

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: P510191

Luminaire Tested: **VERD-M-CA4-220-750-U-T3**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510191  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA4-220-750-U-T3  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 5000K, 1000mA LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31840 lumens  
Efficiency: N/A  
Efficacy: 143.1 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G4

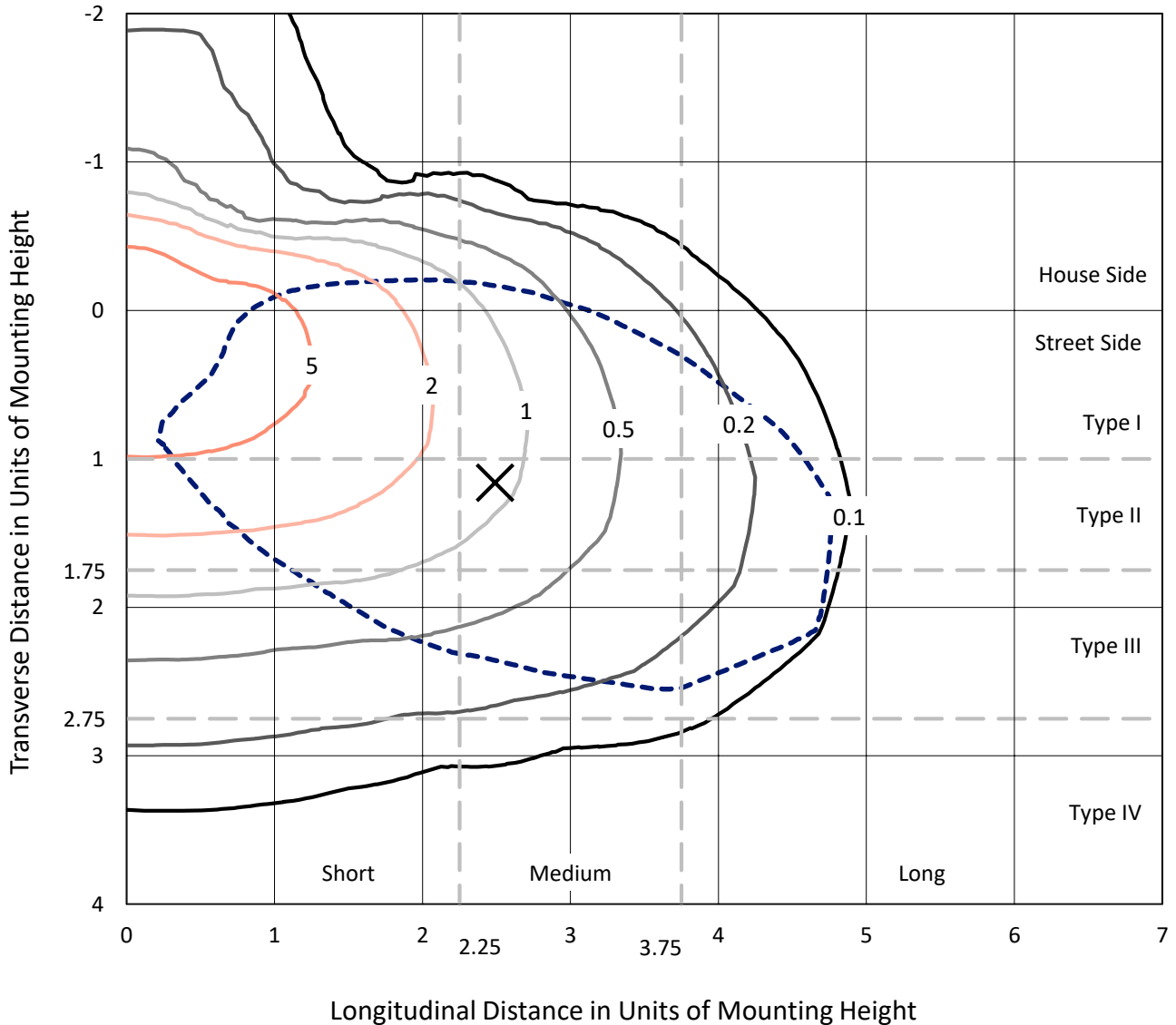
Input Watts (W): 222.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

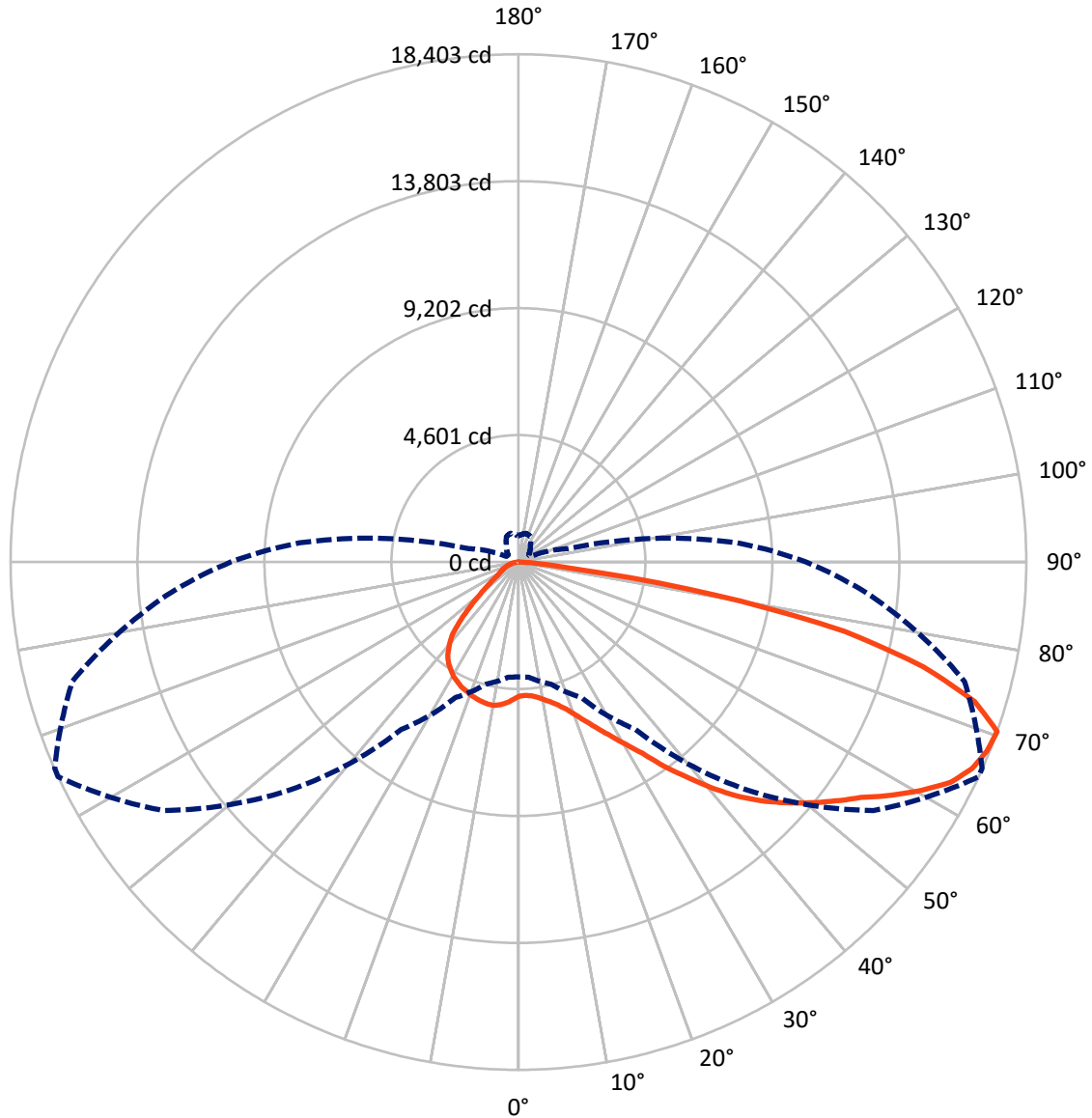
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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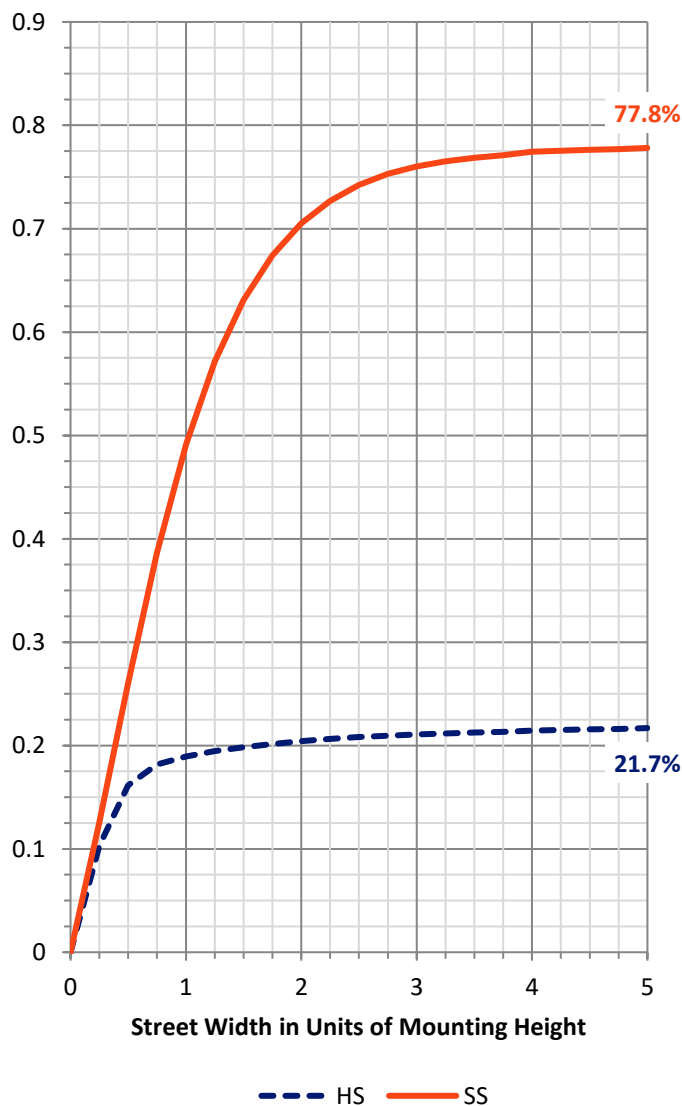
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7023.6	0.0	7023.6
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	24816.4	0.0	24816.4
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	31840.0	0.0	31840.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	487.6	1.5
10°-20°	1541.2	4.8
20°-30°	2673.7	8.4
30°-40°	3887.5	12.2
40°-50°	5193.8	16.3
50°-60°	6326.5	19.9
60°-70°	6820.1	21.4
70°-80°	4421.7	13.9
80°-90°	487.7	1.5
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°	31840.0	100.0
