

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: P509937

Luminaire Tested: **VERD-M-CA3-170-730-U-T4**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P509937  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA3-170-730-U-T4  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 3000K, 1060mA LEDS AND TYPE IV OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23953 lumens  
Efficiency: N/A  
Efficacy: 138.6 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

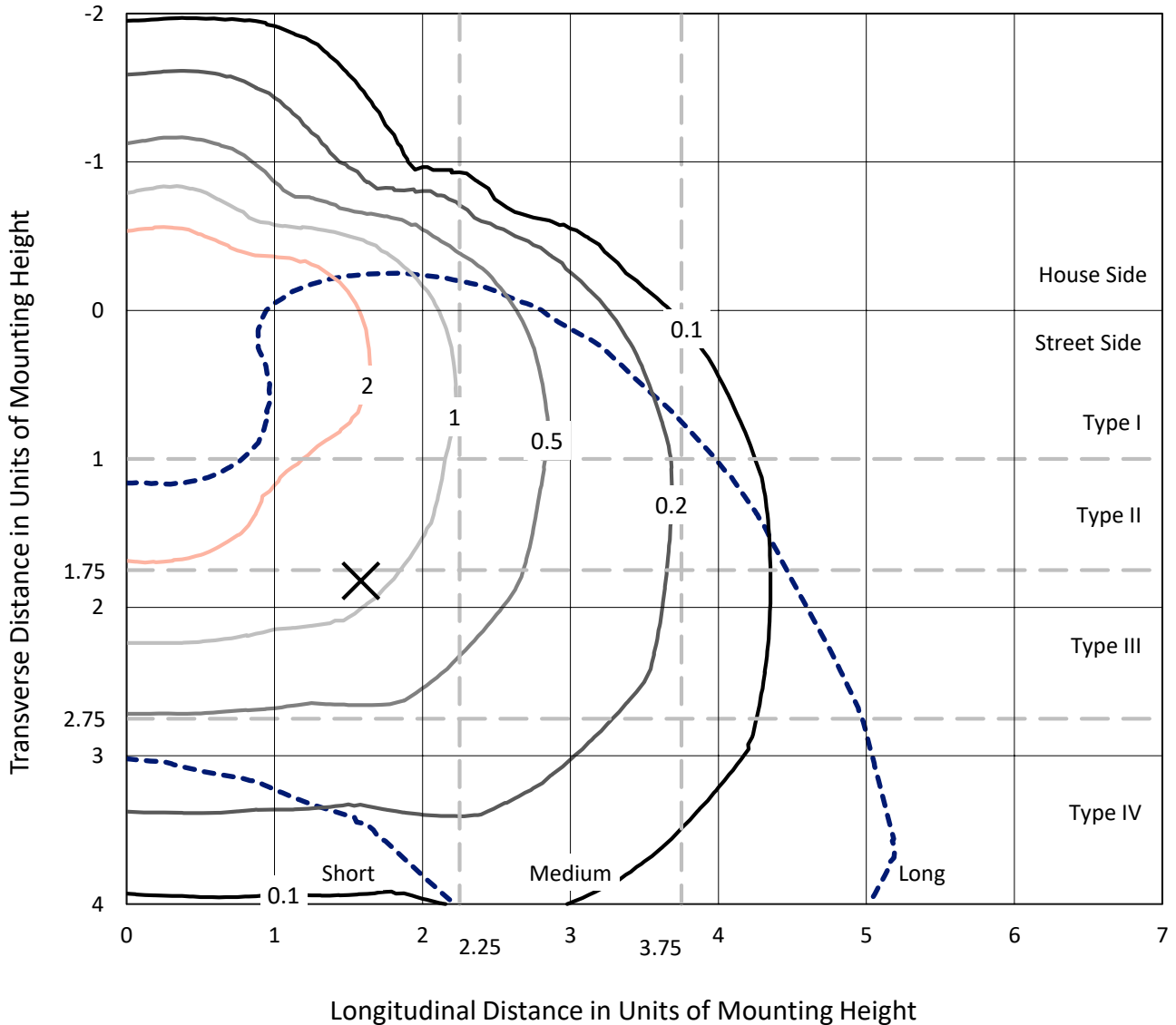
Input Watts (W): 172.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

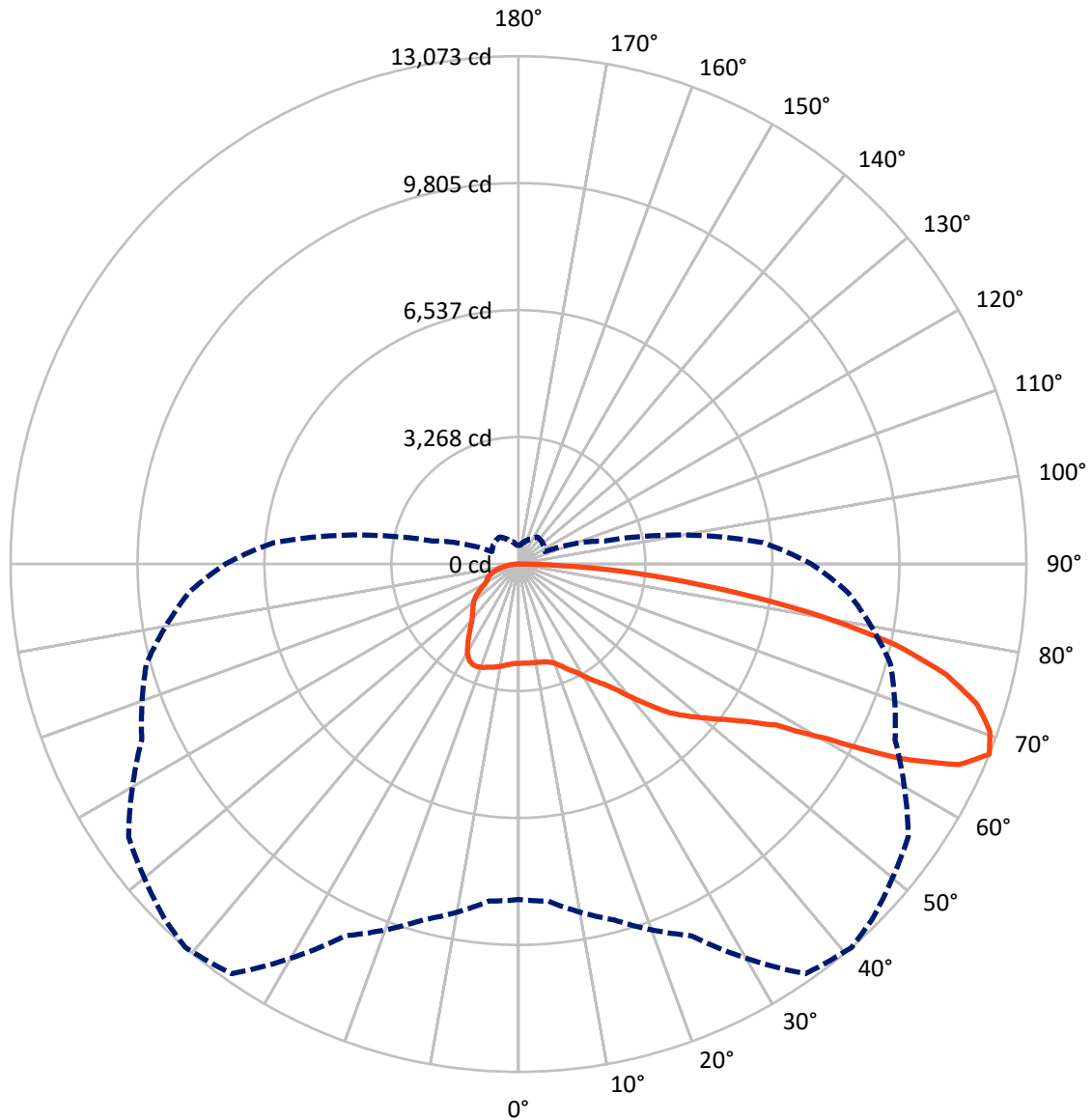
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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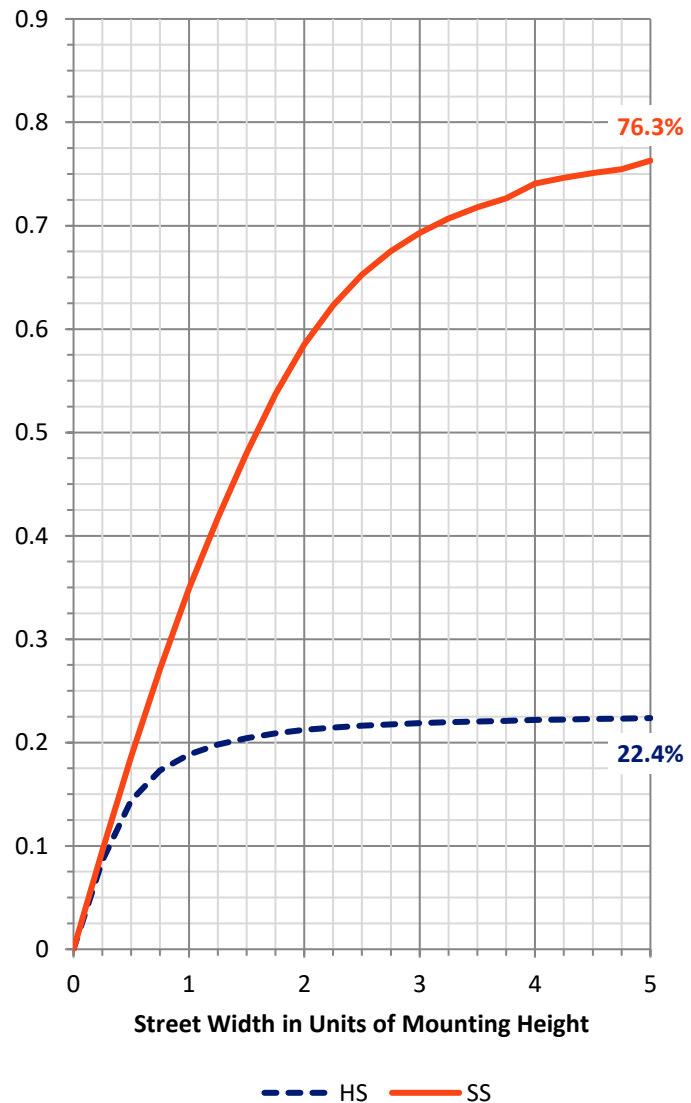
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5420.5	0.0	5420.5
	% Fixture	22.6	0.0	22.6
<b>Street Side</b>	Lumens	18532.6	0.0	18532.6
	% Fixture	77.4	0.0	77.4
<b>Total</b>	Lumens	23953.0	0.0	23953.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.1	1.0
10°-20°	766.4	3.2
20°-30°	1370.6	5.7
30°-40°	2149.1	9.0
40°-50°	3332.7	13.9
50°-60°	4698.2	19.6
60°-70°	5989.1	25.0
70°-80°	4481.8	18.7
80°-90°	917.9	3.8
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°	23953.0	100.0
