

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: P237560

Luminaire Tested: **CST-10-3-D-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237560
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-10-3-D-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 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: 28716 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 212
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

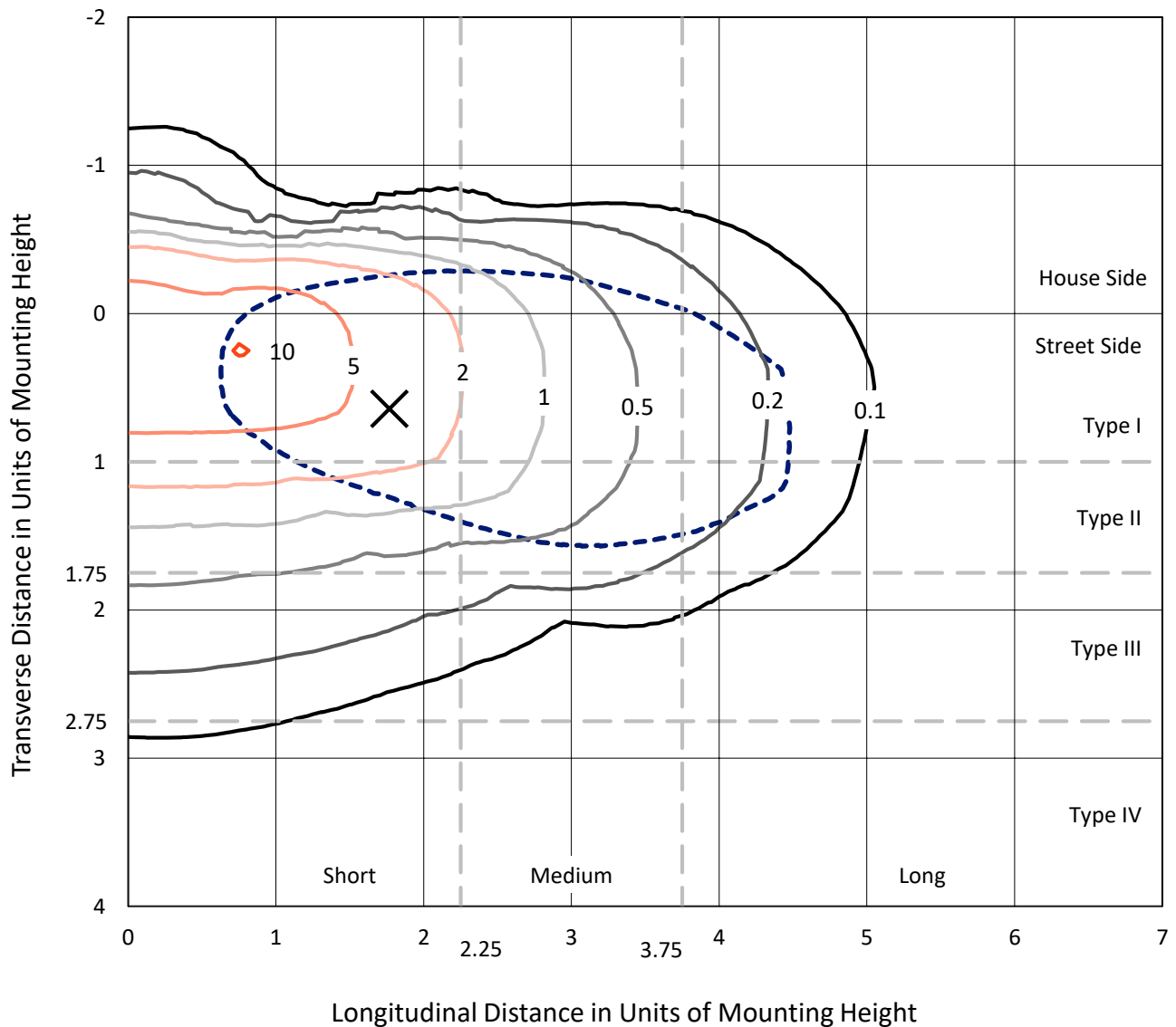


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

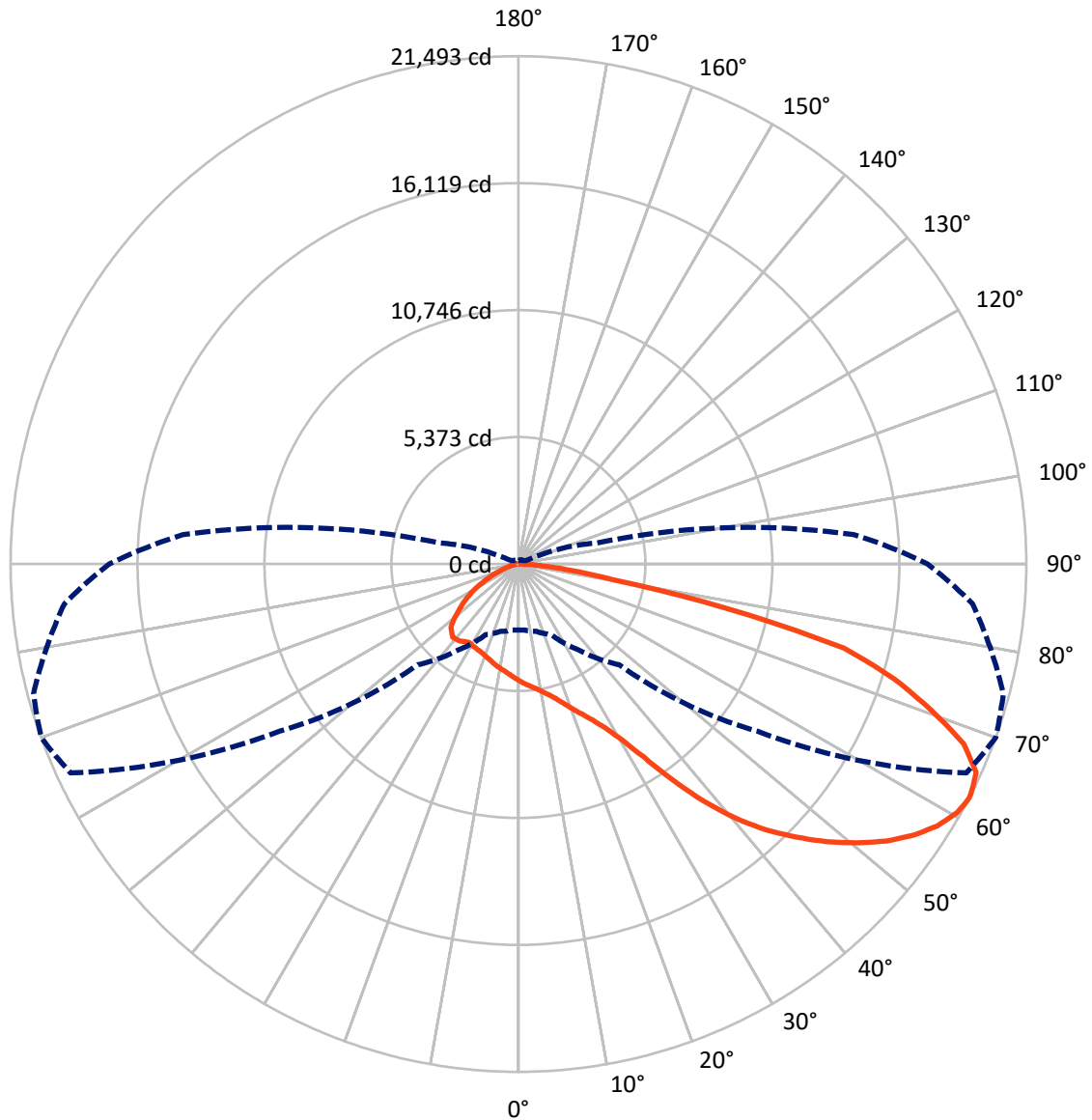


Based on 25 foot mounting height. Maximum calculated value = 10.2 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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



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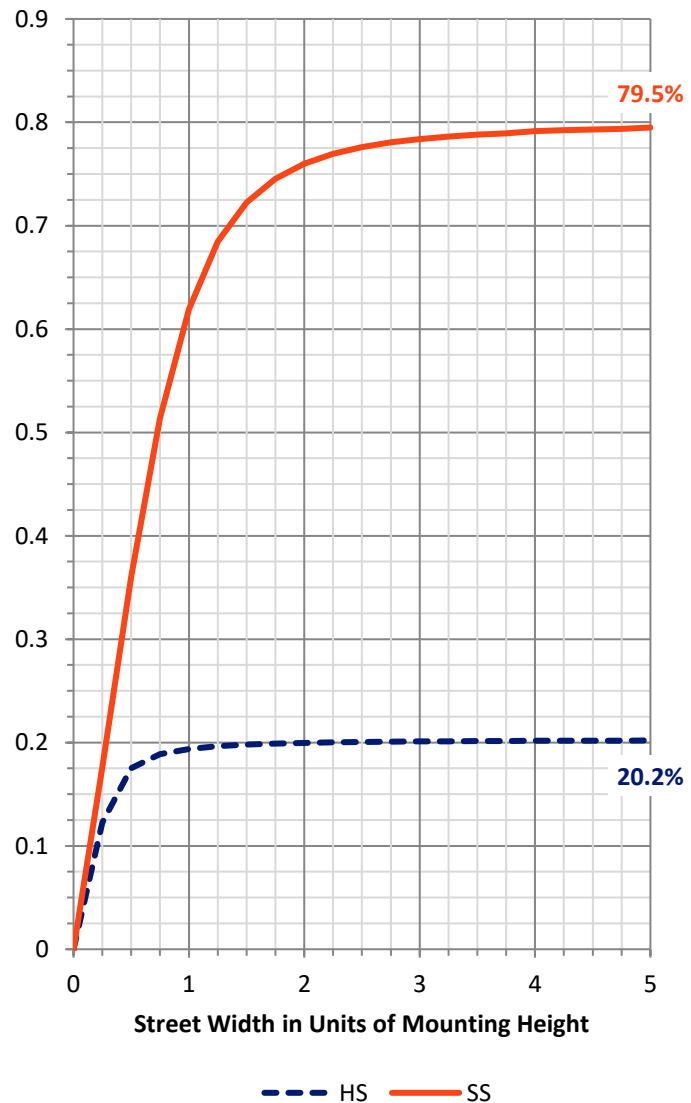
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5874.1	0.0	5874.1
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	22841.9	0.0	22841.9
	% Fixture	79.5	0.0	79.5
Total	Lumens	28716.0	0.0	28716.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	470.6	1.6
10°-20°	1431.7	5.0
20°-30°	2410.4	8.4
30°-40°	3639.7	12.7
40°-50°	5104.0	17.8
50°-60°	5965.4	20.8
60°-70°	5787.5	20.2
70°-80°	3383.3	11.8
