

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: P510828

Luminaire Tested: **CST-CA8-480-727-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510828
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-16)
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-T3-HSS
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: 56125 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

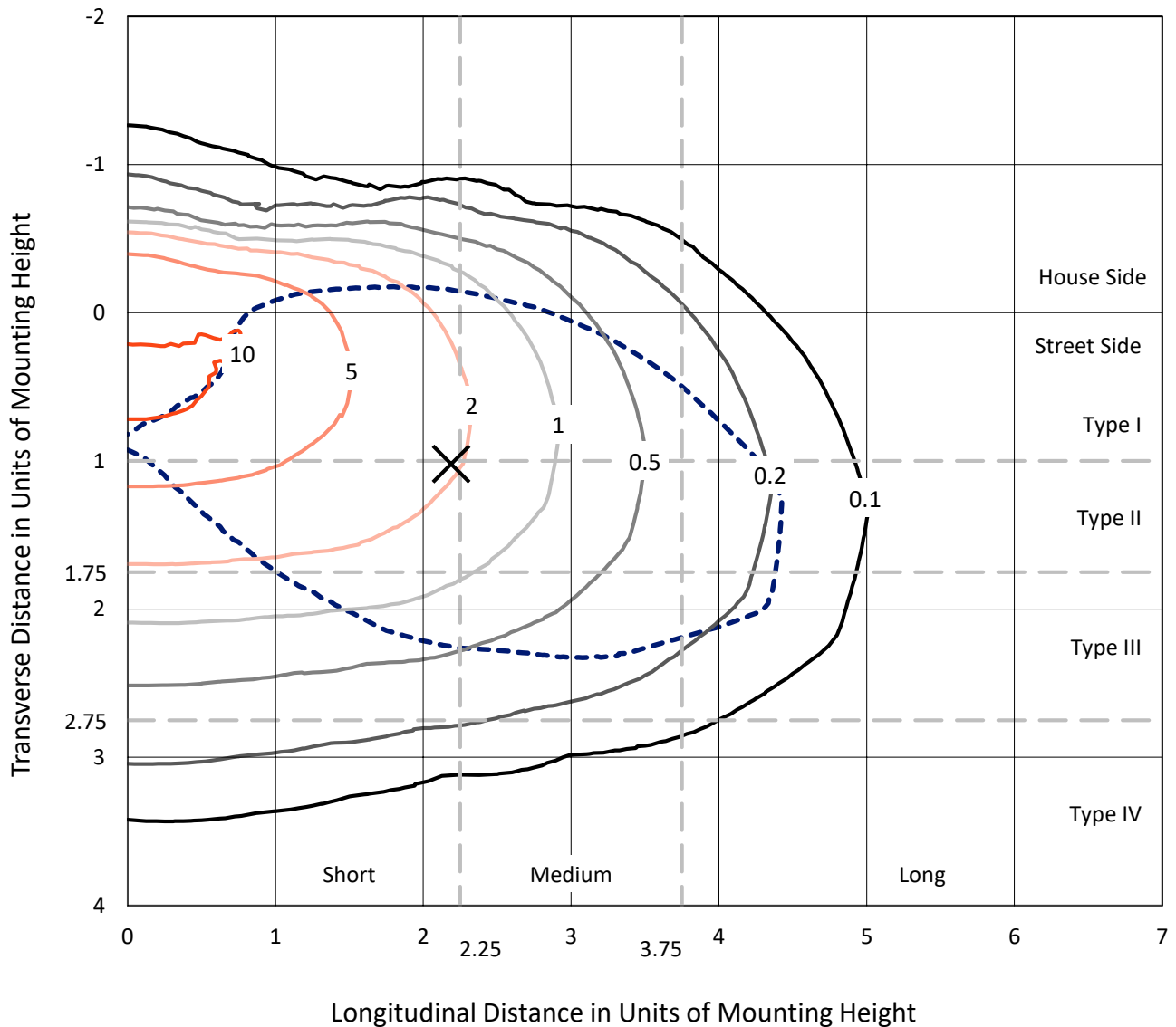
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

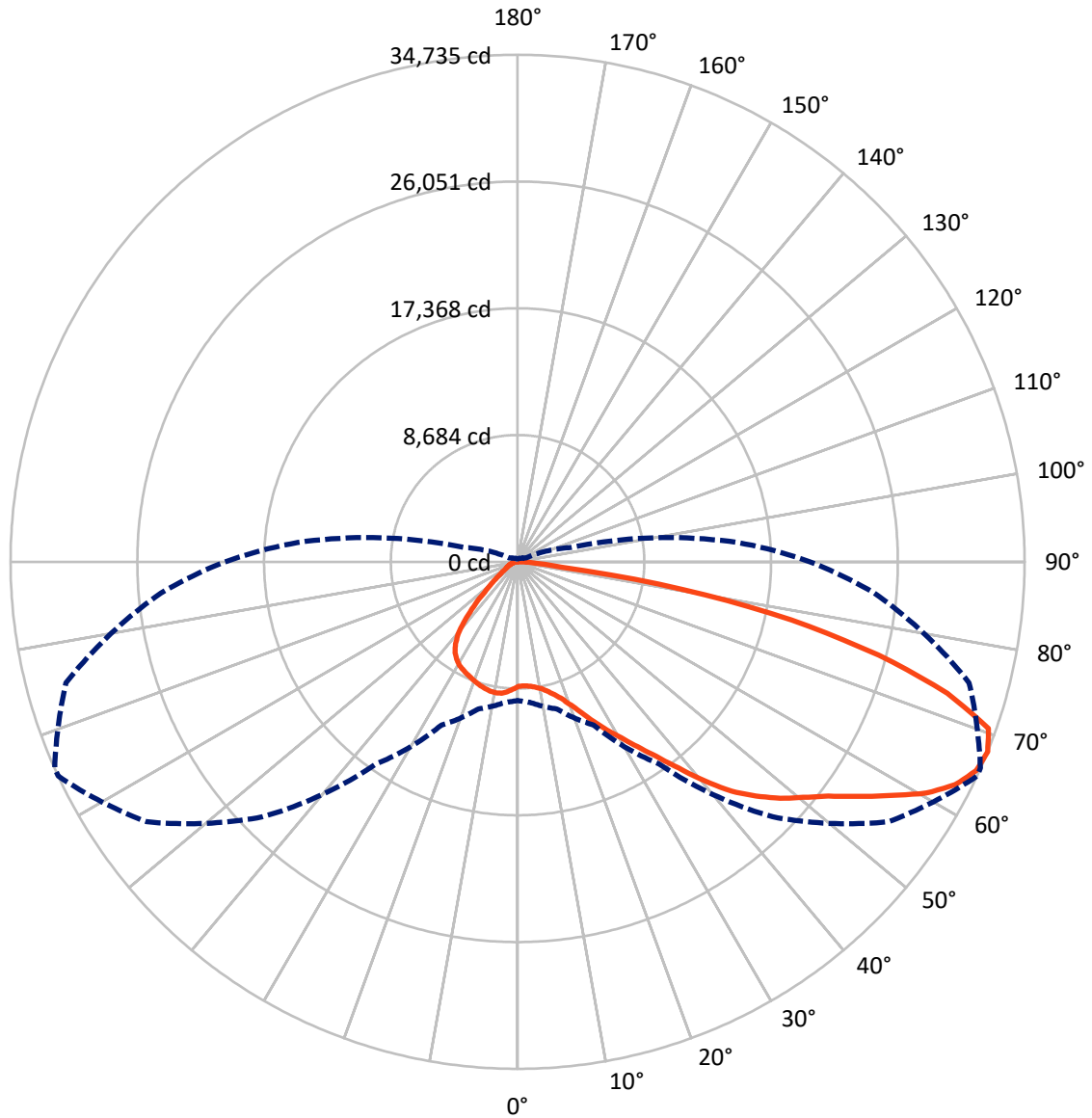
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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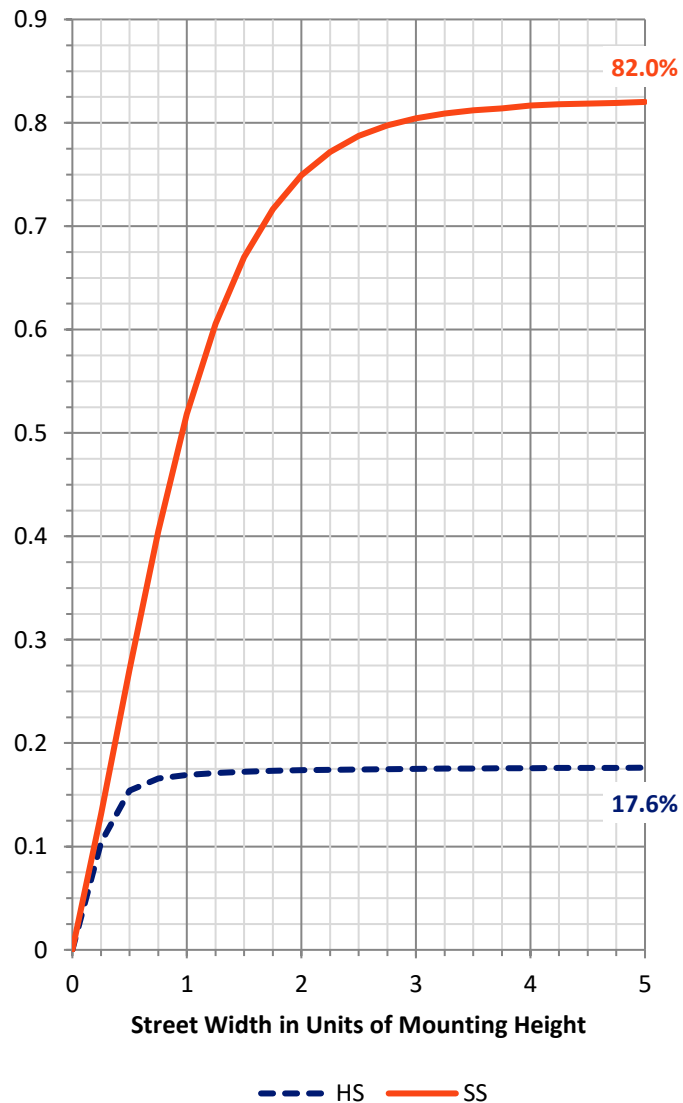
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10030.9	0.0	10030.9
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	46094.1	0.0	46094.1
	% Fixture	82.1	0.0	82.1
Total	Lumens	56125.0	0.0	56125.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	843.8	1.5
10°-20°	2605.0	4.6
20°-30°	4519.1	8.1
30°-40°	6817.0	12.1
40°-50°	9452.3	16.8
50°-60°	11667.6	20.8
60°-70°	12431.7	22.1
70°-80°	7113.6	12.7
80°-90°	674.9	1.2
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°	56125.0	100.0
0°-180°	56125.0	100.0

Coefficient of Utilization

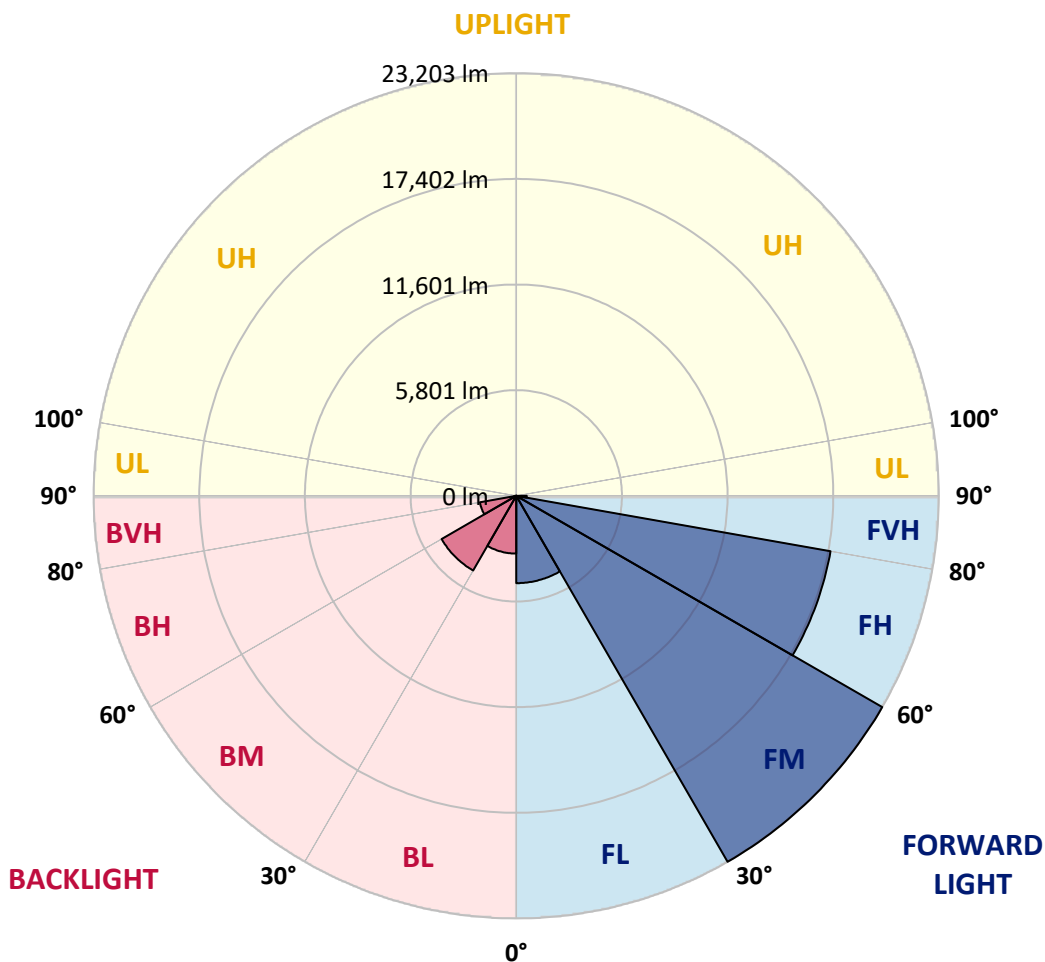


