

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: P510161

Luminaire Tested: **VERD-M-CA4-220-722-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510161
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-CA4-220-722-U-T4
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2200K, 1000mA LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25387 lumens
Efficiency: N/A
Efficacy: 114.1 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

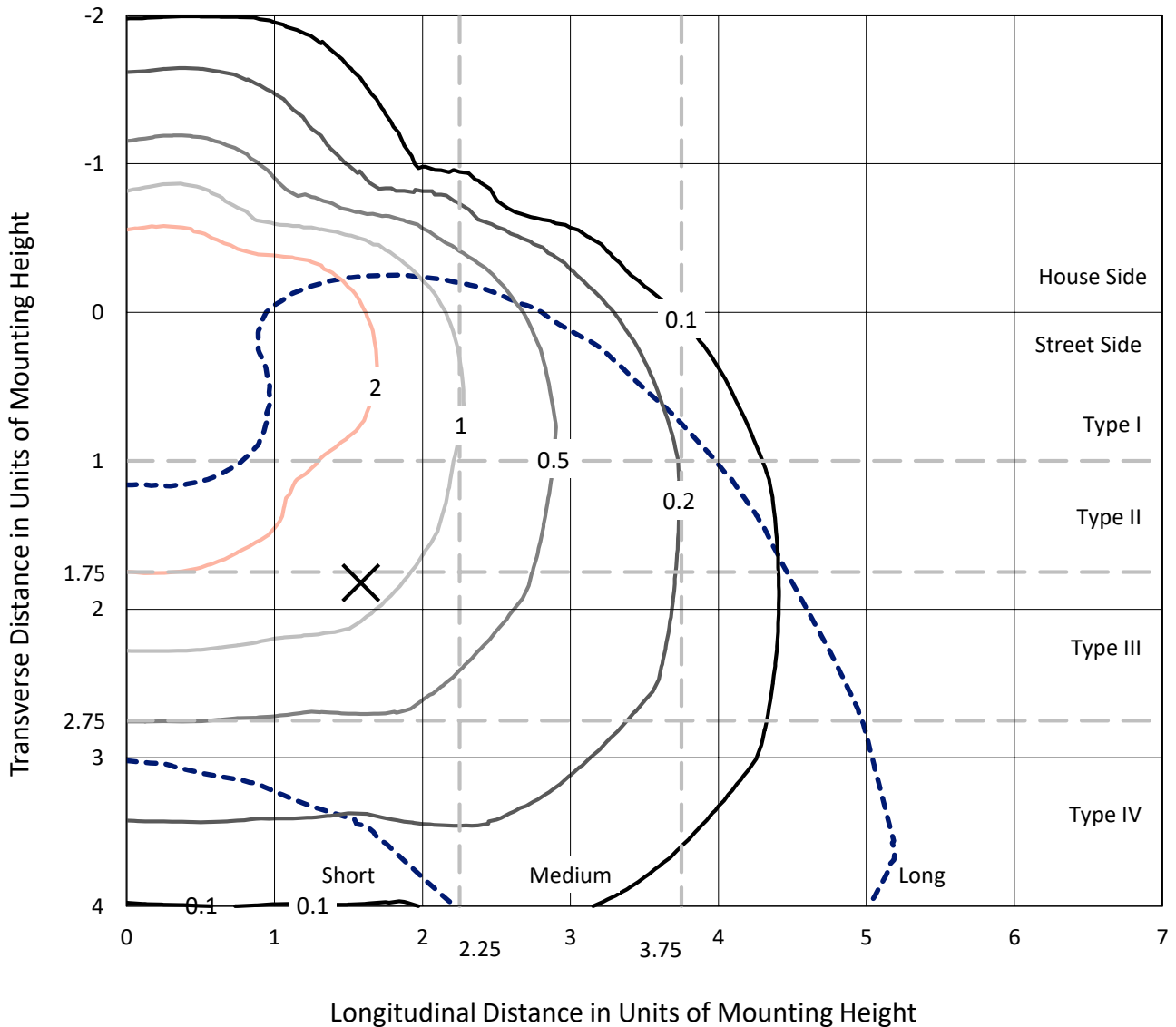
Input Watts (W): 222.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

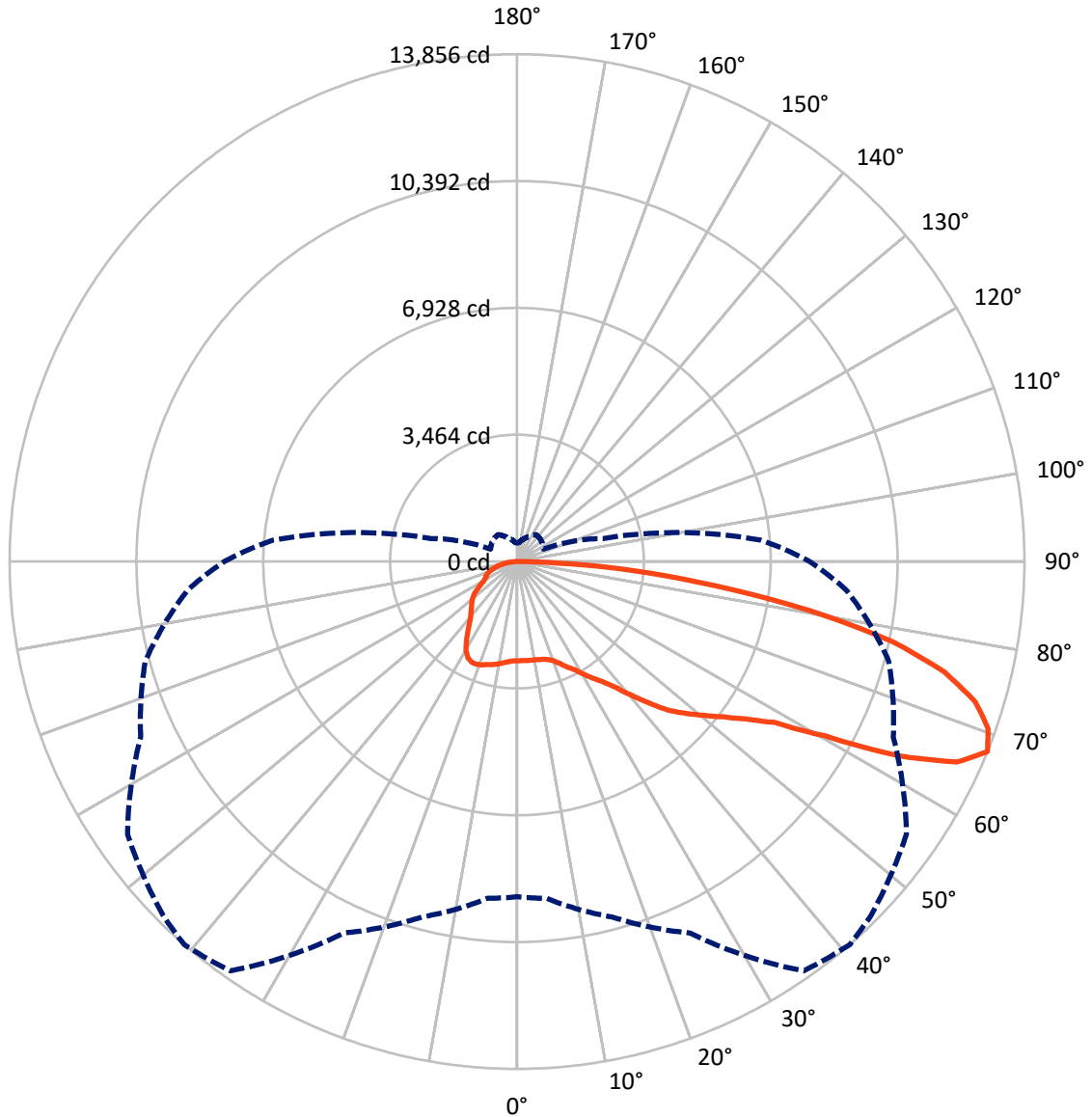
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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	5745.0	0.0	5745.0
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	19642.0	0.0	19642.0
	% Fixture	77.4	0.0	77.4
Total	Lumens	25387.0	0.0	25387.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.9	1.0
10°-20°	812.3	3.2
20°-30°	1452.7	5.7
30°-40°	2277.8	9.0
40°-50°	3532.2	13.9
50°-60°	4979.5	19.6
60°-70°	6347.6	25.0
70°-80°	4750.2	18.7
80°-90°	972.9	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°	25387.0	100.0
0°-180°	25387.0	100.0

Coefficient of Utilization



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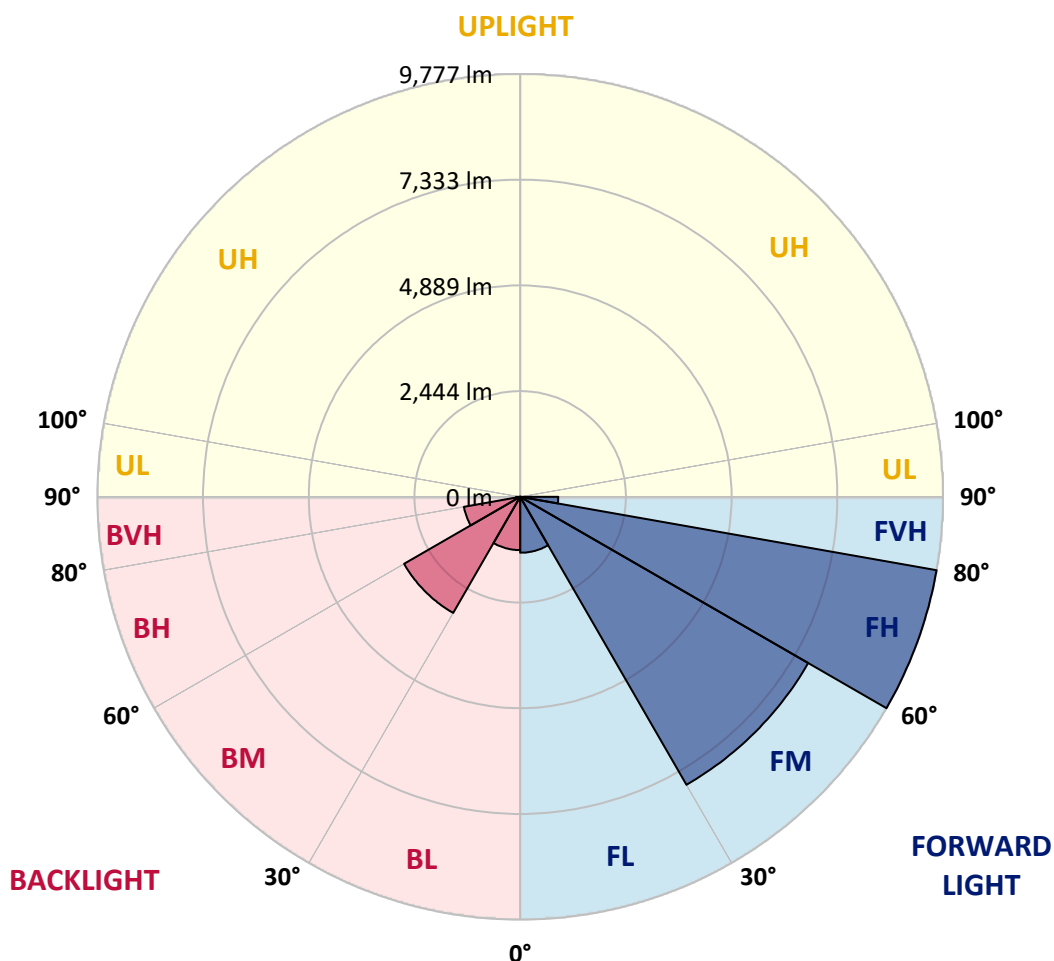
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1293.5	5.1			
FM	(30°-60°)	7689.5	30.3			
FH	(60°-80°)	9777.0	38.5			G4/12000
FVH	(80°-90°)	882.0	3.5			G5
BL	(0°-30°)	1233.4	4.9	B3/2500		
