

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: P237559

Luminaire Tested: **CST-8-3-D-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237559
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-8-3-D-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 4000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28399 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G3

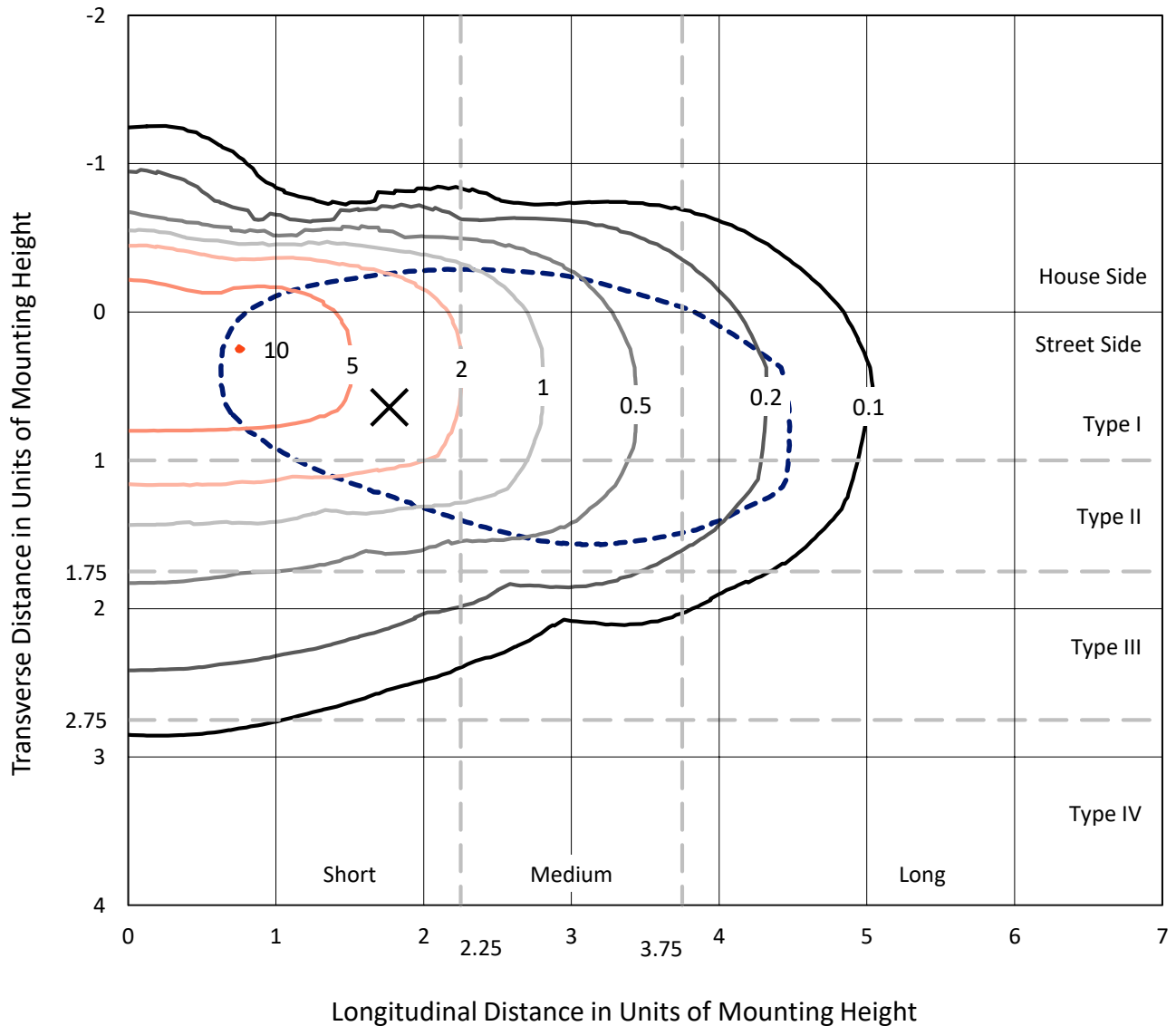
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

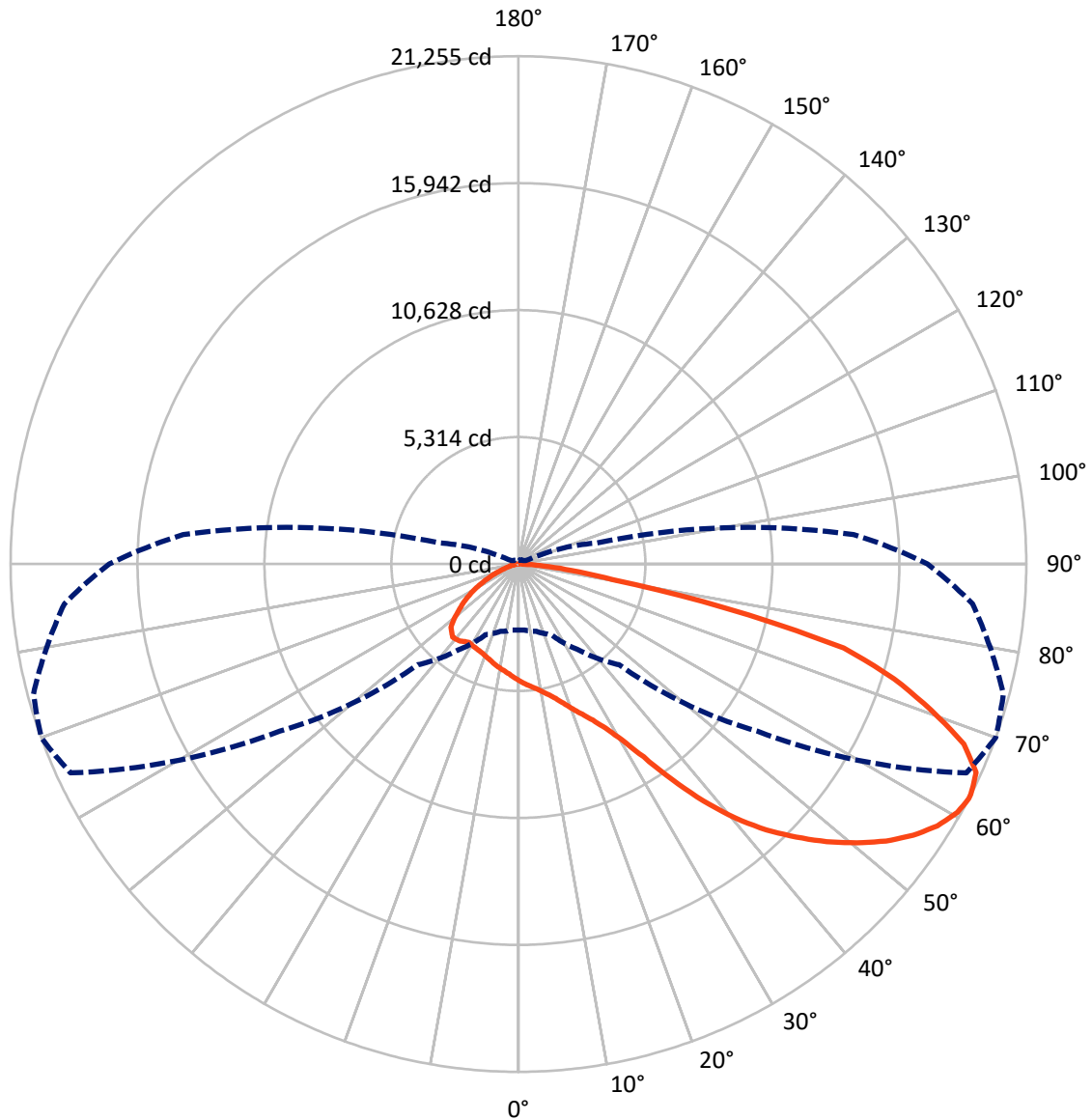
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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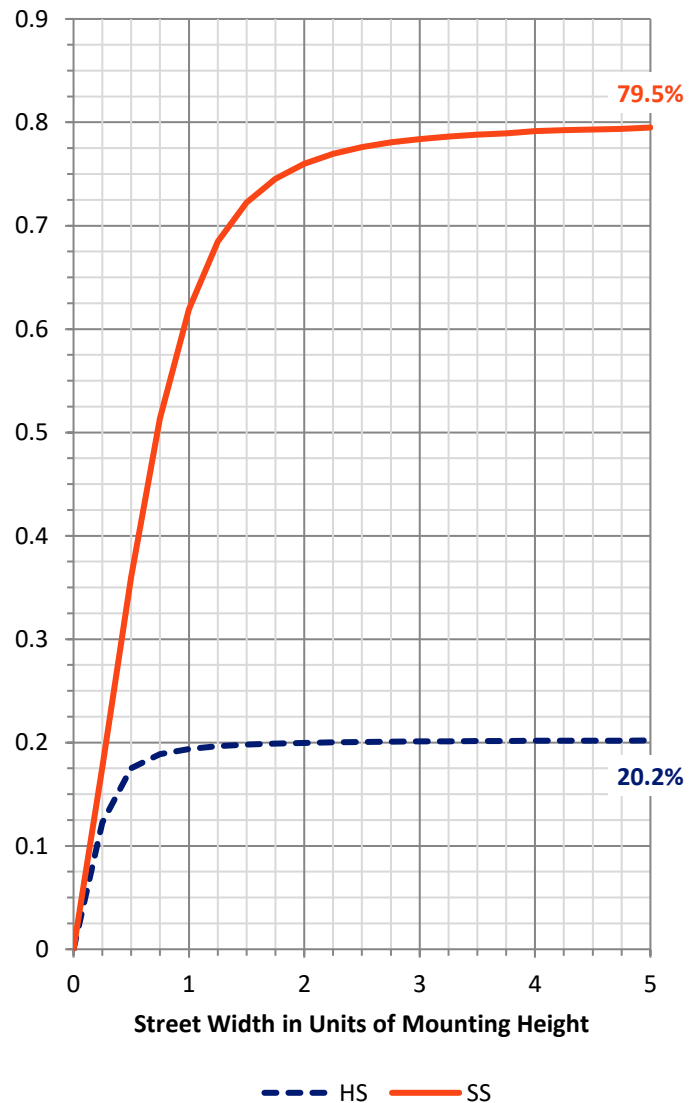
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5809.3	0.0	5809.3
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	22589.7	0.0	22589.7
	% Fixture	79.5	0.0	79.5
Total	Lumens	28399.0	0.0	28399.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	465.4	1.6
10°-20°	1415.9	5.0
20°-30°	2383.8	8.4
30°-40°	3599.5	12.7
40°-50°	5047.7	17.8
50°-60°	5899.5	20.8
60°-70°	5723.6	20.2
70°-80°	3346.0	11.8
80°-90°	517.6	1.8
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°	28399.0	100.0
0°-180°	28399.0	100.0



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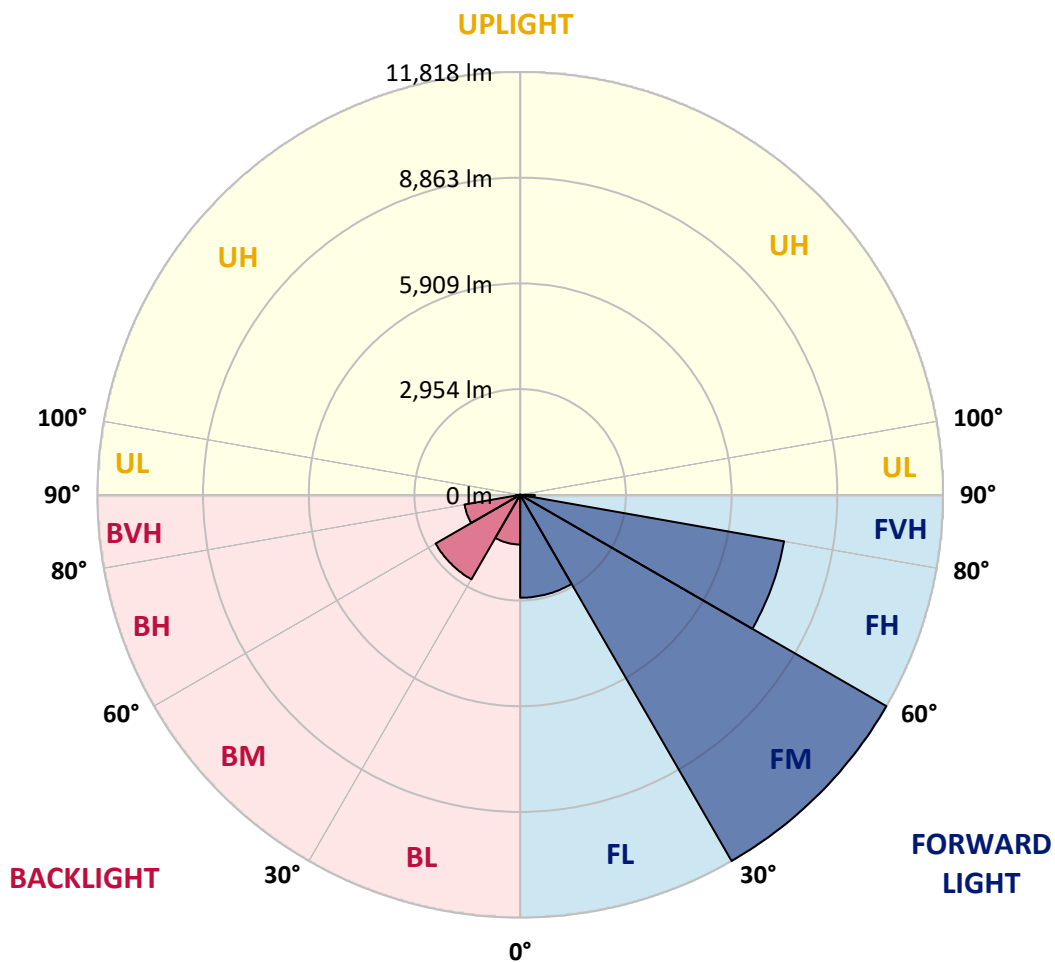
