

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: P510716

Luminaire Tested: **CST-CA8-230-730-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510716
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-CA8-230-730-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32034 lumens
Efficiency: N/A
Efficacy: 140.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

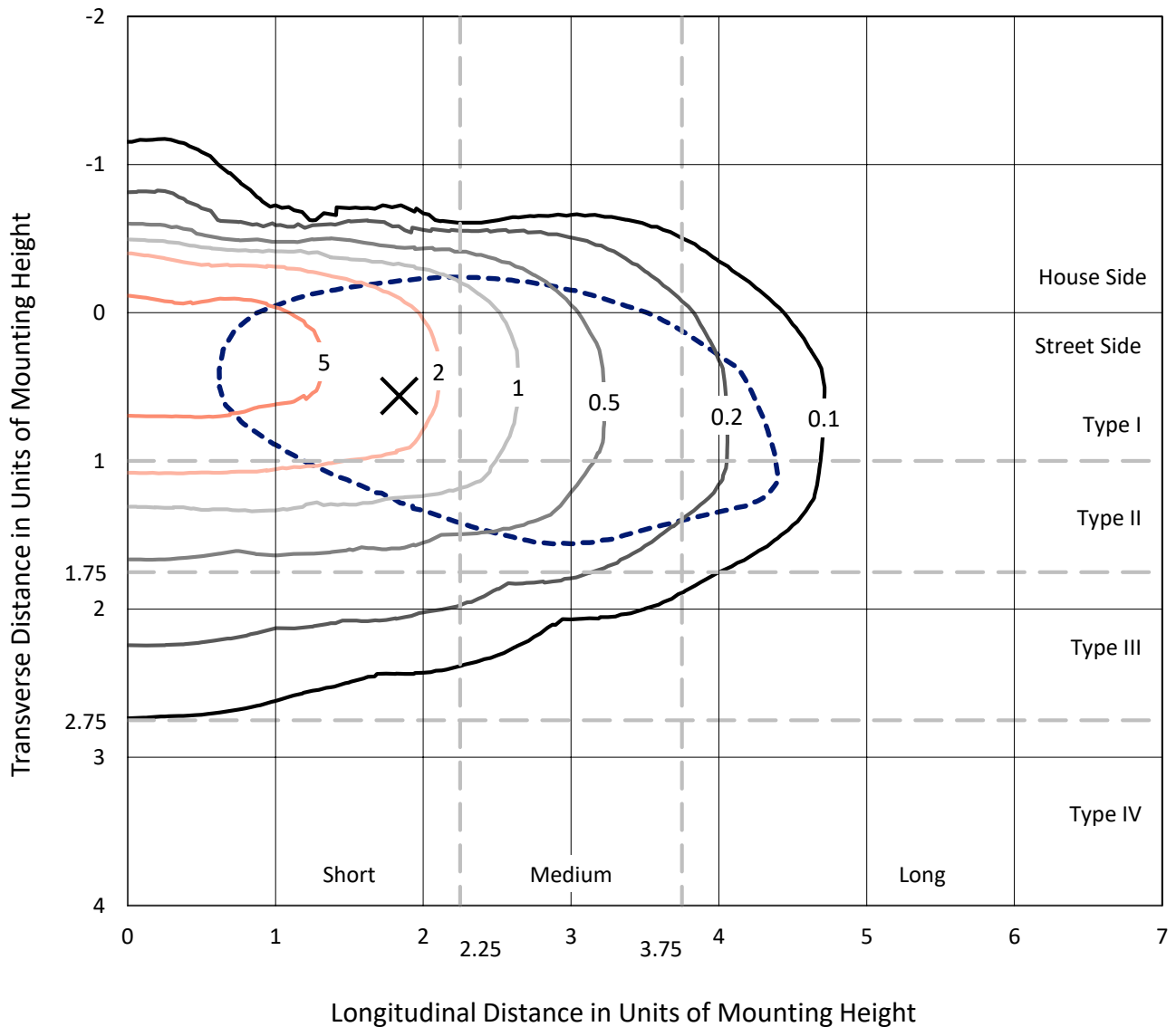
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

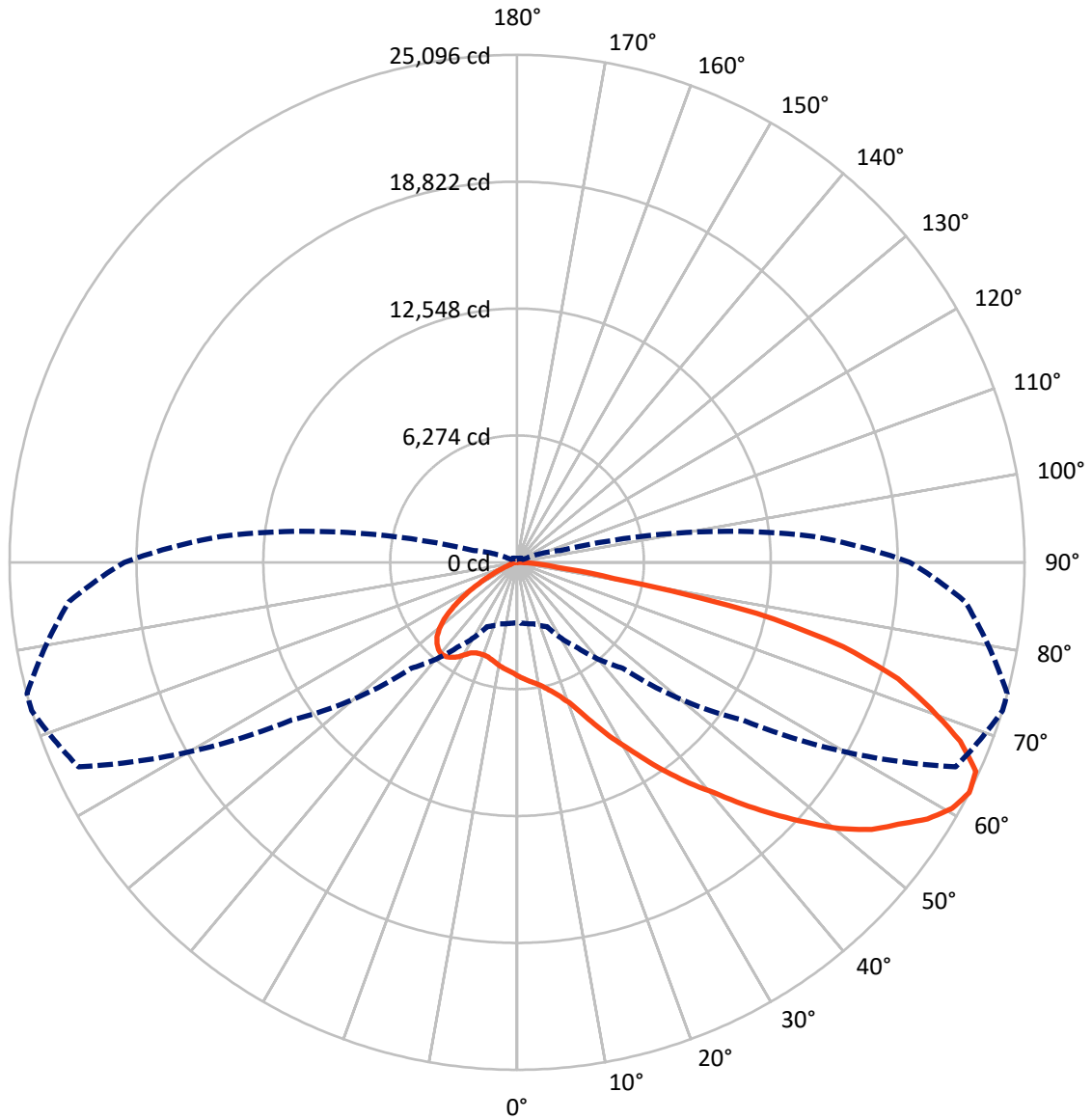
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.8 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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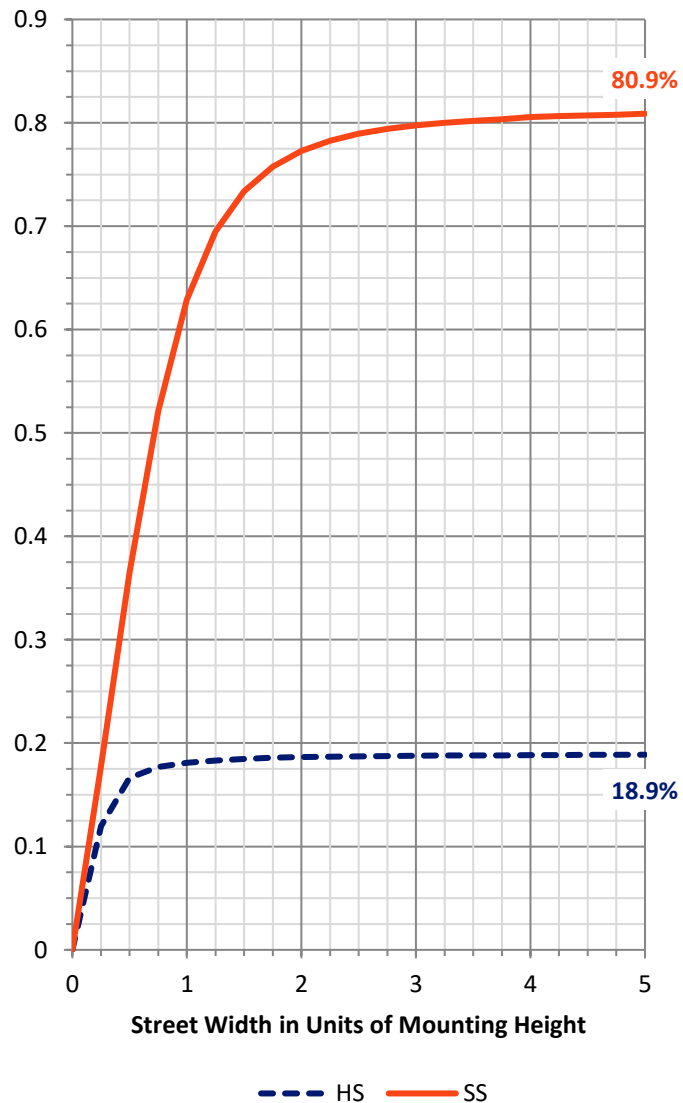
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6128.0	0.0	6128.0
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	25906.0	0.0	25906.0
	% Fixture	80.9	0.0	80.9
Total	Lumens	32034.0	0.0	32034.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	536.6	1.7
10°-20°	1614.0	5.0
20°-30°	2788.6	8.7
30°-40°	4193.3	13.1
40°-50°	5591.4	17.5
50°-60°	6585.0	20.6
60°-70°	6546.7	20.4
70°-80°	3758.6	11.7
80°-90°	419.9	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°	32034.0	100.0
0°-180°	32034.0	100.0

Coefficient of Utilization



