

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: P232734

Luminaire Tested: **CST-10-9-D-U-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232734
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-20)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-10-9-D-U-T4-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 92311 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 760
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

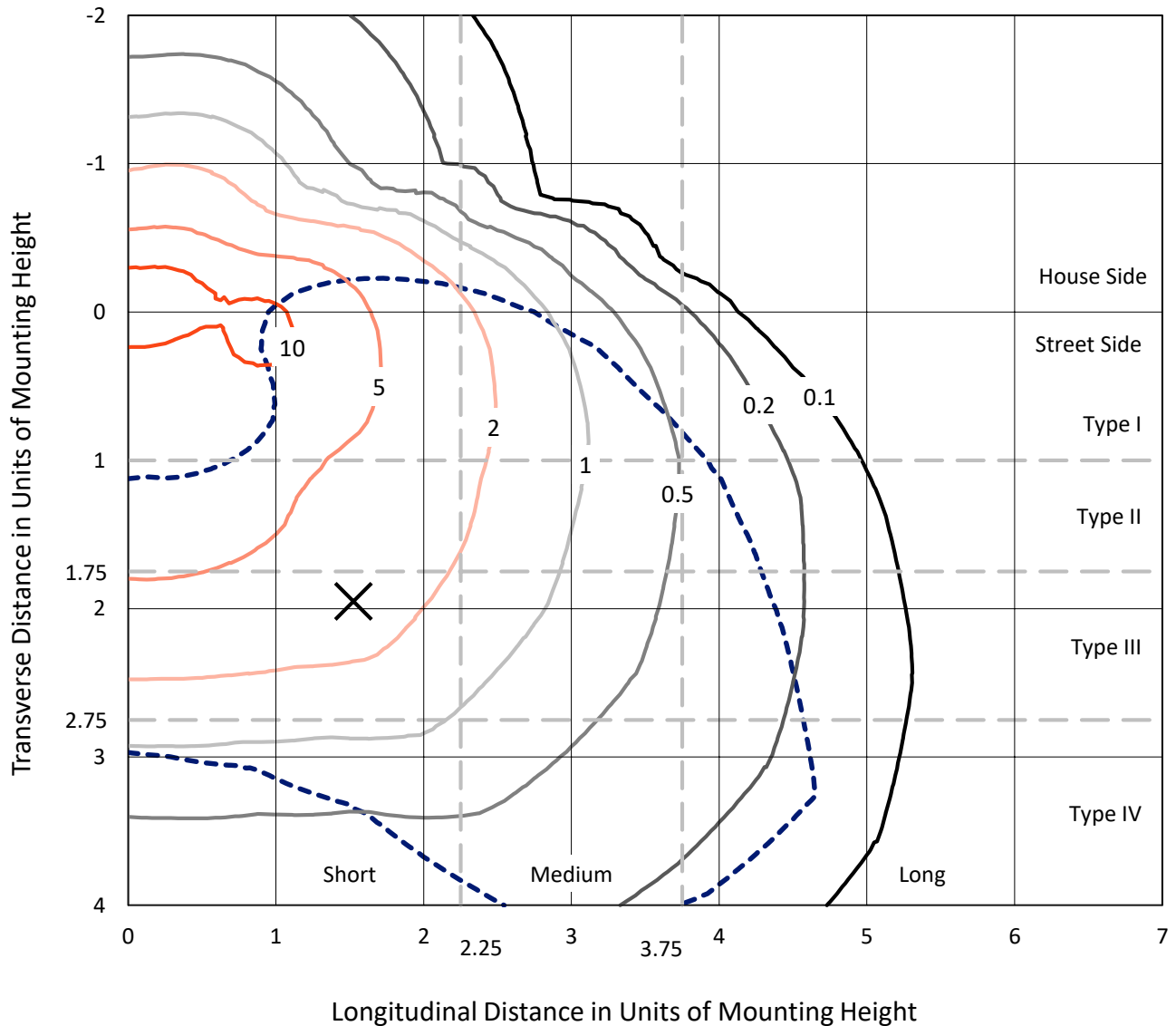


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

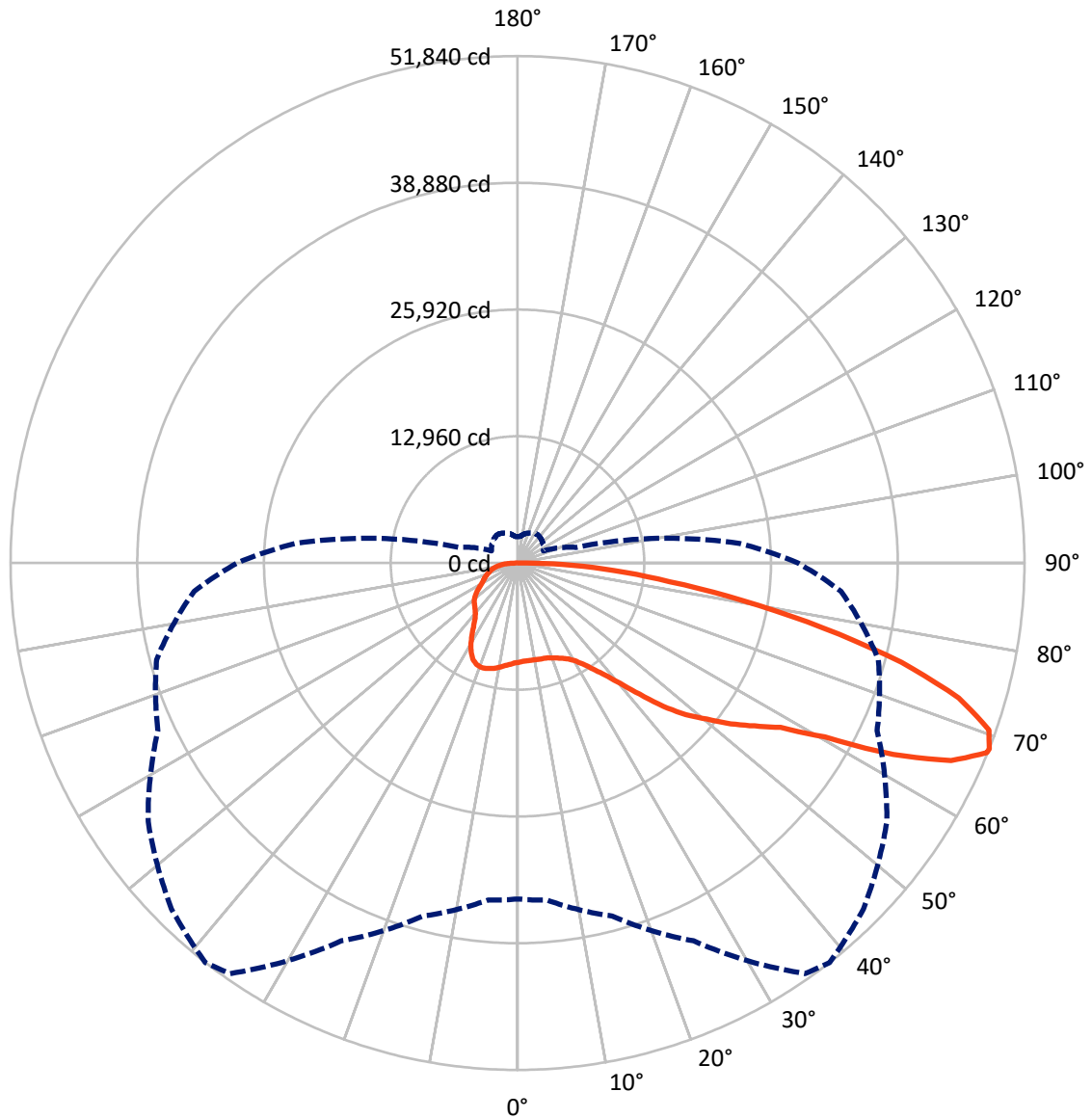


Based on 30 foot mounting height. Maximum calculated value = 11.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical



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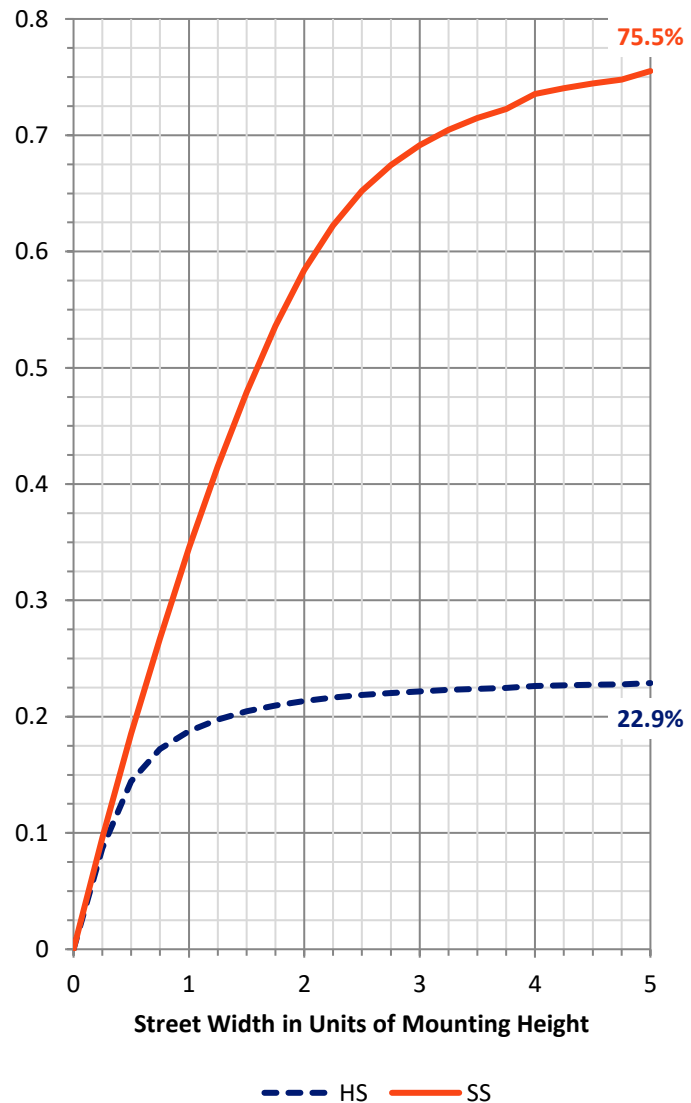
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	21543.4	0.0	21543.4
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	70767.6	0.0	70767.6
	% Fixture	76.7	0.0	76.7
Total	Lumens	92311.0	0.0	92311.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	983.5	1.1
10°-20°	3035.9	3.3
20°-30°	5157.7	5.6
30°-40°	7810.6	8.5
40°-50°	12918.6	14.0
50°-60°	18608.6	20.2
60°-70°	23468.1	25.4
70°-80°	16702.7	18.1
80°-90°	3625.4	3.9
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°	92311.0	100.0
0°-180°	92311.0	100.0



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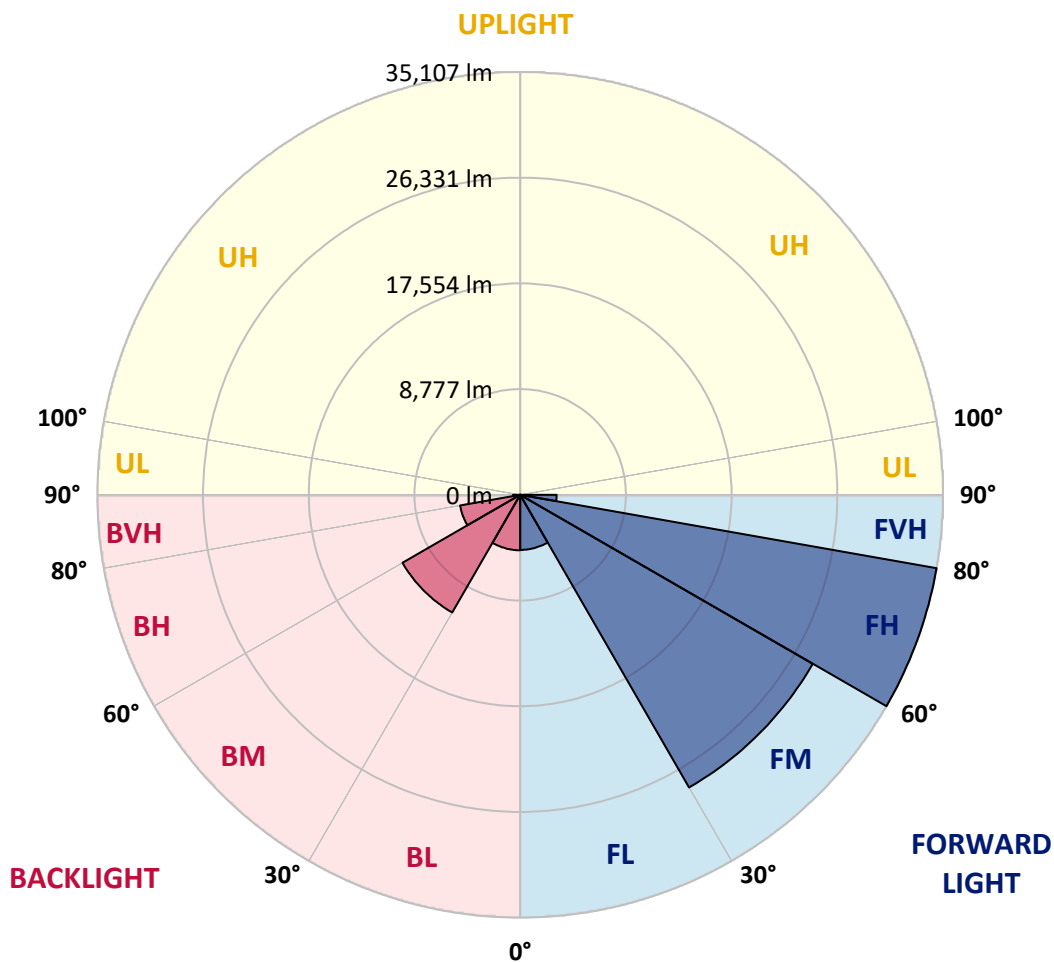