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2876.2	10.1			
FM	(30°-60°)	11817.9	41.6			
FH	(60°-80°)	7490.1	26.4			G3/7500
FVH	(80°-90°)	405.6	1.4			G3/500
BL	(0°-30°)	1388.9	4.9	B3/2500		
BM	(30°-60°)	2728.8	9.6	B3/5000		
BH	(60°-80°)	1579.6	5.6	B3/2500		G3/2500
BVH	(80°-90°)	112.0	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7
2.5°	5302.1	5266.9	5251.9	5274.0	5126.5	5129.5	5058.3	5047.2	5013.1	4965.0	4911.8
5°	5605.0	5563.9	5542.8	5555.9	5400.4	5373.3	5256.9	5199.7	5132.5	5072.3	4956.9
7.5°	5896.0	5853.8	5837.8	5830.8	5643.2	5602.0	5453.5	5352.2	5260.9	5183.7	5027.2
10°	6188.9	6145.8	6112.7	6121.7	5925.1	5851.8	5680.3	5540.8	5423.4	5323.1	5107.4
12.5°	6479.8	6427.7	6391.6	6391.6	6197.9	6126.7	5934.1	5755.5	5606.0	5479.6	5208.8
15°	6777.8	6709.6	6701.6	6701.6	6495.9	6409.6	6220.0	6022.4	5838.8	5676.3	5331.1
17.5°	7085.8	6999.5	6997.5	7010.6	6821.9	6724.6	6546.1	6361.5	6127.7	5922.1	5480.6
20°	7288.4	7211.2	7193.1	7232.3	7083.8	7020.6	6829.0	6699.6	6474.8	6230.0	5673.2
22.5°	7442.9	7395.8	7412.8	7477.1	7404.8	7350.6	7149.0	7032.6	6830.0	6579.2	5933.1
25°	7598.4	7567.3	7606.5	7719.8	7725.9	7740.9	7572.4	7423.9	7235.3	7011.6	6271.2
27.5°	7550.3	7541.3	7659.6	7893.4	8021.8	8090.0	7995.7	7943.6	7771.0	7535.2	6696.5
