

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: P509893

Luminaire Tested: **VERD-M-CA3-160-740-U-T2**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P509893  
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-CA3-160-740-U-T2  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 1000mA LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23318 lumens  
Efficiency: N/A  
Efficacy: 143.3 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

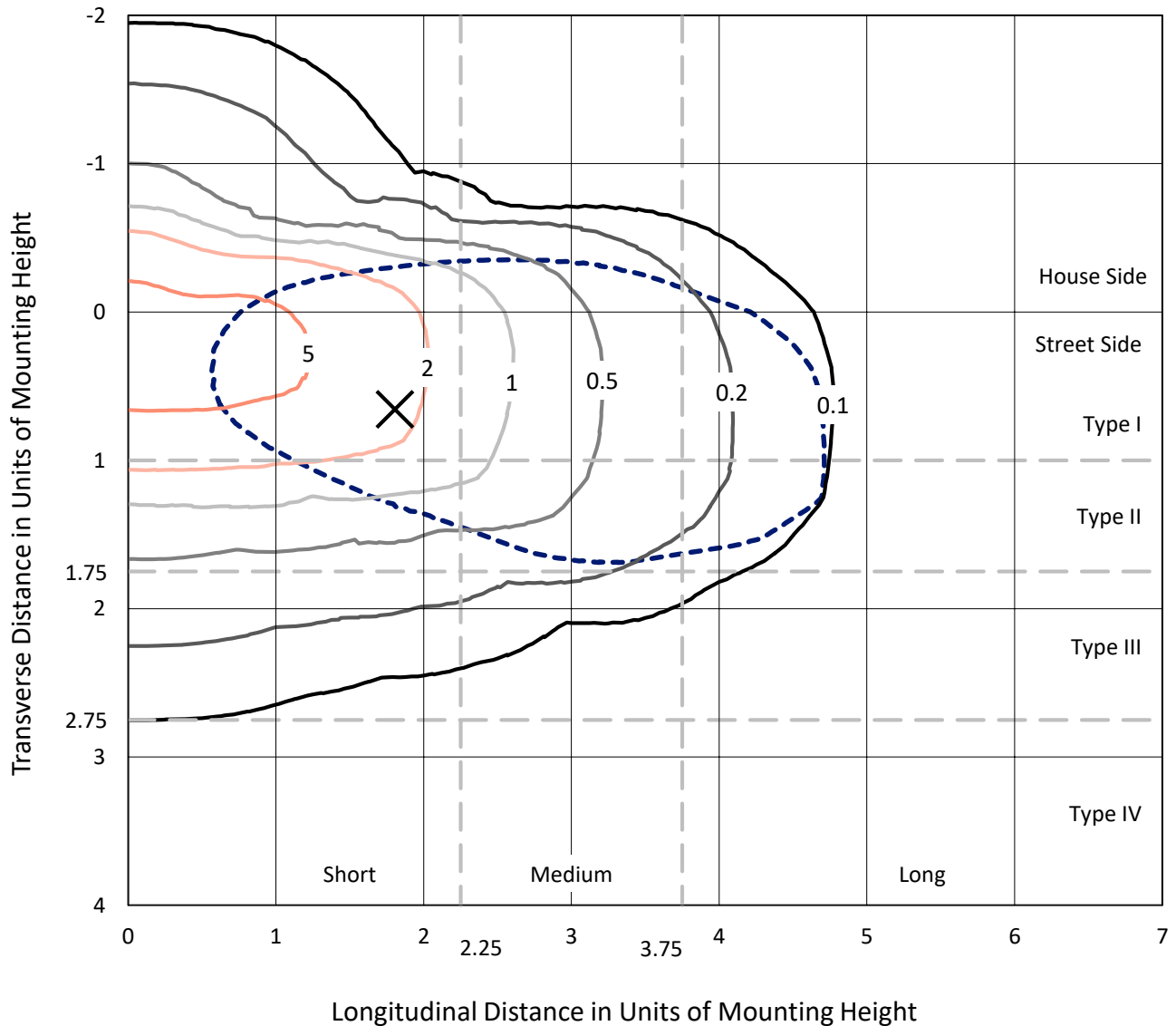
Input Watts (W): 162.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

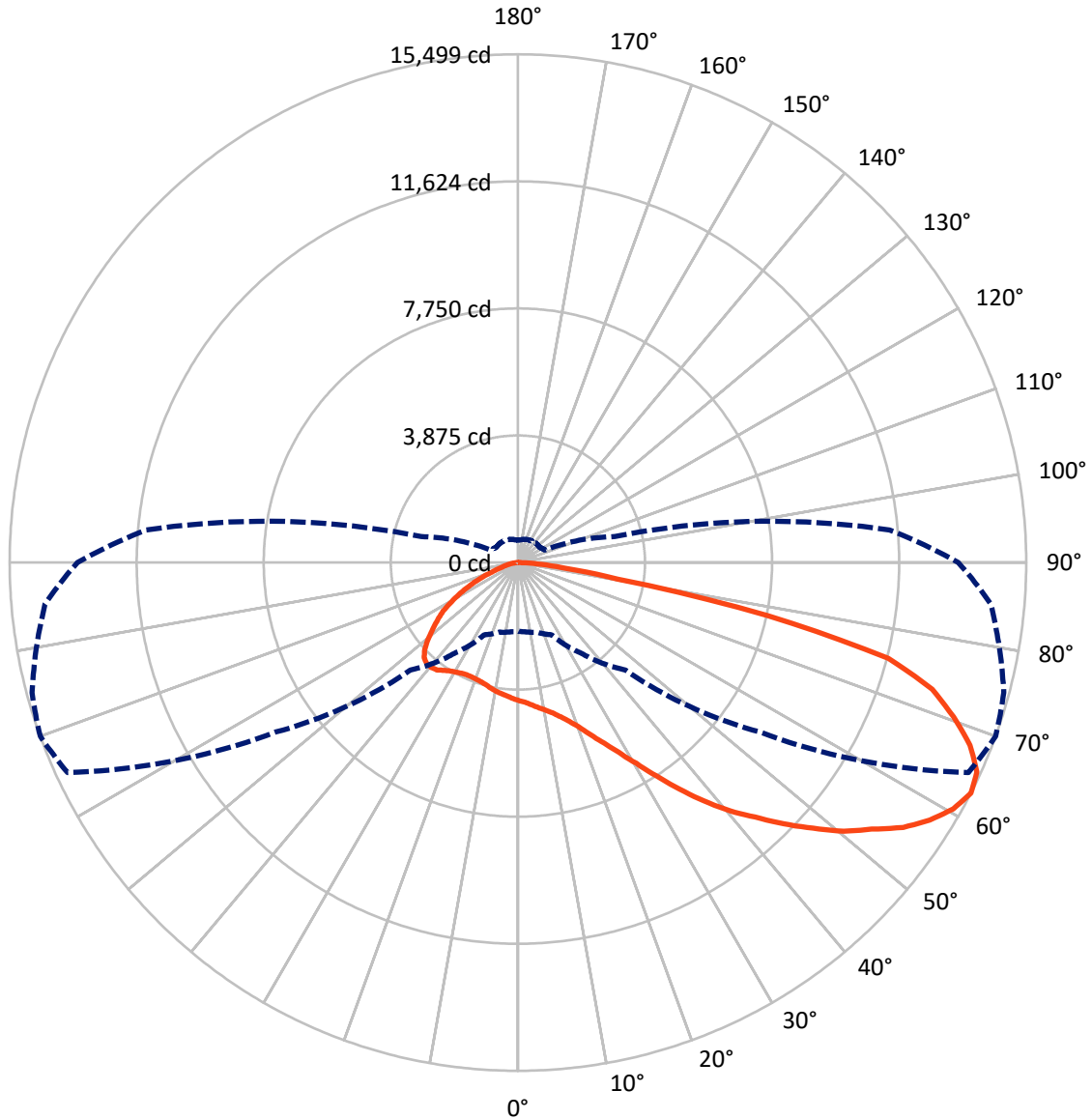
× Max cd  
 - - - 1/2 Max cd



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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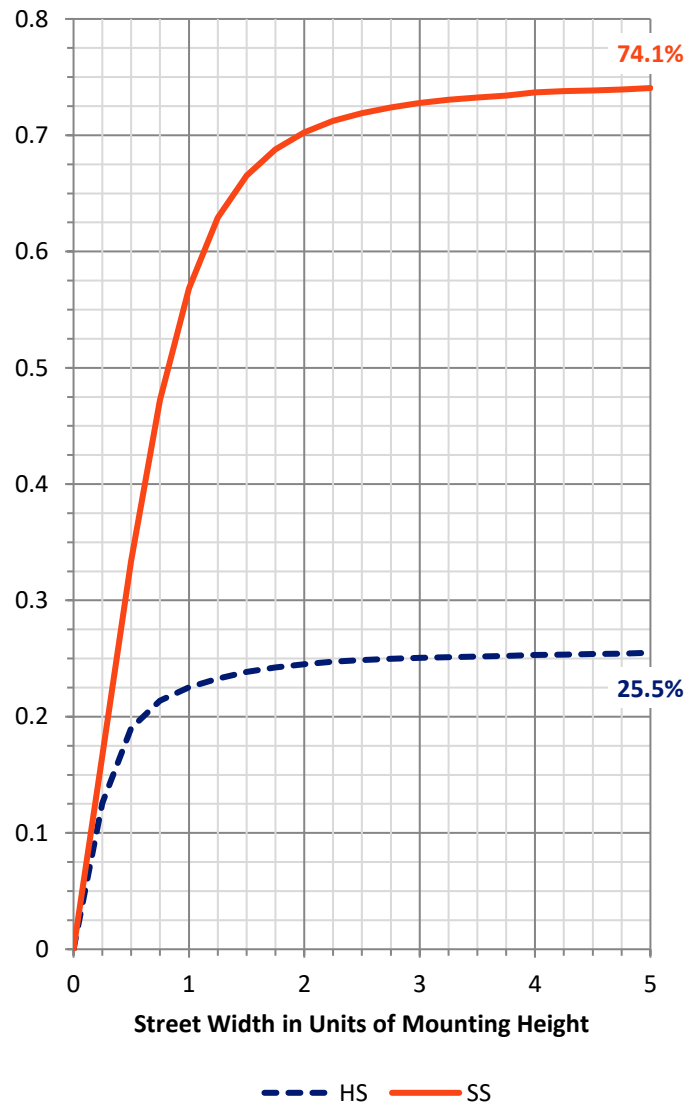
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6037.2	0.0	6037.2
	% Fixture	25.9	0.0	25.9
<b>Street Side</b>	Lumens	17280.8	0.0	17280.8
	% Fixture	74.1	0.0	74.1
<b>Total</b>	Lumens	23318.0	0.0	23318.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	404.2	1.7
10°-20°	1227.6	5.3
20°-30°	2083.4	8.9
30°-40°	3014.6	12.9
40°-50°	3955.9	17.0
50°-60°	4622.3	19.8
60°-70°	4638.7	19.9
70°-80°	2955.8	12.7
80°-90°	415.4	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°	23318.0	100.0