0°-180°	31840.0	100.0

**Coefficient of Utilization**



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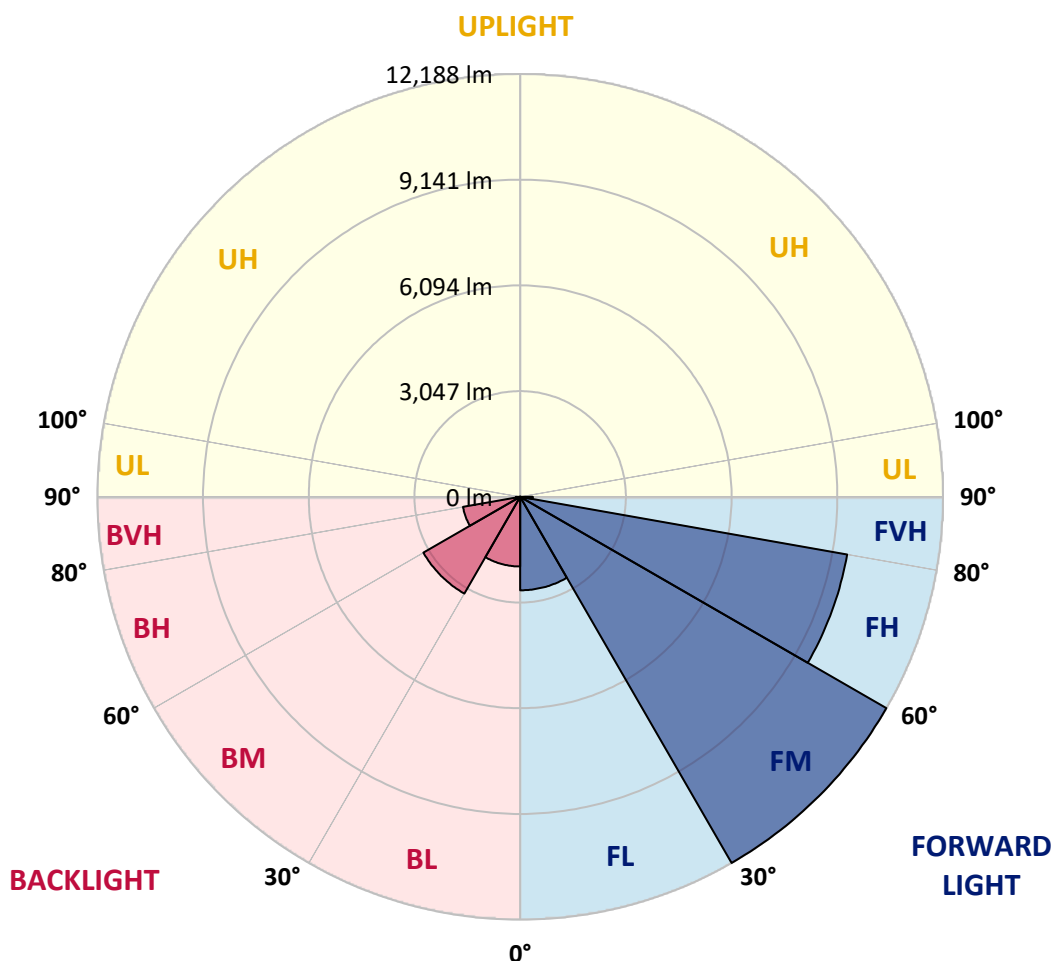
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2694.6	8.5			
FM	(30°-60°)	12187.8	38.3			
FH	(60°-80°)	9570.3	30.1			G4/12000
FVH	(80°-90°)	363.7	1.1			G3/500
BL	(0°-30°)	2008.0	6.3	B3/2500		
BM	(30°-60°)	3220.1	10.1	B3/5000		
BH	(60°-80°)	1671.5	5.2	B3/2500		G3/2500
BVH	(80°-90°)	123.9	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1
2.5°	4789.3	4832.3	4809.4	4810.8	4843.8	4816.6	4835.2	4835.2	4833.8	4843.8	4874.0
5°	4907.0	4952.9	4925.7	4908.4	4915.6	4881.2	4874.0	4868.2	4863.9	4875.4	4925.7
7.5°	5079.3	5132.4	5102.2	5086.5	5077.8	4998.9	4984.5	4945.8	4941.5	4951.5	4997.4
10°	5307.5	5379.3	5343.4	5298.9	5268.8	5176.9	5103.7	5069.2	5059.2	5053.4	5100.8
12.5°	5636.3	5699.5	5657.8	5574.6	5534.4	5386.5	5298.9	5201.3	5199.9	5179.8	5215.7
15°	5947.8	6013.9	5960.8	5878.9	5825.8	5626.3	5497.0	5376.5	5362.1	5339.1	5350.6
17.5°	6249.3	6329.7	6292.4	6217.7	6153.1	5930.6	5761.2	5606.2	5590.4	5554.5	5501.4
20°	6624.0	6697.2	6687.2	6619.7	6547.9	6295.3	6110.1	5910.5	5893.3	5828.7	5709.5
22.5°	6998.7	7089.2	7033.2	7021.7	6981.5	6730.3	6471.8	6269.4	6252.2	6167.5	5949.3
