

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: P510033

Luminaire Tested: **VERD-M-CA4-190-730-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510033
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-CA4-190-730-U-T4
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 3000K, 870mA LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27105 lumens
Efficiency: N/A
Efficacy: 140.4 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

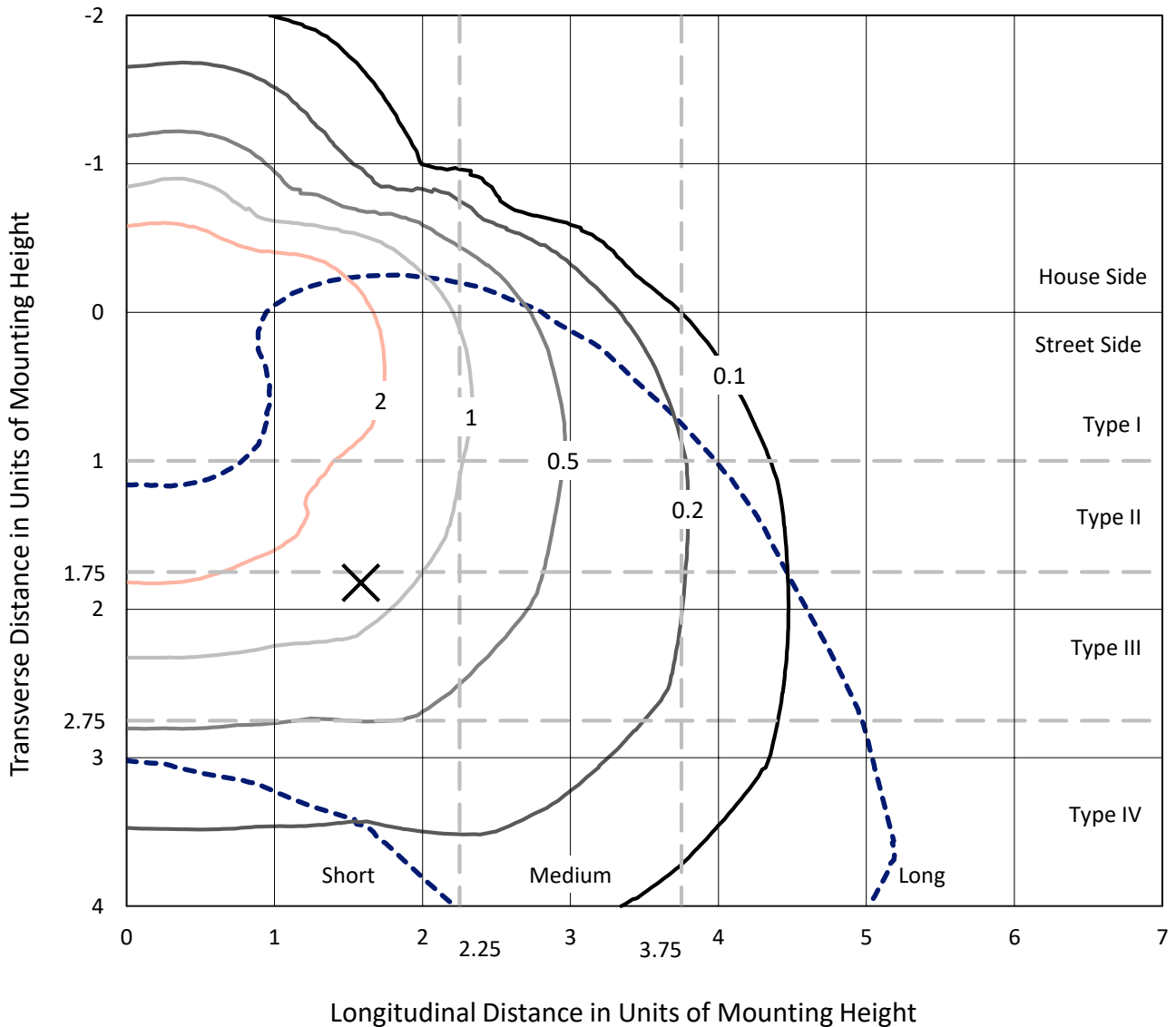
Input Watts (W): 193.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

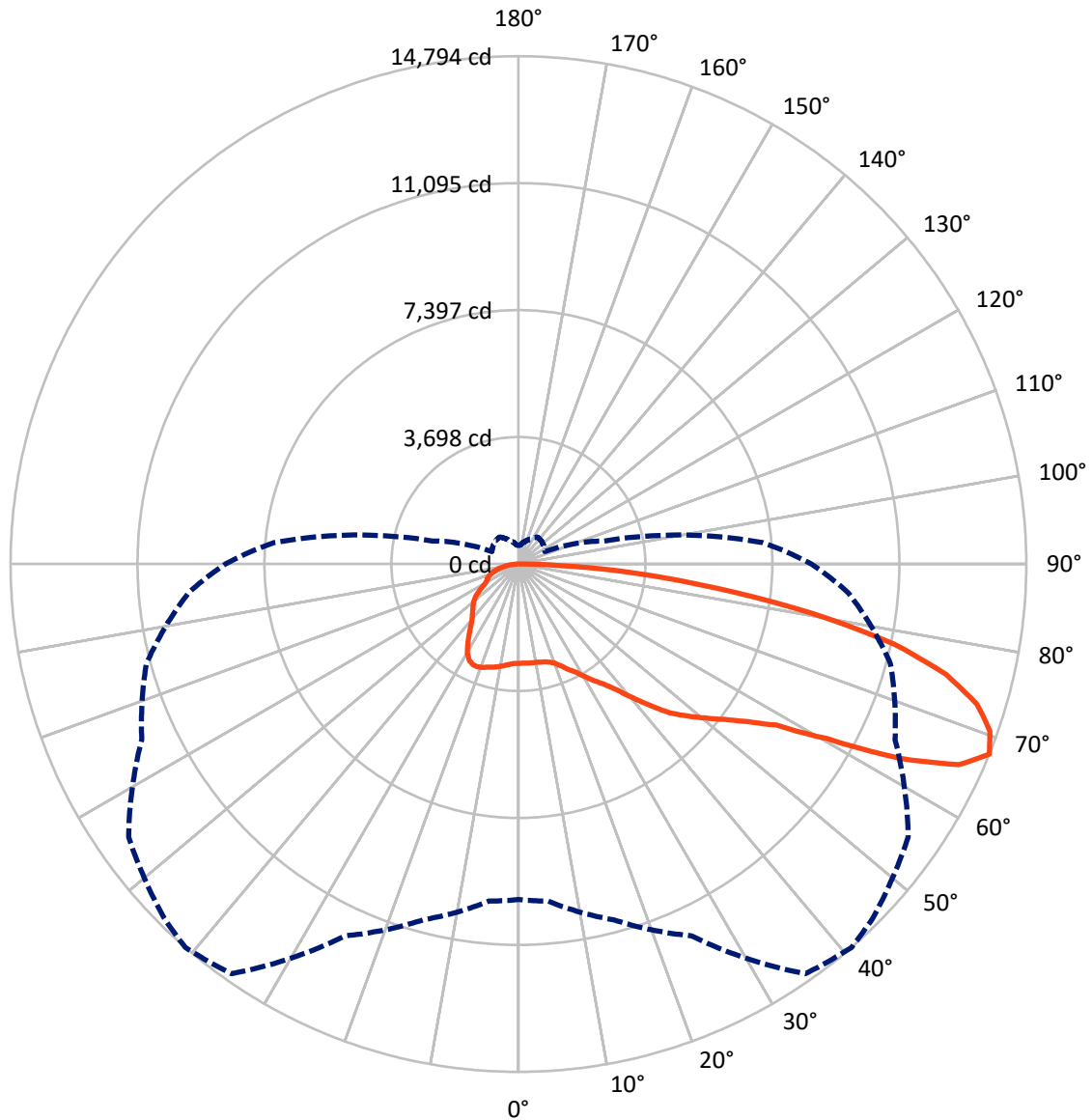
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 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
House Side	Lumens	6133.7	0.0	6133.7
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	20971.3	0.0	20971.3
	% Fixture	77.4	0.0	77.4
Total	Lumens	27105.0	0.0	27105.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.6	1.0
10°-20°	867.3	3.2
20°-30°	1551.0	5.7
30°-40°	2431.9	9.0
40°-50°	3771.2	13.9
50°-60°	5316.5	19.6
60°-70°	6777.2	25.0
70°-80°	5071.6	18.7
80°-90°	1038.7	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°	27105.0	100.0
0°-180°	27105.0	100.0

Coefficient of Utilization



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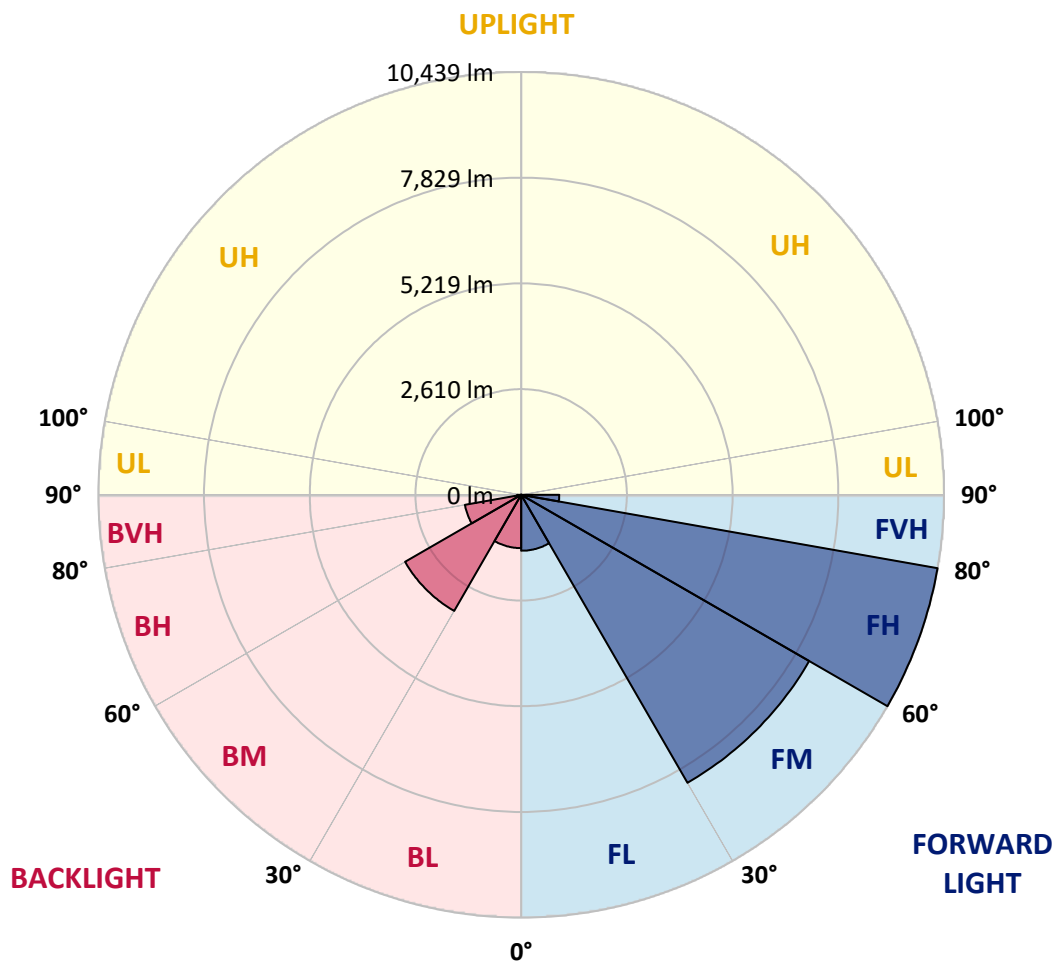
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1381.0	5.1			
FM (30°-60°)	8209.9	30.3			
FH (60°-80°)	10438.7	38.5			G4/12000
FVH (80°-90°)	941.7	3.5			G5
BL (0°-30°)	1316.9	4.9	B3/2500		
