

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: P157410

Luminaire Tested: **VST-E11-LED-E-U-5MQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157410
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33708)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E11-LED-E-U-5MQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (231) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35187.5 lumens
Efficiency: N/A
Efficacy: 130.5 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

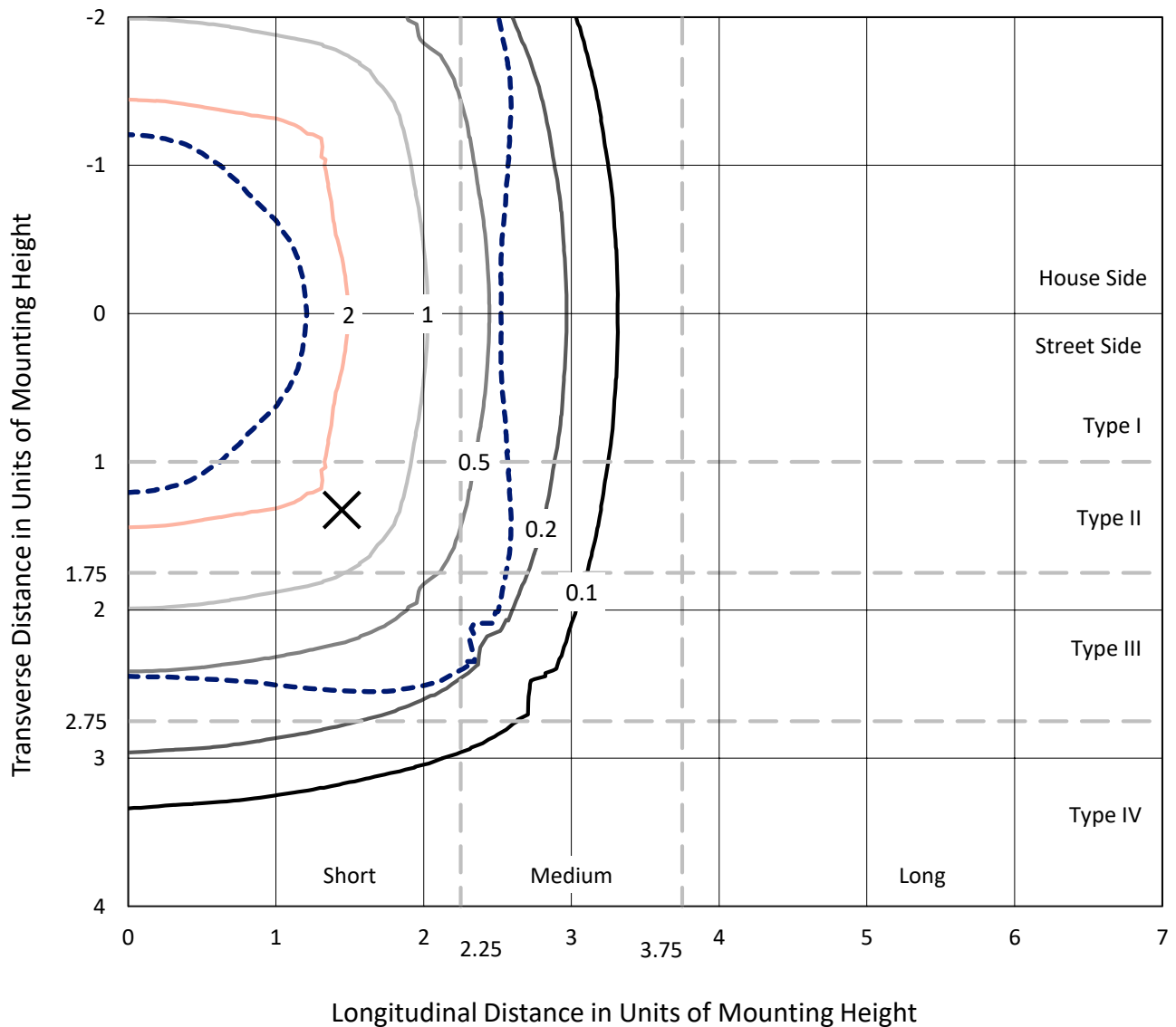
Input Watts (W): 269.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

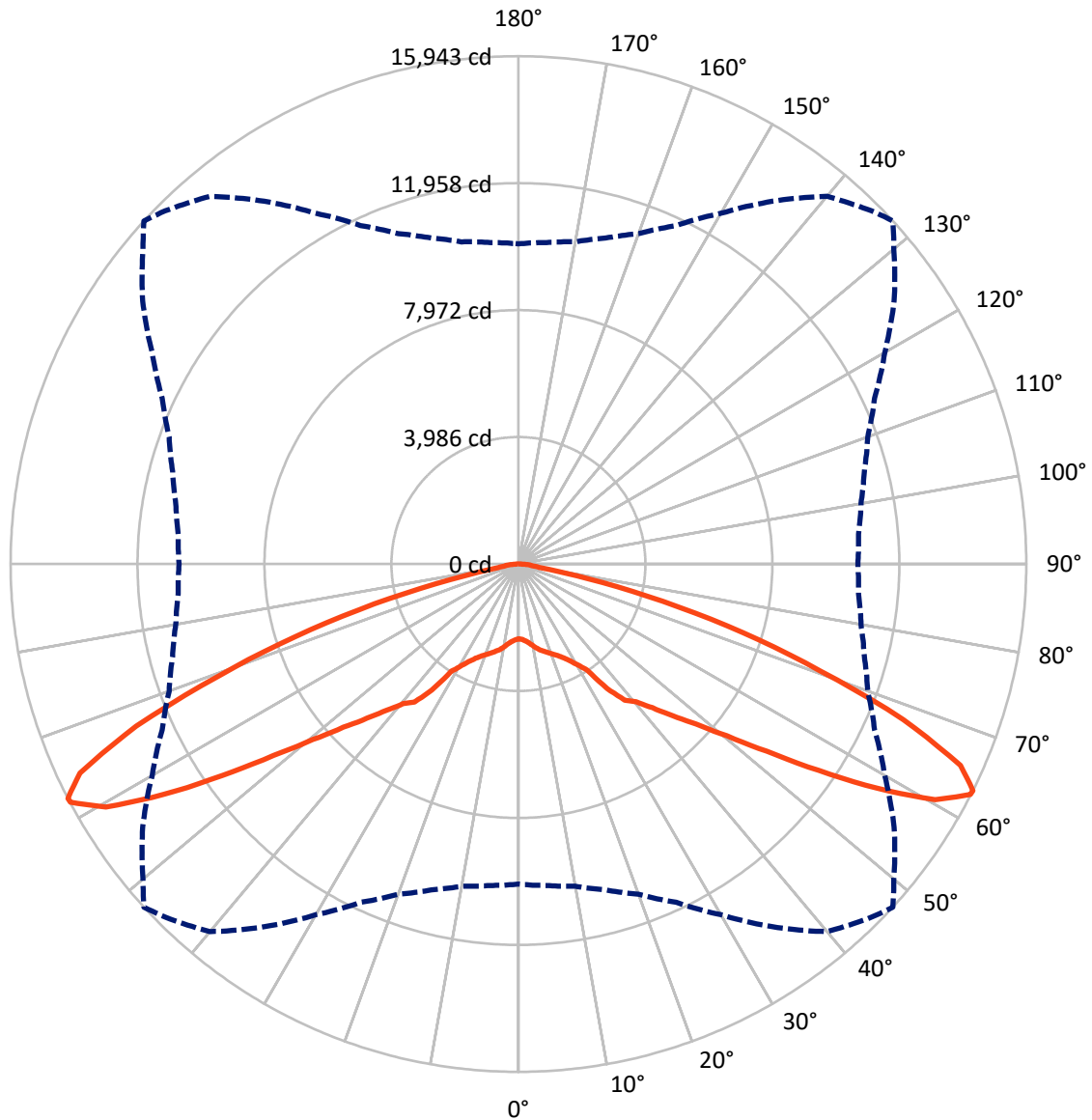
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 2.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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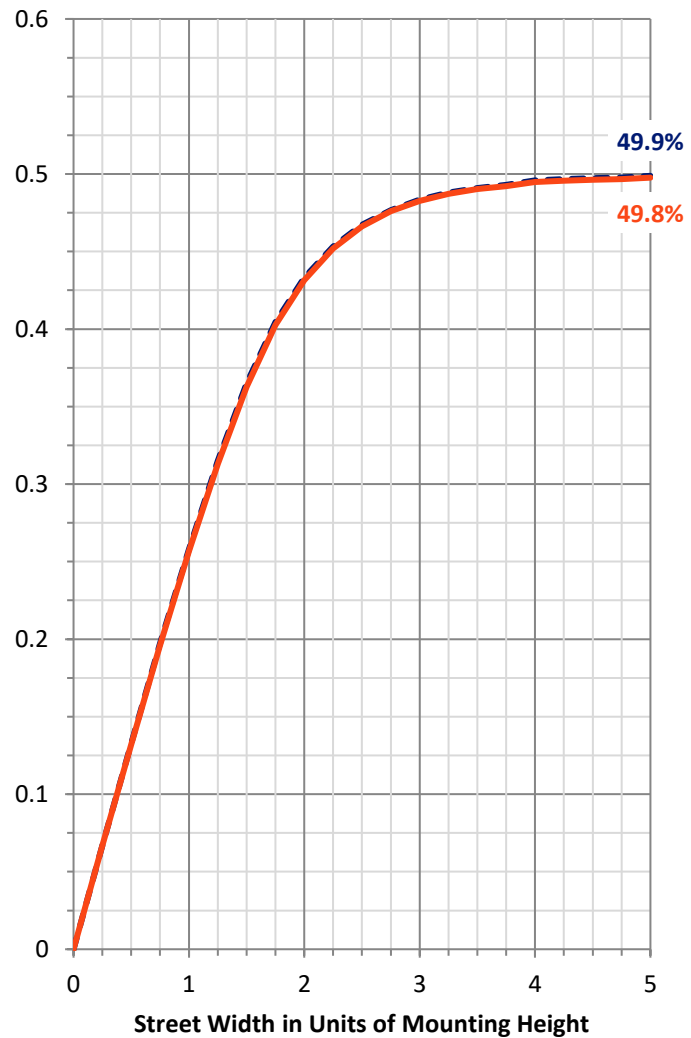
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17593.7	0.0	17593.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17593.7	0.0	17593.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	35187.5	0.0	35187.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.9	0.7
10°-20°	801.8	2.3
20°-30°	1533.8	4.4
30°-40°	2934.0	8.3
40°-50°	5076.7	14.4
50°-60°	9117.5	25.9