BM	(30°-60°)	3099.9	12.2	B3/5000		
BH	(60°-80°)	1320.8	5.2	B3/2500		G3/2500
BVH	(80°-90°)	90.9	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°	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5
2.5°	2677.2	2708.2	2703.6	2697.9	2707.1	2708.2	2681.8	2692.1	2697.9	2707.1	2722.0
5°	2684.1	2715.1	2712.8	2702.5	2709.4	2712.8	2688.7	2707.1	2707.1	2710.5	2727.7
7.5°	2669.1	2699.0	2699.0	2695.6	2710.5	2724.3	2702.5	2718.5	2727.7	2736.9	2748.4
10°	2655.3	2680.6	2689.8	2687.5	2722.0	2725.4	2710.5	2749.6	2764.5	2773.7	2787.5
12.5°	2640.4	2671.4	2684.1	2696.7	2733.5	2746.1	2738.1	2778.3	2809.3	2825.4	2840.3
15°	2633.5	2668.0	2688.7	2707.1	2747.3	2770.2	2770.2	2831.1	2867.9	2888.6	2915.0
17.5°	2681.8	2717.4	2733.5	2748.4	2785.2	2816.2	2813.9	2885.1	2939.2	2971.3	3019.6
20°	2801.3	2843.8	2853.0	2858.7	2881.7	2893.2	2889.7	2966.7	3041.4	3102.3	3156.3
22.5°	3009.2	3034.5	3039.1	3016.1	3021.9	3031.1	3025.3	3067.8	3152.9	3224.1	3320.6
25°	3179.3	3219.5	3208.0	3174.7	3179.3	3191.9	3174.7	3240.2	3301.1	3394.2	3491.8
27.5°	3358.5	3388.4	3375.8	3355.1	3350.5	3341.3	3337.9	3421.7	3511.4	3584.9	3729.7
30°	3576.8	3592.9	3556.2	3547.0	3555.0	3560.8	3538.9	3645.8	3727.4	3833.1	4028.4
32.5°	3944.5	3959.5	3906.6	3765.3	3768.7	3795.2	3776.8	3911.2	4065.2	4193.9	4392.6
35°	4413.3	4413.3	4372.0	4173.2	4022.7	4023.8	4028.4	4218.0	4504.1	4792.5	4997.0
37.5°	4887.9	4903.9	4825.8	4644.3	4453.5	4352.4	4267.4	4511.0	4885.6	5529.0	5833.5
40°	5381.9	5407.2	5290.0	5123.4	4903.9	4789.0	4690.2	4838.5	5344.0	6258.6	6499.9
