

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: P510470

Luminaire Tested: **CST-CA10-310-727-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510470
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-CA10-310-727-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36307 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

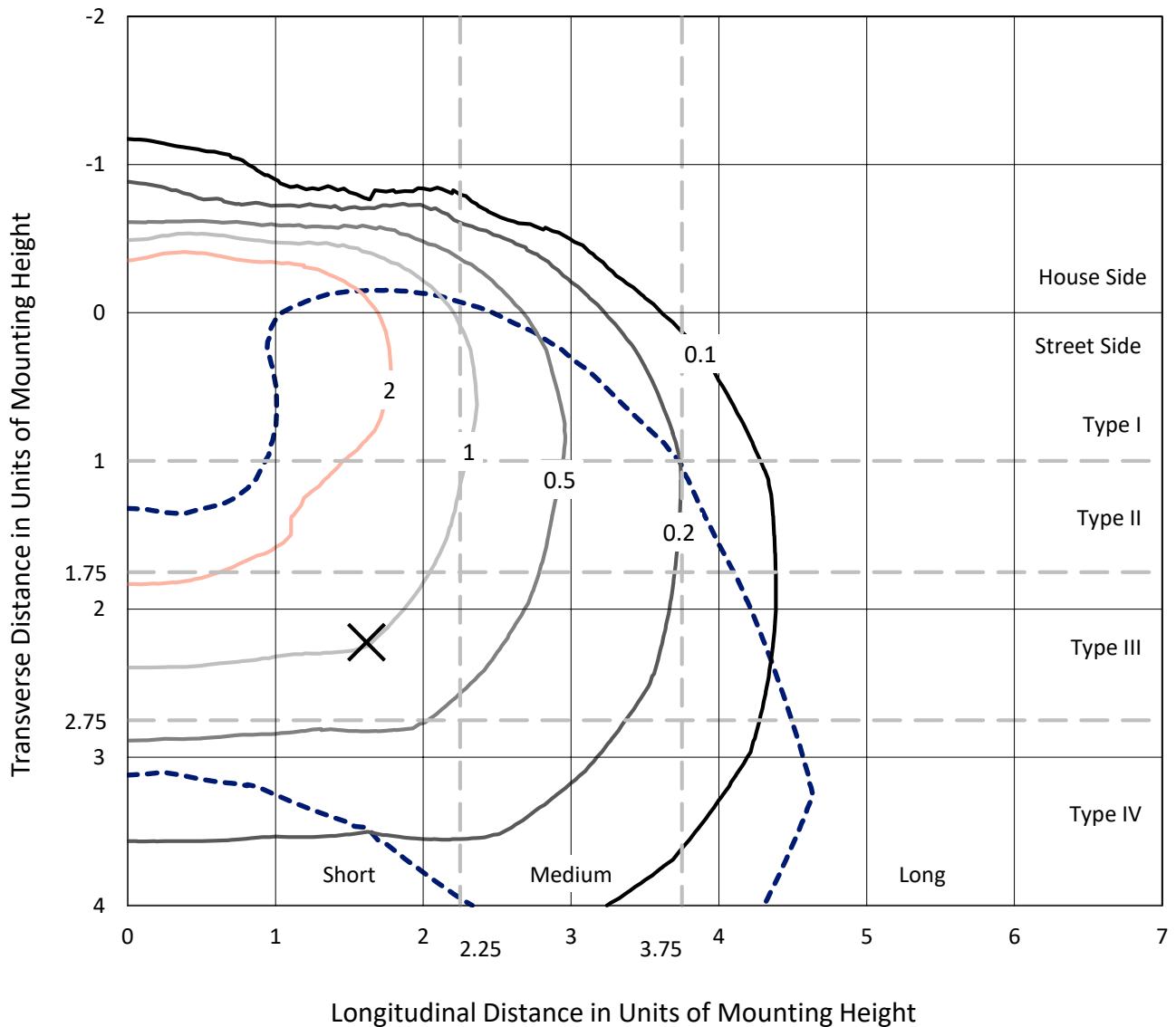
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

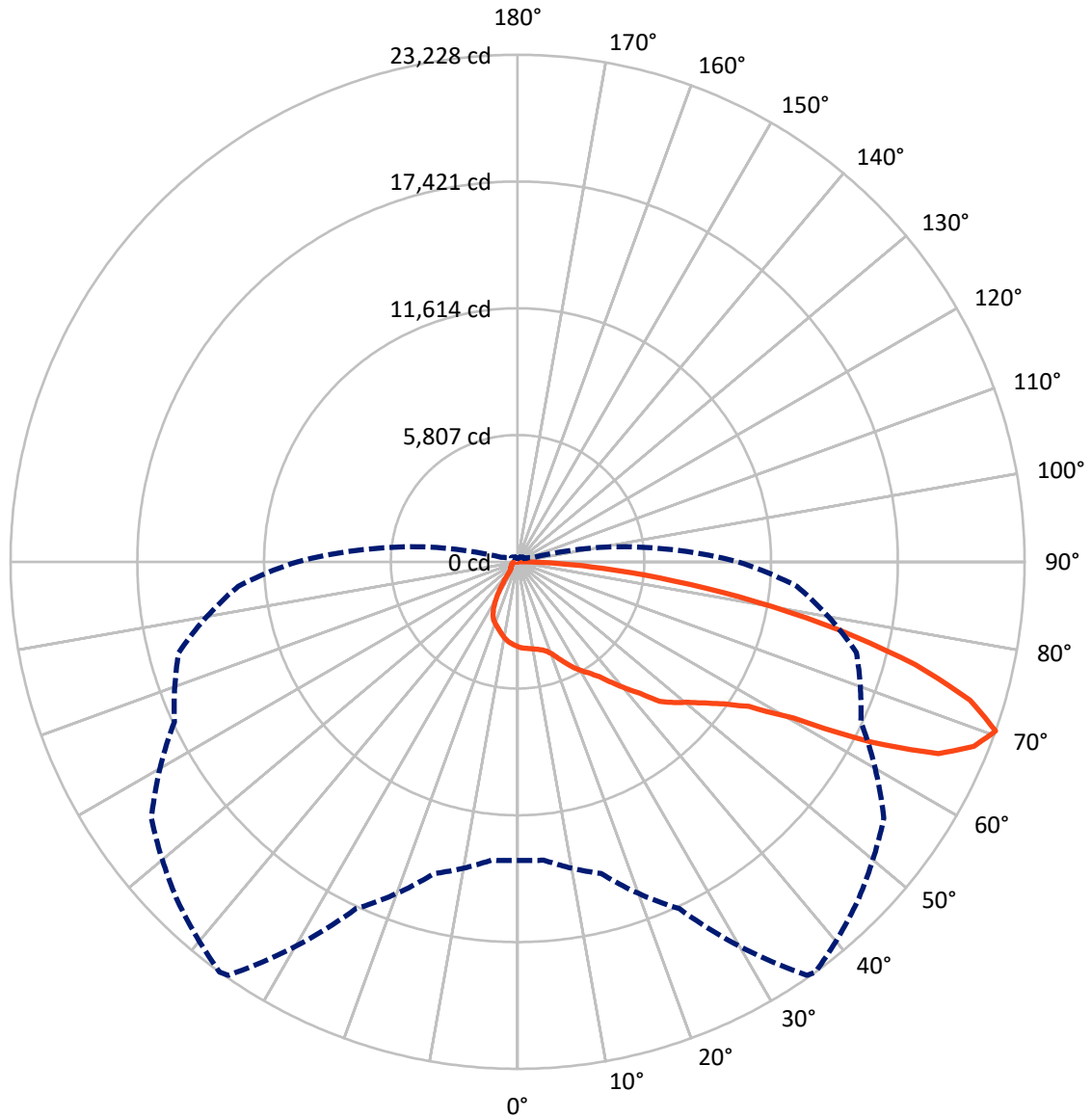
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.9 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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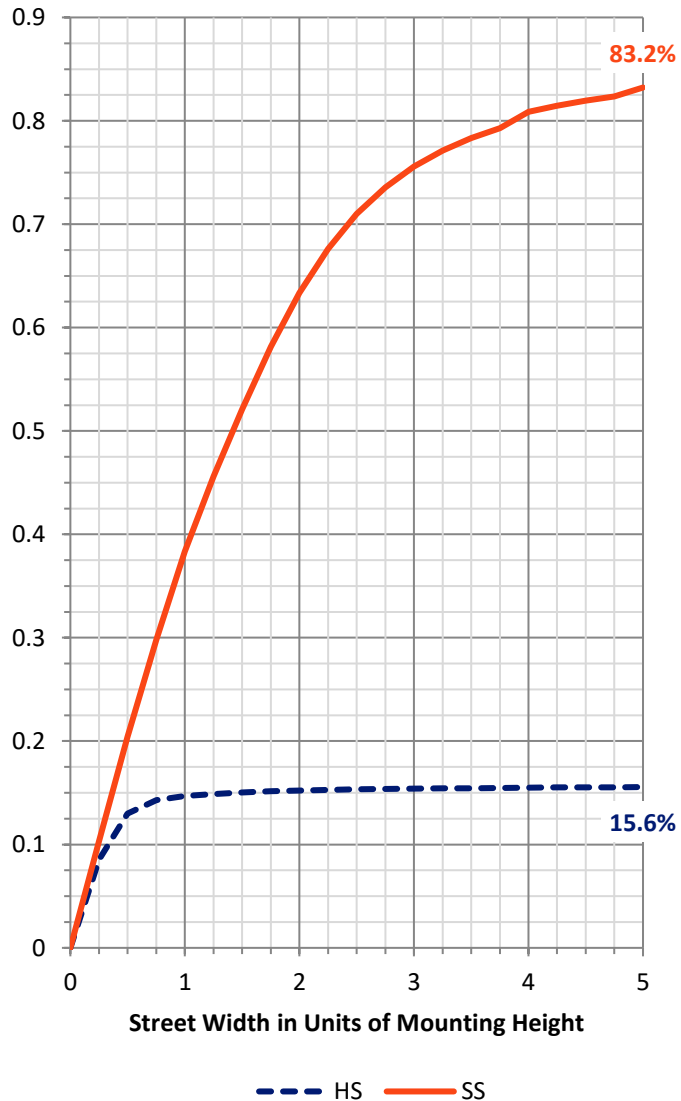
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5729.5	0.0	5729.5
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	30577.5	0.0	30577.5
	% Fixture	84.2	0.0	84.2
Total	Lumens	36307.0	0.0	36307.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	368.9	1.0
10°-20°	1097.2	3.0
20°-30°	1973.0	5.4
30°-40°	3122.3	8.6
40°-50°	4879.5	13.4
50°-60°	7006.9	19.3
60°-70°	9504.2	26.2
70°-80°	7034.2	19.4
80°-90°	1320.8	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°	36307.0	100.0
0°-180°	36307.0	100.0

Coefficient of Utilization

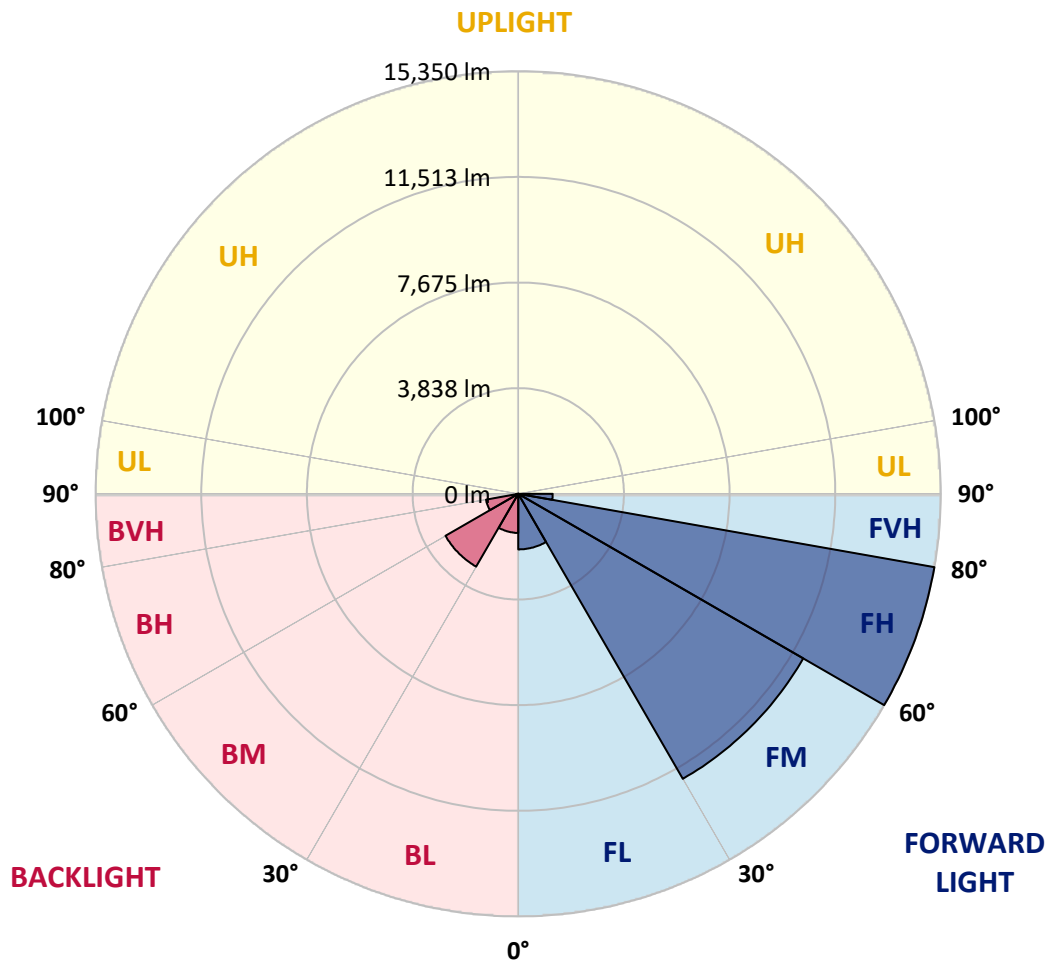