60°-70°	11087.1	31.5
70°-80°	4004.1	11.4
80°-90°	396.6	1.1
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°	35187.5	100.0
0°-180°	35187.5	100.0



--- HS — SS

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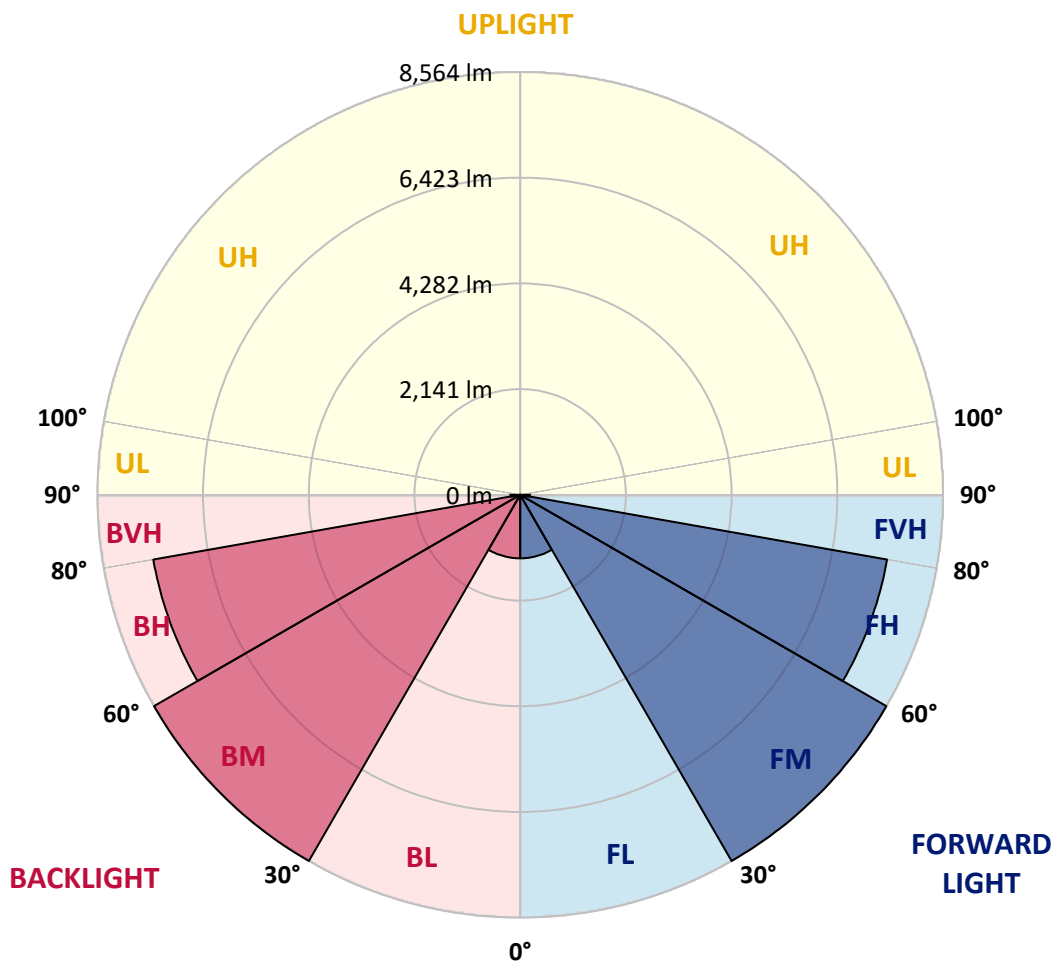
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1285.8	3.7			
FM	(30°-60°)	8564.1	24.3			
FH	(60°-80°)	7545.6	21.4			G4/12000
FVH	(80°-90°)	198.3	0.6			G2/225
BL	(0°-30°)	1285.8	3.7	B3/2500		
BM	(30°-60°)	8564.1	24.3	B5		
BH	(60°-80°)	7545.6	21.4	B5		G4/12000
BVH	(80°-90°)	198.3	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6
2.5°	2365.0	2360.6	2362.8	2365.0	2362.8	2360.6	2360.6	2360.6	2365.0	2360.6	2371.6
5°	2411.2	2406.8	2409.0	2409.0	2409.0	2404.6	2404.6	2404.6	2402.4	2404.6	2428.8
7.5°	2499.2	2492.6	2490.4	2494.8	2490.4	2488.2	2486.0	2486.0	2481.6	2481.6	2512.4
10°	2604.8	2596.0	2600.4	2602.6	2596.0	2591.6	2591.6	2591.6	2585.0	2582.8	2622.4
12.5°	2721.4	2717.0	2717.0	2712.6	2710.4	2706.0	2703.8	2706.0	2697.2	2697.2	2736.8
15°	2833.6	2824.8	2827.0	2820.4	2816.0	2811.6	2809.4	2807.2	2802.8	2802.8	2827.0
17.5°	2937.0	2930.4	2928.2	2921.6	2915.0	2908.4	2904.0	2901.8	2895.2	2895.2	2917.2
20°	3044.8	3038.2	3033.8	3022.8	3011.8	3005.2	2996.4	2992.0	2983.2	2985.4	3009.6
