

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: P510408

Luminaire Tested: **CST-CA10-210-727-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510408
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-CA10-210-727-U-T3-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: 27564 lumens
Efficiency: N/A
Efficacy: 129.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

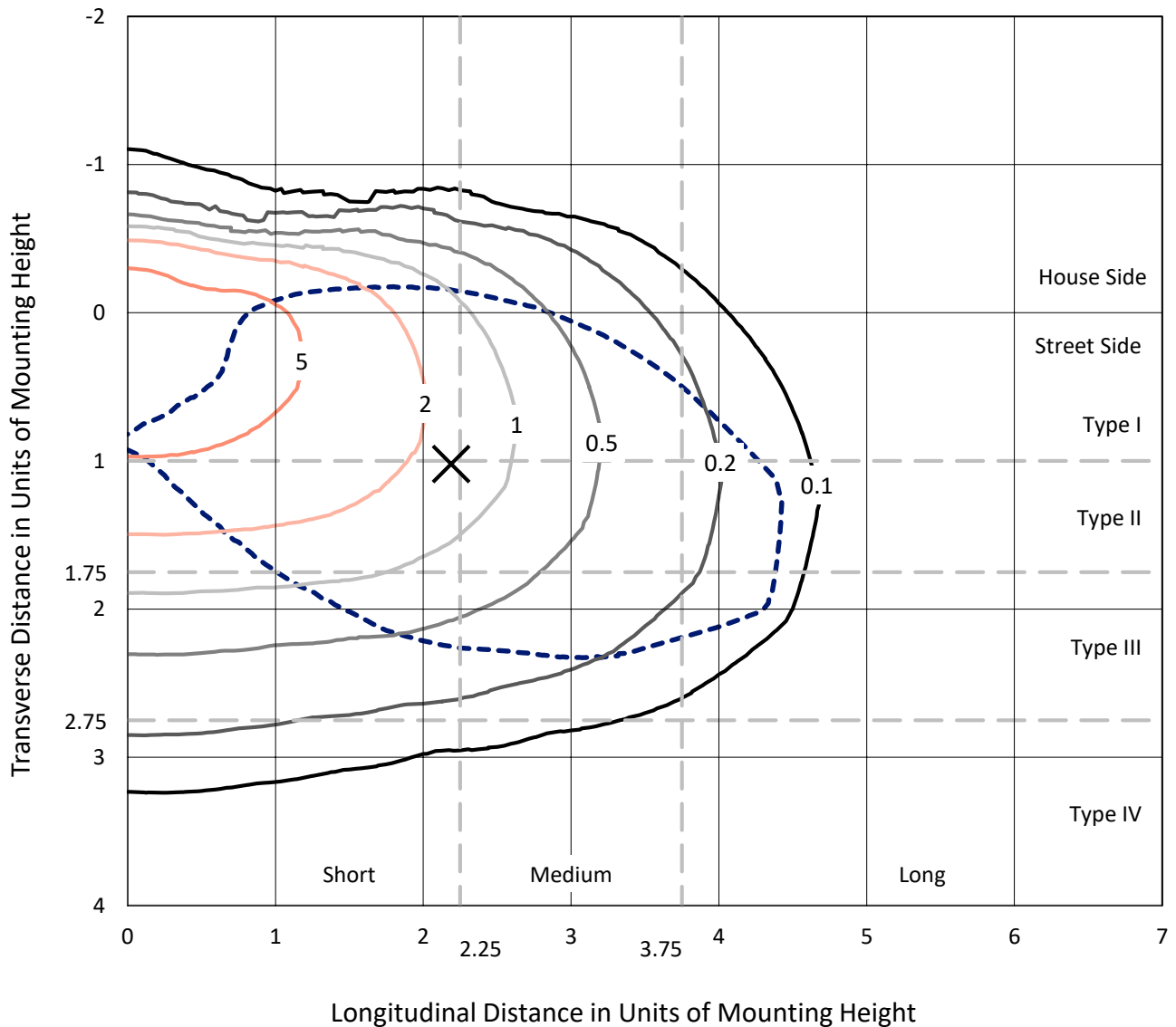
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

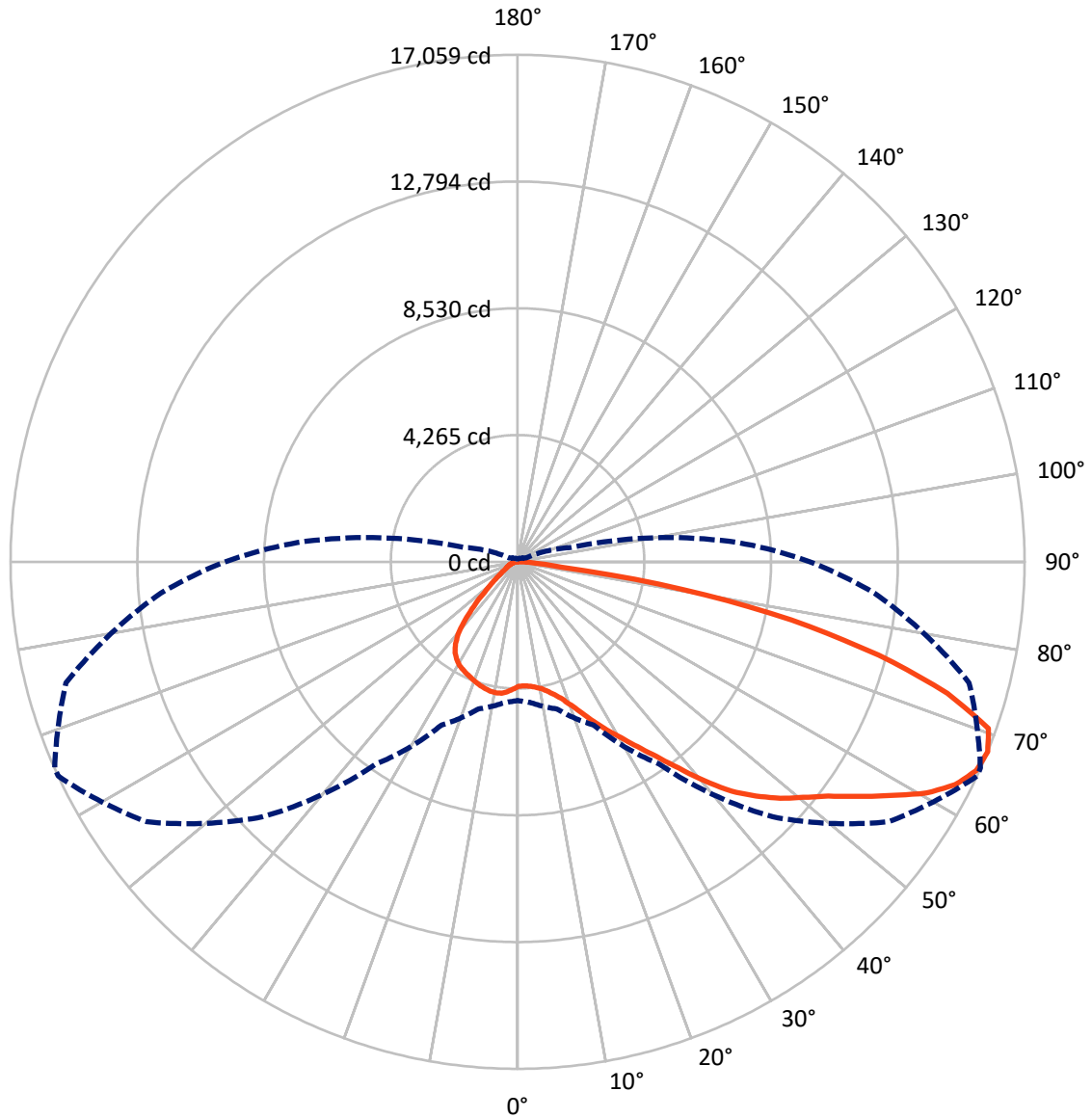
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 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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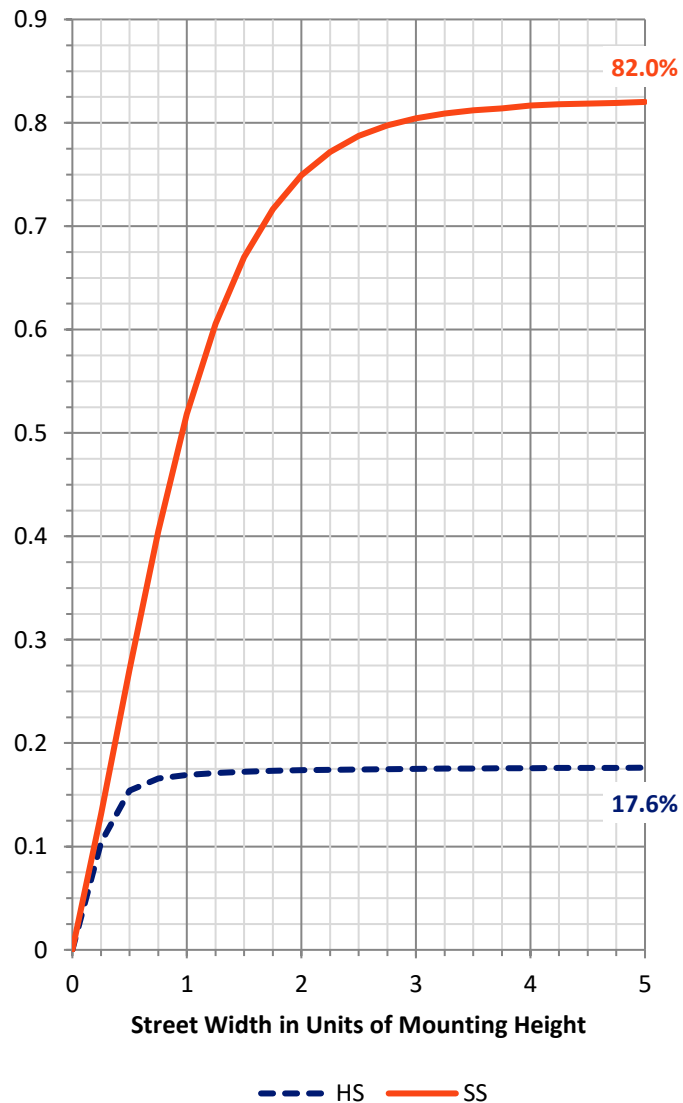
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4926.4	0.0	4926.4
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	22637.6	0.0	22637.6
	% Fixture	82.1	0.0	82.1
Total	Lumens	27564.0	0.0	27564.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	414.4	1.5
10°-20°	1279.4	4.6
20°-30°	2219.4	8.1
30°-40°	3348.0	12.1
40°-50°	4642.2	16.8
50°-60°	5730.2	20.8
60°-70°	6105.4	22.1
70°-80°	3493.6	12.7
80°-90°	331.5	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°	27564.0	100.0
0°-180°	27564.0	100.0

