

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: P510706

Luminaire Tested: **CST-CA8-230-727-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510706
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-CA8-230-727-U-T2-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: 27626 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

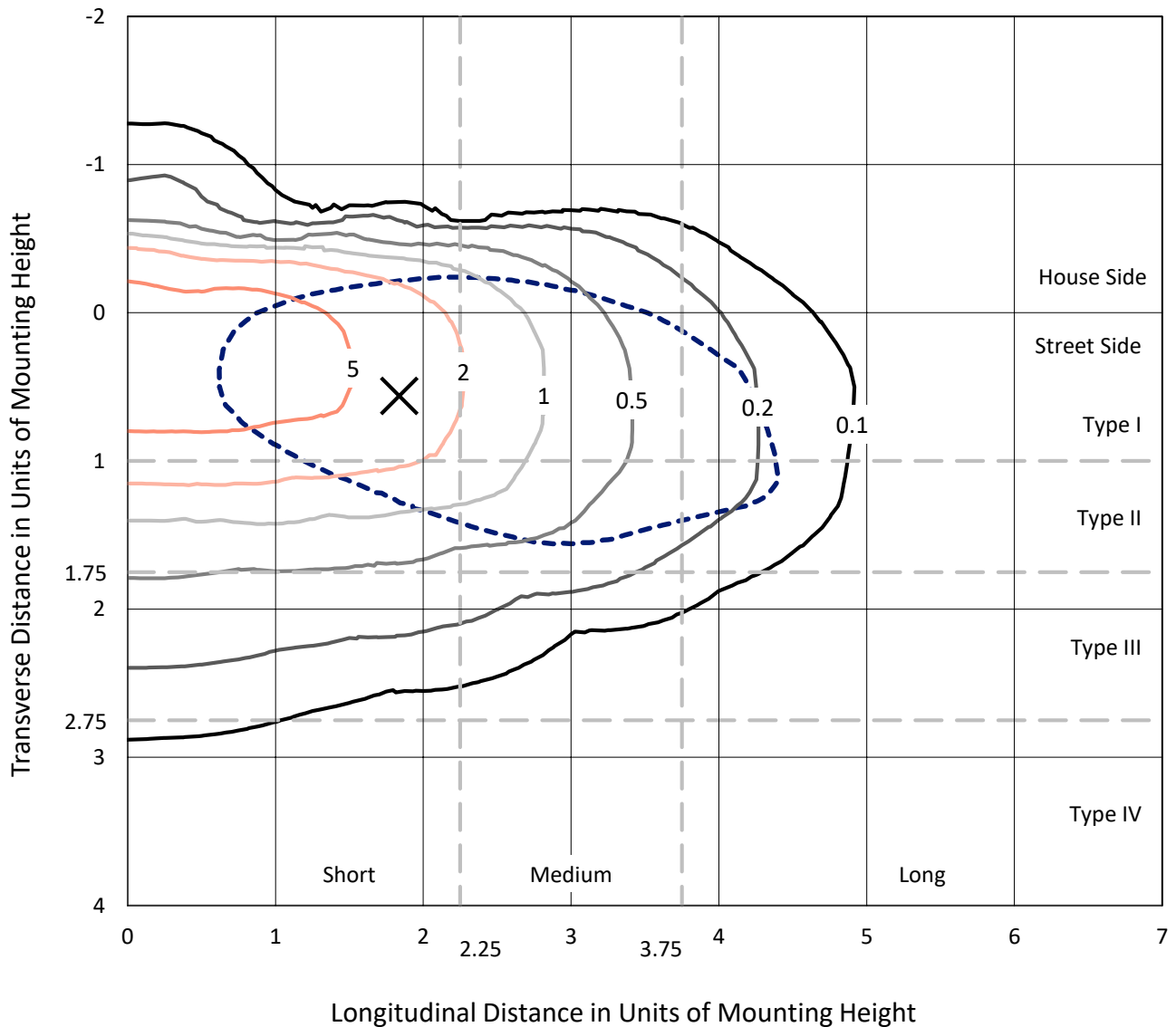
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

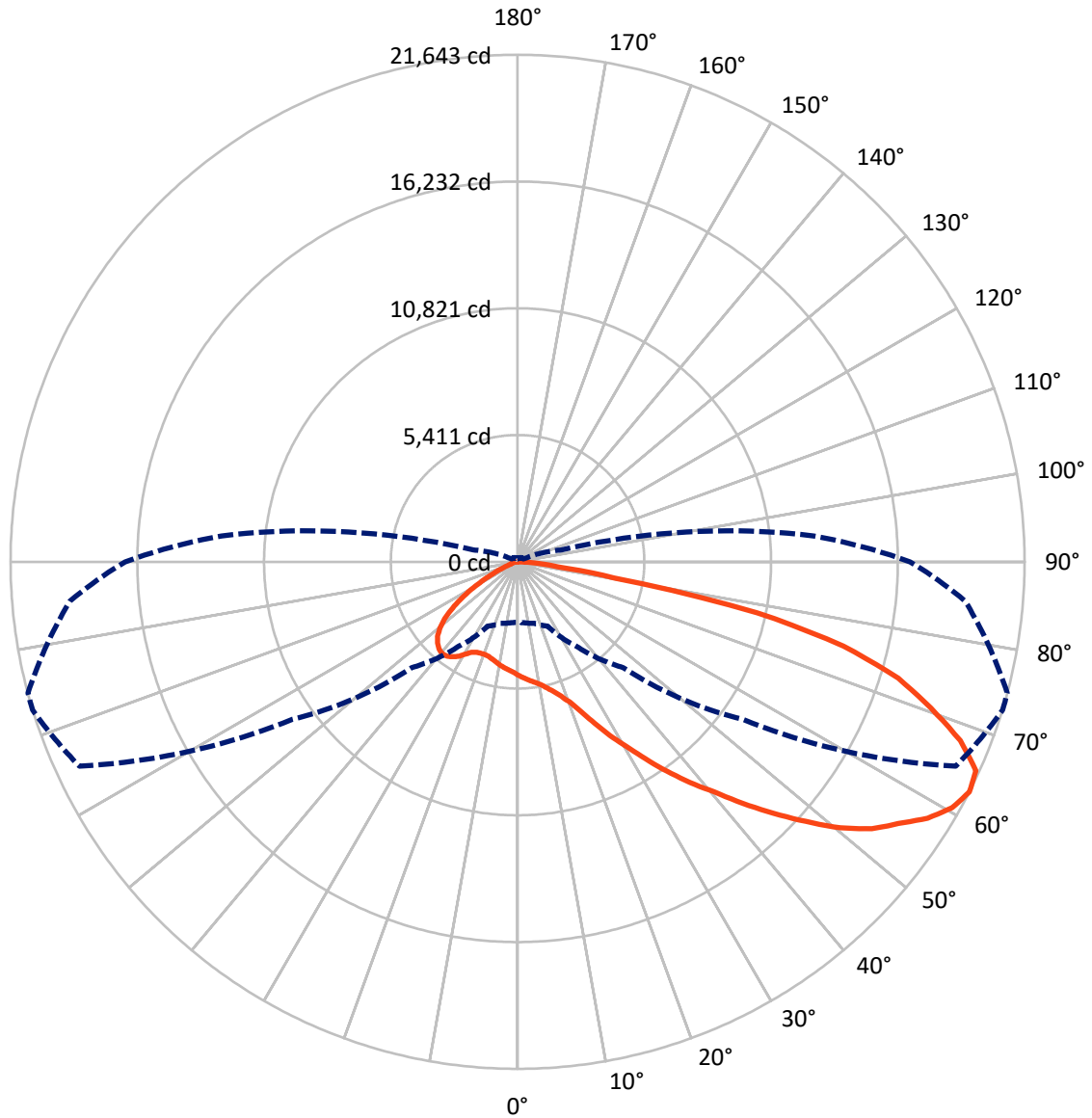
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.7 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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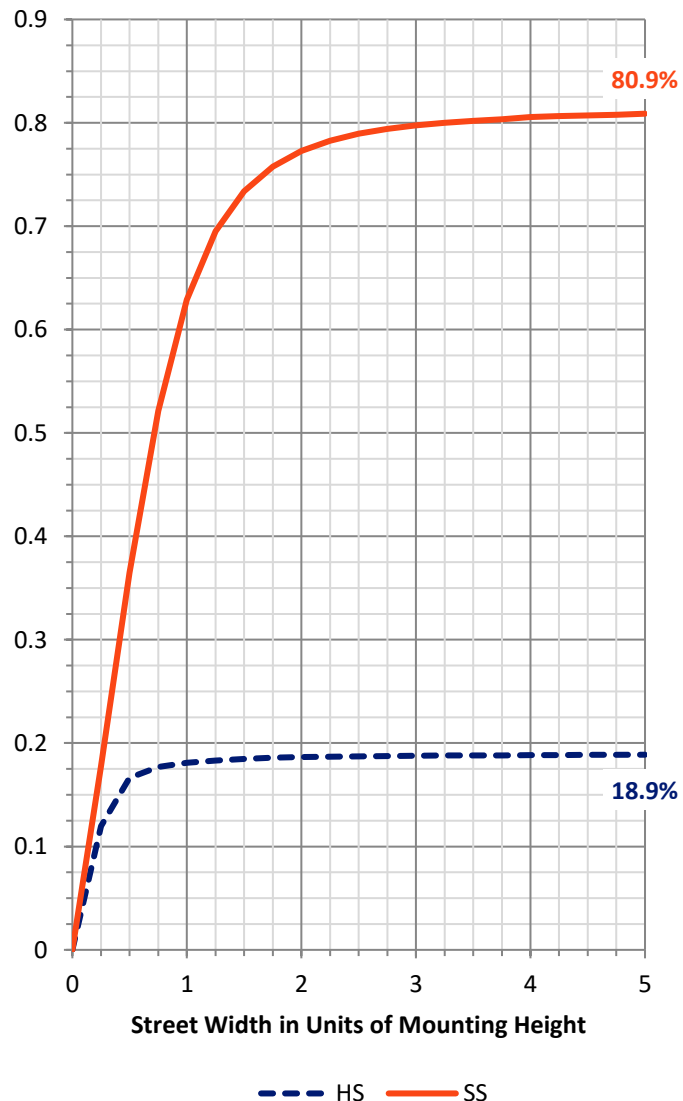
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5284.7	0.0	5284.7
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	22341.3	0.0	22341.3
	% Fixture	80.9	0.0	80.9
Total	Lumens	27626.0	0.0	27626.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	462.8	1.7
10°-20°	1391.9	5.0
20°-30°	2404.9	8.7
30°-40°	3616.3	13.1
40°-50°	4822.0	17.5
50°-60°	5678.9	20.6
60°-70°	5645.8	20.4
70°-80°	3241.4	11.7
80°-90°	362.1	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°	27626.0	100.0
0°-180°	27626.0	100.0

Coefficient of Utilization

