

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: P509909

Luminaire Tested: **VERD-M-CA3-160-760-U-T2**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P509909  
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-CA3-160-760-U-T2  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5700K, 1000mA LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23242 lumens  
Efficiency: N/A  
Efficacy: 142.9 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

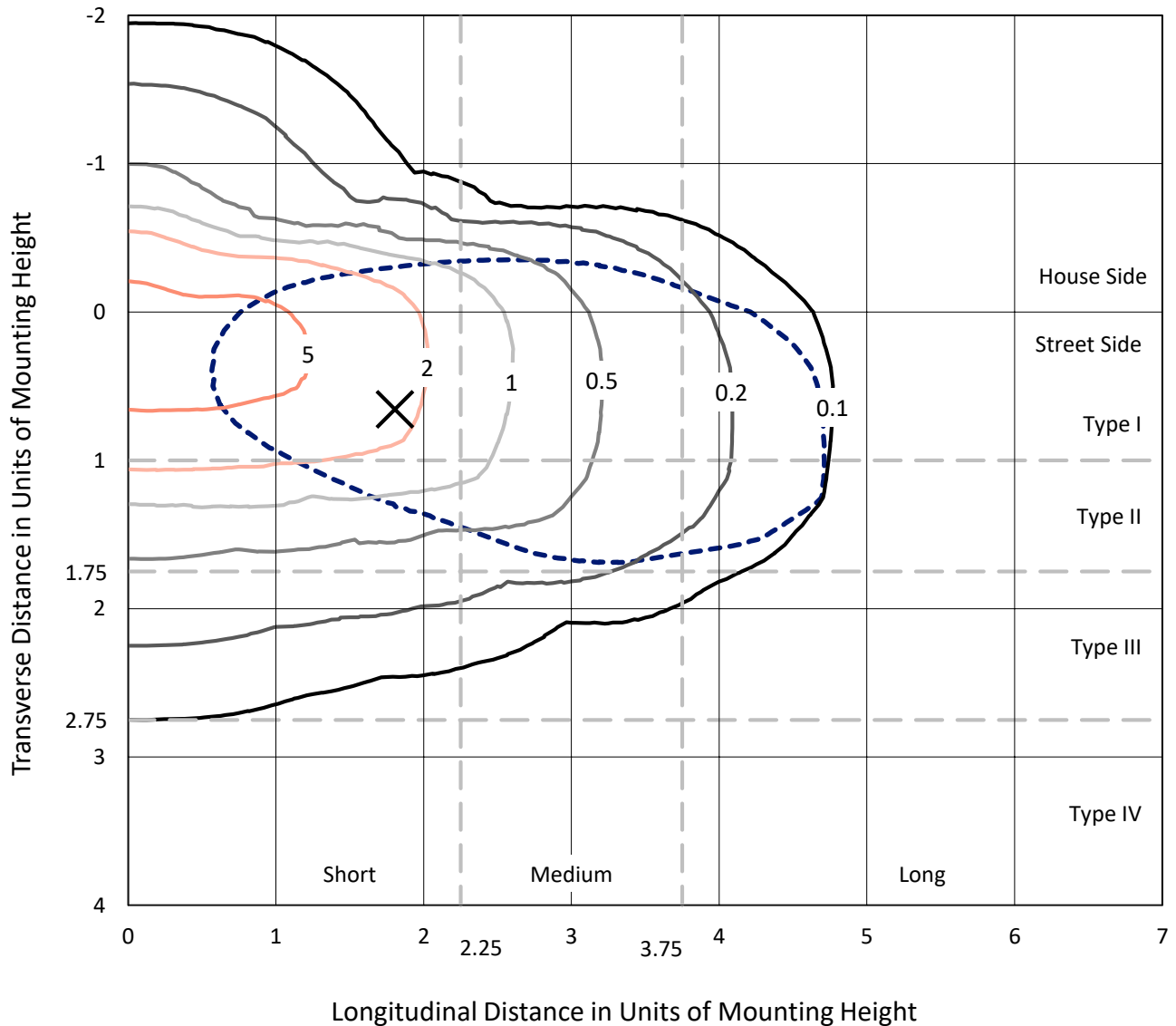
Input Watts (W): 162.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

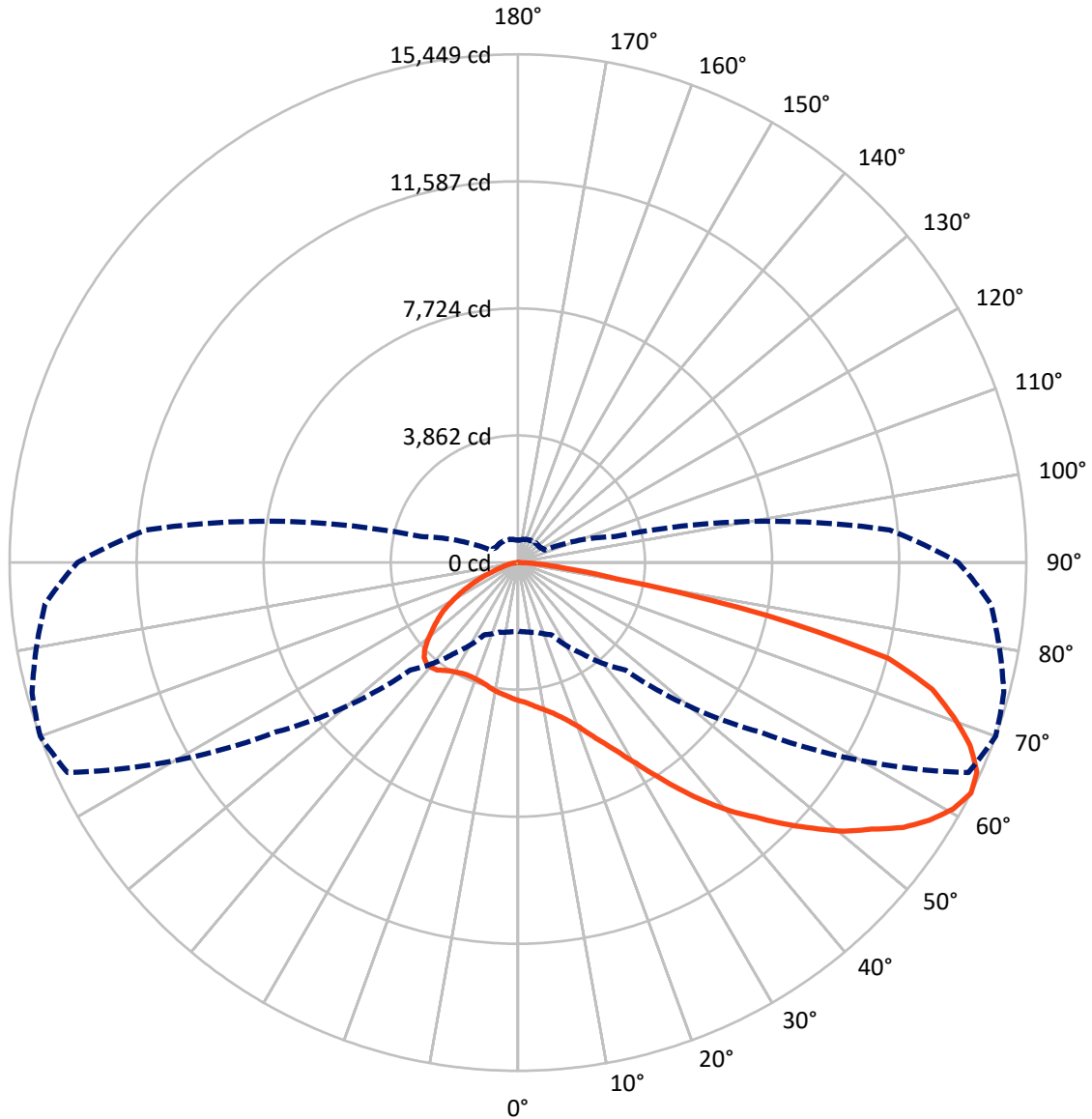
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.7 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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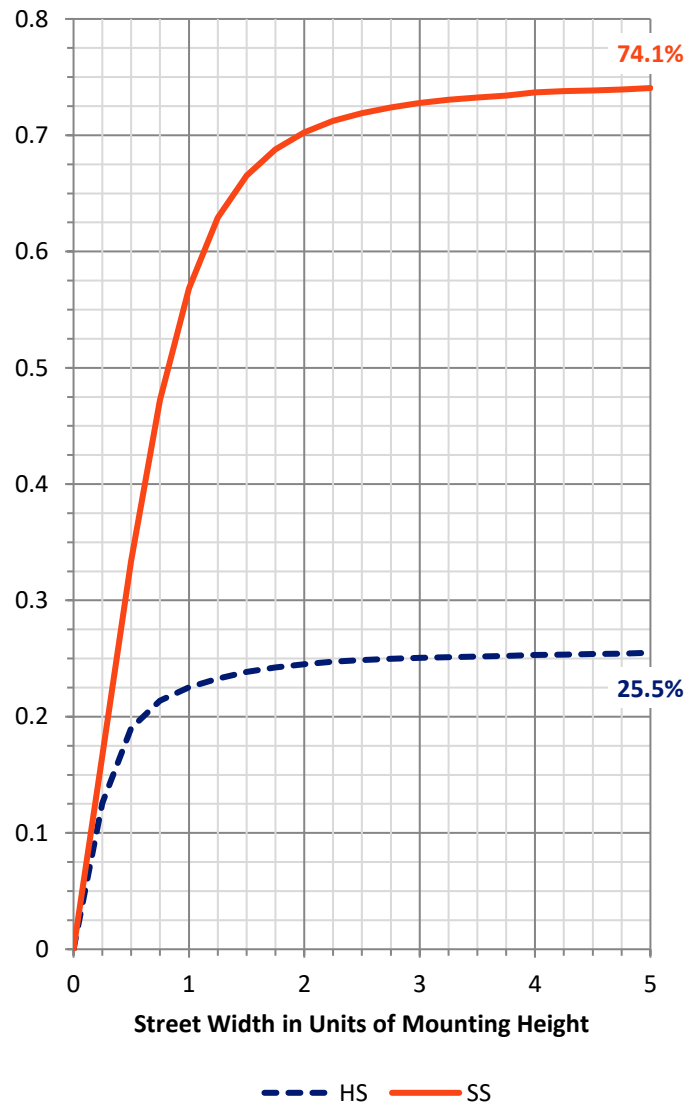
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6017.5	0.0	6017.5
	% Fixture	25.9	0.0	25.9
<b>Street Side</b>	Lumens	17224.5	0.0	17224.5
	% Fixture	74.1	0.0	74.1
<b>Total</b>	Lumens	23242.0	0.0	23242.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	402.9	1.7
10°-20°	1223.6	5.3
20°-30°	2076.6	8.9
30°-40°	3004.8	12.9
40°-50°	3943.0	17.0
50°-60°	4607.3	19.8
60°-70°	4623.6	19.9
70°-80°	2946.2	12.7