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4573.6	5.0			
FM	(30°-60°)	28056.2	30.4			
FH	(60°-80°)	35107.4	38.0			G5
FVH	(80°-90°)	3030.5	3.3			G5
BL	(0°-30°)	4603.5	5.0	B4/5000		
BM	(30°-60°)	11281.5	12.2	B5		
BH	(60°-80°)	5063.4	5.5	B5		G5
BVH	(80°-90°)	594.9	0.6			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4
2.5°	10133.4	10151.4	10139.4	10133.4	10055.5	10073.5	10103.5	10061.5	10163.4	10157.4	10217.4
5°	10037.5	10046.5	10049.5	10076.5	10001.5	10040.5	10076.5	10049.5	10157.4	10127.4	10211.4
7.5°	10010.5	10007.5	10010.5	10061.5	9980.5	10040.5	10082.5	10073.5	10190.4	10166.4	10268.4
10°	9941.5	9944.5	9953.5	10010.5	9968.5	10049.5	10124.4	10163.4	10319.4	10298.4	10415.3
12.5°	9821.6	9845.5	9878.5	9974.5	9983.5	10091.5	10202.4	10280.4	10484.3	10502.3	10649.3
15°	9716.6	9758.6	9815.6	9944.5	9998.5	10121.4	10262.4	10406.3	10673.3	10754.2	10940.2
17.5°	9749.6	9812.6	9887.5	10019.5	10058.5	10187.4	10346.4	10538.3	10868.2	11042.1	11282.0
20°	9953.5	9995.5	10058.5	10181.4	10232.4	10361.4	10490.3	10679.3	11108.1	11390.0	11686.9
22.5°	10208.4	10268.4	10310.4	10385.4	10445.3	10559.3	10694.2	10880.2	11387.0	11740.9	12148.7
25°	10481.3	10511.3	10571.3	10622.3	10697.2	10787.2	10940.2	11168.1	11704.9	12139.7	12709.5
27.5°	10733.2	10748.2	10862.2	10904.2	11051.1	11117.1	11237.1	11539.9	12118.7	12655.6	13357.3