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4793.8	8.5			
FM (30°-60°)	23202.9	41.3			
FH (60°-80°)	17520.7	31.2			G5
FVH (80°-90°)	576.7	1.0			G4/750
BL (0°-30°)	3174.0	5.7	B4/5000		
BM (30°-60°)	4734.1	8.4	B3/5000		
BH (60°-80°)	2024.6	3.6	B3/2500		G3/2500
BVH (80°-90°)	98.2	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6
2.5°	8446.2	8435.1	8425.3	8442.5	8452.3	8468.3	8491.7	8507.7	8512.6	8527.3	8545.8
5°	8581.4	8580.2	8566.7	8559.3	8538.4	8531.0	8535.9	8555.6	8556.8	8575.3	8633.1
7.5°	8847.0	8844.5	8811.3	8796.6	8752.3	8703.1	8666.3	8669.9	8668.7	8687.2	8764.6
10°	9247.8	9228.1	9181.4	9135.9	9049.8	8957.6	8890.0	8828.5	8828.5	8855.6	8941.6
12.5°	9700.2	9727.3	9663.3	9594.5	9450.6	9284.7	9166.6	9097.8	9090.4	9103.9	9165.4
15°	10262.1	10262.1	10219.0	10120.7	9994.0	9762.9	9519.5	9432.2	9419.9	9448.2	9444.5
17.5°	10895.2	10913.7	10832.5	10783.3	10589.1	10333.4	10028.5	9877.2	9877.2	9858.8	9774.0
20°	11702.9	11602.1	11610.7	11529.6	11387.0	11015.7	10705.9	10485.8	10483.4	10446.5	10208.0
22.5°	12580.8	12525.4	12477.5	12406.2	12209.5	11877.5	11447.2	11229.6	11224.7	11133.7	10779.6
25°	13446.3	13488.1	13435.2	13304.9	13161.1	12799.6	12325.0	12111.1	12109.9	11958.7	11457.1
27.5°	14336.4	14381.9	14364.7	14246.6	14054.9	13772.1	13323.3	13044.3	13027.0	12928.7	12298.0