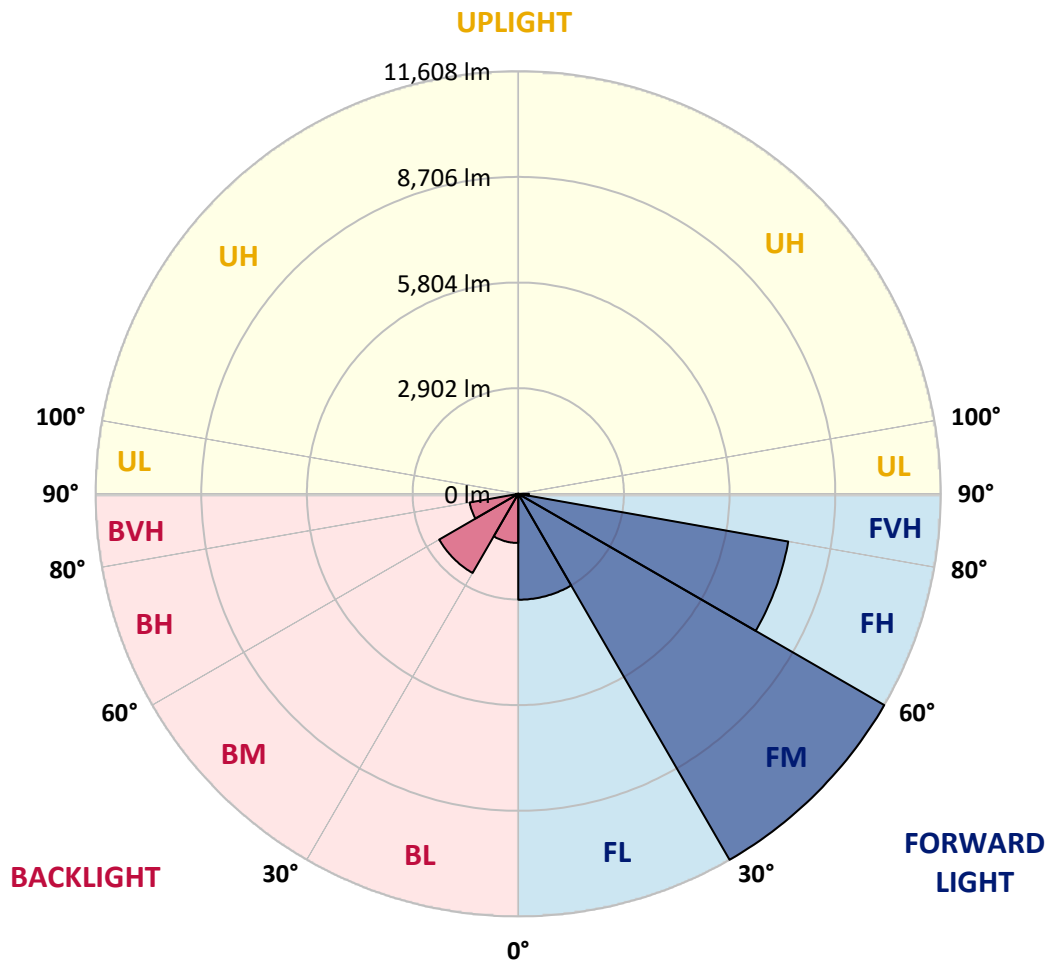


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2909.0	10.5			
FM (30°-60°)	11607.8	42.0			
FH (60°-80°)	7530.4	27.3			G4/12000
FVH (80°-90°)	294.1	1.1			G3/500
BL (0°-30°)	1350.5	4.9	B3/2500		
BM (30°-60°)	2509.4	9.1	B3/5000		
BH (60°-80°)	1356.8	4.9	B3/2500		G3/2500
BVH (80°-90°)	68.0	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°	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0
2.5°	5183.6	5196.6	5181.1	5174.3	5166.8	5118.4	5062.0	5004.3	4957.8	4950.4	4889.6
5°	5547.6	5554.4	5529.0	5499.8	5449.6	5369.6	5268.5	5168.7	5075.7	5050.9	4939.8
7.5°	5827.2	5814.2	5808.0	5783.2	5739.2	5651.1	5498.0	5334.2	5190.4	5155.6	4987.0
10°	6089.5	6084.0	6036.8	6005.8	5935.8	5854.5	5728.6	5520.9	5318.1	5262.3	5027.9
12.5°	6373.6	6361.2	6341.9	6275.0	6217.9	6080.9	5928.9	5739.8	5514.1	5439.7	5098.0
15°	6629.0	6595.6	6585.0	6514.9	6457.3	6352.5	6199.9	5980.4	5739.2	5675.3	5231.3
17.5°	6872.1	6856.6	6833.1	6785.3	6720.8	6640.2	6518.0	6283.0	6033.7	5940.7	5457.6
20°	7078.6	7059.4	7038.9	7052.0	7037.7	6986.2	6909.3	6709.0	6404.6	6314.6	5733.0
22.5°	7222.5	7221.9	7303.7	7351.5	7378.8	7376.9	7358.3	7244.8	6938.5	6847.3	6144.7
25°	7342.2	7351.5	7455.0	7636.7	7799.2	7814.1	7945.6	7891.6	7631.2	7536.3	6764.2