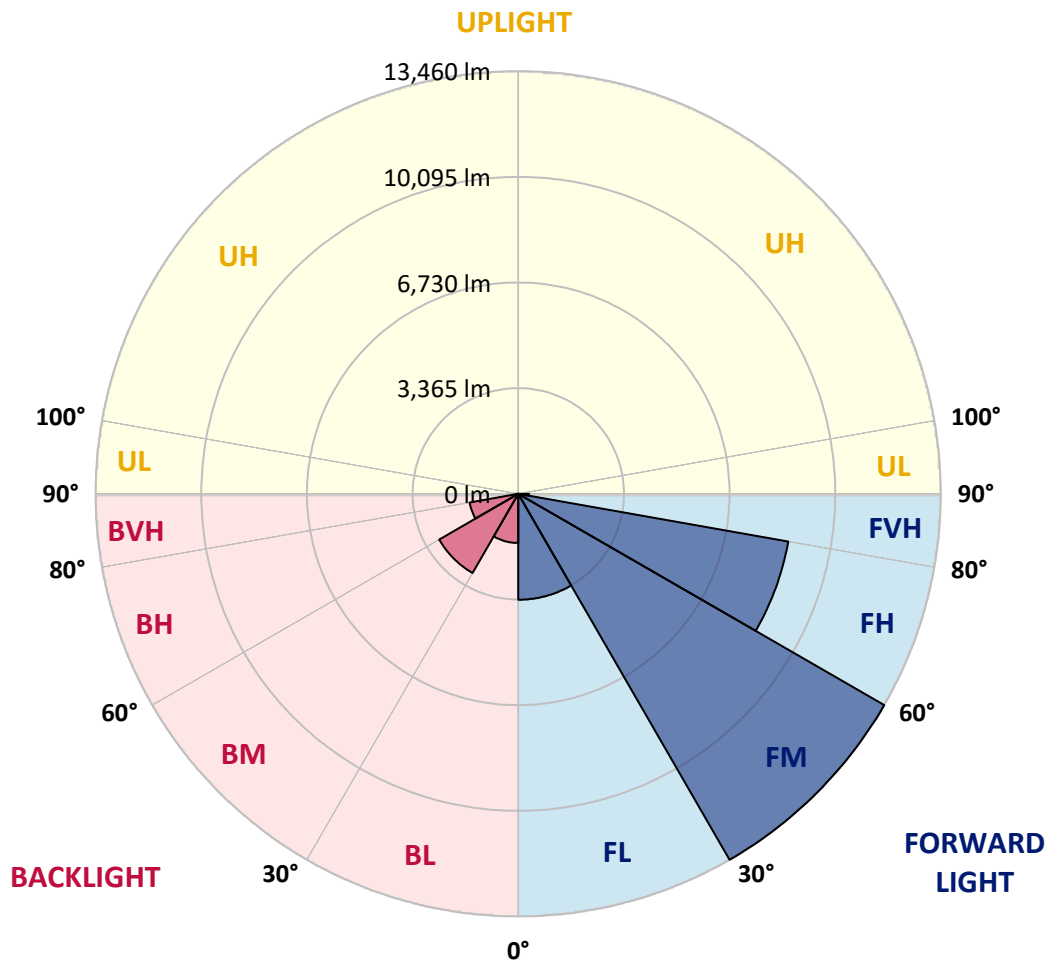
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3373.1	10.5			
FM (30°-60°)	13459.9	42.0			
FH (60°-80°)	8732.0	27.3			G4/12000
FVH (80°-90°)	341.0	1.1			G3/500
BL (0°-30°)	1566.0	4.9	B3/2500		
BM (30°-60°)	2909.8	9.1	B3/5000		
BH (60°-80°)	1573.3	4.9	B3/2500		G3/2500
BVH (80°-90°)	78.9	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-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0
2.5°	6010.6	6025.7	6007.8	5999.9	5991.2	5935.1	5869.7	5802.8	5748.9	5740.3	5669.8
5°	6432.7	6440.6	6411.2	6377.4	6319.1	6226.4	6109.2	5993.4	5885.5	5856.8	5728.1
7.5°	6757.0	6741.9	6734.7	6706.0	6654.9	6552.8	6375.2	6185.4	6018.6	5978.3	5782.7
10°	7061.2	7054.7	7000.1	6964.1	6882.9	6788.7	6642.7	6401.8	6166.7	6102.0	5830.2
12.5°	7390.5	7376.1	7353.9	7276.2	7210.0	7051.1	6875.0	6655.6	6393.9	6307.6	5911.4
15°	7686.8	7647.9	7635.7	7554.5	7487.6	7366.1	7189.2	6934.6	6654.9	6580.9	6066.0
17.5°	7968.6	7950.7	7923.3	7868.0	7793.2	7699.7	7558.1	7285.5	6996.5	6888.6	6328.5
20°	8208.1	8185.8	8162.1	8177.2	8160.6	8101.0	8011.8	7779.5	7426.5	7322.2	6647.7
22.5°	8374.9	8374.2	8469.1	8524.5	8556.1	8554.0	8532.4	8400.8	8045.6	7939.9	7125.2
25°	8513.7	8524.5	8644.6	8855.3	9043.6	9060.9	9213.3	9150.8	8848.8	8738.8	7843.5