30°	11102.1	11132.1	11219.1	11318.0	11533.9	11599.9	11722.9	12040.8	12670.6	13357.3	14200.0
32.5°	11800.9	11878.8	11866.8	11971.8	12226.7	12313.7	12481.6	12895.5	13582.2	14371.0	15372.6
35°	13216.4	13327.3	13189.4	13048.4	13183.4	13300.3	13558.2	14164.0	15012.7	16314.3	17303.9
37.5°	15534.5	15645.5	15153.7	14703.8	14409.9	14502.9	14853.8	15711.5	17010.0	19271.2	20374.8
40°	18242.6	18362.6	17678.8	16869.1	16206.3	16170.3	16278.3	17369.9	19244.2	22561.1	23421.8
42.5°	20602.8	20917.7	20024.0	19325.2	18467.5	18323.6	18062.7	19166.3	21607.4	25608.0	26093.8
45°	22897.0	23202.9	22498.1	22015.3	21139.6	20905.7	20410.8	21079.6	23925.6	28274.1	28295.1
47.5°	25002.2	25248.1	24429.4	24120.5	23256.8	23154.9	22648.0	23115.9	26072.8	30532.3	30106.4
50°	27356.4	27614.3	26309.8	25928.9	25233.1	25095.2	24930.2	25266.1	28535.0	32478.6	31644.9
52.5°	30235.4	30139.4	28529.0	27656.3	27287.4	27320.4	27134.5	27506.3	31147.1	34128.0	32856.5
55°	33681.2	33189.3	31420.0	30097.4	29248.7	29410.7	29167.8	29713.6	33729.2	35519.5	33732.2
57.5°	35639.5	35774.4	35606.5	33906.1	31746.9	31722.9	31339.0	31863.8	35984.4	36656.1	34266.0
60°	38494.5	39052.3	39265.2	38806.4	36869.1	36104.3	34182.0	34062.0	37888.7	37636.8	34538.9
62.5°	40299.8	40560.8	41841.3	42396.1	43019.9	43151.8	40098.9	36710.1	39295.2	38137.6	34652.8
65°	39436.2	39700.1	42093.2	44267.5	47968.2	48711.9	47740.2	40905.6	40245.9	38248.6	34272.0