80°-90°	523.4	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°	28716.0	100.0
0°-180°	28716.0	100.0



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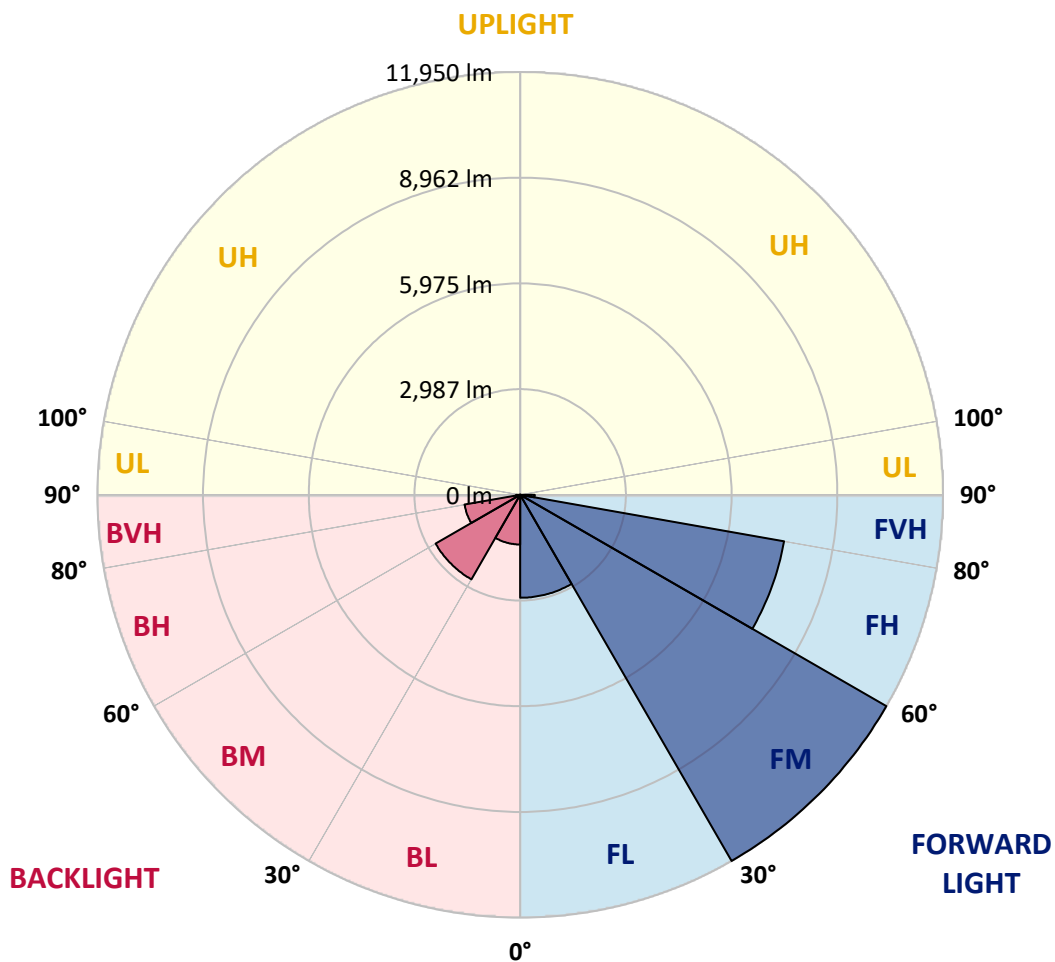
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2908.3	10.1			
FM	(30°-60°)	11949.8	41.6			
FH	(60°-80°)	7573.7	26.4			G4/12000
FVH	(80°-90°)	410.1	1.4			G3/500
BL	(0°-30°)	1404.4	4.9	B3/2500		
BM	(30°-60°)	2759.3	9.6	B3/5000		
BH	(60°-80°)	1597.2	5.6	B3/2500		G3/2500
BVH	(80°-90°)	113.2	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-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3
2.5°	5361.2	5325.7	5310.5	5332.8	5183.7	5186.8	5114.7	5103.6	5069.1	5020.4	4966.6
5°	5667.6	5626.0	5604.7	5617.9	5460.7	5433.3	5315.6	5257.8	5189.8	5128.9	5012.3
7.5°	5961.8	5919.2	5902.9	5895.8	5706.1	5664.6	5514.4	5412.0	5319.6	5241.5	5083.3
10°	6258.0	6214.4	6180.9	6190.0	5991.2	5917.1	5743.7	5602.7	5484.0	5382.5	5164.4
12.5°	6552.2	6499.4	6462.9	6462.9	6267.1	6195.1	6000.3	5819.8	5668.6	5540.8	5266.9
15°	6853.5	6784.5	6776.4	6776.4	6568.4	6481.2	6289.4	6089.6	5904.0	5739.6	5390.7
17.5°	7164.9	7077.6	7075.6	7088.8	6898.1	6799.7	6619.1	6432.5	6196.1	5988.2	5541.8
20°	7369.8	7291.7	7273.4	7313.0	7162.9	7099.0	6905.2	6774.3	6547.1	6299.6	5736.6
22.5°	7526.0	7478.3	7495.6	7560.5	7487.5	7432.7	7228.8	7111.1	6906.2	6652.6	5999.3