0°-180°	23318.0	100.0



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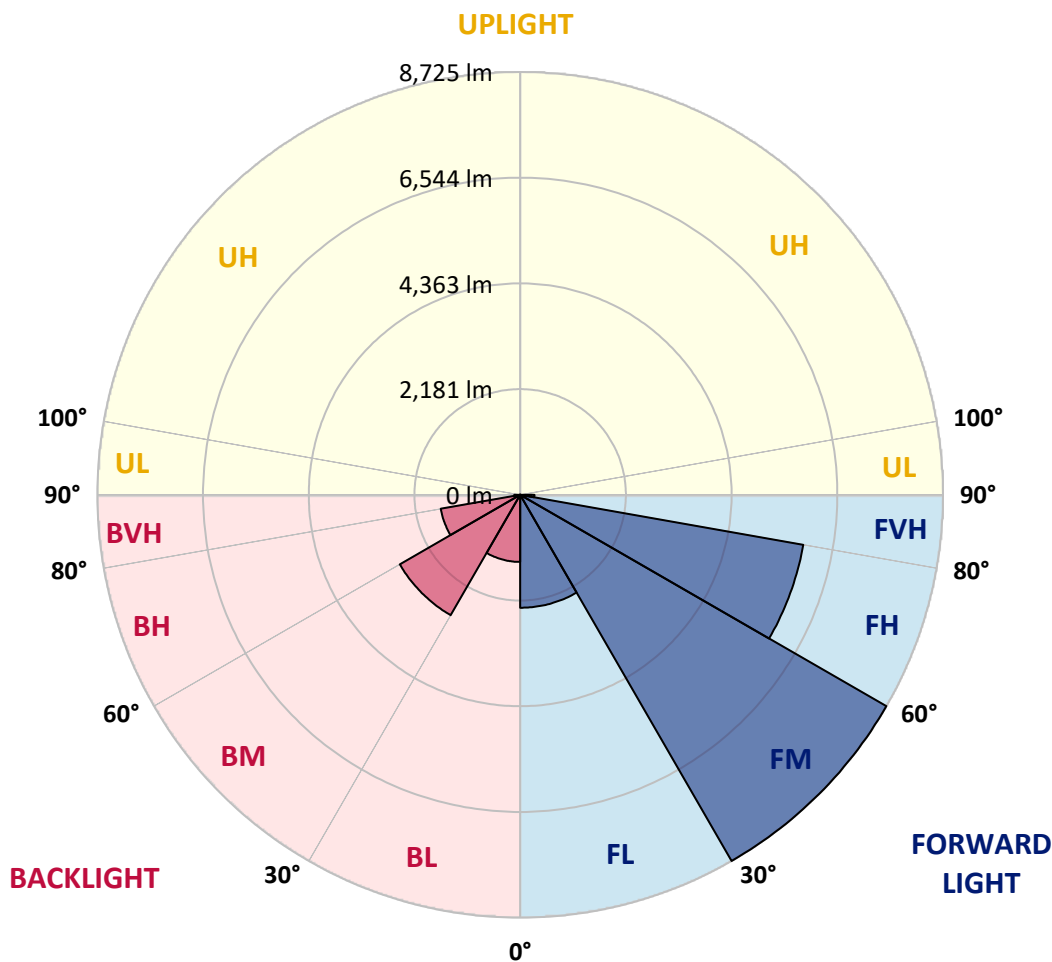
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2330.6	10.0			
FM (30°-60°)	8725.3	37.4			
FH (60°-80°)	5931.9	25.4			G3/7500
FVH (80°-90°)	293.0	1.3			G3/500
BL (0°-30°)	1384.6	5.9	B3/2500		
BM (30°-60°)	2867.5	12.3	B3/5000		
BH (60°-80°)	1662.7	7.1	B3/2500		G3/2500
BVH (80°-90°)	122.4	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°	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6
2.5°	4369.8	4416.2	4409.8	4381.4	4401.4	4346.6	4326.6	4296.0	4264.4	4253.9	4236.0
5°	4576.3	4637.4	4625.9	4587.9	4586.9	4508.9	4464.6	4406.7	4358.2	4320.3	4264.4
7.5°	4769.2	4839.8	4829.2	4792.3	4790.2	4700.7	4609.0	4518.4	4462.5	4414.1	4311.8
10°	4973.6	5027.3	5017.8	4970.4	4960.9	4873.5	4766.0	4652.2	4570.0	4502.6	4357.2
12.5°	5162.2	5219.1	5223.3	5164.3	5149.6	5055.8	4962.0	4811.3	4704.9	4628.0	4414.1
15°	5338.2	5405.6	5393.0	5334.0	5318.1	5223.3	5131.6	4992.5	4881.9	4774.4	4506.8
17.5°	5479.4	5543.6	5527.8	5501.5	5493.1	5419.3	5343.4	5192.8	5094.8	4956.7	4650.1
20°	5576.3	5636.4	5642.7	5635.3	5683.8	5614.2	5572.1	5465.7	5358.2	5233.9	4846.1
22.5°	5614.2	5685.9	5747.0	5794.4	5894.5	5884.0	5876.6	5815.5	5710.1	5528.9	5105.3