27.5°	7377.5	7396.1	7584.0	7869.9	8116.7	8353.6	8546.4	8645.0	8403.8	8290.3	7430.2
30°	7403.0	7410.4	7594.6	7936.9	8457.2	8832.3	9177.1	9343.9	9136.2	9053.1	8172.5
32.5°	7223.7	7226.2	7508.4	8026.8	8707.1	9357.6	9765.6	10080.0	10025.4	9915.7	8984.2
35°	6976.9	7022.8	7346.5	7940.0	8912.9	9840.0	10395.6	10864.4	10973.6	10894.8	9795.4
37.5°	6671.8	6707.8	7054.4	7811.0	8958.2	10171.8	10885.5	11661.9	11947.2	11934.1	10774.5
40°	6296.7	6340.7	6755.6	7533.2	8935.9	10413.0	11460.4	12545.0	12907.1	12866.2	11745.6
42.5°	5853.3	5917.8	6320.2	7176.0	8772.8	10560.6	11931.0	13444.1	14095.9	14069.2	12605.1
45°	5414.9	5449.6	5816.7	6678.7	8472.7	10608.3	12373.8	14683.1	15315.0	15285.3	13640.7
47.5°	4962.8	4993.2	5376.4	6154.7	7951.8	10512.2	12724.2	15747.2	16557.1	16527.3	14669.5
50°	3911.1	4025.8	4811.5	5693.9	7358.3	10240.0	13054.7	17073.1	17856.9	17730.4	15570.5
52.5°	3346.1	3387.7	3795.1	5229.4	6766.1	9775.5	13275.5	18301.5	18926.0	18743.6	16492.0
55°	3127.9	3155.8	3355.5	4373.1	6209.8	9072.9	13535.3	19533.1	19727.8	19681.3	17243.6
57.5°	2962.3	2993.3	3135.9	3652.5	5623.8	8088.2	13454.1	20399.4	20643.1	20494.2	18041.7
60°	2727.9	2765.7	2954.9	3279.2	4957.8	7088.6	12739.1	20754.1	21308.4	21141.0	18648.8
