

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: P510173

Luminaire Tested: **VERD-M-CA4-220-730-U-T2**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510173  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA4-220-730-U-T2  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 3000K, 1000mA LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30633 lumens  
Efficiency: N/A  
Efficacy: 137.7 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G4

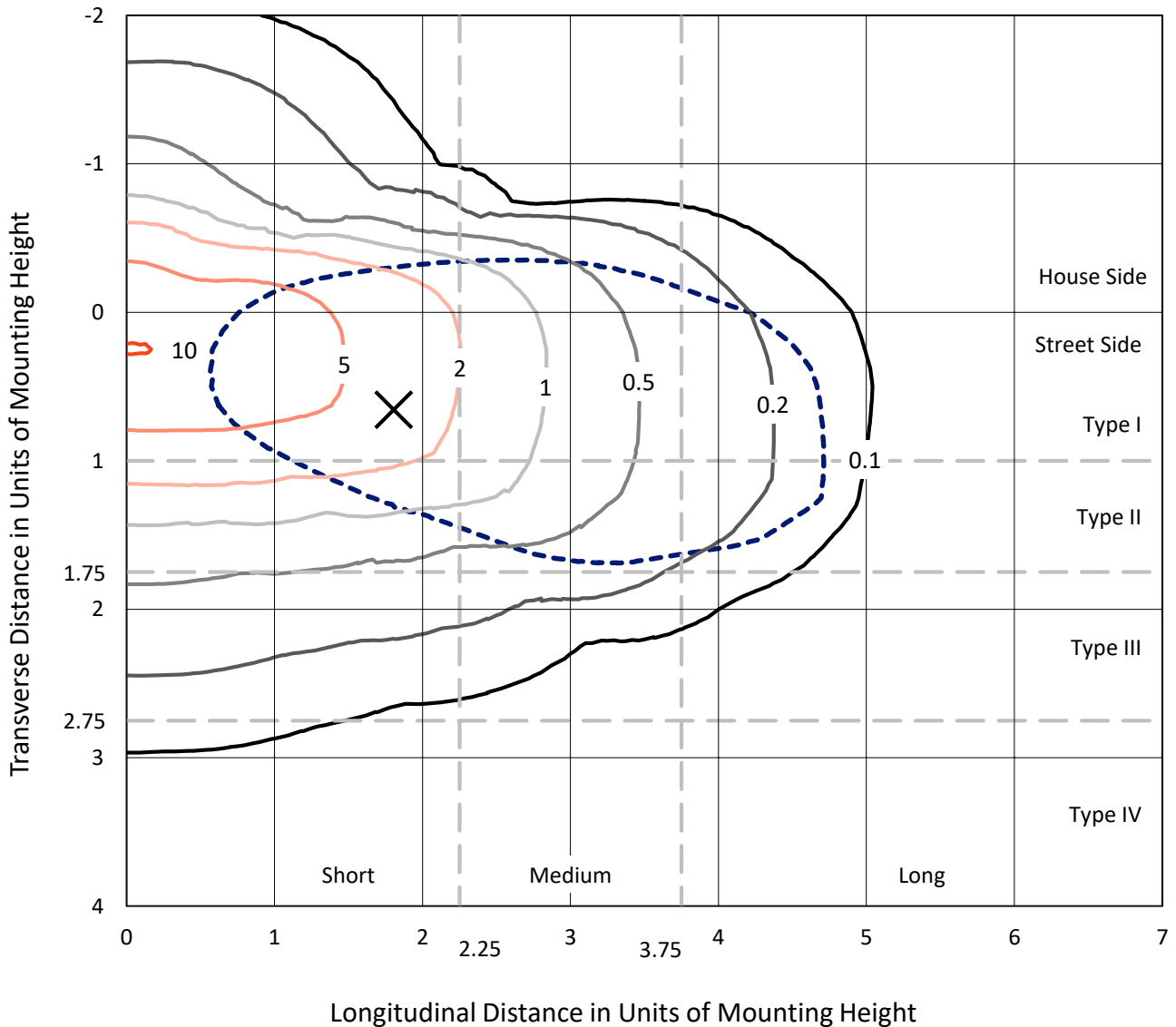
Input Watts (W): 222.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

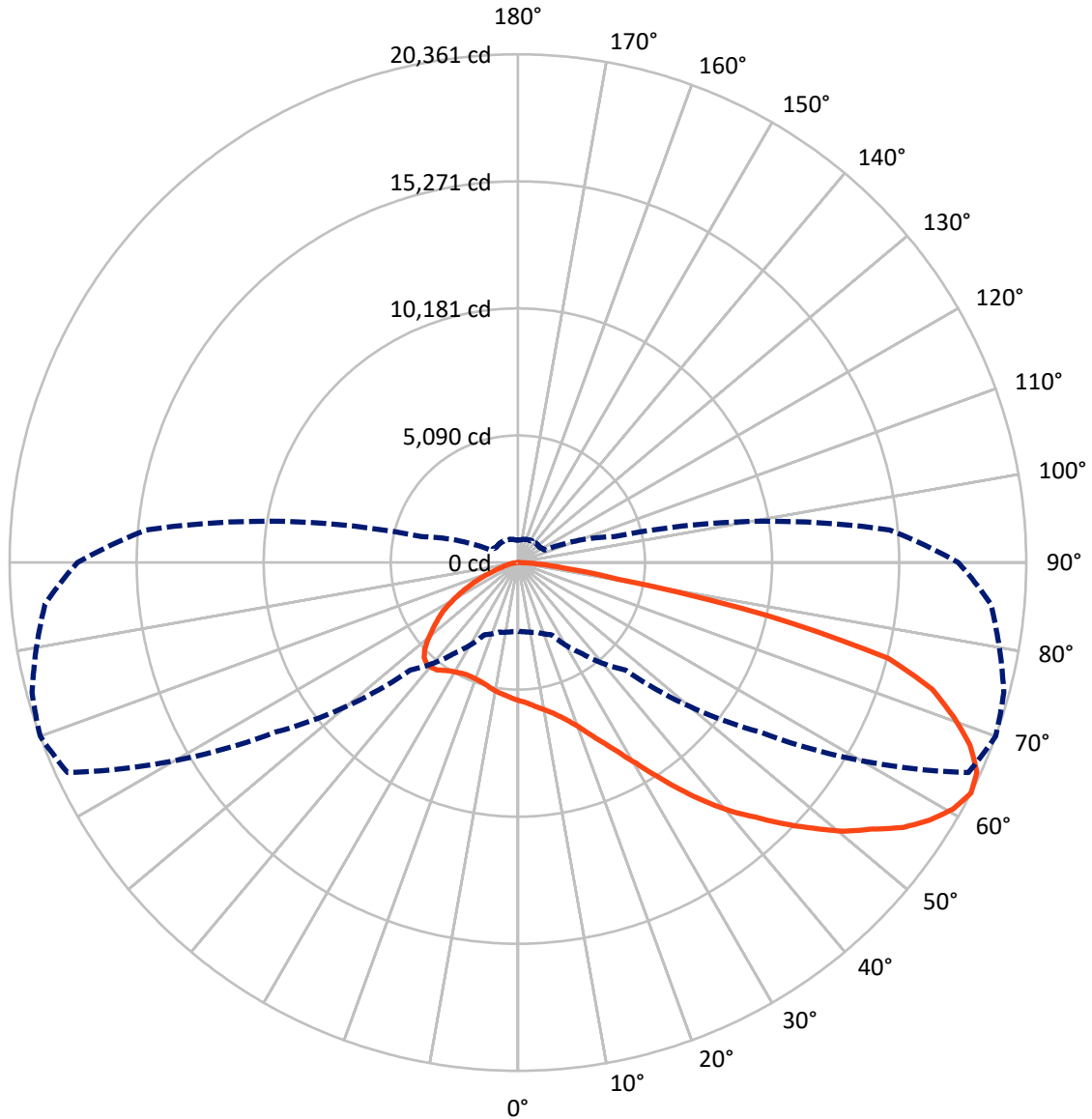
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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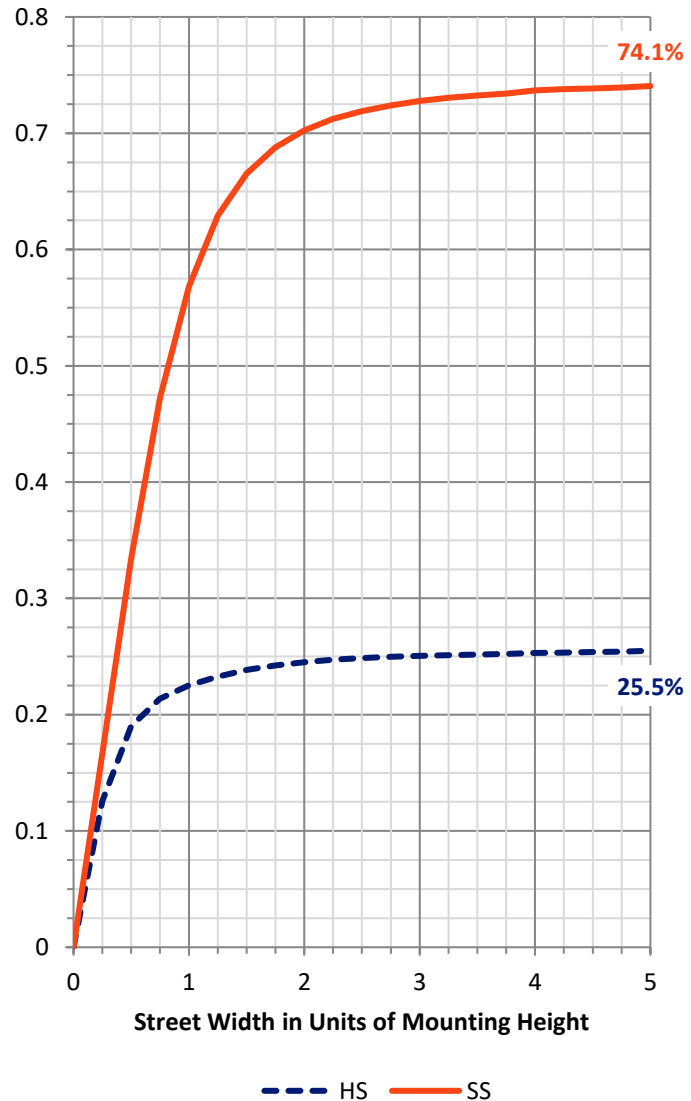
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7931.0	0.0	7931.0
	% Fixture	25.9	0.0	25.9
<b>Street Side</b>	Lumens	22702.0	0.0	22702.0
	% Fixture	74.1	0.0	74.1
<b>Total</b>	Lumens	30633.0	0.0	30633.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	531.0	1.7
10°-20°	1612.7	5.3
20°-30°	2737.0	8.9
30°-40°	3960.3	12.9
40°-50°	5196.9	17.0
50°-60°	6072.4	19.8
60°-70°	6093.9	19.9
70°-80°	3883.1	12.7
80°-90°	545.7	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°	30633.0	100.0
0°-180°	30633.0	100.0



