

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: P721842

Luminaire Tested: **CST-CA8-400-727-U-T4-HSS**

Issue Date: 10/25/2023

Test Information

Test Method: LM-79-08
Report Number: P721842
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-400-727-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45514 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

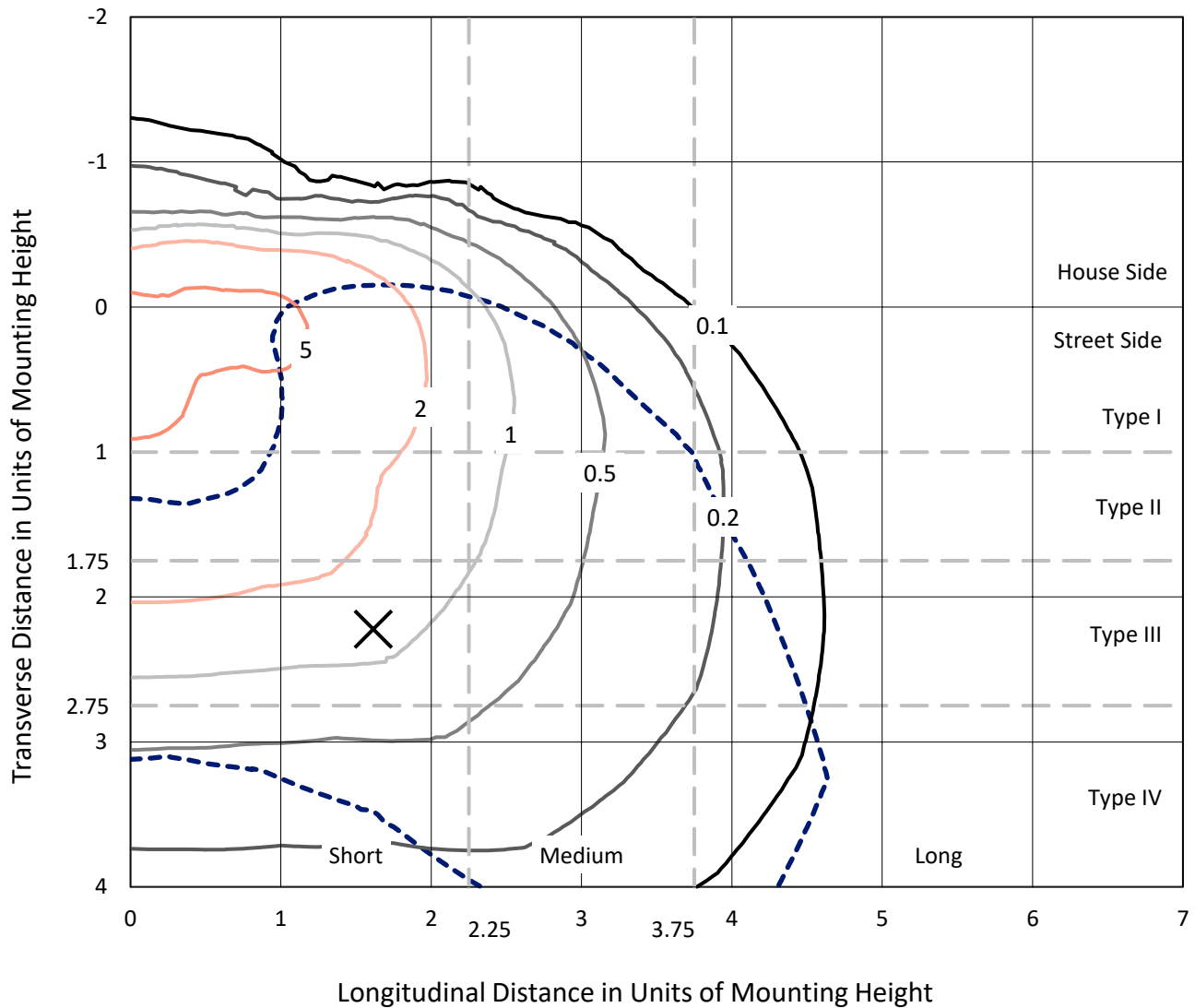
Input Watts (W): 400.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

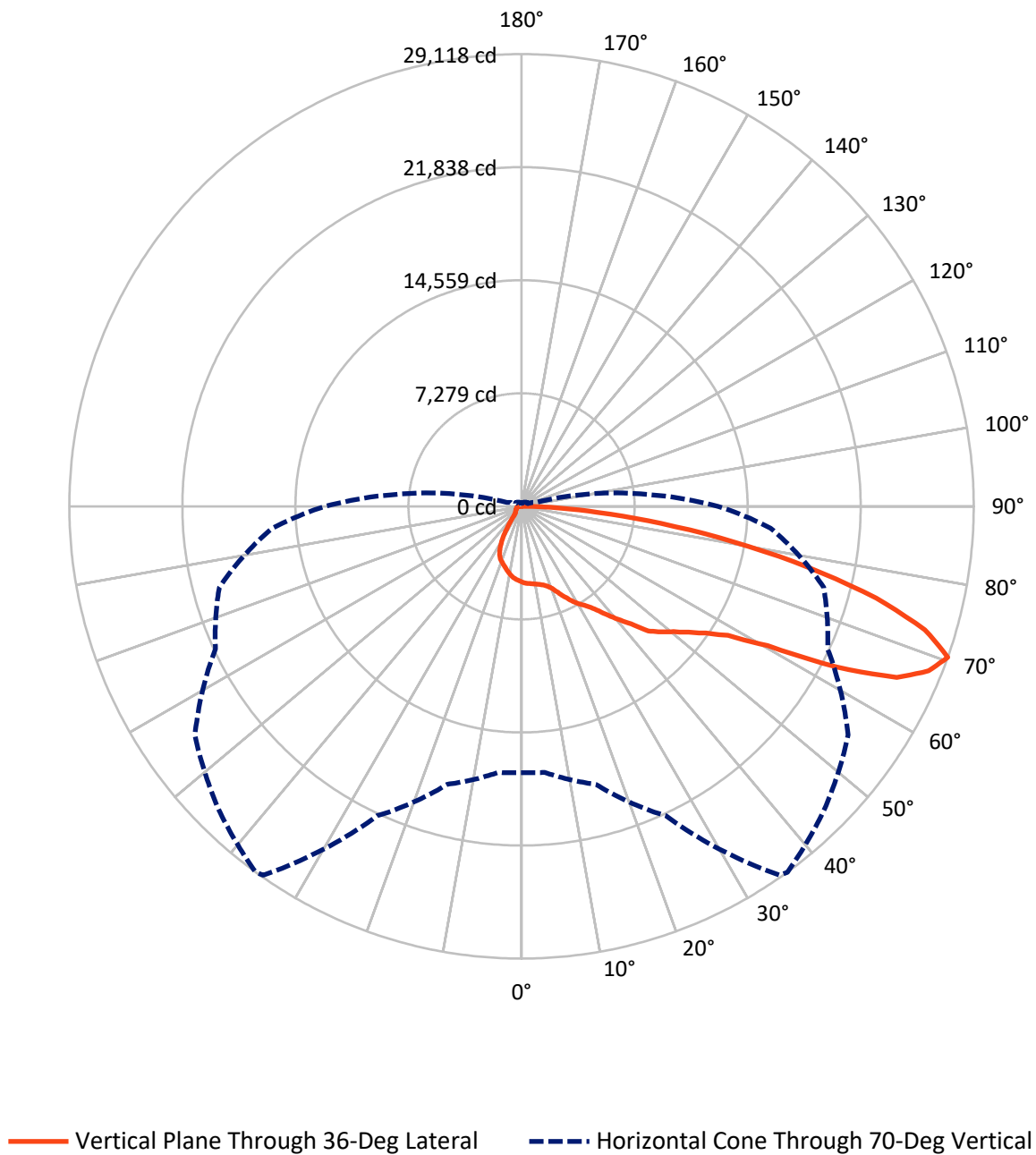
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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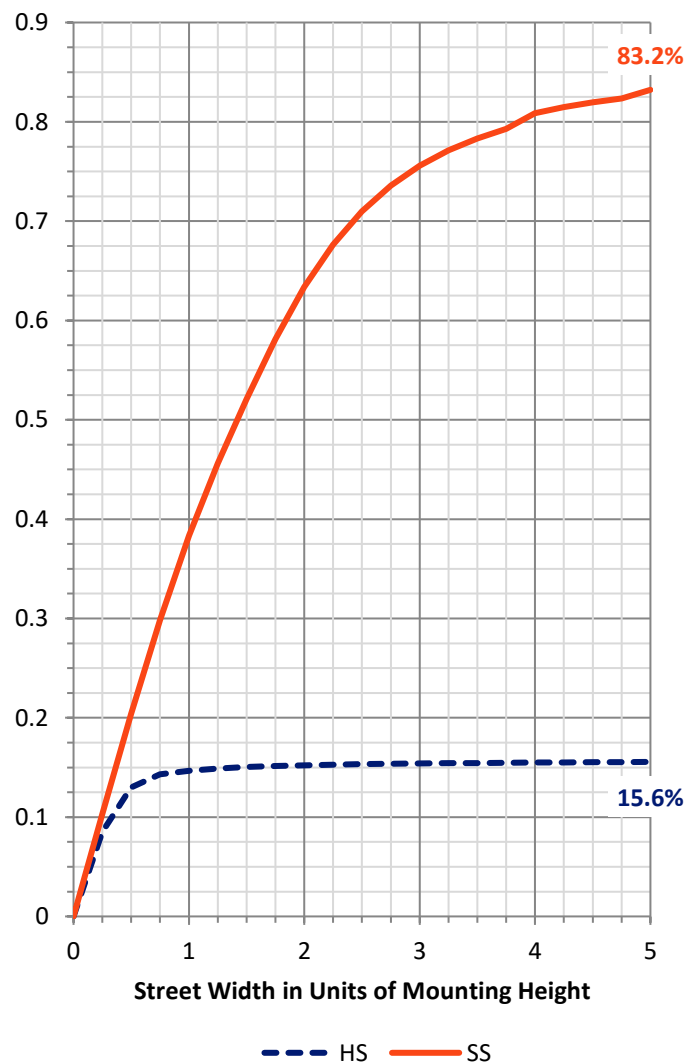
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7182.5	0.0	7182.5
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	38331.6	0.0	38331.6
	% Fixture	84.2	0.0	84.2
Total	Lumens	45514.0	0.0	45514.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	462.5	1.0
10°-20°	1375.4	3.0
20°-30°	2473.4	5.4
30°-40°	3914.0	8.6
40°-50°	6116.9	13.4
50°-60°	8783.8	19.3
60°-70°	11914.4	26.2
70°-80°	8817.9	19.4
80°-90°	1655.7	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°	45514.0	100.0
0°-180°	45514.0	100.0

Coefficient of Utilization



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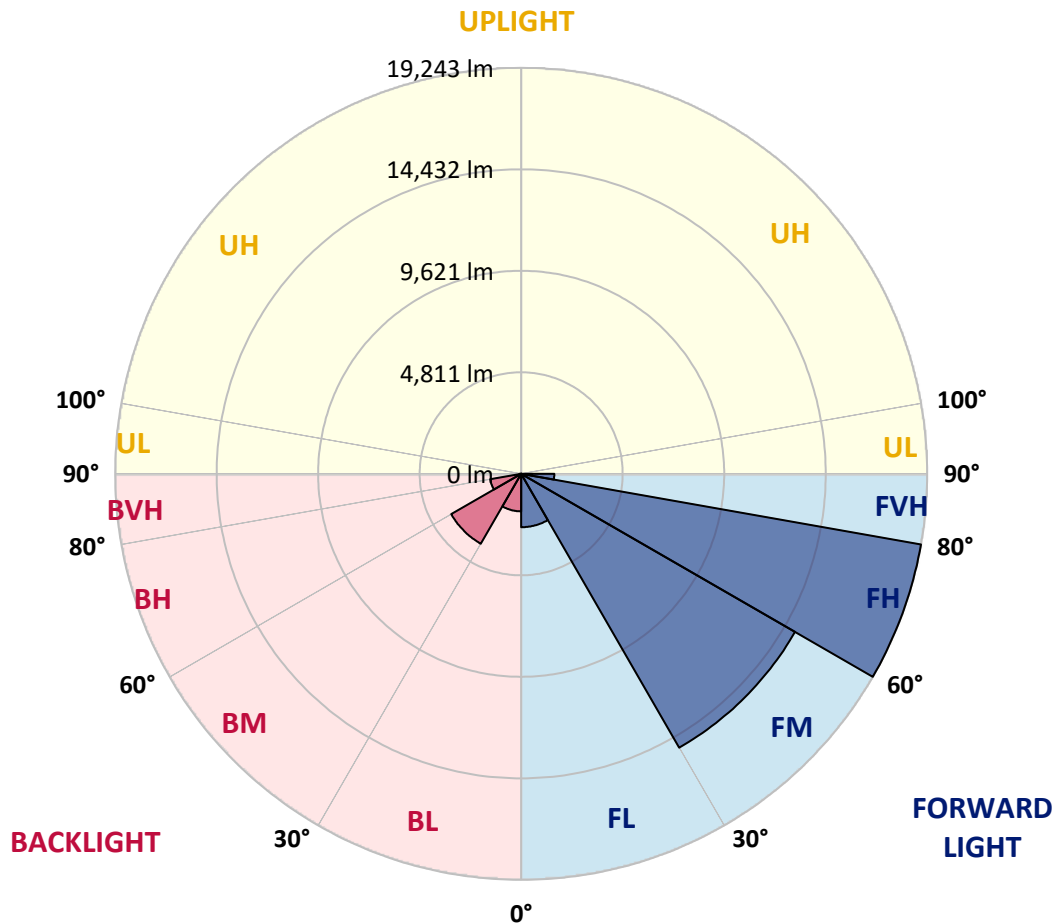