27.5°	8554.7	8576.3	8794.1	9125.6	9411.8	9686.5	9910.1	10024.4	9744.7	9613.1	8615.8
30°	8584.2	8592.8	8806.4	9203.3	9806.6	10241.6	10641.4	10834.8	10593.9	10497.6	9476.5
32.5°	8376.4	8379.2	8706.4	9307.5	10096.4	10850.7	11323.8	11688.4	11625.1	11497.8	10417.8
35°	8090.2	8143.4	8518.7	9206.9	10335.1	11410.1	12054.4	12598.0	12724.5	12633.2	11358.3
37.5°	7736.4	7778.1	8180.1	9057.3	10387.6	11794.8	12622.4	13522.7	13853.5	13838.4	12493.7
40°	7301.4	7352.4	7833.5	8735.2	10361.7	12074.5	13289.0	14546.6	14966.6	14919.1	13619.8
42.5°	6787.2	6862.0	7328.7	8321.0	10172.6	12245.6	13834.8	15589.3	16345.0	16314.1	14616.4
45°	6278.9	6319.1	6744.8	7744.3	9824.5	12301.0	14348.2	17026.0	17758.7	17724.2	15817.2
47.5°	5754.7	5789.9	6234.3	7136.7	9220.5	12189.5	14754.4	18259.9	19199.0	19164.4	17010.1
50°	4535.1	4668.2	5579.2	6602.4	8532.4	11873.9	15137.7	19797.2	20706.1	20559.4	18054.9
52.5°	3880.1	3928.2	4400.7	6063.9	7845.7	11335.3	15393.7	21221.7	21945.8	21734.4	19123.5
55°	3627.0	3659.3	3890.8	5070.8	7200.7	10520.6	15695.0	22649.7	22875.5	22821.6	19995.0
57.5°	3435.0	3470.9	3636.3	4235.3	6521.2	9378.7	15600.8	23654.3	23936.9	23764.3	20920.4
60°	3163.2	3207.0	3426.3	3802.4	5748.9	8219.6	14771.7	24065.6	24708.4	24514.3	21624.4