25°	7351.9	7432.3	7452.4	7433.7	7438.0	7189.7	6932.7	6678.6	6661.3	6546.5	6230.7
27.5°	7769.7	7845.7	7851.5	7855.8	7906.0	7699.3	7397.8	7136.5	7125.1	6995.8	6595.3
30°	8089.8	8216.1	8242.0	8266.4	8292.2	8181.7	7907.5	7663.4	7640.4	7499.8	7005.9
32.5°	8382.7	8477.4	8569.3	8619.6	8735.8	8636.8	8411.4	8260.6	8262.1	8196.0	7660.5
35°	8609.5	8714.3	8830.6	9014.3	9183.8	9142.1	9071.8	9080.4	9081.8	9110.5	8543.5
37.5°	8826.3	8921.0	9067.5	9287.1	9585.7	9640.3	9687.7	9867.1	9930.3	10065.2	9358.9
40°	8956.9	9057.4	9246.9	9551.3	9938.9	10135.6	10279.1	10740.0	10849.1	10850.5	9989.1
42.5°	8766.0	8876.5	9215.3	9756.6	10257.6	10625.1	11002.7	11584.1	11663.1	11486.5	10527.5
45°	8595.1	8697.1	9061.7	9788.2	10507.4	11147.7	11673.1	12346.5	12403.9	12047.8	11024.2
47.5°	8430.0	8510.4	8932.5	9722.1	10763.0	11671.7	12244.5	13035.6	13077.2	12662.3	11509.5
50°	8201.8	8298.0	8745.9	9644.6	10916.6	12121.1	12804.4	13716.1	13710.3	13215.0	11948.8
52.5°	7952.0	8046.7	8527.7	9502.5	11017.1	12469.9	13441.8	14382.2	14386.5	13849.6	12383.8
55°	7637.6	7753.9	8260.6	9310.1	11041.5	12744.1	13994.6	15065.5	15135.9	14497.0	12803.0
57.5°	7261.4	7377.7	7931.9	9028.7	10896.5	12973.8	14584.6	15938.4	15975.7	15158.9	13116.0
60°	6823.6	6964.3	7494.0	8652.6	10619.4	13240.9	15299.6	16794.1	16807.0	15750.3	13377.2