80°-90°	414.0	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°	23242.0	100.0
0°-180°	23242.0	100.0



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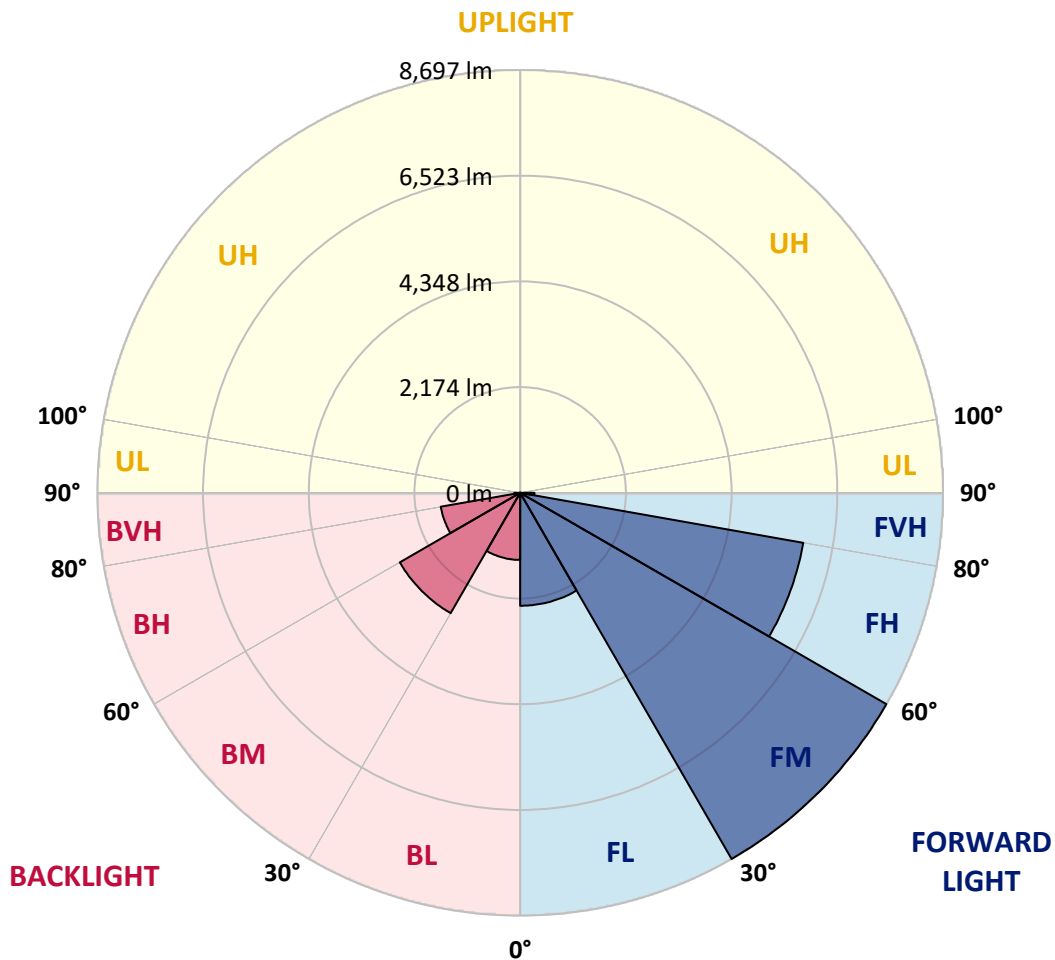
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2323.0	10.0			
FM	(30°-60°)	8696.9	37.4			
FH	(60°-80°)	5912.5	25.4			G3/7500
FVH	(80°-90°)	292.1	1.3			G3/500
BL	(0°-30°)	1380.1	5.9	B3/2500		
BM	(30°-60°)	2858.1	12.3	B3/5000		
BH	(60°-80°)	1657.3	7.1	B3/2500		G3/2500
BVH	(80°-90°)	122.0	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-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9
2.5°	4355.6	4401.8	4395.5	4367.1	4387.1	4332.4	4312.5	4282.0	4250.5	4240.0	4222.2
5°	4561.4	4622.3	4610.8	4573.0	4571.9	4494.2	4450.1	4392.3	4344.0	4306.2	4250.5
7.5°	4753.6	4824.0	4813.5	4776.7	4774.6	4685.3	4594.0	4503.6	4448.0	4399.7	4297.8
10°	4957.4	5010.9	5001.5	4954.2	4944.8	4857.6	4750.5	4637.0	4555.1	4487.9	4343.0
12.5°	5145.4	5202.1	5206.3	5147.5	5132.8	5039.3	4945.8	4795.6	4689.5	4612.9	4399.7
15°	5320.8	5388.0	5375.4	5316.6	5300.8	5206.3	5114.9	4976.3	4866.0	4758.9	4492.1
17.5°	5461.5	5525.6	5509.8	5483.6	5475.2	5401.6	5326.0	5175.8	5078.2	4940.6	4634.9
20°	5558.1	5618.0	5624.3	5617.0	5665.3	5595.9	5553.9	5447.9	5340.7	5216.8	4830.3