42.5°	5814.0	5849.6	5728.9	5553.1	5400.3	5270.5	5121.1	5180.9	5848.4	6951.5	7088.2
45°	6216.1	6235.6	6133.4	5988.6	5862.2	5791.0	5686.4	5755.4	6425.2	7629.4	7604.1
47.5°	6512.6	6541.3	6448.2	6370.1	6240.2	6197.7	6196.6	6386.2	7074.4	8169.4	8052.2
50°	6994.0	6972.2	6763.0	6667.7	6588.4	6602.2	6635.5	6963.0	7837.4	8689.9	8429.1
52.5°	7801.7	7761.5	7297.3	7098.5	7000.9	7045.7	7062.9	7485.8	8607.2	9139.2	8740.5
55°	8846.2	8717.5	8379.7	7846.5	7539.8	7582.3	7562.7	8047.6	9223.1	9567.8	8971.4
57.5°	9536.7	9657.4	9495.4	9190.9	8429.1	8290.1	8244.1	8603.7	9793.0	9977.9	9210.4
60°	10136.5	10336.4	10593.8	10398.5	10192.8	9672.3	9243.7	9235.7	10295.1	10251.4	9306.9
62.5°	10769.6	10875.3	11271.7	11392.4	11773.8	11678.5	11104.0	10035.4	10797.2	10451.3	9363.2
65°	10129.6	10270.9	10992.5	11650.9	13063.0	13200.9	13013.6	11522.2	11145.3	10553.6	9282.8
67.5°	9155.3	9233.4	10050.3	11192.4	13646.7	13855.8	13667.4	12981.4	11338.4	10508.8	9034.6
70°	7906.3	7998.2	8778.4	10336.4	13616.8	13644.4	13570.9	13115.9	11261.4	10298.5	8409.6
72.5°	6410.3	6526.3	7212.3	8830.1	12964.2	13083.7	12967.7	12849.3	11045.4	9710.2	7332.9
75°	4849.9	5003.9	5616.3	7039.9	11456.7	12058.8	12073.7	12439.1	10206.6	8324.5	5322.2
77.5°	3308.0	3455.1	4035.3	5363.5	9510.3	10472.0	10722.5	11122.4	8527.9	6151.8	2903.5
80°	1862.5	1848.7	2585.3	3831.9	7253.7	8098.2	8413.0	8396.9	5988.6	3158.6	591.7
82.5°	860.6	862.9	1322.5	2446.2	4910.8	5468.1	5595.6	4870.6	2101.5	535.4	188.4
85°	428.6	433.2	636.5	1227.1	2772.5	3203.4	3044.9	2026.8	450.4	156.3	112.6