0°-180°	23953.0	100.0



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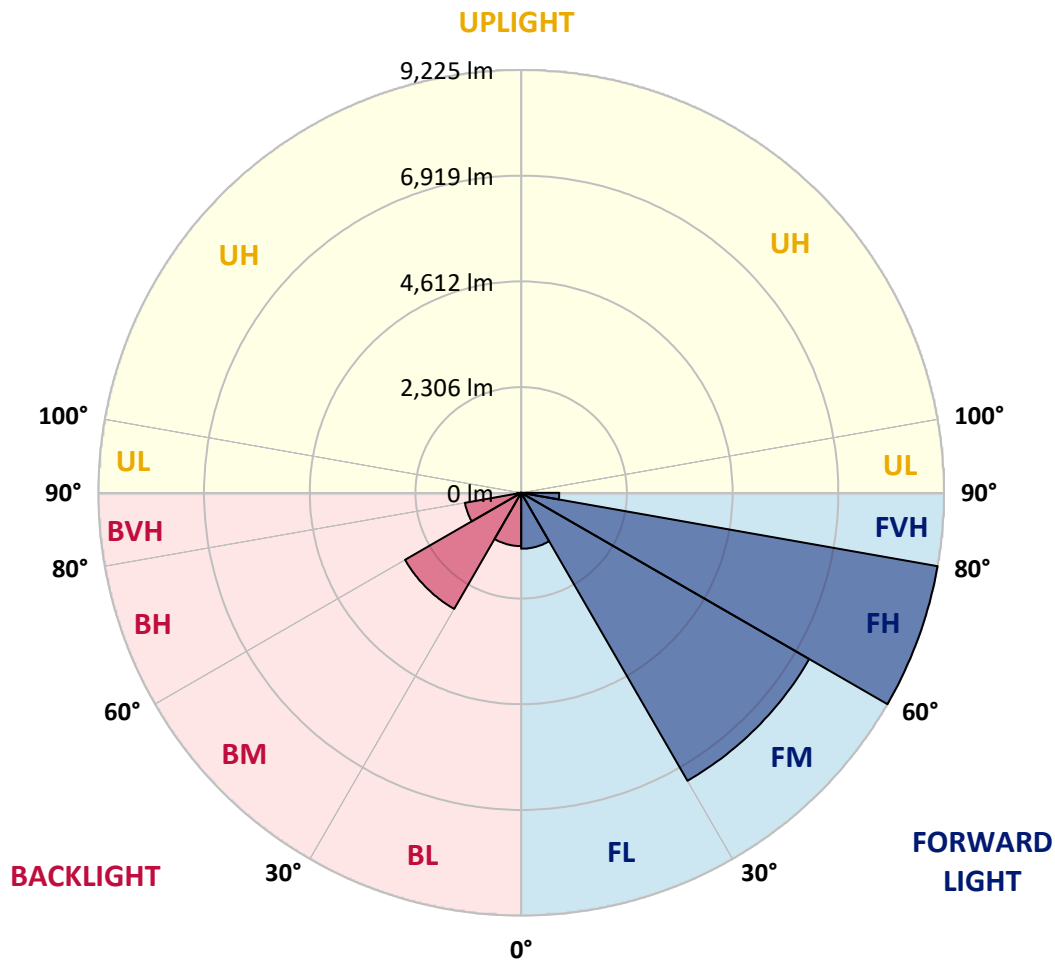
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1220.4	5.1			
FM	(30°-60°)	7255.2	30.3			
FH	(60°-80°)	9224.8	38.5			G4/12000
FVH	(80°-90°)	832.2	3.5			G5
BL	(0°-30°)	1163.7	4.9	B3/2500		
BM	(30°-60°)	2924.8	12.2	B3/5000		
BH	(60°-80°)	1246.2	5.2	B3/2500		G3/2500
BVH	(80°-90°)	85.7	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	41°	45°	55°	65°	75°	85°
0°	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4
2.5°	2526.0	2555.2	2550.9	2545.5	2554.1	2555.2	2530.3	2540.1	2545.5	2554.1	2568.2
5°	2532.5	2561.7	2559.6	2549.8	2556.3	2559.6	2536.8	2554.1	2554.1	2557.4	2573.7
7.5°	2518.4	2546.6	2546.6	2543.3	2557.4	2570.4	2549.8	2565.0	2573.7	2582.3	2593.2
10°	2505.4	2529.2	2537.9	2535.7	2568.2	2571.5	2557.4	2594.3	2608.3	2617.0	2630.0
12.5°	2491.3	2520.5	2532.5	2544.4	2579.1	2591.0	2583.4	2621.4	2650.6	2665.8	2679.9
15°	2484.8	2517.3	2536.8	2554.1	2592.1	2613.8	2613.8	2671.2	2705.9	2725.4	2750.4
17.5°	2530.3	2563.9	2579.1	2593.2	2627.9	2657.1	2655.0	2722.2	2773.1	2803.5	2849.0
20°	2643.0	2683.2	2691.8	2697.2	2718.9	2729.8	2726.5	2799.2	2869.6	2927.1	2978.0
22.5°	2839.3	2863.1	2867.4	2845.8	2851.2	2859.9	2854.4	2894.6	2974.8	3042.0	3133.1