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2531.5	5.6			
FM	(30°-60°)	14987.4	32.9			
FH	(60°-80°)	19242.9	42.3			G5
FVH	(80°-90°)	1569.9	3.4			G5
BL	(0°-30°)	1779.8	3.9	B3/2500		
BM	(30°-60°)	3827.4	8.4	B3/5000		
BH	(60°-80°)	1489.4	3.3	B3/2500		G3/2500
BVH	(80°-90°)	85.9	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°	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6
2.5°	4975.4	4964.9	4956.5	4959.6	4953.3	4957.5	4948.1	4936.5	4909.2	4897.6	4892.4
5°	5019.5	5016.3	5007.9	5001.6	4990.1	4985.9	4975.4	4984.8	4970.1	4932.3	4910.2
7.5°	5045.8	5044.7	5035.3	5021.6	5027.9	5033.2	5043.7	5029.0	5010.0	4992.2	4947.0
10°	5057.3	5057.3	5045.8	5053.1	5085.7	5088.9	5094.1	5103.6	5085.7	5059.4	5014.2
12.5°	5086.8	5084.6	5088.9	5113.0	5146.6	5154.0	5180.3	5180.3	5182.4	5166.6	5114.1
15°	5160.3	5160.3	5169.8	5191.8	5249.6	5253.8	5292.7	5327.4	5331.6	5308.5	5268.5
17.5°	5330.5	5326.3	5321.1	5334.7	5396.7	5398.8	5466.1	5510.2	5521.8	5547.0	5540.7
20°	5654.2	5650.0	5648.9	5650.0	5645.8	5639.5	5705.7	5752.9	5811.8	5855.9	5878.0
22.5°	6117.6	6108.1	6108.1	6056.6	6016.7	6023.0	6033.5	6059.8	6137.5	6215.3	6298.3
25°	6616.7	6610.4	6615.6	6484.3	6430.7	6451.7	6438.0	6479.0	6580.9	6648.2	6736.5