30°	15319.9	15279.4	15332.2	15281.8	15185.9	14724.9	14319.2	13994.6	14036.4	14006.9	13253.3
32.5°	16035.5	16061.3	16234.6	16239.5	16138.7	15797.0	15301.5	15102.3	15168.7	15129.4	14427.4
35°	16682.1	16723.9	16947.7	17167.8	17241.5	16867.8	16363.7	16351.4	16437.5	16677.2	16045.3
37.5°	17237.8	17267.4	17580.9	17867.3	18105.8	17850.1	17483.7	17920.2	18046.8	18537.4	17714.9
40°	17571.0	17609.1	18014.8	18418.1	18843.5	18752.5	18718.1	19750.8	19870.1	20301.6	18933.2
42.5°	17382.9	17457.9	18134.1	18871.8	19497.5	19679.5	20150.4	21478.2	21614.6	21651.5	20130.7
45°	17047.3	17140.7	17896.8	19090.6	20111.0	20695.0	21591.3	22885.9	22960.8	22856.3	21122.8
47.5°	16685.8	16785.4	17630.0	19025.4	20604.0	21876.5	22878.5	24211.2	24264.0	23943.2	22122.4
50°	16275.2	16367.4	17276.0	18873.0	20975.3	22991.6	24201.3	25357.0	25554.9	24920.6	22899.4
52.5°	15776.1	15874.4	16838.3	18634.5	21301.1	23819.0	25368.1	26651.6	26665.1	26142.6	23774.7
55°	15129.4	15300.3	16288.7	18221.4	21472.0	24529.6	26384.8	28364.2	28451.5	27946.2	24507.5
57.5°	14410.2	14558.9	15627.3	17670.6	21318.3	25069.3	28020.0	30201.0	30189.9	29175.6	25148.0
60°	13459.8	13565.5	14765.5	16950.2	20822.9	25722.1	29722.7	32169.3	32149.6	30380.5	25559.9