Coefficient of Utilization

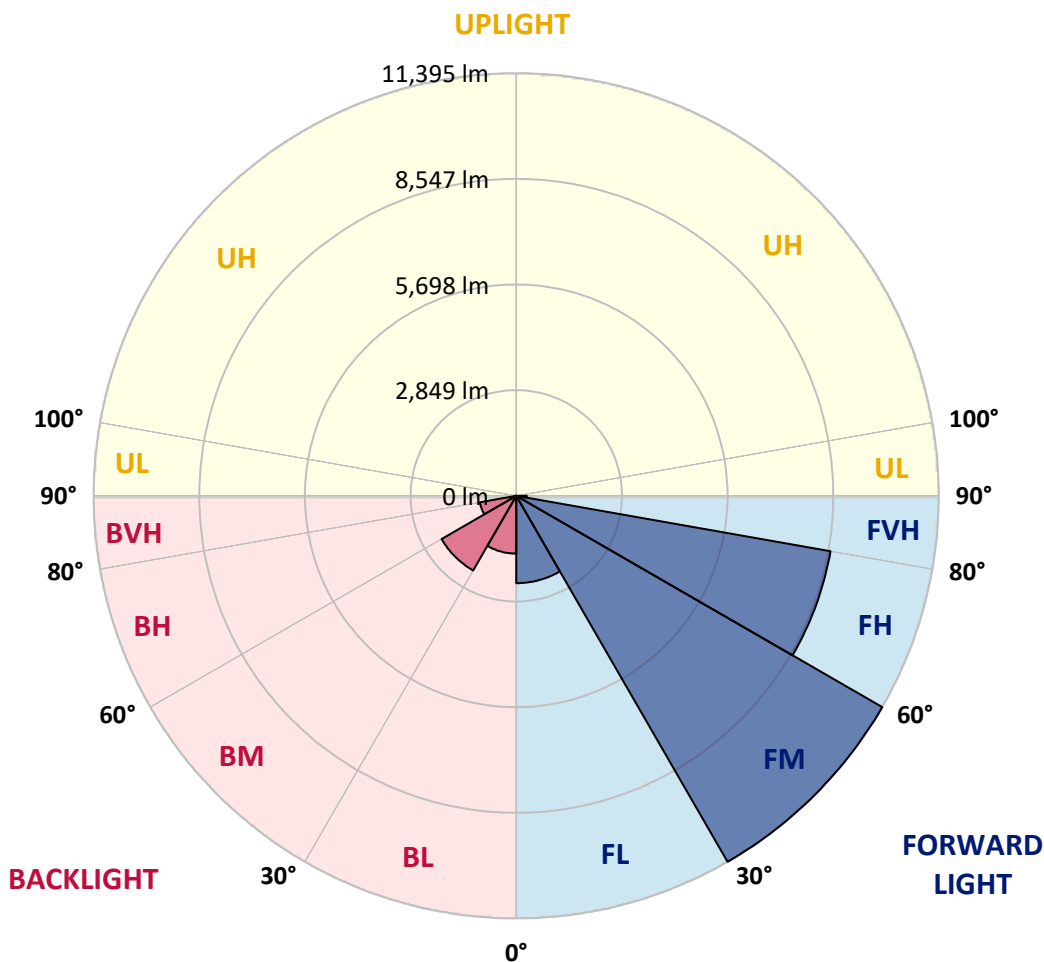


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2354.3	8.5			
FM (30°-60°)	11395.4	41.3			
FH (60°-80°)	8604.7	31.2			G4/12000
FVH (80°-90°)	283.2	1.0			G3/500
BL (0°-30°)	1558.8	5.7	B3/2500		
BM (30°-60°)	2325.0	8.4	B2/2500		
BH (60°-80°)	994.3	3.6	B2/1000		G2/1000
BVH (80°-90°)	48.2	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5
2.5°	4148.1	4142.6	4137.8	4146.3	4151.1	4158.9	4170.4	4178.3	4180.7	4187.9	4197.0
5°	4214.5	4213.9	4207.2	4203.6	4193.4	4189.7	4192.2	4201.8	4202.4	4211.5	4239.9
7.5°	4344.9	4343.7	4327.4	4320.2	4298.4	4274.3	4256.2	4258.0	4257.4	4266.4	4304.5
10°	4541.8	4532.1	4509.1	4486.8	4444.5	4399.3	4366.0	4335.9	4335.9	4349.1	4391.4
12.5°	4763.9	4777.2	4745.8	4712.0	4641.4	4559.9	4501.9	4468.1	4464.5	4471.1	4501.3
15°	5039.9	5039.9	5018.7	4970.4	4908.3	4794.7	4675.2	4632.3	4626.3	4640.2	4638.4
17.5°	5350.8	5359.9	5320.0	5295.9	5200.5	5074.9	4925.2	4850.9	4850.9	4841.8	4800.2
20°	5747.5	5698.0	5702.2	5662.4	5592.4	5410.0	5257.9	5149.8	5148.6	5130.5	5013.3
22.5°	6178.6	6151.5	6127.9	6092.9	5996.3	5833.3	5621.9	5515.1	5512.7	5468.0	5294.1
25°	6603.7	6624.2	6598.3	6534.3	6463.6	6286.1	6053.1	5948.0	5947.4	5873.1	5626.8