87.5°	170.1	163.2	251.6	504.4	1000.8	1060.5	926.1	405.6	81.6	55.2	37.9
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°	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5	2710.5
2.5°	2718.5	2720.8	2731.2	2710.5	2716.2	2711.6	2708.2	2726.6	2725.4	2728.9	2723.1
5°	2726.6	2732.3	2742.7	2733.5	2742.7	2738.1	2741.5	2766.8	2770.2	2769.1	2769.1
7.5°	2748.4	2754.2	2773.7	2762.2	2782.9	2777.1	2778.3	2802.4	2807.0	2800.1	2797.8
10°	2794.4	2799.0	2826.5	2824.3	2832.3	2827.7	2823.1	2833.4	2831.1	2820.8	2816.2
12.5°	2847.2	2859.9	2890.9	2892.0	2902.4	2879.4	2855.3	2851.8	2844.9	2828.8	2825.4
15°	2926.5	2941.4	2988.6	2977.1	2970.2	2920.8	2880.6	2848.4	2820.8	2807.0	2794.4
17.5°	3040.3	3065.5	3131.0	3095.4	3044.9	2972.5	2902.4	2832.3	2773.7	2724.3	2704.8
20°	3185.0	3213.8	3268.9	3221.8	3144.8	3036.8	2923.1	2796.7	2669.1	2560.0	2543.9
22.5°	3357.4	3403.3	3443.6	3335.6	3221.8	3085.1	2923.1	2741.5	2530.1	2366.9	2326.7
25°	3558.5	3594.1	3581.4	3429.8	3265.5	3093.1	2890.9	2643.9	2345.1	2155.5	2123.4
27.5°	3776.8	3792.9	3695.2	3474.6	3270.1	3046.0	2800.1	2470.4	2129.1	1979.7	1948.7
30°	4045.6	3997.4	3811.2	3502.2	3224.1	2941.4	2638.1	2216.4	1953.3	1822.3	1786.7
32.5°	4335.2	4246.7	3894.0	3482.6	3123.0	2766.8	2387.6	2037.2	1836.1	1676.4	1646.5
35°	4886.7	4635.1	4014.6	3424.0	2947.2	2533.6	2145.2	1899.3	1712.0	1540.8	1513.2
37.5°	5631.3	5193.5	4183.5	3342.5	2739.2	2307.2	1964.8	1752.2	1590.2	1413.3	1369.6
40°	6210.4	5757.7	4454.7	3255.1	2547.3	2092.3	1833.8	1675.2	1509.8	1321.4	1283.4