25°	2999.7	3037.7	3026.8	2995.4	2999.7	3011.6	2995.4	3057.2	3114.6	3202.4	3294.6
27.5°	3168.8	3197.0	3185.1	3165.6	3161.2	3152.6	3149.3	3228.5	3313.0	3382.4	3519.0
30°	3374.8	3390.0	3355.3	3346.6	3354.2	3359.6	3339.0	3439.9	3516.8	3616.6	3800.9
32.5°	3721.7	3735.8	3685.9	3552.6	3555.9	3580.8	3563.4	3690.3	3835.6	3957.0	4144.5
35°	4164.0	4164.0	4125.0	3937.5	3795.4	3796.5	3800.9	3979.7	4249.7	4521.8	4714.8
37.5°	4611.8	4626.9	4553.2	4381.9	4202.0	4106.6	4026.4	4256.2	4609.6	5216.7	5504.0
40°	5077.9	5101.8	4991.2	4834.0	4626.9	4518.5	4425.3	4565.2	5042.2	5905.1	6132.8
42.5°	5485.6	5519.2	5405.3	5239.5	5095.3	4972.8	4831.8	4888.2	5518.1	6558.8	6687.8
45°	5865.0	5883.4	5786.9	5650.3	5531.1	5463.9	5365.2	5430.3	6062.3	7198.4	7174.6
47.5°	6144.7	6171.8	6084.0	6010.3	5887.8	5847.6	5846.6	6025.4	6674.8	7708.0	7597.4
50°	6598.9	6578.3	6381.0	6291.0	6216.2	6229.2	6260.7	6569.7	7394.7	8199.1	7953.0
52.5°	7361.0	7323.1	6885.1	6697.6	6605.4	6647.7	6664.0	7062.9	8121.0	8622.9	8246.8
55°	8346.5	8225.1	7906.4	7403.3	7113.9	7154.0	7135.6	7593.0	8702.1	9027.3	8464.7
57.5°	8998.0	9111.9	8959.0	8671.7	7953.0	7821.8	7778.4	8117.8	9239.8	9414.3	8690.2
60°	9563.9	9752.6	9995.4	9811.1	9617.1	9126.0	8721.6	8714.0	9713.6	9672.4	8781.2