67.5°	35009.7	35333.6	38545.5	43001.9	50961.1	51761.8	50193.4	45742.9	40557.8	38182.6	33444.3
68°	34361.9	34601.8	37372.9	42633.0	51261.0	51839.8	50031.4	46108.8	40575.8	38203.6	33189.3
70°	29383.7	29806.5	32724.5	39277.2	50778.2	51147.0	49020.8	45904.9	40167.9	37861.7	31324.0
72.5°	22903.0	23487.8	25707.0	32622.5	46900.5	47200.4	45419.1	43655.7	38935.3	35489.5	26849.6
75°	16593.2	17094.0	19229.2	25176.2	39484.1	40548.8	40248.9	40566.8	34901.7	30070.4	19445.2
77.5°	11459.0	11887.8	13879.1	18785.4	30616.2	31962.8	33519.2	34343.9	28678.9	22309.2	9242.8
80°	7341.4	7671.3	9365.7	13228.4	22078.2	23343.8	25020.2	25874.9	20398.8	11222.1	1640.4
82.5°	4315.5	4540.4	5698.0	8535.0	14880.8	15651.5	16461.2	15027.7	8187.1	2147.2	1034.6
85°	2144.2	2294.2	3004.9	4828.3	9251.8	9959.5	10229.4	6411.7	1730.4	785.7	704.8
87.5°	959.7	1001.6	1289.5	2174.2	4396.5	4633.4	4519.4	1994.3	347.9	293.9	251.9
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°	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4	10169.4
2.5°	10223.4	10199.4	10193.4	10232.4	10190.4	10241.4	10226.4	10340.4	10355.4	10313.4	10382.4
5°	10238.4	10226.4	10235.4	10307.4	10292.4	10397.3	10424.3	10538.3	10538.3	10505.3	10577.3
7.5°	10307.4	10307.4	10334.4	10466.3	10466.3	10556.3	10586.3	10712.2	10709.2	10709.2	10775.2
10°	10481.3	10481.3	10538.3	10706.2	10664.3	10781.2	10796.2	10862.2	10847.2	10850.2	10919.2