42.5°	6761.9	6273.6	4787.9	3157.5	2349.7	1943.0	1776.4	1658.0	1488.0	1296.1	1260.5
45°	7249.1	6690.6	5075.1	3059.8	2126.8	1805.1	1733.8	1624.7	1456.9	1263.9	1229.4
47.5°	7643.2	7049.1	5324.5	2954.1	1924.6	1700.5	1678.7	1563.8	1397.2	1198.4	1157.0
50°	7999.4	7352.5	5496.8	2841.5	1727.0	1615.5	1587.9	1452.3	1278.8	1103.0	1076.6
52.5°	8218.8	7558.1	5600.2	2859.9	1539.7	1520.1	1475.3	1336.3	1175.4	1024.9	990.4
55°	8448.6	7752.3	5599.1	2756.5	1383.4	1376.5	1334.0	1227.1	1100.7	974.4	953.7
57.5°	8542.8	7769.6	5494.5	2270.4	1245.5	1201.9	1192.7	1136.4	1026.1	906.6	883.6
60°	8606.0	7693.7	5296.9	1550.0	1072.0	1041.0	1085.8	1047.9	947.9	822.7	799.7
62.5°	8544.0	7611.0	4778.7	1119.1	939.9	957.1	999.6	958.3	853.7	740.0	720.4
65°	8395.8	7295.0	3773.3	872.1	881.3	919.2	952.5	883.6	691.7	579.1	567.6
67.5°	7991.3	6694.1	2427.8	799.7	848.0	887.0	898.5	748.0	626.2	518.2	505.6
70°	7139.9	5373.9	935.3	753.7	814.6	831.9	784.8	686.0	575.7	482.6	471.1
72.5°	5585.3	3528.6	540.0	689.4	743.4	727.3	728.5	615.9	519.3	430.9	421.7
75°	3471.1	1277.7	480.3	613.6	629.7	659.5	621.6	534.3	447.0	394.1	382.6
77.5°	1147.9	363.1	444.7	528.5	564.2	542.3	520.5	456.2	382.6	341.3	335.5
80°	278.1	272.3	398.7	413.6	442.4	405.6	403.3	379.2	322.9	298.7	293.0
82.5°	171.2	195.3	317.1	257.4	295.3	298.7	340.1	312.5	235.5	244.7	236.7
85°	105.7	150.5	166.6	124.1	125.2	167.8	203.4	188.4	141.3	133.3	132.1
87.5°	35.6	31.0	35.6	26.4	35.6	60.9	91.9	87.3	58.6	40.2	37.9
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)