22.5°	5595.9	5667.4	5728.3	5775.5	5875.3	5864.8	5857.5	5796.6	5691.5	5510.9	5088.7
25°	5607.5	5678.9	5773.4	5890.0	6068.6	6132.6	6178.9	6193.6	6079.1	5936.2	5410.0
27.5°	5609.6	5686.3	5782.9	5970.9	6242.9	6436.2	6546.5	6597.9	6533.9	6420.4	5847.0
30°	5565.5	5644.3	5768.2	6019.2	6379.5	6696.7	6879.4	7107.3	7080.0	6984.4	6394.2
32.5°	5438.4	5509.8	5681.0	6010.8	6515.0	6963.4	7248.1	7643.0	7735.4	7673.4	7025.4
35°	5210.5	5297.7	5519.3	5941.5	6588.5	7222.8	7681.8	8296.2	8463.2	8467.4	7799.5
37.5°	4980.5	5046.6	5307.1	5811.3	6629.4	7452.9	8093.5	8950.6	9193.2	9198.4	8443.3
40°	4735.8	4796.7	5083.4	5636.9	6587.4	7633.5	8476.9	9579.7	9927.3	9894.8	9075.6
42.5°	4418.6	4485.8	4770.4	5399.5	6482.4	7773.2	8866.6	10240.3	10574.3	10611.1	9735.1
45°	4147.6	4201.2	4450.1	5028.8	6290.2	7848.8	9232.1	10945.1	11327.4	11288.5	10438.8
47.5°	3813.6	3893.4	4159.2	4727.4	5944.6	7829.9	9581.8	11642.5	12067.8	12032.1	11049.1
50°	2941.9	3034.3	3651.9	4411.2	5503.5	7681.8	9899.0	12309.4	12837.7	12744.2	11695.0
52.5°	2671.9	2698.2	2944.0	4047.8	5068.7	7345.7	10132.2	13151.7	13464.7	13428.0	12349.3
55°	2507.0	2557.5	2669.8	3334.7	4678.0	6799.6	10293.9	13855.4	14208.3	14036.1	12941.7
57.5°	2362.1	2397.8	2531.2	2854.7	4228.5	6047.6	10246.6	14448.8	14763.9	14523.4	13520.4
60°	2207.7	2230.8	2364.2	2605.8	3743.2	5216.8	9766.7	15061.2	15200.9	14980.3	14009.8