BM (30°-60°)	3309.7	12.2	B3/5000		
BH (60°-80°)	1410.1	5.2	B3/2500		G3/2500
BVH (80°-90°)	97.0	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°	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9
2.5°	2858.4	2891.5	2886.6	2880.4	2890.2	2891.5	2863.3	2874.3	2880.4	2890.2	2906.2
5°	2865.7	2898.8	2896.4	2885.3	2892.7	2896.4	2870.6	2890.2	2890.2	2893.9	2912.3
7.5°	2849.8	2881.7	2881.7	2878.0	2893.9	2908.6	2885.3	2902.5	2912.3	2922.1	2934.4
10°	2835.0	2862.0	2871.8	2869.4	2906.2	2909.9	2893.9	2935.6	2951.6	2961.4	2976.1
12.5°	2819.1	2852.2	2865.7	2879.2	2918.5	2932.0	2923.4	2966.3	2999.4	3016.6	3032.5
15°	2811.7	2848.5	2870.6	2890.2	2933.2	2957.7	2957.7	3022.7	3062.0	3084.1	3112.3
17.5°	2863.3	2901.3	2918.5	2934.4	2973.7	3006.8	3004.3	3080.4	3138.1	3172.4	3223.9
20°	2990.8	3036.2	3046.0	3052.2	3076.7	3089.0	3085.3	3167.5	3247.2	3312.3	3369.9
22.5°	3212.9	3239.9	3244.8	3220.2	3226.4	3236.2	3230.1	3275.4	3366.2	3442.3	3545.3
25°	3394.4	3437.4	3425.1	3389.5	3394.4	3407.9	3389.5	3459.5	3524.5	3623.8	3728.1
27.5°	3585.8	3617.7	3604.2	3582.1	3577.2	3567.4	3563.7	3653.3	3749.0	3827.5	3982.1
30°	3818.9	3836.1	3796.8	3787.0	3795.6	3801.7	3778.4	3892.5	3979.6	4092.5	4301.0
32.5°	4211.5	4227.4	4171.0	4020.1	4023.8	4052.0	4032.4	4175.9	4340.3	4477.7	4689.9
35°	4712.0	4712.0	4667.8	4455.6	4294.9	4296.1	4301.0	4503.4	4808.9	5116.8	5335.2
37.5°	5218.6	5235.8	5152.4	4958.6	4754.9	4647.0	4556.2	4816.3	5216.2	5903.2	6228.3
40°	5746.1	5773.1	5648.0	5470.1	5235.8	5113.1	5007.6	5165.9	5705.7	6682.2	6939.8