27.5°	7024.4	7033.8	7004.4	6902.5	6867.8	6883.6	6852.0	6969.7	7082.2	7199.8	7333.3
30°	7531.9	7481.4	7408.9	7285.0	7272.3	7274.4	7272.3	7461.5	7694.7	7862.9	8047.8
32.5°	8194.9	8203.3	8040.5	7748.3	7641.2	7626.4	7668.5	7945.9	8261.1	8634.1	8877.9
35°	8865.3	8879.0	8760.2	8455.5	8149.7	8103.5	8041.5	8401.9	8856.9	9605.0	9972.8
37.5°	9576.7	9625.0	9484.2	9212.1	8849.5	8806.5	8513.3	8867.4	9539.9	10754.6	11236.9
40°	10528.7	10477.2	10306.9	9961.2	9624.0	9554.6	9214.2	9400.1	10418.3	12194.1	12544.0
42.5°	11230.6	11215.9	11071.9	10730.4	10391.0	10335.3	10061.1	10262.8	11524.8	13653.6	13810.2
45°	11787.5	11877.8	11874.7	11660.3	11469.1	11437.6	11275.8	11573.1	12862.4	15031.2	14954.5
47.5°	12282.4	12338.1	12248.8	12155.2	12065.9	12076.4	12196.2	12807.8	14229.5	16234.3	15894.9
50°	13092.5	13021.1	12620.7	12549.3	12675.4	12680.6	13045.2	13986.7	15735.2	17274.6	16691.4
52.5°	14172.7	14095.0	13272.2	13150.3	13448.7	13470.8	14077.1	15161.5	17288.2	18268.6	17483.7
55°	15780.4	15599.7	14718.1	14171.7	14308.3	14397.6	15132.1	16291.1	18504.0	19144.9	18083.7
57.5°	17754.8	17886.1	17434.3	16199.6	15631.2	15664.8	16339.4	17372.3	19576.8	19912.0	18434.6
60°	19841.6	19810.1	19999.2	19479.1	18390.5	18209.7	17866.1	18475.6	20407.9	20558.2	18796.1