25°	7683.3	7651.8	7691.4	7806.0	7812.1	7827.3	7656.9	7506.7	7316.0	7089.8	6341.2
27.5°	7634.6	7625.4	7745.1	7981.5	8111.3	8180.3	8085.0	8032.2	7857.7	7619.4	6771.3
30°	7670.1	7647.8	7791.8	8091.1	8380.2	8580.0	8580.0	8699.7	8623.6	8384.2	7427.6
32.5°	7564.6	7523.0	7688.3	8117.4	8614.5	9003.0	9175.5	9599.5	9732.4	9646.2	8729.1
35°	7078.7	7110.1	7433.7	8011.9	8775.8	9416.9	9873.4	10782.3	11191.1	11288.5	10227.4
37.5°	6775.3	6788.5	7118.2	7839.5	8832.6	9823.7	10637.3	12147.7	12727.0	12786.8	11542.1
40°	6357.4	6407.1	6776.4	7608.2	8800.1	10167.6	11460.0	13493.9	14138.0	14088.3	12692.5
42.5°	6027.7	6041.9	6364.5	7241.0	8658.1	10441.5	12289.8	14716.3	15390.9	15251.9	13829.7
45°	5616.9	5643.2	5948.6	6784.5	8405.5	10580.5	13006.0	15862.6	16480.4	16306.9	14814.7
47.5°	5119.8	5235.5	5555.0	6292.5	7977.4	10566.3	13612.6	16854.7	17559.7	17292.9	15735.8
50°	4123.6	4264.6	4903.7	5849.2	7416.5	10367.4	14095.4	17947.2	18550.8	18282.0	16576.7
52.5°	3602.2	3629.6	3955.2	5351.1	6759.1	9923.1	14424.1	18850.1	19479.0	19196.0	17385.2
55°	3366.9	3395.3	3559.6	4544.6	6155.5	9135.9	14544.8	19711.3	20269.2	19944.6	18051.7
57.5°	3161.0	3170.1	3363.8	3843.7	5580.4	8099.2	14290.2	20429.5	20907.3	20466.0	18514.3
60°	2925.6	2962.1	3152.8	3508.9	4932.1	6895.1	13417.8	20889.1	21340.5	20947.9	18994.1