42.5°	6207.4	6245.4	6116.6	5928.9	5765.8	5627.1	5467.7	5531.5	6244.2	7421.9	7567.9
45°	6636.8	6657.6	6548.4	6393.9	6258.9	6182.9	6071.2	6144.8	6860.0	8145.7	8118.7
47.5°	6953.3	6983.9	6884.6	6801.2	6662.5	6617.1	6615.9	6818.3	7553.2	8722.3	8597.1
50°	7467.3	7444.0	7220.7	7118.9	7034.2	7049.0	7084.5	7434.2	8367.7	9278.0	8999.5
52.5°	8329.7	8286.8	7791.2	7578.9	7474.6	7522.5	7540.9	7992.3	9189.7	9757.6	9332.0
55°	9444.8	9307.4	8946.8	8377.5	8050.0	8095.4	8074.5	8592.2	9847.2	10215.2	9578.5
57.5°	10182.1	10310.9	10137.9	9812.9	8999.5	8851.1	8802.0	9186.0	10455.7	10653.2	9833.7
60°	10822.5	11035.9	11310.7	11102.2	10882.6	10326.9	9869.3	9860.7	10991.8	10945.1	9936.8
62.5°	11498.4	11611.3	12034.5	12163.3	12570.6	12468.8	11855.4	10714.5	11527.9	11158.6	9996.9
65°	10815.1	10966.0	11736.4	12439.3	13947.0	14094.2	13894.3	12301.9	11899.6	11267.8	9911.0
67.5°	9774.8	9858.2	10730.5	11949.9	14570.2	14793.5	14592.3	13859.9	12105.7	11219.9	9646.0
70°	8441.3	8539.5	9372.4	11035.9	14538.3	14567.8	14489.3	14003.5	12023.5	10995.4	8978.7
72.5°	6844.1	6968.0	7700.4	9427.6	13841.5	13969.1	13845.2	13718.9	11792.8	10367.3	7829.2
75°	5178.2	5342.5	5996.4	7516.4	12232.0	12874.8	12890.8	13280.9	10897.3	8887.9	5682.4
77.5°	3531.8	3688.9	4308.4	5726.5	10153.9	11180.7	11448.1	11875.0	9105.0	6568.1	3100.0
80°	1988.6	1973.9	2760.2	4091.2	7744.5	8646.2	8982.3	8965.2	6393.9	3372.4	631.8
82.5°	918.8	921.3	1412.0	2611.8	5243.2	5838.1	5974.3	5200.2	2243.7	571.7	201.2
85°	457.6	462.5	679.6	1310.2	2960.2	3420.2	3250.9	2164.0	480.9	166.8	120.2