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2019.4	5.6			
FM (30°-60°)	11955.6	32.9			
FH (60°-80°)	15350.2	42.3			G5
FVH (80°-90°)	1252.3	3.4			G5
BL (0°-30°)	1419.7	3.9	B3/2500		
BM (30°-60°)	3053.1	8.4	B3/5000		
BH (60°-80°)	1188.1	3.3	B3/2500		G3/2500
BVH (80°-90°)	68.5	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-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1
2.5°	3968.9	3960.5	3953.8	3956.3	3951.3	3954.7	3947.1	3937.9	3916.1	3906.9	3902.7
5°	4004.1	4001.6	3994.9	3989.9	3980.6	3977.3	3968.9	3976.4	3964.7	3934.5	3916.9
7.5°	4025.1	4024.2	4016.7	4005.8	4010.8	4015.0	4023.4	4011.7	3996.6	3982.3	3946.3
10°	4034.3	4034.3	4025.1	4030.9	4056.9	4059.4	4063.6	4071.2	4056.9	4036.0	3999.9
12.5°	4057.8	4056.1	4059.4	4078.7	4105.5	4111.4	4132.4	4132.4	4134.0	4121.5	4079.5
15°	4116.4	4116.4	4124.0	4141.6	4187.7	4191.0	4222.0	4249.7	4253.1	4234.6	4202.8
17.5°	4252.2	4248.9	4244.7	4255.6	4305.0	4306.7	4360.3	4395.6	4404.8	4424.9	4419.9
20°	4510.4	4507.0	4506.2	4507.0	4503.7	4498.7	4551.5	4589.2	4636.1	4671.3	4688.9
22.5°	4880.0	4872.5	4872.5	4831.4	4799.6	4804.6	4813.0	4833.9	4896.0	4958.0	5024.2
25°	5278.2	5273.2	5277.3	5172.6	5129.8	5146.6	5135.7	5168.4	5249.7	5303.3	5373.7