62°	2793.7	2802.9	2952.0	3300.9	4430.0	6024.7	12331.4	20915.4	21492.6	21244.1	19289.3
62.5°	2755.2	2761.3	2902.3	3248.2	4326.5	5852.2	12035.1	20894.1	21483.5	21295.8	19354.2
65°	2534.0	2548.2	2675.0	2998.6	3873.1	5179.7	10647.4	20546.2	21287.7	21208.6	19348.1
67.5°	2265.2	2269.3	2404.2	2695.3	3405.4	4547.7	8943.2	19880.7	20329.1	20226.6	18501.1
70°	1852.3	1926.4	2073.5	2330.1	2817.1	3772.6	6802.7	17808.2	18543.7	18645.1	16983.5
72.5°	1408.0	1403.0	1454.7	1633.2	2052.2	2898.2	4592.3	14921.2	16625.4	17174.2	15308.7
75°	869.4	902.8	1119.9	1263.0	1470.9	2044.1	2878.9	10386.7	14216.2	15164.6	13531.4
77.5°	675.6	681.7	794.3	1041.8	1205.1	1448.6	1795.5	5659.5	8911.7	11270.3	10538.9
80°	514.3	525.5	599.5	653.3	848.1	882.6	1198.0	2927.6	4058.7	5684.8	7079.7
82.5°	310.4	327.7	396.6	428.1	467.7	442.3	644.2	1579.5	2250.0	2909.4	3605.3
85°	156.2	187.7	263.8	249.5	212.0	195.8	275.9	763.9	1075.3	1423.2	1654.5
87.5°	39.6	47.7	61.9	74.1	62.9	51.7	75.1	206.9	213.0	203.9	571.1
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°	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3	4940.3
2.5°	4948.4	4906.8	4830.7	4787.1	4678.5	4636.9	4558.8	4587.2	4570.0	4552.7	4553.8
5°	4956.5	4881.4	4736.4	4631.9	4474.6	4394.5	4292.0	4275.8	4231.2	4203.8	4206.8