87.5°	181.6	174.2	268.7	538.5	1068.5	1132.3	988.8	433.0	87.1	58.9	40.5
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°	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9
2.5°	2902.5	2905.0	2916.0	2893.9	2900.1	2895.2	2891.5	2911.1	2909.9	2913.6	2907.4
5°	2911.1	2917.2	2928.3	2918.5	2928.3	2923.4	2927.0	2954.0	2957.7	2956.5	2956.5
7.5°	2934.4	2940.5	2961.4	2949.1	2971.2	2965.1	2966.3	2992.1	2997.0	2989.6	2987.2
10°	2983.5	2988.4	3017.8	3015.4	3024.0	3019.1	3014.1	3025.2	3022.7	3011.7	3006.8
12.5°	3039.9	3053.4	3086.5	3087.8	3098.8	3074.3	3048.5	3044.8	3037.5	3020.3	3016.6
15°	3124.6	3140.5	3190.8	3178.5	3171.2	3118.4	3075.5	3041.1	3011.7	2997.0	2983.5
17.5°	3246.0	3273.0	3342.9	3304.9	3250.9	3173.6	3098.8	3024.0	2961.4	2908.6	2887.8
20°	3400.6	3431.2	3490.1	3439.8	3357.6	3242.3	3120.9	2985.9	2849.8	2733.2	2716.0
22.5°	3584.6	3633.7	3676.6	3561.3	3439.8	3293.8	3120.9	2927.0	2701.3	2527.1	2484.2
25°	3799.3	3837.3	3823.8	3661.9	3486.5	3302.4	3086.5	2822.8	2503.8	2301.4	2267.1
27.5°	4032.4	4049.5	3945.3	3709.7	3491.4	3252.1	2989.6	2637.5	2273.2	2113.7	2080.6
30°	4319.4	4267.9	4069.2	3739.2	3442.3	3140.5	2816.6	2366.4	2085.5	1945.6	1907.6
32.5°	4628.6	4534.1	4157.5	3718.3	3334.3	2954.0	2549.2	2175.0	1960.4	1789.8	1757.9
35°	5217.4	4948.7	4286.3	3655.7	3146.6	2705.0	2290.4	2027.8	1827.9	1645.1	1615.6
37.5°	6012.3	5545.0	4466.6	3568.6	2924.6	2463.3	2097.8	1870.8	1697.8	1508.9	1462.3
40°	6630.6	6147.3	4756.1	3475.4	2719.7	2233.9	1957.9	1788.6	1612.0	1410.8	1370.3