62.5°	20984.8	21168.7	21799.2	21903.2	22885.7	22790.0	20447.9	19843.7	21368.3	20963.8	18894.8
65°	20978.5	21058.4	22232.1	23522.4	26591.7	26564.4	25475.8	21822.3	22083.9	21180.3	18697.3
67.5°	19623.0	19747.0	21119.3	23640.1	28304.4	28271.9	27519.5	24603.7	22308.8	20919.7	17775.8
70°	17151.6	17193.7	18532.3	21983.0	28992.7	29117.7	27589.9	25671.2	21749.8	20145.3	16095.6
72.5°	14149.6	14062.4	15371.6	18773.0	27240.0	27165.4	26423.6	24396.7	20808.3	18641.6	13127.2
75°	10418.3	10661.1	11835.8	15073.2	23322.8	23596.0	23924.9	22446.4	18480.8	15363.2	9077.6
77.5°	6879.4	7188.3	8375.6	11302.0	18464.0	18888.5	19740.7	19091.3	15034.3	11020.4	4322.8
80°	3554.7	3788.0	4856.6	7499.3	13236.5	13849.1	15411.6	14459.6	10659.0	4982.7	967.8
82.5°	1345.0	1314.5	2176.1	4292.4	8487.0	9043.9	10179.8	8670.9	3793.3	875.3	449.7
85°	590.5	625.2	901.6	1957.6	4852.4	4924.9	5766.6	3380.3	555.9	418.2	305.8
87.5°	255.3	293.2	378.3	563.2	1637.1	1890.3	2339.0	1073.9	168.1	145.0	153.4
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°	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6	4876.6
2.5°	4882.9	4876.6	4866.1	4839.8	4796.7	4791.5	4787.3	4783.1	4774.7	4778.9	4803.0
5°	4893.4	4881.9	4844.0	4806.2	4768.4	4734.7	4693.8	4678.0	4657.0	4643.3	4668.5
7.5°	4929.1	4905.0	4849.3	4797.8	4694.8	4645.4	4592.9	4530.9	4486.8	4458.4	4483.6