62.5°	2992.0	3020.8	3146.6	3511.2	5108.9	7404.2	13591.7	23933.3	25096.0	25088.8	22234.8
65°	2759.8	2802.2	2936.7	3232.2	4539.4	6772.1	12478.6	23279.6	24929.2	24935.6	22360.7
67.5°	2516.7	2534.0	2674.9	2912.2	3868.6	6193.3	11038.3	22161.5	23629.8	23778.0	21489.9
70°	2213.3	2204.6	2357.1	2530.4	3161.7	5258.5	8884.7	20172.6	21709.9	21771.1	19728.9
72.5°	1741.6	1749.5	1791.9	1912.0	2400.2	4138.2	6447.1	17043.2	19703.0	19811.6	17478.2
75°	1170.6	1183.6	1381.3	1498.5	1726.5	2974.0	4054.1	11504.3	16656.4	16962.7	14305.0
77.5°	893.1	901.0	958.5	1086.5	1249.0	2119.8	2197.5	6268.8	12126.3	12853.2	11190.8
80°	632.8	635.7	578.8	514.8	665.1	1438.1	1297.9	2669.9	4832.1	5710.1	6572.9
82.5°	283.3	279.0	328.6	273.2	383.3	556.6	612.6	1295.8	2006.9	2157.2	2348.5
85°	131.6	147.4	169.0	141.7	227.9	215.0	238.7	552.2	940.5	1038.3	1032.6
87.5°	32.4	35.2	44.6	56.8	82.7	73.3	71.9	162.5	210.0	209.2	321.4
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°	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0	5618.0
2.5°	5621.6	5584.2	5495.8	5410.2	5329.0	5275.0	5214.6	5151.4	5113.3	5095.3	5134.1
5°	5649.7	5578.5	5409.5	5239.8	5096.0	4973.0	4886.7	4813.4	4773.9	4777.5	4779.6
7.5°	5673.4	5573.5	5336.9	5097.4	4873.1	4720.6	4607.8	4528.7	4483.4	4448.8	4474.7