42.5°	7219.5	6698.1	5111.9	3371.1	2508.7	2074.5	1896.6	1770.2	1588.7	1383.8	1345.8
45°	7739.6	7143.4	5418.6	3266.9	2270.7	1927.2	1851.2	1734.6	1555.5	1349.4	1312.6
47.5°	8160.4	7526.2	5684.8	3154.0	2054.8	1815.6	1792.3	1669.6	1491.7	1279.5	1235.3
50°	8540.7	7850.0	5868.8	3033.8	1843.8	1724.8	1695.4	1550.6	1365.4	1177.7	1149.5
52.5°	8775.0	8069.6	5979.2	3053.4	1643.9	1623.0	1575.2	1426.7	1255.0	1094.3	1057.5
55°	9020.4	8276.9	5978.0	2943.0	1477.0	1469.7	1424.3	1310.2	1175.2	1040.3	1018.2
57.5°	9121.0	8295.3	5866.4	2424.1	1329.8	1283.2	1273.4	1213.3	1095.5	967.9	943.4
60°	9188.4	8214.4	5655.4	1654.9	1144.6	1111.4	1159.3	1118.8	1012.1	878.4	853.8
62.5°	9122.2	8126.1	5102.1	1194.9	1003.5	1021.9	1067.3	1023.1	911.5	790.0	769.2
65°	8963.9	7788.7	4028.7	931.1	940.9	981.4	1017.0	943.4	738.5	618.3	606.0
67.5°	8532.1	7147.1	2592.1	853.8	905.3	947.1	959.3	798.6	668.6	553.3	539.8
70°	7623.1	5737.6	998.6	804.8	869.8	888.2	837.9	732.4	614.6	515.2	503.0
72.5°	5963.3	3767.4	576.6	736.1	793.7	776.5	777.8	657.5	554.5	460.0	450.2
75°	3706.0	1364.2	512.8	655.1	672.3	704.2	663.7	570.4	477.2	420.8	408.5
77.5°	1225.5	387.7	474.8	564.3	602.3	579.0	555.7	487.0	408.5	364.3	358.2
80°	296.9	290.7	425.7	441.6	472.3	433.0	430.6	404.8	344.7	319.0	312.8
82.5°	182.8	208.5	338.6	274.8	315.3	319.0	363.1	333.7	251.5	261.3	252.7
85°	112.9	160.7	177.9	132.5	133.7	179.1	217.1	201.2	150.9	142.3	141.1
87.5°	38.0	33.1	38.0	28.2	38.0	65.0	98.1	93.2	62.6	42.9	40.5
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)