62.5°	10161.3	10261.0	10635.0	10748.9	11108.8	11018.8	10476.8	9468.5	10187.3	9861.0	8834.3
65°	9557.4	9690.8	10371.6	10992.8	12325.2	12455.2	12278.5	10871.4	10515.8	9957.5	8758.5
67.5°	8638.1	8711.8	9482.6	10560.2	12875.9	13073.2	12895.4	12248.2	10697.9	9915.2	8524.3
70°	7459.7	7546.4	8282.5	9752.6	12847.7	12873.7	12804.3	12375.0	10625.3	9716.8	7934.5
72.5°	6048.2	6157.7	6804.9	8331.3	12231.9	12344.7	12235.2	12123.5	10421.5	9161.7	6918.7
75°	4576.0	4721.3	5299.1	6642.3	10809.6	11377.6	11391.7	11736.5	9630.1	7854.3	5021.6
77.5°	3121.1	3259.9	3807.4	5060.6	8973.1	9880.5	10116.8	10494.1	8046.2	5804.3	2739.5
80°	1757.3	1744.3	2439.2	3615.5	6843.9	7640.7	7937.8	7922.6	5650.3	2980.2	558.3
82.5°	812.0	814.2	1247.8	2308.1	4633.5	5159.2	5279.6	4595.5	1982.8	505.2	177.8
85°	404.4	408.7	600.6	1157.8	2615.9	3022.5	2872.9	1912.4	425.0	147.4	106.2
87.5°	160.4	153.9	237.4	475.9	944.3	1000.6	873.8	382.7	77.0	52.0	35.8
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°	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4	2557.4
2.5°	2565.0	2567.2	2576.9	2557.4	2562.8	2558.5	2555.2	2572.6	2571.5	2574.7	2569.3
5°	2572.6	2578.0	2587.8	2579.1	2587.8	2583.4	2586.7	2610.5	2613.8	2612.7	2612.7
7.5°	2593.2	2598.6	2617.0	2606.2	2625.7	2620.3	2621.4	2644.1	2648.5	2642.0	2639.8