62.5°	6316.8	6417.3	6974.3	8107.0	10177.2	13347.1	15891.0	17579.3	17582.2	16196.8	13495.0
65°	5768.4	5807.1	6273.7	7364.8	9532.6	13173.4	16117.9	18057.4	18044.5	16588.8	13436.1
67.5°	5115.2	5096.5	5594.7	6447.4	8717.2	12594.8	16007.3	18302.9	18341.7	16890.2	13246.6
70°	4159.0	4186.3	4582.5	5421.0	7400.7	11666.0	15703.0	18403.4	18393.4	16739.5	12636.5
72.5°	3157.0	3205.8	3492.9	4121.7	5744.0	9811.1	14399.4	17292.2	17312.3	15677.1	11538.2
75°	1952.5	2093.2	2335.8	2719.1	3599.1	7028.9	12256.0	15147.4	15249.3	13832.3	9501.0
77.5°	855.6	888.7	1010.7	1310.7	1882.1	3528.8	9060.3	12096.7	12398.1	11186.5	6853.7
80°	529.7	529.7	564.2	657.5	839.8	1312.2	3630.7	7222.7	6916.9	6398.6	3023.4
82.5°	440.7	440.7	458.0	473.8	430.7	555.6	1214.5	2024.2	2169.2	1755.8	928.9
85°	239.8	245.5	246.9	251.2	246.9	300.0	478.1	598.7	605.8	548.4	330.2
87.5°	87.6	93.3	90.4	84.7	76.1	71.8	91.9	93.3	96.2	89.0	48.8
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°	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1	4861.1
2.5°	4894.1	4914.2	4967.3	4971.6	4991.7	4998.9	5016.1	5040.5	5083.6	5062.0	5037.6
5°	4950.1	4975.9	5060.6	5103.7	5159.7	5192.7	5247.2	5274.5	5340.6	5319.0	5316.2
7.5°	5034.8	5089.3	5165.4	5207.0	5280.3	5301.8	5342.0	5342.0	5396.6	5369.3	5362.1