30°	7585.4	7563.3	7705.8	8001.7	8287.7	8485.3	8485.3	8603.7	8528.4	8291.7	7345.6
32.5°	7481.1	7439.9	7603.5	8027.8	8519.4	8903.6	9074.2	9493.5	9625.0	9539.7	8632.8
35°	7000.5	7031.6	7351.6	7923.5	8678.9	9313.0	9764.4	10663.3	11067.6	11163.9	10114.5
37.5°	6700.6	6713.6	7039.6	7752.9	8735.1	9715.3	10519.8	12013.6	12586.5	12645.7	11414.7
40°	6287.2	6336.4	6701.6	7524.2	8703.0	10055.3	11333.5	13344.9	13982.0	13932.8	12552.4
42.5°	5961.2	5975.2	6294.2	7161.0	8562.5	10326.2	12154.1	14553.8	15221.0	15083.5	13677.0
45°	5554.9	5581.0	5882.9	6709.6	8312.7	10463.7	12862.4	15687.5	16298.4	16126.9	14651.1
47.5°	5063.3	5177.7	5493.7	6223.0	7889.4	10449.6	13462.3	16668.6	17365.9	17102.0	15562.1
50°	4078.1	4217.6	4849.6	5784.6	7334.6	10253.0	13939.8	17749.1	18346.0	18080.2	16393.7
52.5°	3562.5	3589.5	3911.6	5292.0	6684.5	9813.6	14264.9	18642.0	19264.0	18984.1	17193.3
55°	3329.7	3357.8	3520.3	4494.5	6087.6	9035.1	14384.3	19493.7	20045.5	19724.4	17852.4
57.5°	3126.1	3135.1	3326.7	3801.2	5518.8	8009.8	14132.5	20204.0	20676.5	20240.1	18309.9
60°	2893.3	2929.4	3118.0	3470.2	4877.7	6818.9	13269.7	20658.5	21104.9	20716.6	18784.4
62°	2762.9	2771.9	2919.4	3264.5	4381.1	5958.2	12195.2	20684.5	21255.4	21009.6	19076.4