27.5°	7040.9	7063.2	7054.7	6996.8	6902.6	6763.7	6543.3	6406.3	6397.8	6349.5	6039.8
30°	7523.9	7504.0	7529.9	7505.2	7458.1	7231.7	7032.4	6873.0	6893.5	6879.0	6508.9
32.5°	7875.3	7888.0	7973.1	7975.5	7926.0	7758.2	7514.8	7417.0	7449.6	7430.3	7085.5
35°	8192.9	8213.4	8323.3	8431.4	8467.6	8284.1	8036.5	8030.5	8072.7	8190.5	7880.1
37.5°	8465.8	8480.3	8634.3	8775.0	8892.1	8766.5	8586.6	8800.9	8863.1	9104.0	8700.1
40°	8629.4	8648.2	8847.4	9045.5	9254.4	9209.7	9192.8	9700.0	9758.5	9970.5	9298.5
42.5°	8537.1	8573.9	8906.0	9268.3	9575.6	9665.0	9896.2	10548.3	10615.3	10633.4	9886.5
45°	8372.2	8418.1	8789.5	9375.7	9876.9	10163.7	10603.9	11239.7	11276.5	11225.2	10373.8
47.5°	8194.7	8243.6	8658.4	9343.7	10119.0	10743.9	11236.0	11890.5	11916.5	11758.9	10864.7
50°	7993.0	8038.3	8484.5	9268.9	10301.4	11291.6	11885.7	12453.3	12550.5	12238.9	11246.3
52.5°	7747.9	7796.2	8269.6	9151.7	10461.4	11697.9	12458.7	13089.1	13095.7	12839.1	11676.2
55°	7430.3	7514.2	7999.7	8948.9	10545.3	12046.9	12958.1	13930.2	13973.0	13724.9	12036.1
57.5°	7077.1	7150.1	7674.8	8678.4	10469.8	12312.0	13761.1	14832.2	14826.8	14328.7	12350.6
60°	6610.4	6662.3	7251.6	8324.5	10226.5	12632.6	14597.4	15798.9	15789.3	14920.4	12552.9