12.5°	10739.2	10754.2	10853.2	11000.1	10973.1	11015.1	10985.1	10973.1	10865.2	10865.2	10910.2
15°	11036.1	11099.1	11234.1	11369.0	11279.0	11264.0	11093.1	10943.2	10712.2	10613.3	10664.3
17.5°	11423.0	11531.0	11686.9	11782.9	11611.9	11489.0	11180.1	10790.2	10415.3	10196.4	10202.4
20°	11851.8	11995.8	12187.7	12220.7	11968.8	11662.9	11147.1	10535.3	9890.5	9542.6	9518.7
22.5°	12328.7	12508.6	12730.5	12601.6	12190.7	11692.9	10955.2	10142.4	9275.7	8690.9	8682.0
25°	12910.5	13105.4	13246.3	12886.5	12241.7	11539.9	10622.3	9530.7	8460.0	7830.3	7788.3
27.5°	13651.2	13780.2	13675.2	13033.4	12088.8	11174.1	10058.5	8744.9	7611.3	7041.5	6978.5
30°	14529.9	14514.9	13945.1	12991.4	11779.9	10595.3	9290.7	7893.2	6915.6	6426.7	6369.8
32.5°	15597.5	15381.6	14206.0	12790.5	11282.0	9836.5	8379.1	7185.5	6411.7	5916.9	5856.9
35°	17300.9	16692.1	14544.9	12487.6	10589.3	8921.9	7518.4	6639.7	6021.9	5455.1	5338.1
37.5°	19943.0	18659.4	15108.7	12169.7	9794.6	8025.2	6876.6	6243.8	5716.0	5074.2	4936.3
40°	22660.0	20944.6	15966.4	11827.8	9050.8	7347.4	6513.7	6057.9	5530.1	4912.3	4774.3
42.5°	25020.2	23076.9	16995.0	11399.0	8289.1	6813.6	6327.8	5997.9	5470.1	4882.3	4750.3
45°	27104.5	24993.2	18068.7	10901.2	7491.4	6381.8	6168.8	5913.9	5380.1	4813.3	4693.4
47.5°	28840.9	26519.7	19013.3	10349.4	6708.6	6063.9	6012.9	5716.0	5209.2	4663.4	4561.4
50°	30184.4	27605.3	19646.1	9734.6	6039.9	5815.0	5788.0	5413.1	4921.3	4399.5	4297.5