27.5°	5603.4	5611.0	5587.5	5506.2	5478.5	5491.1	5465.9	5559.8	5649.5	5743.4	5849.8
30°	6008.3	5968.0	5910.2	5811.3	5801.2	5802.9	5801.2	5952.1	6138.2	6272.3	6419.8
32.5°	6537.2	6543.9	6414.0	6180.9	6095.4	6083.7	6117.2	6338.5	6590.0	6887.5	7082.0
35°	7071.9	7082.8	6988.1	6745.0	6501.1	6464.2	6414.8	6702.3	7065.2	7662.0	7955.4
37.5°	7639.4	7678.0	7565.6	7348.6	7059.4	7025.0	6791.1	7073.6	7610.1	8579.0	8963.8
40°	8398.8	8357.8	8222.0	7946.2	7677.1	7621.8	7350.2	7498.6	8310.8	9727.4	10006.5
42.5°	8958.7	8947.0	8832.2	8559.8	8289.0	8244.6	8025.8	8186.8	9193.4	10891.6	11016.5
45°	9403.0	9475.1	9472.6	9301.6	9149.0	9123.9	8994.8	9232.0	10260.5	11990.5	11929.3
47.5°	9797.8	9842.2	9771.0	9696.4	9625.1	9633.5	9729.1	10216.9	11351.0	12950.3	12679.5
50°	10444.0	10387.0	10067.7	10010.7	10111.3	10115.5	10406.3	11157.4	12552.1	13780.1	13314.9
52.5°	11305.7	11243.7	10587.4	10490.1	10728.2	10745.8	11229.4	12094.5	13791.0	14573.0	13946.9
55°	12588.2	12444.0	11740.8	11304.9	11413.9	11485.1	12071.0	12995.5	14760.8	15272.1	14425.5
57.5°	14163.2	14267.9	13907.5	12922.6	12469.2	12496.0	13034.1	13858.1	15616.6	15884.0	14705.5
60°	15827.8	15802.7	15953.6	15538.7	14670.3	14526.1	14252.0	14738.2	16279.6	16399.5	14993.8
62.5°	16739.8	16886.5	17389.4	17472.4	18256.1	18179.9	16311.5	15829.5	17045.8	16723.0	15072.6