10°	5694.3	5552.6	5252.0	4932.8	4689.0	4463.2	4310.1	4214.4	4131.0	4084.3	4120.9
12.5°	5716.5	5544.7	5157.1	4785.4	4469.7	4217.3	4007.3	3912.4	3830.4	3795.2	3817.5
15°	5813.6	5574.9	5068.7	4612.1	4253.3	3926.8	3700.3	3583.8	3519.1	3476.7	3486.0
17.5°	5980.4	5654.7	5011.9	4430.9	4011.6	3666.5	3373.1	3237.2	3130.1	3099.9	3092.0
20°	6217.7	5806.4	5011.9	4277.7	3737.7	3377.4	3039.5	2810.1	2643.3	2580.7	2628.9
22.5°	6616.1	6064.6	5061.5	4138.9	3501.8	3077.6	2674.9	2324.7	2099.7	2008.3	2061.6
25°	7173.4	6463.7	5142.0	4017.4	3286.8	2732.4	2212.6	1809.9	1561.8	1453.2	1451.8
27.5°	7901.1	7074.1	5304.5	3918.2	3029.4	2285.9	1730.1	1342.5	1109.5	1044.1	1053.4
30°	8707.8	7735.7	5611.6	3774.4	2716.6	1786.2	1259.8	986.6	822.6	736.3	737.8
32.5°	9485.9	8420.9	5976.1	3680.9	2310.3	1346.8	898.1	704.0	601.9	550.8	558.7
35°	10320.0	9012.0	6247.2	3524.1	1833.6	973.6	634.9	527.8	485.4	458.8	460.2
37.5°	11221.0	9662.0	6470.1	3314.2	1386.4	668.7	468.8	452.3	434.3	400.5	397.6
40°	12162.2	10414.9	6603.1	2974.8	963.5	463.1	398.4	417.1	407.0	363.1	359.5
42.5°	12960.4	10995.9	6636.2	2525.3	623.4	375.4	361.0	389.7	391.9	347.3	341.6
45°	13726.9	11513.6	6571.5	1933.6	432.2	353.1	338.0	377.5	380.4	340.1	330.8
47.5°	14584.7	12221.9	6454.3	1290.0	357.4	333.6	330.0	357.4	367.4	334.4	322.9