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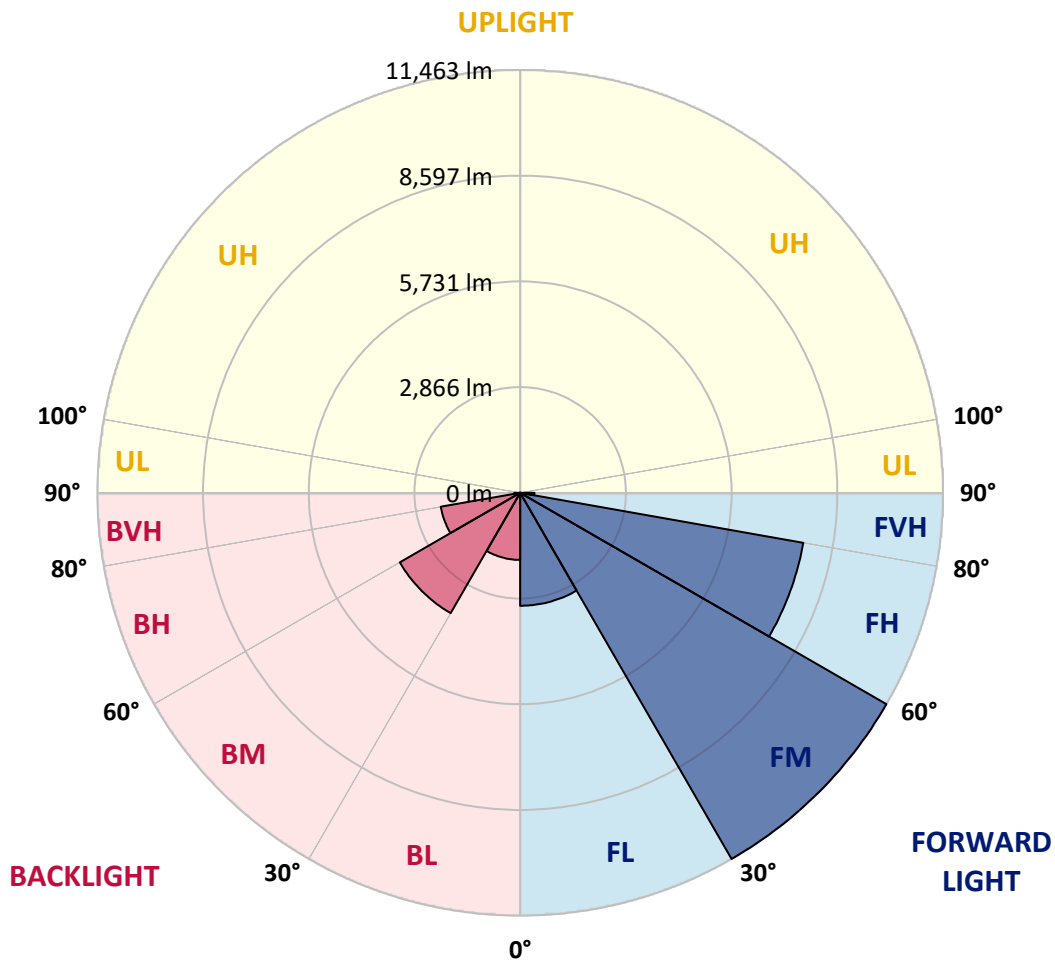
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3061.8	10.0			
FM (30°-60°)	11462.5	37.4			
FH (60°-80°)	7792.7	25.4			G4/12000
FVH (80°-90°)	384.9	1.3			G3/500
BL (0°-30°)	1819.0	5.9	B3/2500		
BM (30°-60°)	3767.0	12.3	B3/5000		
BH (60°-80°)	2184.3	7.1	B3/2500		G3/2500
BVH (80°-90°)	160.8	0.5			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°	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8
2.5°	5740.6	5801.5	5793.2	5755.9	5782.2	5710.2	5683.9	5643.7	5602.2	5588.4	5564.8
5°	6011.9	6092.2	6077.0	6027.2	6025.8	5923.4	5865.2	5789.1	5725.4	5675.6	5602.2
7.5°	6265.3	6358.0	6344.2	6295.7	6293.0	6175.3	6054.9	5935.8	5862.4	5798.8	5664.5
10°	6533.8	6604.4	6592.0	6529.7	6517.2	6402.3	6261.1	6111.6	6003.6	5915.0	5724.0
12.5°	6781.6	6856.4	6861.9	6784.4	6765.0	6641.8	6518.6	6320.6	6180.8	6079.8	5798.8
15°	7012.8	7101.4	7084.8	7007.2	6986.5	6861.9	6741.5	6558.7	6413.4	6272.2	5920.6
17.5°	7198.3	7282.7	7262.0	7227.4	7216.3	7119.4	7019.7	6821.8	6693.0	6511.7	6108.8
20°	7325.6	7404.5	7412.8	7403.2	7466.8	7375.5	7320.1	7180.3	7039.1	6875.7	6366.3
22.5°	7375.5	7469.6	7549.9	7612.2	7743.7	7729.8	7720.2	7639.9	7501.4	7263.3	6706.9