65°	16734.8	16798.5	17734.8	18764.1	21212.5	21190.7	20322.3	17407.9	17616.6	16895.7	14915.0
67.5°	15653.5	15752.4	16847.1	18858.0	22578.8	22552.8	21952.6	19626.6	17796.0	16687.8	14179.9
70°	13682.0	13715.6	14783.4	17536.1	23127.8	23227.5	22008.8	20478.2	17350.0	16070.1	12839.6
72.5°	11287.3	11217.7	12262.1	14975.4	21729.7	21670.1	21078.4	19461.5	16599.0	14870.6	10471.7
75°	8310.8	8504.4	9441.6	12024.1	18604.8	18822.8	19085.1	17905.8	14742.4	12255.4	7241.3
77.5°	5487.7	5734.2	6681.3	9015.7	14729.0	15067.6	15747.4	15229.4	11993.1	8791.1	3448.4
80°	2835.7	3021.7	3874.2	5982.3	10558.9	11047.6	12294.0	11534.6	8502.8	3974.8	772.0
82.5°	1072.9	1048.6	1735.9	3424.1	6770.2	7214.4	8120.5	6916.9	3025.9	698.2	358.8
85°	471.1	498.7	719.2	1561.6	3870.8	3928.7	4600.1	2696.5	443.4	333.6	243.9
87.5°	203.7	233.9	301.8	449.3	1305.9	1507.9	1865.8	856.6	134.1	115.7	122.4
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°	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1
2.5°	3895.1	3890.1	3881.7	3860.8	3826.4	3822.2	3818.9	3815.5	3808.8	3812.2	3831.4
5°	3903.5	3894.3	3864.1	3834.0	3803.8	3777.0	3744.3	3731.7	3714.9	3704.0	3724.1
7.5°	3932.0	3912.7	3868.3	3827.2	3745.1	3705.7	3663.8	3614.3	3579.1	3556.5	3576.6