62.5°	2724.8	2730.8	2870.2	3212.3	4278.8	5787.6	11902.3	20663.5	21246.3	21060.7	19140.6
65°	2506.1	2520.1	2645.5	2965.5	3830.3	5122.5	10529.9	20319.4	21052.7	20974.5	19134.6
67.5°	2240.2	2244.2	2377.6	2665.6	3367.8	4497.5	8844.5	19661.2	20104.7	20003.3	18296.9
70°	1831.9	1905.1	2050.6	2304.4	2786.0	3731.0	6727.6	17611.7	18339.0	18439.3	16796.0
72.5°	1392.5	1387.5	1438.6	1615.2	2029.5	2866.2	4541.6	14756.5	16441.9	16984.6	15139.7
75°	859.8	892.9	1107.6	1249.0	1454.7	2021.5	2847.2	10272.0	14059.2	14997.2	13382.0
77.5°	668.1	674.2	785.5	1030.3	1191.8	1432.6	1775.7	5597.0	8813.4	11145.9	10422.5
80°	508.6	519.7	592.9	646.1	838.7	872.8	1184.8	2895.3	4013.9	5622.1	7001.5
82.5°	307.0	324.0	392.3	423.4	462.5	437.4	637.0	1562.0	2225.2	2877.3	3565.5
85°	154.5	185.6	260.8	246.8	209.7	193.6	272.9	755.4	1063.4	1407.5	1636.3
87.5°	39.1	47.2	61.2	73.2	62.2	51.2	74.2	204.7	210.7	201.6	564.8
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°	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7	4885.7
2.5°	4893.7	4852.6	4777.4	4734.2	4626.9	4585.8	4508.5	4536.6	4519.5	4502.5	4503.5
5°	4901.8	4827.5	4684.1	4580.7	4425.2	4346.0	4244.7	4228.6	4184.5	4157.4	4160.4
7.5°	4918.8	4812.5	4609.8	4445.3	4226.6	4102.2	3966.8	3943.7	3877.5	3847.4	3851.4