25°	5625.8	5697.5	5792.3	5909.3	6088.4	6152.7	6199.1	6213.8	6099.0	5955.7	5427.7
27.5°	5627.9	5704.9	5801.8	5990.4	6263.3	6457.2	6567.9	6619.5	6555.2	6441.4	5866.1
30°	5583.7	5662.7	5787.1	6038.9	6400.3	6718.5	6901.9	7130.6	7103.2	7007.3	6415.1
32.5°	5456.2	5527.8	5699.6	6030.5	6536.3	6986.2	7271.8	7668.0	7760.7	7698.5	7048.4
35°	5227.5	5315.0	5537.3	5960.9	6610.0	7246.5	7706.9	8323.4	8490.9	8495.1	7825.0
37.5°	4996.8	5063.1	5324.5	5830.3	6651.1	7477.2	8120.0	8979.8	9223.3	9228.5	8470.9
40°	4751.2	4812.4	5100.0	5655.3	6609.0	7658.5	8504.6	9611.0	9959.8	9927.1	9105.2
42.5°	4433.0	4500.5	4786.0	5417.2	6503.6	7798.6	8895.5	10273.8	10608.9	10645.8	9767.0
45°	4161.2	4214.9	4464.6	5045.2	6310.8	7874.5	9262.2	10980.9	11364.4	11325.4	10473.0
47.5°	3826.1	3906.2	4172.8	4742.8	5964.1	7855.5	9613.1	11680.5	12107.3	12071.5	11085.2
50°	2951.5	3044.2	3663.8	4425.6	5521.5	7706.9	9931.4	12349.7	12879.7	12785.9	11733.2
52.5°	2680.7	2707.0	2953.6	4061.1	5085.3	7369.8	10165.3	13194.7	13508.8	13471.9	12389.7
55°	2515.2	2565.8	2678.6	3345.6	4693.3	6821.8	10327.6	13900.7	14254.8	14082.0	12984.0
57.5°	2369.8	2405.7	2539.5	2864.0	4242.3	6067.3	10280.1	14496.1	14812.2	14570.9	13564.6
60°	2214.9	2238.1	2371.9	2614.3	3755.5	5233.9	9798.6	15110.4	15250.6	15029.3	14055.6