10°	4989.0	4958.6	4889.2	4783.1	4662.2	4526.7	4434.2	4331.3	4247.2	4224.1	4247.2
12.5°	5086.8	5041.6	4960.7	4816.7	4602.3	4424.8	4249.3	4113.7	3978.2	3939.3	3950.9
15°	5245.4	5209.7	5085.7	4887.1	4603.4	4332.3	4071.7	3853.2	3675.6	3613.6	3609.4
17.5°	5499.7	5461.9	5319.0	5026.9	4641.2	4259.8	3897.3	3564.2	3295.2	3158.6	3136.5
20°	5864.3	5811.8	5595.3	5232.8	4723.2	4228.3	3735.5	3287.8	2869.6	2613.3	2574.4
22.5°	6269.9	6214.2	5894.8	5391.5	4782.0	4166.3	3581.0	2982.1	2431.5	2118.3	2074.2
25°	6774.3	6652.4	6181.6	5541.7	4768.4	4036.0	3329.9	2567.0	1970.2	1699.1	1669.7
27.5°	7272.3	7117.9	6473.8	5620.5	4708.5	3829.0	2962.1	2081.6	1542.5	1350.2	1326.1
30°	7890.2	7591.8	6733.3	5657.3	4557.2	3519.0	2469.3	1582.5	1154.8	1022.4	999.3
32.5°	8624.7	8172.8	6977.1	5616.3	4305.0	3046.2	1919.7	1159.0	858.5	775.5	774.4
35°	9593.5	8885.3	7245.0	5481.8	3918.3	2536.5	1346.0	792.3	669.3	641.0	646.2
37.5°	10726.2	9849.9	7517.2	5261.2	3481.2	1940.8	897.4	610.5	588.4	589.5	590.5
40°	11920.9	10915.3	7883.9	4951.2	2950.5	1404.9	646.2	548.5	547.4	558.0	561.1
42.5°	13062.1	11950.3	8335.7	4538.3	2394.7	928.9	560.1	523.3	509.6	513.8	517.0
45°	14122.3	12838.2	8720.3	4135.8	1798.9	663.0	549.5	493.9	472.8	470.7	472.8
47.5°	14976.5	13549.6	8954.6	3663.0	1281.9	550.6	527.5	466.5	437.1	430.8	427.7