10°	4962.0	4836.6	4561.7	4319.9	4073.1	3900.5	3742.0	3690.9	3627.7	3593.6	3591.6
12.5°	5028.2	4872.7	4493.5	4224.6	3924.6	3700.9	3518.3	3436.1	3345.8	3315.7	3318.7
15°	5133.5	4918.8	4436.3	4093.2	3745.0	3512.3	3286.6	3187.3	3091.9	3056.8	3053.8
17.5°	5261.9	4961.0	4396.1	3938.7	3589.5	3310.6	3112.0	2976.6	2816.1	2793.0	2767.9
20°	5389.3	5045.2	4360.0	3826.3	3405.0	3108.0	2848.2	2709.7	2480.0	2393.7	2362.6
22.5°	5574.9	5178.7	4355.0	3692.9	3219.4	2886.3	2536.2	2312.4	2059.6	1913.2	1881.1
25°	5822.7	5325.1	4368.1	3591.6	3011.7	2604.4	2131.9	1808.8	1568.0	1402.5	1368.4
27.5°	6144.8	5524.8	4407.2	3480.2	2823.1	2266.3	1678.4	1346.3	1142.7	1004.2	972.1
30°	6619.3	5859.9	4468.4	3376.9	2548.2	1825.9	1234.0	970.1	811.6	726.3	725.3
32.5°	7726.9	6608.3	4503.5	3248.4	2292.4	1380.4	887.9	702.3	575.9	543.7	570.8
35°	8996.9	7668.7	4774.4	3110.0	1892.1	1015.3	634.0	499.6	447.4	455.5	470.5
37.5°	10168.7	8687.9	5187.7	2885.3	1514.9	715.3	455.5	397.3	386.2	415.3	442.4
40°	11206.0	9568.8	5541.8	2638.5	1071.4	499.6	365.2	367.2	356.1	369.2	378.2
42.5°	12223.3	10385.4	5916.0	2306.4	714.3	369.2	330.1	348.1	335.1	337.1	324.0
45°	13234.6	11247.2	6077.6	1896.1	478.5	320.0	309.0	330.1	329.1	321.0	302.0
47.5°	14107.4	11841.1	6282.2	1430.6	356.1	290.9	293.9	309.0	319.0	305.0	296.0