7.5°	4973.7	4866.2	4661.3	4494.9	4273.8	4148.0	4011.0	3987.7	3920.8	3890.3	3894.4
10°	5017.3	4890.5	4612.6	4368.1	4118.6	3944.1	3783.8	3732.1	3668.2	3633.7	3631.6
12.5°	5084.3	4927.1	4543.6	4271.7	3968.4	3742.2	3557.6	3474.4	3383.1	3352.7	3355.7
15°	5190.8	4973.7	4485.8	4138.9	3786.9	3551.5	3323.3	3222.8	3126.5	3091.0	3087.9
17.5°	5320.7	5016.3	4445.2	3982.6	3629.6	3347.6	3146.7	3009.8	2847.5	2824.2	2798.8
20°	5449.5	5101.5	4408.7	3869.0	3443.0	3142.7	2880.0	2740.0	2507.7	2420.4	2389.0
22.5°	5637.2	5236.5	4403.6	3734.1	3255.3	2918.5	2564.5	2338.3	2082.6	1934.5	1902.0
25°	5887.7	5384.6	4416.8	3631.6	3045.3	2633.4	2155.7	1829.0	1585.5	1418.2	1383.7
27.5°	6213.4	5586.4	4456.4	3519.0	2854.6	2291.6	1697.1	1361.4	1155.4	1015.4	983.0
30°	6693.2	5925.3	4518.3	3414.6	2576.6	1846.3	1247.7	980.9	820.7	734.4	733.4
32.5°	7813.1	6682.0	4553.8	3284.7	2318.0	1395.8	897.8	710.1	582.3	549.8	577.2
35°	9097.4	7754.3	4827.7	3144.7	1913.2	1026.6	641.1	505.2	452.4	460.5	475.8
37.5°	10282.2	8784.9	5245.6	2917.5	1531.8	723.3	460.5	401.7	390.6	420.0	447.4
40°	11331.1	9675.6	5603.7	2667.9	1083.4	505.2	369.3	371.3	360.1	373.3	382.4
42.5°	12359.8	10501.3	5982.1	2332.2	722.3	373.3	333.7	352.0	338.8	340.8	327.7
45°	13382.3	11372.7	6145.4	1917.3	483.9	323.6	312.4	333.7	332.7	324.6	305.3
47.5°	14264.9	11973.3	6352.3	1446.6	360.1	294.2	297.2	312.4	322.6	308.4	299.3