10°	5149.6	5185.5	5265.9	5268.8	5310.4	5310.4	5357.8	5327.6	5380.8	5349.2	5347.7
12.5°	5241.5	5261.6	5291.7	5267.3	5288.9	5264.5	5288.9	5253.0	5286.0	5245.8	5237.2
15°	5344.9	5317.6	5287.4	5230.0	5211.4	5172.6	5152.5	5115.2	5118.0	5072.1	5064.9
17.5°	5461.2	5390.8	5303.2	5178.3	5109.4	5010.4	4968.7	4915.6	4885.5	4843.8	4862.5
20°	5601.8	5497.0	5314.7	5120.9	4974.5	4823.7	4726.1	4640.0	4632.8	4595.5	4575.4
22.5°	5784.2	5616.2	5365.0	5039.1	4803.6	4588.3	4443.3	4299.7	4285.4	4209.3	4180.6
25°	6009.6	5774.1	5390.8	4975.9	4604.1	4308.3	4080.1	3880.5	3784.3	3703.9	3685.3
27.5°	6312.5	6006.7	5442.5	4862.5	4368.6	3960.9	3633.6	3369.4	3254.6	3214.4	3172.8
30°	6667.1	6291.0	5538.7	4767.7	4090.1	3517.3	3118.2	2803.8	2678.9	2615.7	2595.6
32.5°	7189.7	6649.9	5627.7	4611.3	3752.7	3029.2	2509.5	2162.1	2086.0	2074.5	2101.8
35°	7950.5	7324.6	5756.9	4466.3	3356.5	2486.5	1912.3	1685.4	1669.6	1672.5	1672.5
37.5°	8743.0	7967.8	6140.2	4252.3	2871.3	1872.1	1455.7	1332.3	1338.0	1338.0	1336.6
40°	9259.8	8484.6	6418.7	3949.4	2268.3	1342.3	1079.6	986.3	1026.5	1081.0	1109.7
42.5°	9829.8	8954.1	6611.1	3600.6	1577.8	949.0	785.3	818.3	936.0	1019.3	1030.8
45°	10315.0	9353.2	6632.6	3057.9	1016.4	720.7	716.4	811.1	947.5	1038.0	1045.1
47.5°	10731.4	9716.4	6497.7	2437.7	740.8	673.3	716.4	835.5	959.0	1015.0	1020.7