22.5°	3168.0	3157.0	3148.2	3139.4	3119.6	3106.4	3095.4	3086.6	3082.2	3082.2	3115.2
25°	3333.0	3326.4	3313.2	3284.6	3260.4	3240.6	3223.0	3214.2	3205.4	3201.0	3251.6
27.5°	3535.4	3528.8	3511.2	3482.6	3449.6	3416.6	3396.8	3381.4	3370.4	3363.8	3436.4
30°	3803.8	3792.8	3777.4	3731.2	3702.6	3652.0	3630.0	3608.0	3583.8	3590.4	3676.2
32.5°	4329.6	4314.2	4265.8	4215.2	4127.2	4059.0	3988.6	3935.8	3885.2	3878.6	3971.0
35°	4807.0	4800.4	4791.6	4756.4	4723.4	4681.6	4648.6	4593.6	4547.4	4536.4	4796.0
37.5°	5064.4	5079.8	5066.6	5062.2	5062.2	5082.0	5143.6	5205.2	5249.2	5275.6	5420.8
40°	5458.2	5458.2	5442.8	5434.0	5416.4	5442.8	5469.2	5515.4	5535.2	5537.4	5684.8
42.5°	5904.8	5907.0	5891.6	5865.2	5856.4	5880.6	5915.8	5959.8	5986.2	5992.8	6164.4
45°	6402.0	6395.4	6382.2	6373.4	6380.0	6402.0	6443.8	6529.6	6569.2	6600.0	6787.0
47.5°	6941.0	6985.0	6947.6	6954.2	6954.2	7022.4	7117.0	7187.4	7251.2	7310.6	7508.6
50°	7647.2	7653.8	7660.4	7680.2	7693.4	7783.6	7902.4	7986.0	8078.4	8155.4	8478.8
52.5°	8591.0	8577.8	8610.8	8632.8	8707.6	8756.0	8954.0	9059.6	9187.2	9286.2	9759.2
55°	9719.6	9713.0	9761.4	9779.0	9878.0	9996.8	10216.8	10447.8	10665.6	10786.6	11433.4