62.5°	6011.4	6063.3	6617.6	7769.6	9869.0	12847.6	15164.9	16522.9	16495.1	15350.9	12615.1
65°	5317.0	5410.0	5891.2	7049.3	9236.9	12706.3	15439.1	16949.1	16904.5	15679.4	12466.6
67.5°	4666.1	4745.2	5126.2	6057.9	8304.0	12133.3	15245.8	17059.0	17045.8	15727.1	12046.9
70°	3744.7	3773.7	4122.7	4920.3	6909.2	10906.4	14578.0	16805.4	16811.5	15287.5	11204.0
72.5°	2563.1	2633.8	2788.9	3418.7	5027.8	8673.5	12565.0	15124.5	15125.7	13708.0	9761.6
75°	1378.5	1487.8	1668.9	1981.1	2810.7	5565.8	10090.6	12549.9	12573.4	11429.2	7758.8
77.5°	683.5	722.7	827.8	1059.7	1288.5	2625.9	6489.6	9420.4	9476.6	8773.1	5291.7
80°	312.8	319.4	327.3	325.4	493.3	1152.0	2785.9	5657.6	5674.5	5218.0	2415.8
82.5°	244.5	243.3	247.0	224.6	225.8	444.4	964.3	1481.7	1580.1	1243.8	766.2
85°	147.9	147.3	158.8	123.2	151.6	240.3	486.7	591.1	598.4	486.7	396.7
87.5°	56.2	54.3	50.1	44.1	50.7	67.6	168.5	217.4	212.5	150.9	137.1
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°	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5	4188.5
2.5°	4204.8	4224.2	4259.8	4286.9	4296.0	4325.0	4352.8	4357.6	4377.5	4385.4	4411.3
5°	4257.4	4290.0	4345.5	4382.3	4398.7	4447.0	4478.4	4494.1	4488.6	4491.6	4520.6
7.5°	4334.0	4364.8	4409.5	4454.2	4462.0	4470.5	4467.5	4465.1	4443.9	4425.8	4453.0