50°	11134.8	10004.9	6180.4	1873.5	674.7	656.1	725.0	839.8	917.4	956.1	950.4
52.5°	11493.7	10267.7	5721.0	1461.5	648.9	644.6	732.2	835.5	884.4	881.5	877.2
55°	11766.5	10345.2	5362.1	1139.9	627.4	637.4	736.5	839.8	875.7	849.9	844.2
57.5°	11907.2	10249.0	5060.6	905.9	604.4	630.2	748.0	838.4	901.6	950.4	947.5
60°	11904.3	10139.9	4688.8	781.0	581.4	624.5	766.6	910.2	1138.5	1184.4	1185.8
62.5°	11858.3	9953.3	4179.1	706.3	555.6	627.4	779.5	1033.7	1296.4	1259.1	1228.9
65°	11706.2	9603.0	3495.8	625.9	522.6	630.2	773.8	1118.4	1188.7	1055.2	1036.5
67.5°	11282.7	8925.3	2744.9	559.9	492.4	614.5	783.9	1039.4	1092.5	1007.8	980.5
70°	10422.7	7970.6	1860.6	482.4	458.0	591.5	760.9	1022.2	1078.2	992.0	951.8
72.5°	9060.3	6397.2	1088.2	414.9	407.7	544.1	749.4	1033.7	1095.4	999.2	947.5
75°	7051.8	4484.9	628.8	335.9	340.2	502.5	687.7	974.8	1085.3	1010.7	943.2
77.5°	4552.4	2177.9	443.6	268.5	265.6	396.2	558.5	852.8	1045.1	1020.7	964.7
80°	1629.4	795.3	311.5	199.6	193.8	268.5	429.3	686.2	884.4	915.9	915.9
82.5°	585.7	399.1	199.6	122.0	120.6	170.8	320.1	521.1	641.7	723.6	743.7
85°	245.5	173.7	97.6	61.7	50.2	66.0	165.1	323.0	435.0	468.0	509.7
87.5°	35.9	31.6	25.8	20.1	17.2	17.2	21.5	93.3	155.0	222.5	275.6
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)