25°	7390.7	7484.8	7609.4	7763.1	7998.4	8082.8	8143.7	8163.1	8012.2	7824.0	7130.5
27.5°	7393.5	7494.5	7621.9	7869.7	8228.2	8482.9	8628.2	8696.1	8611.6	8462.1	7706.3
30°	7335.3	7439.1	7602.5	7933.3	8408.1	8826.2	9067.1	9367.5	9331.5	9205.5	8427.5
32.5°	7167.8	7262.0	7487.6	7922.3	8586.7	9177.8	9552.9	10073.4	10195.3	10113.6	9259.5
35°	6867.4	6982.3	7274.4	7830.9	8683.6	9519.7	10124.7	10934.5	11154.6	11160.1	10279.7
37.5°	6564.3	6651.5	6994.8	7659.2	8737.6	9822.9	10667.3	11796.9	12116.6	12123.6	11128.3
40°	6241.7	6322.0	6699.9	7429.5	8682.2	10061.0	11172.6	12626.1	13084.3	13041.3	11961.6
42.5°	5823.7	5912.3	6287.4	7116.6	8543.8	10245.1	11686.1	13496.8	13937.0	13985.4	12830.9
45°	5466.5	5537.1	5865.2	6628.0	8290.5	10344.8	12167.9	14425.6	14929.5	14878.3	13758.4
47.5°	5026.3	5131.5	5481.8	6230.7	7835.1	10319.8	12628.8	15344.8	15905.4	15858.4	14562.7
50°	3877.4	3999.2	4813.2	5814.0	7253.7	10124.7	13046.9	16223.8	16920.1	16796.9	15414.0
52.5°	3521.6	3556.2	3880.2	5335.0	6680.6	9681.7	13354.2	17334.0	17746.5	17698.1	16276.4
55°	3304.3	3370.7	3518.9	4395.1	6165.6	8961.9	13567.4	18261.5	18726.6	18499.6	17057.2
57.5°	3113.3	3160.3	3336.1	3762.5	5573.1	7970.7	13505.1	19043.6	19458.9	19141.9	17819.9
60°	2909.8	2940.2	3116.0	3434.4	4933.6	6875.7	12872.5	19850.6	20034.8	19744.1	18465.0