62.5°	12240.2	12345.9	13474.6	15820.3	20095.0	26159.8	30878.4	33643.4	33586.8	31257.0	25686.5
65°	10826.4	11015.7	11995.6	14353.6	18807.8	25872.1	31436.5	34511.3	34420.4	31925.9	25384.1
67.5°	9501.0	9662.1	10437.9	12334.9	16908.4	24705.4	31043.1	34735.1	34708.1	32023.0	24529.6
70°	7624.9	7683.9	8394.6	10018.6	14068.4	22207.2	29683.4	34218.7	34231.0	31128.0	22813.3
72.5°	5218.9	5362.8	5678.7	6961.0	10237.5	17660.8	25584.5	30796.0	30798.5	27911.8	19876.2
75°	2806.8	3029.3	3398.1	4033.8	5723.0	11332.9	20546.2	25553.7	25601.7	23271.9	15798.2
77.5°	1391.7	1471.6	1685.5	2157.7	2623.6	5346.8	13213.9	19181.6	19295.9	17863.6	10774.7
80°	636.8	650.4	666.4	662.7	1004.4	2345.8	5672.6	11519.8	11554.2	10624.7	4919.0
82.5°	497.9	495.5	502.8	457.3	459.8	904.9	1963.4	3017.0	3217.4	2532.6	1560.1
85°	301.2	300.0	323.3	250.8	308.6	489.3	990.9	1203.6	1218.4	990.9	807.7
87.5°	114.3	110.6	102.0	89.7	103.3	137.7	343.0	442.6	432.8	307.4	279.1
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°	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6	8528.6
2.5°	8561.8	8601.1	8673.6	8729.0	8747.4	8806.4	8863.0	8872.8	8913.4	8929.4	8982.2
5°	8668.7	8735.1	8848.2	8923.2	8956.4	9054.8	9118.7	9150.7	9139.6	9145.7	9204.7
7.5°	8824.9	8887.6	8978.5	9069.5	9085.5	9102.7	9096.6	9091.6	9048.6	9011.7	9067.1