10°	4404.1	4433.1	4460.8	4467.5	4427.6	4405.3	4365.4	4334.6	4293.6	4274.9	4296.6
12.5°	4502.5	4508.5	4481.4	4445.1	4359.4	4279.7	4215.1	4158.9	4108.2	4073.2	4102.2
15°	4606.4	4582.8	4503.7	4398.0	4265.2	4151.1	4045.4	3951.8	3867.9	3847.4	3855.2
17.5°	4744.0	4680.0	4520.6	4343.1	4136.6	3959.1	3823.2	3704.9	3595.0	3549.1	3544.9
20°	4911.9	4808.6	4555.0	4273.7	3984.4	3748.4	3538.2	3361.3	3209.8	3085.4	3088.4
22.5°	5130.5	4980.7	4607.0	4201.2	3816.0	3501.4	3195.9	2895.2	2645.8	2538.4	2511.8
25°	5419.1	5195.7	4680.6	4135.4	3627.6	3187.4	2755.7	2331.3	2067.4	1962.9	1951.5
27.5°	5778.3	5484.3	4792.9	4062.3	3425.9	2814.9	2194.2	1778.2	1536.1	1426.2	1389.3
30°	6186.5	5839.9	4908.3	3986.3	3182.0	2336.1	1673.1	1265.6	1017.4	919.0	906.3
32.5°	6714.8	6290.3	5079.7	3866.7	2825.8	1836.1	1167.1	789.8	621.3	579.0	567.0
35°	7465.3	6899.6	5291.7	3715.8	2368.1	1282.5	723.3	462.5	372.5	351.4	347.2
37.5°	8165.1	7497.3	5505.4	3465.2	1798.1	800.6	413.6	296.5	276.5	277.1	278.3
40°	8720.0	7906.1	5678.1	3135.5	1182.8	454.7	287.4	246.3	247.0	245.1	243.9
42.5°	9213.9	8232.1	5756.0	2648.2	685.3	304.3	249.4	227.0	221.6	223.4	222.2
45°	9622.7	8564.8	5605.0	2100.6	403.9	272.9	235.5	210.7	204.7	214.3	215.6
47.5°	10052.6	8880.6	5373.8	1582.5	327.9	259.6	222.8	198.6	195.6	207.7	208.9