10°	2636.5	2640.9	2666.9	2664.7	2672.3	2668.0	2663.6	2673.4	2671.2	2661.5	2657.1
12.5°	2686.4	2698.3	2727.6	2728.7	2738.4	2716.8	2694.0	2690.7	2684.2	2669.1	2665.8
15°	2761.2	2775.3	2819.7	2808.9	2802.4	2755.8	2717.8	2687.5	2661.5	2648.5	2636.5
17.5°	2868.5	2892.4	2954.2	2920.6	2872.9	2804.6	2738.4	2672.3	2617.0	2570.4	2552.0
20°	3005.1	3032.2	3084.3	3039.8	2967.2	2865.3	2758.0	2638.7	2518.4	2415.4	2400.2
22.5°	3167.7	3211.1	3249.1	3147.1	3039.8	2910.8	2758.0	2586.7	2387.2	2233.2	2195.3
25°	3357.5	3391.1	3379.1	3236.0	3081.0	2918.4	2727.6	2494.5	2212.7	2033.8	2003.4
27.5°	3563.4	3578.6	3486.5	3278.3	3085.4	2874.0	2642.0	2330.8	2008.8	1867.9	1838.6
30°	3817.1	3771.6	3596.0	3304.3	3042.0	2775.3	2489.1	2091.2	1843.0	1719.4	1685.8
32.5°	4090.3	4006.8	3674.0	3285.9	2946.6	2610.5	2252.8	1922.1	1732.4	1581.7	1553.5
35°	4610.7	4373.3	3787.9	3230.6	2780.7	2390.4	2024.0	1792.0	1615.3	1453.8	1427.8
37.5°	5313.2	4900.1	3947.2	3153.7	2584.5	2176.9	1853.8	1653.3	1500.4	1333.4	1292.2
40°	5859.6	5432.4	4203.1	3071.3	2403.5	1974.1	1730.2	1580.6	1424.5	1246.7	1210.9
42.5°	6379.9	5919.2	4517.5	2979.1	2217.0	1833.2	1676.0	1564.4	1403.9	1222.9	1189.3
45°	6839.6	6312.7	4788.5	2887.0	2006.7	1703.1	1635.9	1532.9	1374.6	1192.5	1160.0
47.5°	7211.4	6651.0	5023.7	2787.2	1815.9	1604.5	1583.9	1475.5	1318.3	1130.7	1091.7