62.5°	2580.3	2605.1	2713.6	3028.0	4405.9	6385.3	11721.4	20640.0	21642.7	21636.5	19175.2
65°	2380.0	2416.6	2532.6	2787.4	3914.8	5840.3	10761.5	20076.3	21498.8	21504.4	19283.8
67.5°	2170.4	2185.3	2306.8	2511.5	3336.2	5341.1	9519.4	19112.0	20378.3	20506.0	18532.8
70°	1908.7	1901.3	2032.7	2182.2	2726.7	4534.9	7662.2	17396.8	18722.6	18775.3	17014.1
72.5°	1501.9	1508.7	1545.3	1648.9	2069.9	3568.8	5560.0	14698.0	16991.8	17085.5	15073.2
75°	1009.5	1020.7	1191.2	1292.3	1488.9	2564.8	3496.2	9921.2	14364.4	14628.6	12336.6
77.5°	770.2	777.0	826.6	937.0	1077.1	1828.1	1895.1	5406.2	10457.6	11084.6	9650.9
80°	545.7	548.2	499.2	444.0	573.6	1240.2	1119.3	2302.5	4167.2	4924.3	5668.5
82.5°	244.3	240.6	283.4	235.6	330.5	480.0	528.3	1117.5	1730.7	1860.3	2025.3
85°	113.5	127.1	145.7	122.2	196.6	185.4	205.9	476.2	811.1	895.4	890.5
87.5°	27.9	30.4	38.4	49.0	71.3	63.3	62.0	140.1	181.1	180.5	277.2
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°	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0	4845.0
2.5°	4848.1	4815.8	4739.6	4665.8	4595.7	4549.2	4497.1	4442.5	4409.6	4394.1	4427.6
5°	4872.3	4810.9	4665.1	4518.8	4394.8	4288.7	4214.3	4151.1	4117.0	4120.1	4121.9
7.5°	4892.7	4806.5	4602.5	4396.0	4202.5	4071.1	3973.7	3905.5	3866.4	3836.7	3859.0