10°	3979.8	3955.5	3900.2	3815.5	3719.1	3611.0	3537.2	3455.1	3388.0	3369.6	3388.0
12.5°	4057.8	4021.7	3957.2	3842.3	3671.3	3529.7	3389.7	3281.6	3173.4	3142.4	3151.7
15°	4184.3	4155.8	4056.9	3898.5	3672.2	3455.9	3248.0	3073.7	2932.0	2882.6	2879.2
17.5°	4387.2	4357.0	4243.0	4010.0	3702.4	3398.1	3108.9	2843.2	2628.6	2519.6	2502.0
20°	4678.0	4636.1	4463.4	4174.3	3767.7	3372.9	2979.8	2622.7	2289.1	2084.6	2053.6
22.5°	5001.6	4957.2	4702.3	4300.8	3814.7	3323.5	2856.6	2378.8	1939.6	1689.8	1654.6
25°	5403.9	5306.7	4931.2	4420.7	3803.8	3219.5	2656.3	2047.7	1571.6	1355.4	1331.9
27.5°	5801.2	5678.0	5164.2	4483.6	3756.0	3054.4	2362.9	1660.5	1230.5	1077.1	1057.8
30°	6294.1	6056.0	5371.2	4512.9	3635.3	2807.2	1969.8	1262.3	921.2	815.6	797.1
32.5°	6880.0	6519.6	5565.7	4480.2	3434.1	2430.0	1531.4	924.5	684.8	618.6	617.8
35°	7652.8	7087.9	5779.4	4372.9	3125.7	2023.4	1073.7	632.0	533.9	511.3	515.5
37.5°	8556.4	7857.3	5996.5	4196.9	2777.0	1548.2	715.8	487.0	469.4	470.2	471.1
40°	9509.4	8707.3	6289.1	3949.6	2353.7	1120.7	515.5	437.5	436.7	445.1	447.6
42.5°	10419.7	9532.9	6649.5	3620.2	1910.3	741.0	446.8	417.4	406.5	409.9	412.4
45°	11265.5	10241.2	6956.3	3299.2	1435.0	528.9	438.4	394.0	377.2	375.5	377.2
47.5°	11947.0	10808.7	7143.2	2922.0	1022.6	439.2	420.8	372.2	348.7	343.7	341.1