62.5°	2088.0	2110.0	2189.9	2422.0	3365.1	4622.3	8981.0	15104.2	15448.7	15288.0	14425.7
65°	1934.6	1949.3	2049.1	2231.9	3014.3	4268.4	8288.9	14699.9	15329.0	15289.1	14585.4
67.5°	1765.5	1783.4	1877.9	2007.1	2565.9	3851.4	7131.5	14481.4	14822.7	14861.6	14286.1
70°	1567.0	1579.6	1677.3	1770.8	2195.1	3380.9	5669.5	13644.3	14042.4	14041.3	13361.8
72.5°	1352.8	1351.7	1448.4	1547.1	1839.1	2840.0	4438.5	12114.1	13167.5	13088.7	12046.8
75°	1115.4	1131.2	1224.6	1302.4	1530.3	2302.2	3091.0	8775.2	11624.6	11732.8	10396.8
77.5°	713.1	723.7	776.2	856.0	1070.2	1759.2	2016.6	4876.5	7761.6	9362.3	8183.9
80°	520.9	526.2	572.4	618.6	712.1	1071.3	1025.1	2119.5	3076.3	4596.1	5020.4
82.5°	355.0	356.0	392.8	403.3	408.6	483.1	486.3	1031.4	1465.2	1725.6	2217.2
85°	235.3	195.4	152.3	201.7	206.9	177.5	173.3	465.3	726.8	871.7	821.3
87.5°	52.5	51.5	59.9	60.9	58.8	50.4	42.0	71.4	109.2	108.2	138.6
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°	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9	4194.9
2.5°	4205.4	4200.1	4170.7	4108.7	4066.7	4023.7	3999.5	3984.8	3990.1	3965.9	3955.4
5°	4215.9	4189.6	4106.6	4033.1	3966.9	3892.4	3830.4	3822.0	3834.6	3812.6	3800.0
7.5°	4243.2	4187.5	4081.4	3955.4	3845.1	3774.7	3685.5	3640.3	3637.2	3615.1	3619.3