62.5°	2094.8	2116.9	2197.0	2429.9	3376.1	4637.4	9010.4	15153.6	15499.2	15338.0	14472.9
65°	1941.0	1955.7	2055.8	2239.2	3024.2	4282.3	8316.0	14747.9	15379.1	15339.1	14633.1
67.5°	1771.3	1789.2	1884.1	2013.7	2574.2	3864.0	7154.8	14528.8	14871.2	14910.2	14332.8
70°	1572.2	1584.8	1682.8	1776.6	2202.3	3391.9	5688.0	13688.9	14088.3	14087.2	13405.5
72.5°	1357.2	1356.1	1453.1	1552.1	1845.1	2849.3	4453.0	12153.7	13210.5	13131.5	12086.2
75°	1119.1	1134.9	1228.6	1306.6	1535.3	2309.8	3101.1	8803.9	11662.6	11771.2	10430.8
77.5°	715.5	726.0	778.7	858.8	1073.7	1765.0	2023.2	4892.4	7787.0	9392.9	8210.6
80°	522.6	527.9	574.3	620.6	714.4	1074.8	1028.4	2126.4	3086.4	4611.1	5036.8
82.5°	356.2	357.2	394.1	404.6	409.9	484.7	487.9	1034.8	1469.9	1731.3	2224.4
85°	236.0	196.0	152.8	202.3	207.6	178.1	173.9	466.8	729.2	874.6	824.0
87.5°	52.7	51.6	60.1	61.1	59.0	50.6	42.1	71.7	109.6	108.5	139.1
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°	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6	4208.6
2.5°	4219.1	4213.8	4184.3	4122.2	4080.0	4036.8	4012.6	3997.8	4003.1	3978.9	3968.3
5°	4229.7	4203.3	4120.1	4046.3	3979.9	3905.1	3842.9	3834.5	3847.1	3825.0	3812.4
7.5°	4257.0	4201.2	4094.8	3968.3	3857.7	3787.1	3697.5	3652.2	3649.0	3626.9	3631.1