50°	12465.8	11230.3	7211.1	2494.5	691.5	419.1	397.3	347.0	318.5	319.4	319.4
52.5°	12972.1	11613.3	7132.3	2063.7	508.8	401.5	381.4	326.9	296.7	312.7	316.8
55°	13336.7	11774.3	6902.6	1597.6	424.1	379.7	363.8	303.4	282.5	308.5	316.8
57.5°	13549.6	11900.8	6481.0	1153.4	388.9	358.8	341.1	281.6	262.4	269.1	273.3
60°	13682.0	11724.0	5923.6	788.8	370.5	342.0	318.5	267.4	241.4	225.5	223.0
62.5°	13609.1	11281.4	5189.3	542.3	351.2	323.5	299.2	254.0	219.6	198.7	197.0
65°	13014.8	10462.5	3984.0	439.2	339.5	315.2	287.5	241.4	204.5	184.4	181.9
67.5°	11912.6	8990.6	2326.9	390.6	334.4	306.8	278.3	229.7	196.1	174.3	171.0
70°	10101.2	6762.6	779.5	348.7	333.6	305.9	270.7	221.3	186.9	164.3	160.9
72.5°	7287.4	4080.4	379.7	306.8	311.8	293.4	264.9	214.6	181.1	152.6	146.7
75°	4141.6	1328.6	342.8	264.9	290.0	280.0	261.5	215.4	183.6	138.3	131.6
77.5°	1178.5	388.1	331.1	225.5	274.1	289.2	244.8	194.5	187.8	128.2	119.9
80°	398.1	345.3	319.4	175.2	221.3	238.9	212.1	171.0	189.4	116.5	108.1
82.5°	319.4	347.0	268.2	140.0	168.5	181.1	168.5	153.4	153.4	103.9	97.2
85°	255.7	321.9	170.2	111.5	125.7	139.1	119.0	114.8	107.3	87.2	84.7
87.5°	148.4	100.6	70.4	57.0	52.8	53.6	46.1	55.3	67.9	59.5	58.7
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)