57.5°	10529.2	10546.8	10630.4	10747.0	10940.6	11193.6	11521.4	12031.8	12445.4	12577.4	13290.2
60°	10707.4	10764.6	10890.0	11123.2	11455.4	11926.2	12570.8	13351.8	14108.6	14361.6	15030.4
62.5°	10208.0	10274.0	10458.8	10738.2	11171.6	11869.0	12799.6	13901.8	15026.0	15589.2	15925.8
63°	10049.6	10131.0	10269.6	10593.0	11033.0	11721.6	12711.6	13899.6	15065.6	15679.4	15943.4
65°	9306.0	9321.4	9528.2	9851.6	10346.6	11061.6	12060.4	13433.2	14726.8	15435.2	15252.6
67.5°	8008.0	8071.8	8245.6	8571.2	9053.0	9796.6	10881.2	12150.6	13288.0	13853.4	13037.2
70°	6470.2	6465.8	6681.4	6943.2	7367.8	8021.2	8971.6	10117.8	11019.8	11431.2	10065.0
72.5°	4622.2	4507.8	4666.2	4956.6	5304.2	5825.6	6578.0	7469.0	8276.4	8632.8	7359.0
75°	2105.4	2074.6	2215.4	2503.6	2855.6	3319.8	3938.0	4708.0	5482.4	5900.4	4688.2
77.5°	708.4	717.2	772.2	875.6	1064.8	1298.0	1683.0	2175.8	2802.8	3216.4	2200.0
80°	475.2	488.4	506.0	521.4	543.4	578.6	662.2	789.8	983.4	1190.2	695.2
82.5°	389.4	404.8	444.4	462.0	475.2	486.2	492.8	501.6	501.6	506.0	440.0
85°	279.4	305.8	358.6	391.6	404.8	413.6	424.6	437.8	418.0	400.4	341.0
87.5°	96.8	132.0	193.6	213.4	228.8	231.0	246.4	272.8	259.6	211.2	103.4
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6	2349.6
2.5°	2360.6	2358.4	2360.6	2362.8	2362.8	2362.8	2365.0	2367.2	2367.2