10°	4272.9	4200.1	4057.9	3905.1	3775.5	3650.1	3554.2	3503.6	3500.5	3468.9	3461.5
12.5°	4316.1	4211.7	4014.7	3828.2	3683.8	3516.3	3415.1	3368.8	3363.5	3319.2	3302.4
15°	4382.4	4238.1	3969.4	3738.6	3552.1	3395.1	3273.9	3211.8	3202.3	3150.6	3132.7
17.5°	4487.8	4312.9	3955.7	3657.5	3437.3	3265.5	3123.2	3055.8	3001.0	2972.6	2948.3
20°	4630.1	4405.6	3971.5	3581.6	3292.9	3094.8	2917.8	2829.3	2791.3	2745.0	2748.1
22.5°	4832.4	4551.0	3998.9	3522.6	3162.2	2912.5	2713.3	2614.3	2545.8	2506.8	2508.9
25°	5116.9	4770.2	4052.6	3466.8	3020.0	2713.3	2478.4	2340.3	2270.8	2245.5	2219.1
27.5°	5476.2	5032.6	4180.1	3398.3	2851.4	2487.8	2227.6	2066.4	1995.8	1957.8	1952.6
30°	5937.7	5377.2	4329.8	3347.7	2674.4	2206.5	1916.7	1789.2	1727.1	1673.3	1648.0
32.5°	6500.4	5864.0	4496.2	3297.1	2455.2	1891.4	1629.1	1531.1	1432.0	1363.5	1366.7
35°	7153.7	6394.0	4743.9	3232.8	2198.1	1597.4	1416.2	1289.8	1197.0	1151.7	1130.6
37.5°	7770.2	6937.7	5034.7	3167.5	1910.4	1406.7	1206.5	1089.6	1017.9	983.1	990.5
40°	8394.0	7498.3	5285.5	3007.3	1588.0	1233.9	998.9	932.5	904.1	876.7	879.9
42.5°	8952.4	7945.1	5468.8	2829.3	1362.5	1035.8	851.4	866.2	883.0	867.2	863.0
45°	9534.1	8467.7	5630.1	2525.8	1173.8	879.9	814.5	855.6	892.5	890.4	885.1
47.5°	10117.9	8952.4	5645.9	2123.3	1002.1	827.2	813.5	844.0	892.5	900.9	894.6