10°	8967.5	9026.5	9083.0	9096.6	9015.4	8969.9	8888.8	8826.1	8742.5	8704.4	8748.6
12.5°	9167.9	9180.2	9124.8	9051.1	8876.5	8714.2	8582.7	8468.3	8365.0	8293.7	8352.8
15°	9379.3	9331.4	9170.3	8955.2	8684.7	8452.3	8237.2	8046.6	7875.7	7833.9	7849.9
17.5°	9659.6	9529.3	9204.7	8843.3	8422.8	8061.4	7784.8	7543.8	7320.0	7226.6	7218.0
20°	10001.4	9791.2	9274.8	8701.9	8113.0	7632.3	7204.5	6844.2	6535.7	6282.4	6288.5
22.5°	10446.5	10141.6	9380.6	8554.4	7770.0	7129.5	6507.4	5895.1	5387.4	5168.5	5114.4
25°	11034.1	10579.3	9530.5	8420.4	7386.4	6490.2	5611.1	4746.8	4209.6	3996.9	3973.5
27.5°	11765.7	11166.9	9759.2	8271.6	6975.8	5731.6	4467.8	3620.7	3127.7	2903.9	2828.9
30°	12596.7	11891.1	9994.0	8116.7	6479.1	4756.7	3406.8	2576.9	2071.6	1871.2	1845.4
32.5°	13672.5	12808.2	10343.2	7873.3	5753.7	3738.7	2376.5	1608.1	1265.1	1179.0	1154.4
35°	15200.7	14048.7	10774.7	7565.9	4821.8	2611.3	1472.9	941.7	758.6	715.5	706.9
37.5°	16625.6	15265.8	11209.9	7055.7	3661.2	1630.2	842.2	603.7	563.1	564.3	566.8
40°	17755.4	16098.2	11561.6	6384.4	2408.5	925.8	585.2	501.6	502.8	499.1	496.7
42.5°	18761.1	16762.1	11720.2	5392.3	1395.4	619.6	507.8	462.3	451.2	454.9	452.4
45°	19593.4	17439.5	11412.8	4277.2	822.5	555.7	479.5	429.1	416.8	436.4	438.9
47.5°	20468.8	18082.5	10941.9	3222.3	667.6	528.7	453.7	404.5	398.3	422.9	425.4
