

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: P510176

Luminaire Tested: **VERD-M-CA4-220-730-U-T4-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510176  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA4-220-730-U-T4-HSS  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 3000K, 1000mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

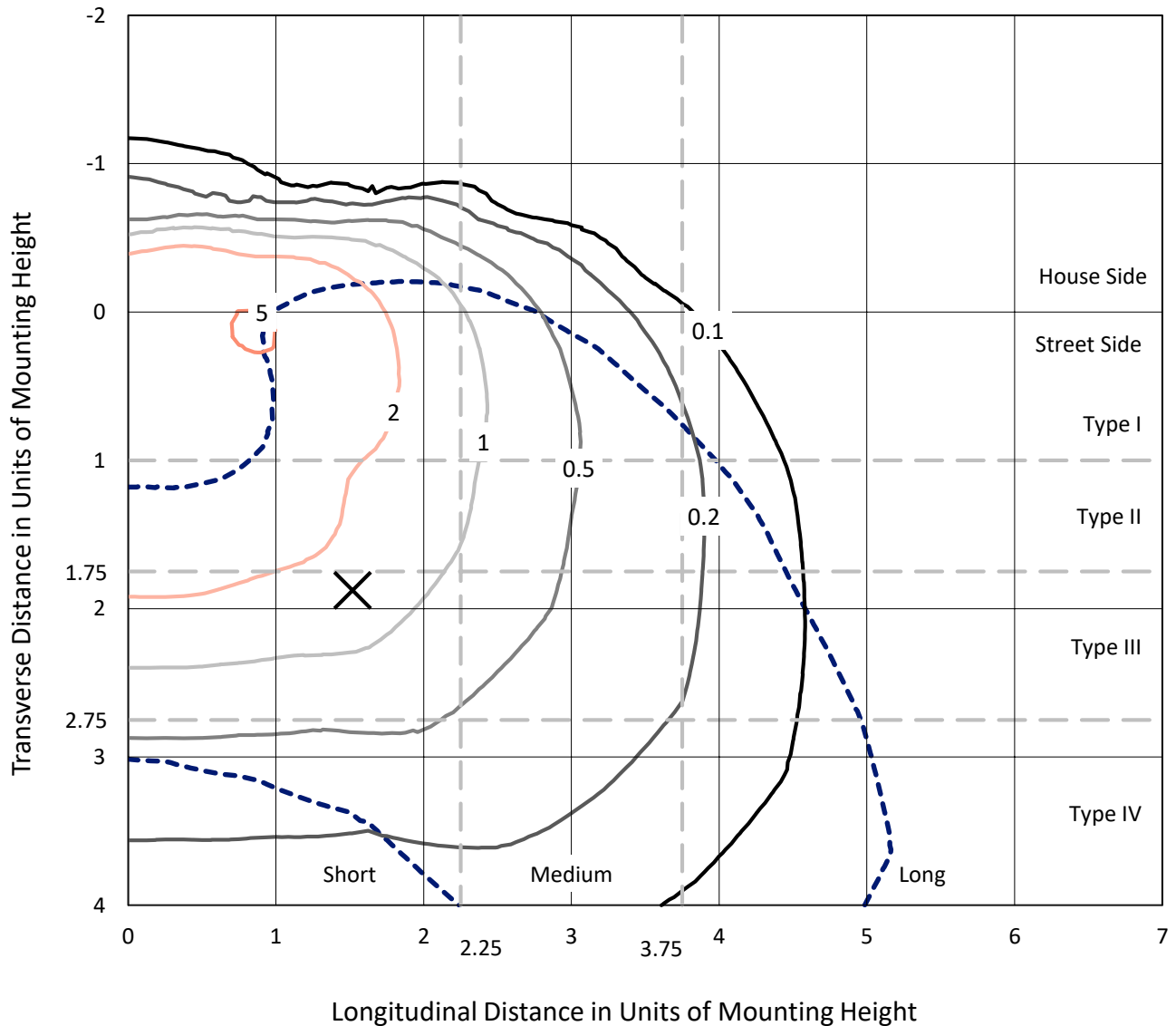
Lumens per Lamp: N/A  
Luminaire Lumens: 27550 lumens  
Efficiency: N/A  
Efficacy: 123.8 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 222.5  
Input Voltage (V): NR  
Input Current (Ain): 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