10°	4258.9	4186.5	4044.7	3892.4	3763.2	3638.2	3542.6	3492.2	3489.1	3457.6	3450.2
12.5°	4302.0	4198.0	4001.6	3815.7	3671.8	3504.8	3404.0	3357.8	3352.5	3308.4	3291.6
15°	4368.2	4224.3	3956.4	3726.4	3540.5	3384.0	3263.3	3201.3	3191.8	3140.4	3122.5
17.5°	4473.2	4298.8	3942.8	3645.6	3426.0	3254.9	3113.1	3045.8	2991.2	2962.9	2938.7
20°	4615.0	4391.3	3958.5	3569.9	3282.2	3084.7	2908.3	2820.0	2782.2	2736.0	2739.2
22.5°	4816.6	4536.2	3985.9	3511.1	3151.9	2903.0	2704.5	2605.8	2537.5	2498.6	2500.7
25°	5100.2	4754.7	4039.4	3455.5	3010.1	2704.5	2470.3	2332.7	2263.4	2238.2	2211.9
27.5°	5458.4	5016.2	4166.5	3387.2	2842.1	2479.7	2220.3	2059.6	1989.3	1951.4	1946.2
30°	5918.4	5359.6	4315.6	3336.8	2665.6	2199.3	1910.5	1783.4	1721.4	1667.9	1642.7
32.5°	6479.2	5844.9	4481.6	3286.4	2447.2	1885.3	1623.7	1526.1	1427.3	1359.1	1362.2
35°	7130.4	6373.2	4728.4	3222.3	2190.9	1592.2	1411.6	1285.6	1193.1	1148.0	1127.0
37.5°	7744.8	6915.1	5018.3	3157.2	1904.2	1402.1	1202.6	1086.0	1014.6	979.9	987.3
40°	8366.6	7473.9	5268.3	2997.5	1582.8	1229.9	995.7	929.5	901.1	873.8	877.0
42.5°	8923.3	7919.2	5451.0	2820.0	1358.0	1032.4	848.6	863.3	880.1	864.4	860.2
45°	9503.0	8440.1	5611.7	2517.5	1170.0	877.0	811.9	852.8	889.6	887.5	882.2
47.5°	10084.9	8923.3	5627.5	2116.3	998.8	824.5	810.8	841.3	889.6	898.0	891.7