10°	4910.7	4788.5	4529.3	4254.0	4043.8	3849.1	3717.0	3634.5	3562.6	3522.3	3553.9
12.5°	4929.9	4781.7	4447.5	4126.9	3854.6	3637.0	3455.9	3374.1	3303.4	3273.0	3292.2
15°	5013.6	4807.8	4371.2	3977.4	3668.0	3386.5	3191.1	3090.7	3034.9	2998.3	3006.3
17.5°	5157.5	4876.6	4322.2	3821.2	3459.6	3162.0	2909.0	2791.8	2699.4	2673.3	2666.5
20°	5362.1	5007.4	4322.2	3689.1	3223.4	2912.7	2621.2	2423.4	2279.5	2225.6	2267.1
22.5°	5705.7	5230.1	4365.0	3569.4	3020.0	2654.1	2306.8	2004.8	1810.7	1732.0	1777.9
25°	6186.3	5574.2	4434.5	3464.6	2834.6	2356.4	1908.1	1560.8	1346.9	1253.3	1252.0
27.5°	6813.8	6100.7	4574.6	3379.0	2612.6	1971.4	1492.0	1157.8	956.8	900.4	908.5
30°	7509.6	6671.2	4839.4	3255.0	2342.8	1540.4	1086.4	850.8	709.4	635.0	636.2
32.5°	8180.6	7262.2	5153.8	3174.4	1992.4	1161.5	774.5	607.1	519.0	475.0	481.8
35°	8899.9	7771.9	5387.6	3039.2	1581.3	839.6	547.6	455.2	418.6	395.6	396.9
37.5°	9676.9	8332.5	5579.8	2858.1	1195.6	576.7	404.3	390.1	374.6	345.4	342.9
40°	10488.7	8981.8	5694.5	2565.4	831.0	399.4	343.5	359.7	351.0	313.2	310.1
42.5°	11177.0	9482.8	5723.1	2177.8	537.6	323.7	311.3	336.1	338.0	299.5	294.6
45°	11838.0	9929.3	5667.2	1667.5	372.7	304.5	291.5	325.6	328.0	293.3	285.3
47.5°	12577.8	10540.1	5566.2	1112.5	308.2	287.7	284.6	308.2	316.9	288.4	278.4