5°	2404.6	2406.8	2404.6	2406.8	2406.8	2409.0	2409.0	2413.4	2413.4
7.5°	2479.4	2483.8	2481.6	2486.0	2486.0	2490.4	2488.2	2494.8	2494.8
10°	2580.6	2585.0	2589.4	2591.6	2589.4	2593.8	2598.2	2600.4	2598.2
12.5°	2695.0	2697.2	2695.0	2699.4	2699.4	2703.8	2703.8	2710.4	2710.4
15°	2800.6	2798.4	2796.2	2802.8	2807.2	2809.4	2813.8	2820.4	2813.8
17.5°	2895.2	2897.4	2893.0	2899.6	2908.4	2915.0	2919.4	2928.2	2926.0
20°	2989.8	2985.4	2989.8	3000.8	3009.6	3018.4	3027.2	3040.4	3038.2
22.5°	3082.2	3086.6	3097.6	3106.4	3121.8	3135.0	3146.0	3163.6	3170.2
25°	3212.0	3212.0	3229.6	3240.6	3262.6	3280.2	3304.4	3324.2	3335.2
27.5°	3377.0	3377.0	3396.8	3421.0	3454.0	3484.8	3511.2	3537.6	3533.2
30°	3601.4	3612.4	3630.0	3660.8	3704.8	3742.2	3777.4	3803.8	3806.0
32.5°	3896.2	3909.4	3962.2	4041.4	4133.8	4204.2	4257.0	4320.8	4329.6
35°	4565.0	4598.0	4666.2	4730.0	4767.4	4809.2	4835.6	4837.8	4842.2
37.5°	5269.0	5211.8	5159.0	5110.6	5088.6	5084.2	5084.2	5093.0	5097.4
40°	5526.4	5497.8	5473.6	5442.8	5451.6	5449.4	5464.8	5478.0	5486.8
42.5°	5966.4	5944.4	5922.4	5882.8	5904.8	5898.2	5920.2	5940.0	5951.0
45°	6580.2	6512.0	6463.6	6399.8	6421.8	6408.6	6408.6	6432.8	6437.2
47.5°	7257.8	7178.6	7079.6	7000.4	6974.0	6949.8	6971.8	6971.8	6947.6