50°	10684.6	9429.5	5535.0	1643.7	926.4	830.8	811.9	817.1	870.7	880.1	877.0
52.5°	11349.4	9976.7	5307.1	1249.8	898.0	841.3	815.0	807.7	838.1	854.9	858.1
55°	11960.7	10411.5	4879.6	1103.9	877.0	842.3	838.1	814.0	815.0	806.6	827.6
57.5°	12474.3	10826.4	4394.4	1024.0	858.1	832.9	848.6	803.5	790.9	756.2	747.8
60°	13005.7	11163.5	3711.7	969.4	836.0	821.3	822.4	785.6	754.1	703.7	689.0
62.5°	13382.8	11342.1	3049.0	905.4	805.6	803.5	787.7	760.4	732.1	687.9	681.6
65°	13492.0	11247.6	2342.1	838.1	765.7	774.1	745.7	707.9	590.3	535.6	535.6
67.5°	13130.7	10665.7	1734.0	760.4	717.3	734.2	678.5	557.7	496.8	464.2	469.5
70°	12140.3	9725.7	1129.1	647.0	648.0	661.7	559.8	502.0	444.3	424.3	434.8
72.5°	10816.9	8332.0	744.7	515.7	546.2	523.0	511.5	462.1	410.7	387.6	394.9
75°	8913.8	6579.0	516.7	405.4	353.9	446.4	454.8	388.6	348.7	423.3	440.1
77.5°	7042.2	4573.0	426.4	283.6	261.5	329.8	364.5	360.2	576.6	677.4	670.1
80°	4187.5	2633.1	347.6	196.4	184.9	212.2	286.7	413.8	645.9	485.2	462.1
82.5°	1898.9	1197.3	184.9	102.9	120.8	140.7	214.3	514.6	423.3	310.9	293.0
85°	741.5	390.7	73.5	45.2	42.0	52.5	97.7	247.9	170.1	137.6	137.6
87.5°	95.6	70.4	21.0	15.8	13.7	16.8	31.5	137.6	79.8	67.2	65.1
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)