62.5°	2752.0	2781.0	2886.2	3192.2	4435.2	6092.2	11837.0	19907.4	20361.4	20149.6	19013.2
65°	2549.9	2569.2	2700.7	2941.6	3972.9	5625.7	10924.8	19374.5	20203.6	20151.0	19223.6
67.5°	2327.0	2350.5	2475.1	2645.4	3381.8	5076.2	9399.3	19086.5	19536.4	19587.6	18829.0
70°	2065.4	2082.0	2210.7	2333.9	2893.2	4456.0	7472.4	17983.2	18507.9	18506.5	17610.9
72.5°	1783.0	1781.6	1908.9	2039.1	2423.9	3743.1	5850.0	15966.3	17354.8	17251.0	15877.7
75°	1470.1	1490.9	1614.1	1716.5	2016.9	3034.4	4074.0	11565.7	15321.3	15463.8	13703.0
77.5°	939.9	953.8	1023.0	1128.2	1410.6	2318.7	2657.8	6427.2	10229.9	12339.5	10786.3
80°	686.6	693.5	754.4	815.3	938.5	1412.0	1351.1	2793.5	4054.6	6057.6	6616.9
82.5°	467.9	469.3	517.7	531.6	538.5	636.8	640.9	1359.4	1931.1	2274.4	2922.2
85°	310.1	257.5	200.7	265.8	272.7	233.9	228.4	613.2	957.9	1149.0	1082.5
87.5°	69.2	67.8	78.9	80.3	77.5	66.4	55.4	94.1	144.0	142.6	182.7
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°	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8	5528.8
2.5°	5542.7	5535.8	5497.0	5415.3	5360.0	5303.2	5271.4	5252.0	5258.9	5227.1	5213.2
5°	5556.5	5521.9	5412.6	5315.7	5228.4	5130.2	5048.5	5037.4	5054.0	5025.0	5008.3
7.5°	5592.5	5519.1	5379.3	5213.2	5067.9	4975.1	4857.5	4797.9	4793.8	4764.7	4770.2
10°	5613.3	5517.8	5330.9	5130.2	4959.9	4795.2	4669.2	4602.7	4598.6	4557.1	4547.4