50°	15626.7	12797.9	6107.0	792.4	337.2	321.4	321.4	338.0	351.6	322.9	317.1
52.5°	16695.2	13299.8	5592.9	543.6	325.0	308.5	317.8	325.0	330.0	304.2	309.2
55°	17461.0	13744.9	4826.3	437.2	317.8	299.8	322.1	307.8	300.6	278.3	273.2
57.5°	18310.9	14274.1	4042.6	387.6	308.5	304.9	307.8	280.4	260.3	237.3	232.3
60°	18904.1	14558.9	3083.3	364.6	297.7	299.8	284.0	247.4	210.7	194.1	190.6
62.5°	19421.9	14721.4	2260.0	335.1	287.6	286.9	257.4	211.4	173.3	155.3	152.4
65°	19343.5	14467.5	1464.7	311.4	279.7	270.4	230.8	181.2	144.5	130.9	129.4
67.5°	18481.3	13344.4	922.6	286.9	266.1	249.5	207.1	161.8	133.0	117.2	115.8
70°	16671.5	11793.3	564.5	255.3	236.6	220.8	183.4	151.7	125.8	107.1	103.5
72.5°	14169.8	10100.7	399.1	225.1	206.4	187.7	155.3	144.5	120.1	96.4	93.5
75°	11641.6	7440.1	334.4	196.3	176.2	151.0	132.3	134.5	112.9	87.7	85.6
77.5°	8198.0	4638.7	311.4	160.4	138.8	120.1	114.3	123.0	103.5	80.5	78.4
80°	4784.6	2605.2	257.4	126.6	104.3	92.8	95.6	104.3	90.6	72.6	69.7
82.5°	1931.4	1031.1	181.2	98.5	76.2	74.1	78.4	84.8	74.8	61.1	59.7
85°	689.6	322.1	102.8	64.7	48.9	51.1	50.3	60.4	53.9	44.6	43.9
87.5°	181.2	64.0	46.0	25.9	20.9	20.9	19.4	28.0	25.9	20.1	22.3
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)