50°	14857.8	12471.1	6124.7	947.0	318.0	271.9	282.9	282.9	299.0	274.9	263.8
52.5°	15575.1	13098.1	5720.4	624.0	291.9	258.8	269.9	262.8	269.9	245.8	242.8
55°	16005.5	13422.2	5231.8	486.6	275.9	247.8	252.8	250.8	244.8	219.7	224.7
57.5°	16479.0	13795.4	4623.9	408.3	268.9	234.8	235.8	232.7	214.7	197.6	198.6
60°	16857.2	14074.3	3973.8	360.2	260.8	227.7	213.7	208.7	183.6	173.6	174.6
62°	17122.1	14087.3	3407.0	335.1	250.8	222.7	200.6	189.6	161.5	153.5	152.5
62.5°	17151.2	14038.2	3268.5	329.1	246.8	220.7	199.6	183.6	155.5	149.5	147.5
65°	17042.8	13491.4	2607.4	296.0	229.7	208.7	185.6	159.5	133.4	125.4	122.4
67.5°	16236.2	12512.2	1991.4	268.9	208.7	200.6	171.6	140.5	118.4	108.3	106.3
70°	14663.2	11187.0	1421.6	234.8	187.6	182.6	172.6	128.4	109.4	95.3	93.3
72.5°	12915.5	9776.4	967.1	208.7	166.5	150.5	127.4	121.4	102.3	84.3	82.3
75°	10991.4	7786.0	688.2	179.6	143.5	127.4	107.3	112.4	96.3	75.2	73.2
77.5°	8433.1	5726.4	510.6	147.5	111.4	103.3	90.3	99.3	87.3	68.2	67.2
80°	5758.5	3954.7	363.2	111.4	73.2	73.2	76.2	85.3	77.2	61.2	60.2
82.5°	3237.4	2081.7	214.7	80.3	50.2	50.2	59.2	69.2	64.2	53.2	52.2
85°	1341.3	753.4	113.4	50.2	33.1	34.1	42.1	51.2	50.2	42.1	41.1
87.5°	466.5	189.6	33.1	17.1	14.0	15.0	17.1	24.1	24.1	21.1	22.1
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)