50°	21205.2	18548.4	10139.1	2428.1	636.8	499.1	430.3	379.9	378.7	400.8	400.8
52.5°	21821.2	18830.0	9186.3	1874.9	615.9	473.3	406.9	356.5	356.5	363.9	365.1
55°	22255.2	18773.4	8618.3	1475.3	593.8	448.7	382.4	334.4	319.7	314.7	317.2
57.5°	22333.8	18623.4	7959.3	1150.7	568.0	425.4	360.2	308.6	281.5	277.9	276.6
60°	22283.4	18293.9	7206.9	961.4	538.5	403.3	338.1	281.5	254.5	245.9	248.3
62.5°	22073.2	17709.9	6337.7	843.4	509.0	386.0	313.5	263.1	238.5	227.4	227.4
65°	21438.8	16873.9	5046.8	738.9	472.1	367.6	293.8	255.7	228.7	216.4	213.9
67.5°	20044.6	15139.2	3792.8	647.9	436.4	347.9	291.4	254.5	223.8	206.5	204.1
70°	18174.7	13004.9	2589.2	569.2	397.1	329.5	290.1	255.7	218.8	196.7	194.3
72.5°	15172.4	10252.2	1491.3	495.5	357.8	312.3	285.2	257.0	210.2	183.2	179.5
75°	11400.5	7190.9	875.4	425.4	319.7	286.5	271.7	249.6	196.7	167.2	163.5
77.5°	6856.5	3357.6	659.0	352.8	274.2	252.0	242.2	228.7	179.5	154.9	151.2
80°	2515.4	1274.9	517.6	282.8	217.6	218.8	209.0	200.4	163.5	142.6	140.2
82.5°	1096.7	779.5	382.4	215.2	170.9	195.5	172.1	164.7	140.2	127.9	122.9
85°	665.1	464.7	245.9	146.3	118.0	132.8	120.5	126.6	108.2	100.8	97.1
87.5°	220.1	138.9	109.4	71.3	59.0	55.3	54.1	65.2	61.5	56.6	56.6
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)