50°	7547.5	6937.2	5186.3	2681.0	1629.4	1524.2	1498.2	1370.3	1206.6	1040.7	1015.8
52.5°	7754.6	7131.2	5283.9	2698.3	1452.7	1434.3	1392.0	1260.8	1109.0	967.0	934.5
55°	7971.4	7314.4	5282.8	2600.8	1305.3	1298.8	1258.6	1157.8	1038.6	919.3	899.8
57.5°	8060.3	7330.7	5184.2	2142.2	1175.2	1134.0	1125.3	1072.2	968.1	855.4	833.7
60°	8119.9	7259.1	4997.7	1462.5	1011.5	982.2	1024.5	988.7	894.4	776.2	754.5
62.5°	8061.4	7181.1	4508.8	1055.9	886.8	903.1	943.2	904.1	805.5	698.2	679.7
65°	7921.5	6883.0	3560.2	822.8	831.5	867.3	898.7	833.7	652.6	546.4	535.5
67.5°	7539.9	6316.0	2290.7	754.5	800.1	836.9	847.8	705.8	590.8	488.9	477.0
70°	6736.6	5070.3	882.5	711.2	768.6	784.9	740.4	647.2	543.1	455.3	444.5
72.5°	5269.8	3329.3	509.5	650.5	701.4	686.2	687.3	581.1	490.0	406.5	397.9
75°	3275.1	1205.5	453.2	578.9	594.1	622.3	586.5	504.1	421.7	371.8	361.0
77.5°	1083.0	342.6	419.5	498.7	532.3	511.7	491.1	430.4	361.0	322.0	316.6
80°	262.4	256.9	376.2	390.3	417.4	382.7	380.5	357.8	304.6	281.9	276.4
82.5°	161.5	184.3	299.2	242.8	278.6	281.9	320.9	294.9	222.2	230.9	223.3
85°	99.7	142.0	157.2	117.1	118.2	158.3	191.9	177.8	133.3	125.8	124.7
87.5°	33.6	29.3	33.6	24.9	33.6	57.5	86.7	82.4	55.3	37.9	35.8
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)