50°	8069.6	7975.0	7858.4	7730.8	7686.8	7662.6	7671.4	7682.4	7614.2
52.5°	9171.8	9066.2	8901.2	8707.6	8665.8	8646.0	8641.6	8626.2	8608.6
55°	10665.6	10467.6	10265.2	10010.0	9933.0	9911.0	9913.2	9895.6	9937.4
57.5°	12427.8	12137.4	11671.0	11360.8	11176.0	11105.6	11041.8	11015.4	11017.6
60°	14172.4	13580.6	12883.2	12342.0	11954.8	11708.4	11514.8	11407.0	11376.2
62.5°	15296.6	14366.0	13318.8	12441.0	11805.2	11398.2	11092.4	10898.8	10837.2
63°	15384.6	14399.0	13279.2	12337.6	11668.8	11242.0	10920.8	10720.6	10654.6
65°	15193.2	14066.8	12762.2	11640.2	10907.6	10434.6	10087.0	9897.8	9847.2
67.5°	13706.0	12768.8	11440.0	10280.6	9541.4	9061.8	8663.6	8483.2	8426.0
70°	11149.6	10507.2	9418.2	8428.2	7739.6	7277.6	6875.0	6725.4	6723.2
72.5°	8265.4	7431.6	6782.6	6056.6	5456.0	5088.6	4738.8	4571.6	4488.0
75°	5467.0	4573.8	3847.8	3236.2	2637.8	2307.8	1914.0	1744.6	1645.6
77.5°	2754.4	2041.6	1463.0	1014.2	787.6	646.8	591.8	563.2	561.0
80°	917.4	688.6	591.8	554.4	543.4	545.6	539.0	528.0	514.8
82.5°	508.2	534.6	539.0	523.6	523.6	514.8	506.0	464.2	442.2
85°	435.6	479.6	484.0	475.2	473.0	459.8	444.4	387.2	354.2
87.5°	272.8	314.6	308.0	275.0	303.6	283.8	268.4	173.8	127.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)