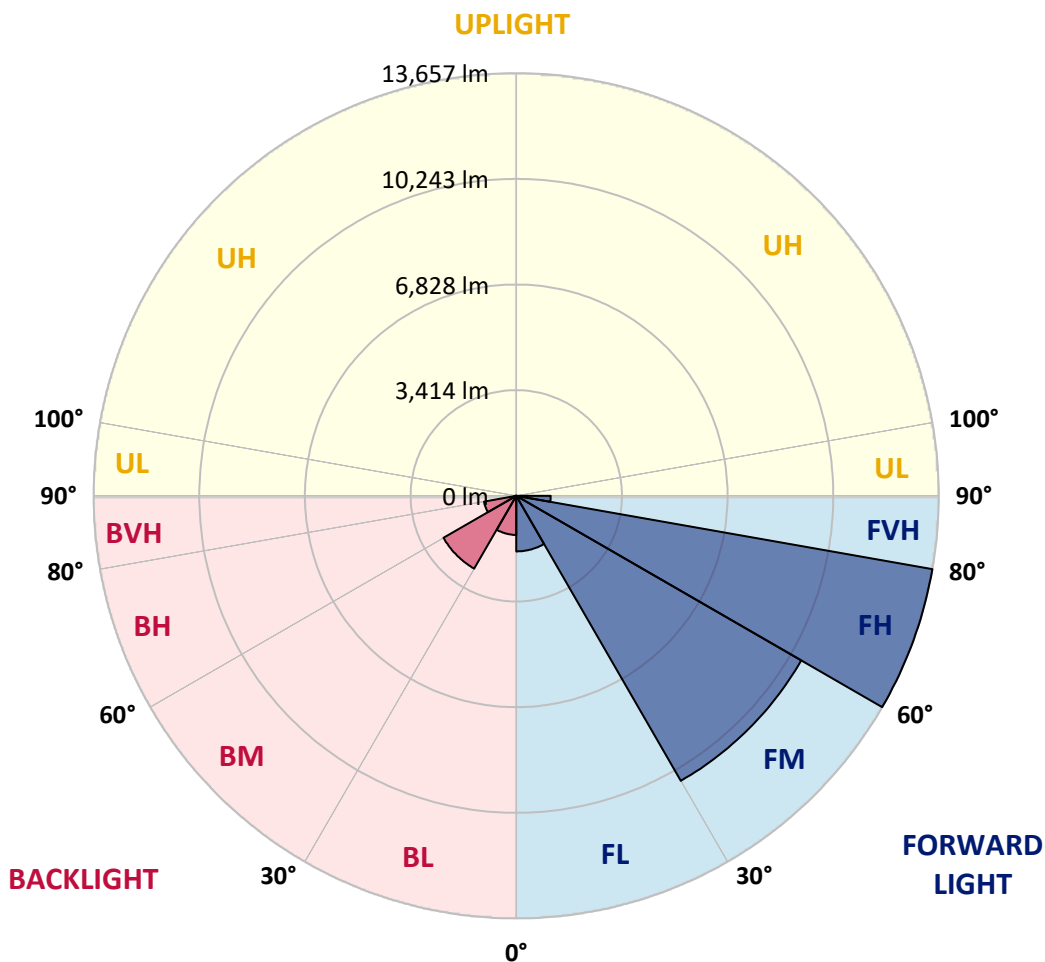


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1796.6	5.6			
FM (30°-60°)	10636.8	32.9			
FH (60°-80°)	13657.0	42.3			G5
FVH (80°-90°)	1114.2	3.4			G5
BL (0°-30°)	1263.1	3.9	B3/2500		
BM (30°-60°)	2716.3	8.4	B3/5000		
BH (60°-80°)	1057.1	3.3	B3/2500		G3/2500
BVH (80°-90°)	60.9	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°	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0
2.5°	3531.1	3523.6	3517.7	3519.9	3515.4	3518.4	3511.7	3503.5	3484.1	3475.9	3472.2
5°	3562.4	3560.2	3554.2	3549.7	3541.5	3538.6	3531.1	3537.8	3527.4	3500.5	3484.9
7.5°	3581.1	3580.3	3573.6	3563.9	3568.4	3572.1	3579.6	3569.1	3555.7	3543.0	3511.0
10°	3589.3	3589.3	3581.1	3586.3	3609.4	3611.6	3615.4	3622.1	3609.4	3590.8	3558.7
12.5°	3610.1	3608.7	3611.6	3628.8	3652.7	3657.9	3676.5	3676.5	3678.0	3666.8	3629.5
15°	3662.3	3662.3	3669.1	3684.7	3725.7	3728.7	3756.3	3780.9	3783.9	3767.5	3739.2
17.5°	3783.2	3780.2	3776.4	3786.1	3830.1	3831.6	3879.4	3910.7	3918.9	3936.8	3932.3
20°	4012.8	4009.9	4009.1	4009.9	4006.9	4002.4	4049.4	4082.9	4124.7	4156.0	4171.7
22.5°	4341.7	4335.0	4335.0	4298.5	4270.1	4274.6	4282.1	4300.7	4355.9	4411.1	4470.0
25°	4696.0	4691.5	4695.2	4602.0	4564.0	4578.9	4569.2	4598.3	4670.6	4718.3	4781.0
27.5°	4985.3	4992.0	4971.1	4898.8	4874.2	4885.4	4863.0	4946.5	5026.3	5109.8	5204.5
30°	5345.5	5309.7	5258.2	5170.2	5161.3	5162.8	5161.3	5295.5	5461.1	5580.4	5711.7
32.5°	5816.1	5822.0	5706.4	5499.1	5423.1	5412.6	5442.4	5639.3	5863.0	6127.8	6300.8
35°	6291.8	6301.5	6217.3	6001.0	5784.0	5751.2	5707.2	5963.0	6285.9	6816.8	7077.9
37.5°	6796.7	6831.0	6731.1	6537.9	6280.7	6250.1	6042.0	6293.3	6770.6	7632.7	7975.0
40°	7472.4	7435.8	7315.0	7069.7	6830.3	6781.1	6539.4	6671.4	7394.1	8654.4	8902.7
42.5°	7970.5	7960.1	7857.9	7615.5	7374.7	7335.1	7140.5	7283.7	8179.3	9690.2	9801.3
45°	8365.8	8429.9	8427.7	8275.5	8139.8	8117.4	8002.6	8213.6	9128.7	10667.9	10613.4
47.5°	8717.0	8756.5	8693.1	8626.8	8563.4	8570.8	8655.9	9089.9	10098.9	11521.7	11280.9
50°	9292.0	9241.3	8957.1	8906.4	8995.9	8999.6	9258.4	9926.6	11167.5	12260.0	11846.1