50°	10414.3	9109.5	4979.5	1192.5	312.8	245.1	211.3	186.6	186.0	196.8	196.8
52.5°	10716.8	9247.7	4511.6	920.8	302.5	232.5	199.9	175.1	175.1	178.7	179.3
55°	10929.9	9220.0	4232.6	724.6	291.6	220.4	187.8	164.2	157.0	154.6	155.8
57.5°	10968.5	9146.3	3909.0	565.2	279.0	208.9	176.9	151.6	138.3	136.5	135.9
60°	10943.8	8984.5	3539.4	472.2	264.5	198.0	166.0	138.3	125.0	120.8	122.0
62.5°	10840.5	8697.7	3112.6	414.2	250.0	189.6	154.0	129.2	117.1	111.7	111.7
65°	10529.0	8287.1	2478.6	362.9	231.9	180.5	144.3	125.6	112.3	106.3	105.1
67.5°	9844.3	7435.1	1862.7	318.2	214.3	170.9	143.1	125.0	109.9	101.4	100.2
70°	8925.9	6386.9	1271.6	279.6	195.0	161.8	142.5	125.6	107.5	96.6	95.4
72.5°	7451.4	5035.1	732.4	243.3	175.7	153.4	140.1	126.2	103.2	90.0	88.2
75°	5599.0	3531.6	429.9	208.9	157.0	140.7	133.4	122.6	96.6	82.1	80.3
77.5°	3367.4	1649.0	323.6	173.3	134.6	123.8	118.9	112.3	88.2	76.1	74.3
80°	1235.4	626.1	254.2	138.9	106.9	107.5	102.6	98.4	80.3	70.0	68.8
82.5°	538.6	382.8	187.8	105.7	83.9	96.0	84.5	80.9	68.8	62.8	60.4
85°	326.7	228.2	120.8	71.9	58.0	65.2	59.2	62.2	53.1	49.5	47.7
87.5°	108.1	68.2	53.7	35.0	29.0	27.2	26.6	32.0	30.2	27.8	27.8
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)