50°	13476.4	11036.8	5266.7	683.4	290.8	277.2	277.2	291.5	303.2	278.4	273.5
52.5°	14397.9	11469.7	4823.3	468.8	280.3	266.0	274.1	280.3	284.6	262.3	266.7
55°	15058.3	11853.5	4162.2	377.0	274.1	258.6	277.8	265.4	259.2	240.0	235.6
57.5°	15791.3	12309.9	3486.3	334.2	266.0	262.9	265.4	241.8	224.5	204.6	200.3
60°	16302.9	12555.5	2659.1	314.4	256.7	258.6	244.9	213.3	181.7	167.4	164.3
62.5°	16749.4	12695.6	1949.0	289.0	248.0	247.4	222.0	182.3	149.4	133.9	131.5
65°	16681.8	12476.7	1263.2	268.5	241.2	233.2	199.1	156.3	124.6	112.9	111.6
67.5°	15938.2	11508.1	795.6	247.4	229.4	215.2	178.6	139.5	114.7	101.1	99.8
70°	14377.4	10170.5	486.8	220.1	204.0	190.4	158.1	130.8	108.5	92.4	89.3
72.5°	12220.0	8710.8	344.2	194.1	178.0	161.9	133.9	124.6	103.6	83.1	80.6
75°	10039.7	6416.3	288.4	169.3	151.9	130.2	114.1	116.0	97.4	75.7	73.8
77.5°	7069.9	4000.4	268.5	138.3	119.7	103.6	98.6	106.0	89.3	69.5	67.6
80°	4126.3	2246.7	222.0	109.1	89.9	80.0	82.5	89.9	78.1	62.6	60.2
82.5°	1665.6	889.2	156.3	85.0	65.7	63.9	67.6	73.2	64.5	52.7	51.5
85°	594.7	277.8	88.7	55.8	42.2	44.0	43.4	52.1	46.5	38.4	37.8
87.5°	156.3	55.2	39.7	22.3	18.0	18.0	16.7	24.2	22.3	17.4	19.2
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)