12.5°	5670.0	5533.0	5274.1	5029.1	4839.5	4619.4	4486.5	4425.6	4418.6	4360.5	4338.3
15°	5757.2	5567.6	5214.6	4911.4	4666.4	4460.2	4301.0	4219.3	4206.8	4139.0	4115.5
17.5°	5895.7	5665.9	5196.6	4804.9	4515.5	4289.9	4103.0	4014.4	3942.4	3905.1	3873.2
20°	6082.5	5787.7	5217.4	4705.2	4325.9	4065.6	3833.1	3716.8	3667.0	3606.1	3610.2
22.5°	6348.3	5978.7	5253.4	4627.7	4154.2	3826.2	3564.5	3434.4	3344.4	3293.2	3296.0
25°	6722.1	6266.7	5324.0	4554.3	3967.4	3564.5	3255.8	3074.5	2983.1	2949.9	2915.3
27.5°	7194.1	6611.3	5491.5	4464.3	3745.9	3268.3	2926.4	2714.6	2621.8	2572.0	2565.1
30°	7800.4	7064.0	5688.0	4397.9	3513.3	2898.7	2518.0	2350.5	2268.8	2198.2	2165.0
32.5°	8539.7	7703.5	5906.7	4331.4	3225.4	2484.8	2140.1	2011.4	1881.2	1791.3	1795.4
35°	9397.9	8399.8	6232.1	4247.0	2887.6	2098.6	1860.5	1694.4	1572.5	1513.0	1485.3
37.5°	10207.7	9114.1	6614.1	4161.2	2509.7	1848.0	1585.0	1431.4	1337.2	1291.5	1301.2
40°	11027.2	9850.6	6943.6	3950.7	2086.1	1621.0	1312.3	1225.1	1187.7	1151.7	1155.9
42.5°	11760.9	10437.5	7184.4	3716.8	1789.9	1360.8	1118.5	1137.9	1160.0	1139.3	1133.7
45°	12525.0	11124.1	7396.2	3318.1	1542.1	1155.9	1070.1	1124.0	1172.5	1169.7	1162.8
47.5°	13291.9	11760.9	7417.0	2789.3	1316.5	1086.7	1068.7	1108.8	1172.5	1183.6	1175.3