50°	10719.5	9460.3	5553.1	1649.1	929.4	833.5	814.5	819.8	873.5	883.0	879.9
52.5°	11386.6	10009.3	5324.5	1253.9	900.9	844.0	817.7	810.3	840.9	857.7	860.9
55°	11999.8	10445.6	4895.6	1107.5	879.9	845.1	840.9	816.6	817.7	809.3	830.3
57.5°	12515.1	10861.8	4408.8	1027.4	860.9	835.6	851.4	806.1	793.5	758.7	750.3
60°	13048.3	11200.0	3723.9	972.6	838.8	824.0	825.1	788.2	756.6	706.0	691.2
62.5°	13426.6	11379.2	3059.0	908.3	808.2	806.1	790.3	762.9	734.4	690.2	683.9
65°	13536.1	11284.3	2349.8	840.9	768.2	776.6	748.1	710.2	592.2	537.4	537.4
67.5°	13173.7	10700.6	1739.7	762.9	719.7	736.6	680.7	559.5	498.4	465.7	471.0
70°	12180.0	9757.5	1132.8	649.1	650.1	663.8	561.6	503.7	445.7	425.7	436.2
72.5°	10852.3	8359.2	747.1	517.4	547.9	524.8	513.2	463.6	412.0	388.8	396.2
75°	8943.0	6600.5	518.4	406.7	355.1	447.8	456.3	389.9	349.8	424.7	441.5
77.5°	7065.2	4587.9	427.8	284.5	262.4	330.9	365.6	361.4	578.5	679.7	672.3
80°	4201.2	2641.7	348.8	197.0	185.5	212.9	287.7	415.2	648.0	486.8	463.6
82.5°	1905.1	1201.2	185.5	103.3	121.2	141.2	215.0	516.3	424.7	311.9	294.0
85°	743.9	392.0	73.8	45.3	42.1	52.7	98.0	248.7	170.7	138.0	138.0
87.5°	95.9	70.6	21.1	15.8	13.7	16.9	31.6	138.0	80.1	67.4	65.3
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)