52.5°	10058.6	10003.4	9419.5	9333.0	9544.8	9560.4	9990.7	10760.3	12269.7	12965.5	12408.4
55°	11199.6	11071.3	10445.6	10057.9	10154.8	10218.2	10739.5	11562.0	13132.6	13587.5	12834.3
57.5°	12600.8	12694.1	12373.4	11497.1	11093.7	11117.6	11596.3	12329.4	13894.0	14131.9	13083.3
60°	14081.9	14059.5	14193.7	13824.6	13052.0	12923.7	12679.9	13112.4	14483.8	14590.5	13339.9
62.5°	14893.3	15023.8	15471.2	15545.0	16242.3	16174.4	14512.2	14083.4	15165.5	14878.3	13410.0
65°	14888.8	14945.5	15778.5	16694.2	18872.5	18853.2	18080.6	15487.6	15673.3	15032.0	13269.8
67.5°	13926.8	14014.8	14988.7	16777.8	20088.1	20065.0	19531.0	17461.6	15832.9	14847.0	12615.8
70°	12172.8	12202.6	13152.7	15601.7	20576.6	20665.3	19581.0	18219.3	15436.2	14297.4	11423.3
72.5°	10042.2	9980.3	10909.5	13323.5	19332.7	19279.7	18753.2	17314.7	14768.0	13230.2	9316.6
75°	7394.1	7566.3	8400.1	10697.7	16552.5	16746.4	16979.8	15930.6	13116.1	10903.5	6442.5
77.5°	4882.4	5101.6	5944.3	8021.2	13104.2	13405.5	14010.3	13549.4	10670.1	7821.4	3068.0
80°	2522.9	2688.4	3446.8	5322.4	9394.1	9828.9	10937.8	10262.2	7564.8	3536.3	686.8
82.5°	954.6	932.9	1544.4	3046.4	6023.4	6418.6	7224.8	6153.9	2692.1	621.2	319.2
85°	419.1	443.7	639.8	1389.3	3443.8	3495.3	4092.6	2399.1	394.5	296.8	217.0
87.5°	181.2	208.1	268.5	399.7	1161.9	1341.6	1660.0	762.2	119.3	102.9	108.9
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°	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0	3461.0
2.5°	3465.5	3461.0	3453.5	3434.9	3404.3	3400.6	3397.6	3394.6	3388.7	3391.6	3408.8
5°	3472.9	3464.7	3437.9	3411.0	3384.2	3360.3	3331.2	3320.1	3305.1	3295.4	3313.3
7.5°	3498.3	3481.1	3441.6	3405.1	3332.0	3296.9	3259.6	3215.6	3184.3	3164.2	3182.1
10°	3540.8	3519.2	3469.9	3394.6	3308.9	3212.7	3147.0	3074.0	3014.3	2997.9	3014.3
12.5°	3610.1	3578.1	3520.7	3418.5	3266.4	3140.3	3015.8	2919.6	2823.4	2795.8	2804.0
15°	3722.8	3697.4	3609.4	3468.5	3267.1	3074.7	2889.8	2734.6	2608.6	2564.6	2561.6
17.5°	3903.2	3876.4	3775.0	3567.6	3294.0	3023.2	2766.0	2529.6	2338.7	2241.7	2226.0
20°	4162.0	4124.7	3971.1	3713.8	3352.1	3000.9	2651.1	2333.4	2036.6	1854.7	1827.1