50°	15023.6	12610.3	6193.1	957.6	321.6	274.9	286.1	286.1	302.3	278.0	266.8
52.5°	15749.0	13244.3	5784.3	631.0	295.2	261.7	272.9	265.8	272.9	248.5	245.5
55°	16184.1	13572.0	5290.2	492.0	279.0	250.6	255.6	253.6	247.5	222.2	227.2
57.5°	16663.0	13949.4	4675.5	412.9	271.9	237.4	238.4	235.3	217.1	199.8	200.9
60°	17045.4	14231.4	4018.1	364.2	263.8	230.3	216.1	211.0	185.6	175.5	176.5
62°	17313.2	14244.6	3445.0	338.8	253.6	225.2	202.9	191.7	163.3	155.2	154.2
62.5°	17342.6	14194.9	3305.0	332.7	249.5	223.2	201.9	185.6	157.2	151.1	149.1
65°	17233.1	13642.0	2636.5	299.3	232.3	211.0	187.7	161.3	134.9	126.8	123.8
67.5°	16417.5	12651.9	2013.6	271.9	211.0	202.9	173.5	142.0	119.7	109.6	107.5
70°	14826.8	11311.9	1437.4	237.4	189.7	184.6	174.5	129.8	110.6	96.4	94.3
72.5°	13059.7	9885.6	977.9	211.0	168.4	152.2	128.8	122.7	103.5	85.2	83.2
75°	11114.0	7873.0	695.9	181.6	145.1	128.8	108.5	113.6	97.4	76.1	74.1
77.5°	8527.3	5790.3	516.3	149.1	112.6	104.5	91.3	100.4	88.3	69.0	68.0
80°	5822.8	3998.9	367.2	112.6	74.1	74.1	77.1	86.2	78.1	61.9	60.9
82.5°	3273.6	2104.9	217.1	81.2	50.7	50.7	59.9	70.0	64.9	53.8	52.8
85°	1356.3	761.8	114.6	50.7	33.5	34.5	42.6	51.7	50.7	42.6	41.6
87.5°	471.7	191.7	33.5	17.2	14.2	15.2	17.2	24.3	24.3	21.3	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)