52.5°	31138.1	28334.1	20015.0	9503.7	5515.1	5527.1	5482.1	5083.2	4606.4	4087.6	4006.6
55°	31743.9	28834.9	19925.0	9206.8	4984.2	5122.2	5128.2	4840.3	4420.4	3916.6	3850.6
57.5°	31974.8	28813.9	19394.2	7719.3	4468.4	4636.4	4717.3	4672.4	4300.5	3808.7	3754.7
60°	31848.8	28475.0	18263.6	5656.0	3934.6	4162.5	4360.5	4351.5	4036.6	3571.7	3514.8
62.5°	31638.9	27689.3	16047.4	4048.6	3532.8	3826.7	4066.6	3985.6	3685.7	3277.8	3238.9
65°	30886.2	26303.8	12406.6	3238.9	3364.8	3637.7	3835.7	3697.7	3403.8	2978.0	2957.0
67.5°	29221.7	23532.7	7242.5	2954.0	3241.9	3478.8	3619.7	3448.8	3175.9	2762.0	2726.0
68°	28657.9	22822.0	6159.8	2927.0	3217.9	3439.8	3568.7	3388.8	3121.9	2720.0	2684.1
70°	25811.9	18497.5	2939.0	2816.0	3112.9	3259.9	3334.8	3169.9	2909.0	2552.1	2528.1
72.5°	20089.9	11159.1	1964.3	2648.1	2909.0	3049.9	3067.9	2810.0	2564.1	2300.2	2285.2
75°	11869.8	3703.7	1826.4	2399.2	2627.1	2822.0	2873.0	2615.1	2342.2	2036.3	2030.3
77.5°	2891.0	1436.5	1724.4	2141.2	2381.2	2570.1	2609.1	2420.2	2180.2	1835.4	1823.4
80°	1190.6	1193.6	1607.4	1775.4	2042.3	2225.2	2282.2	2114.3	1898.3	1676.4	1652.4
82.5°	989.7	1007.6	1364.5	1310.5	1634.4	1847.4	1904.3	1787.4	1712.4	1472.5	1448.5
85°	704.8	893.7	905.7	881.7	1145.6	1316.5	1604.4	1547.5	1466.5	1262.6	1142.6
87.5°	329.9	521.8	392.9	377.9	581.8	779.7	917.7	962.7	833.7	647.8	599.8
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)