50°	14082.3	12428.1	7295.2	2166.4	1220.9	1095.0	1070.1	1077.0	1147.6	1160.0	1155.9
52.5°	14958.6	13149.3	6994.8	1647.3	1183.6	1108.8	1074.2	1064.5	1104.7	1126.8	1131.0
55°	15764.2	13722.4	6431.4	1454.9	1155.9	1110.2	1104.7	1072.8	1074.2	1063.1	1090.8
57.5°	16441.2	14269.2	5791.8	1349.7	1131.0	1097.7	1118.5	1059.0	1042.4	996.7	985.6
60°	17141.6	14713.6	4892.1	1277.7	1101.9	1082.5	1083.9	1035.4	993.9	927.5	908.1
62.5°	17638.6	14948.9	4018.6	1193.3	1061.7	1059.0	1038.2	1002.2	964.8	906.7	898.4
65°	17782.5	14824.3	3087.0	1104.7	1009.1	1020.2	982.8	933.0	778.0	706.0	706.0
67.5°	17306.3	14057.4	2285.5	1002.2	945.5	967.6	894.2	735.1	654.8	611.9	618.8
70°	16000.9	12818.5	1488.1	852.7	854.1	872.1	737.8	661.7	585.6	559.3	573.1
72.5°	14256.7	10981.5	981.5	679.7	719.8	689.4	674.1	609.1	541.3	510.8	520.5
75°	11748.4	8671.2	681.1	534.3	466.5	588.3	599.4	512.2	459.6	557.9	580.0
77.5°	9281.6	6027.2	562.0	373.8	344.7	434.7	480.3	474.8	760.0	892.9	883.2
80°	5519.1	3470.4	458.2	258.9	243.6	279.6	377.9	545.4	851.3	639.5	609.1
82.5°	2502.8	1578.1	243.6	135.7	159.2	185.5	282.4	678.3	557.9	409.7	386.2
85°	977.3	515.0	96.9	59.5	55.4	69.2	128.7	326.7	224.3	181.3	181.3
87.5°	126.0	92.7	27.7	20.8	18.0	22.1	41.5	181.3	105.2	88.6	85.8
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)