22.5°	4449.9	4410.3	4183.6	3826.4	3393.9	2956.9	2541.5	2116.4	1725.7	1503.4	1472.1
25°	4807.8	4721.3	4387.2	3933.1	3384.2	2864.4	2363.3	1821.9	1398.3	1205.9	1185.0
27.5°	5161.3	5051.7	4594.5	3989.0	3341.7	2717.5	2102.3	1477.3	1094.8	958.3	941.1
30°	5599.8	5388.0	4778.7	4015.1	3234.3	2497.5	1752.5	1123.1	819.6	725.6	709.2
32.5°	6121.1	5800.4	4951.7	3986.0	3055.3	2161.9	1362.5	822.6	609.3	550.4	549.6
35°	6808.6	6306.0	5141.9	3890.5	2780.9	1800.2	955.3	562.3	475.0	454.9	458.6
37.5°	7612.6	6990.6	5335.1	3733.9	2470.7	1377.4	636.9	433.3	417.6	418.4	419.1
40°	8460.5	7746.8	5595.3	3513.9	2094.0	997.1	458.6	389.3	388.5	396.0	398.2
42.5°	9270.3	8481.3	5916.0	3220.9	1699.6	659.2	397.5	371.4	361.7	364.7	366.9
45°	10022.8	9111.5	6188.9	2935.2	1276.7	470.6	390.0	350.5	335.6	334.1	335.6
47.5°	10629.1	9616.4	6355.2	2599.7	909.8	390.8	374.4	331.1	310.2	305.8	303.5
50°	11090.7	9991.5	6415.6	2219.3	615.2	372.9	353.5	308.7	283.4	284.1	284.1
52.5°	11541.1	10332.3	6345.5	1836.0	452.7	357.2	339.3	290.8	264.0	278.2	281.9
55°	11865.5	10475.5	6141.2	1421.4	377.3	337.8	323.7	270.0	251.3	274.4	281.9
57.5°	12055.0	10588.1	5766.1	1026.1	346.0	319.2	303.5	250.6	233.4	239.4	243.1
60°	12172.8	10430.7	5270.2	701.7	329.6	304.3	283.4	237.9	214.8	200.6	198.4
62.5°	12107.9	10037.0	4616.9	482.5	312.5	287.9	266.2	226.0	195.4	176.7	175.2
65°	11579.2	9308.4	3544.5	390.8	302.0	280.4	255.8	214.8	182.0	164.1	161.8
67.5°	10598.5	7998.9	2070.2	347.5	297.6	272.9	247.6	204.3	174.5	155.1	152.1
70°	8987.0	6016.7	693.5	310.2	296.8	272.2	240.9	196.9	166.3	146.2	143.2
72.5°	6483.5	3630.3	337.8	272.9	277.4	261.0	235.7	190.9	161.1	135.7	130.5
75°	3684.7	1182.0	305.0	235.7	258.0	249.1	232.7	191.7	163.3	123.0	117.1
77.5°	1048.5	345.3	294.6	200.6	243.9	257.3	217.8	173.0	167.0	114.1	106.6
80°	354.2	307.2	284.1	155.9	196.9	212.5	188.7	152.1	168.5	103.7	96.2
82.5°	284.1	308.7	238.6	124.5	149.9	161.1	149.9	136.5	136.5	92.5	86.5
85°	227.5	286.4	151.4	99.2	111.9	123.8	105.9	102.2	95.5	77.6	75.3
87.5°	132.0	89.5	62.6	50.7	47.0	47.7	41.0	49.2	60.4	52.9	52.2
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)