50°	15627.0	14078.1	9039.7	3127.1	866.9	525.4	498.1	435.0	399.3	400.3	400.3
52.5°	16261.6	14558.3	8941.0	2587.0	637.8	503.3	478.1	409.8	372.0	391.9	397.2
55°	16718.7	14760.1	8653.0	2002.8	531.7	476.0	456.0	380.4	354.1	386.7	397.2
57.5°	16985.6	14918.8	8124.5	1445.9	487.6	449.7	427.7	353.1	328.9	337.3	342.5
60°	17151.6	14697.0	7425.8	988.8	464.4	428.7	399.3	335.2	302.6	282.7	279.5
62.5°	17060.2	14142.2	6505.3	679.8	440.3	405.6	375.1	318.4	275.3	249.0	246.9
65°	16315.2	13115.6	4994.3	550.6	425.6	395.1	360.4	302.6	256.4	231.2	228.0
67.5°	14933.5	11270.5	2916.9	489.7	419.3	384.6	348.9	287.9	245.9	218.6	214.4
70°	12662.8	8477.6	977.2	437.1	418.2	383.5	339.4	277.4	234.3	205.9	201.7
72.5°	9135.3	5115.1	476.0	384.6	390.9	367.8	332.0	269.0	227.0	191.2	183.9
75°	5191.8	1665.5	429.8	332.0	363.6	351.0	327.8	270.0	230.1	173.4	165.0
77.5°	1477.4	486.5	415.1	282.7	343.6	362.5	306.8	243.8	235.4	160.8	150.3
80°	499.1	432.9	400.3	219.6	277.4	299.5	265.8	214.4	237.5	146.1	135.5
82.5°	400.3	435.0	336.2	175.5	211.2	227.0	211.2	192.3	192.3	130.3	121.9
85°	320.5	403.5	213.3	139.8	157.6	174.4	149.2	144.0	134.5	109.3	106.1
87.5°	186.0	126.1	88.3	71.5	66.2	67.2	57.8	69.4	85.1	74.6	73.6
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)