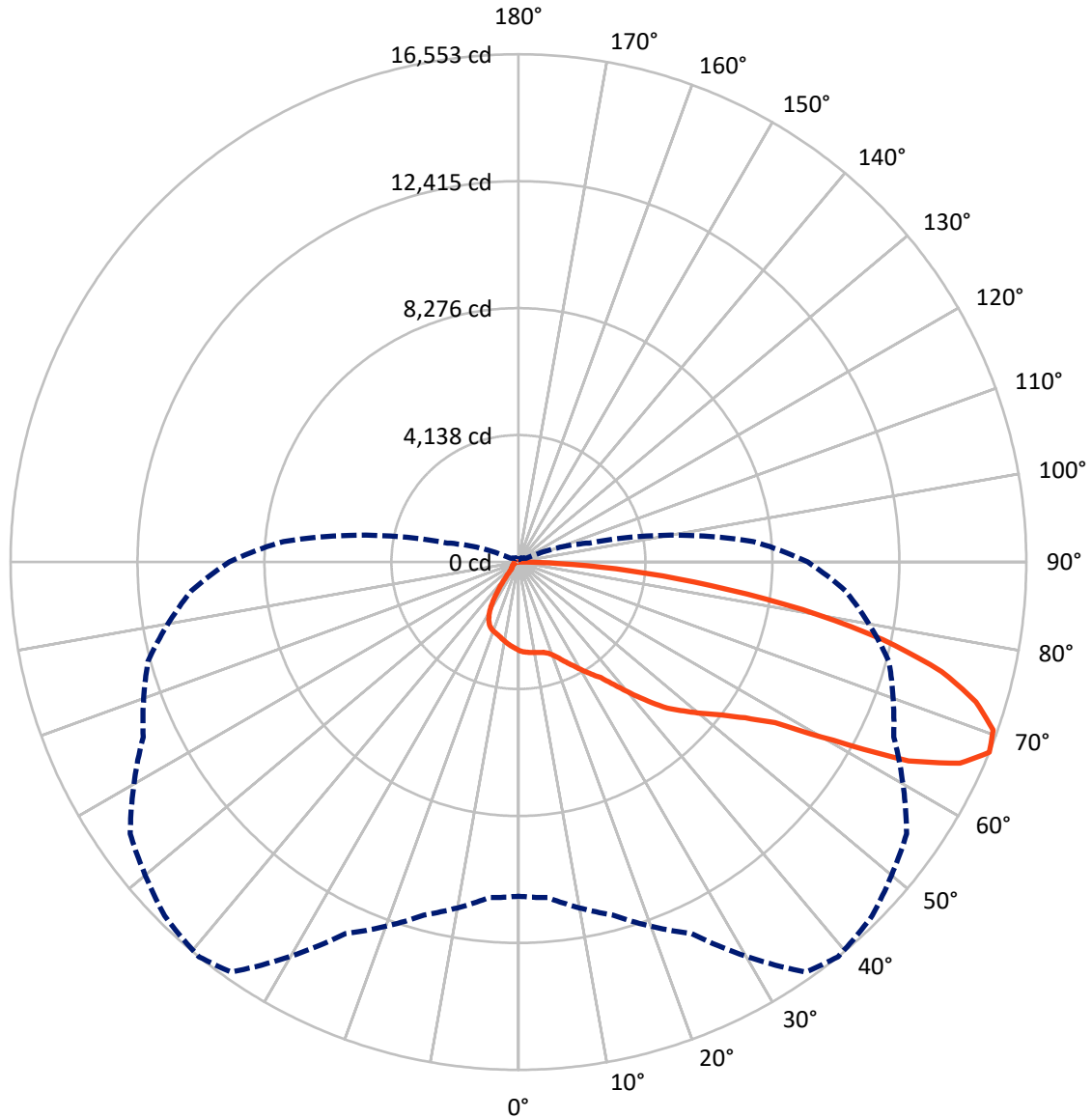
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4423.8	0.0	4423.8
	% Fixture	16.1	0.0	16.1
<b>Street Side</b>	Lumens	23126.2	0.0	23126.2
	% Fixture	83.9	0.0	83.9
<b>Total</b>	Lumens	27550.0	0.0	27550.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	272.3	1.0
10°-20°	810.6	2.9
20°-30°	1436.1	5.2
30°-40°	2300.1	8.3
40°-50°	3689.9	13.4
50°-60°	5393.5	19.6
60°-70°	7187.1	26.1
70°-80°	5393.3	19.6
80°-90°	1067.1	3.9
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°	27550.0	100.0
0°-180°	27550.0	100.0

**Coefficient of Utilization**



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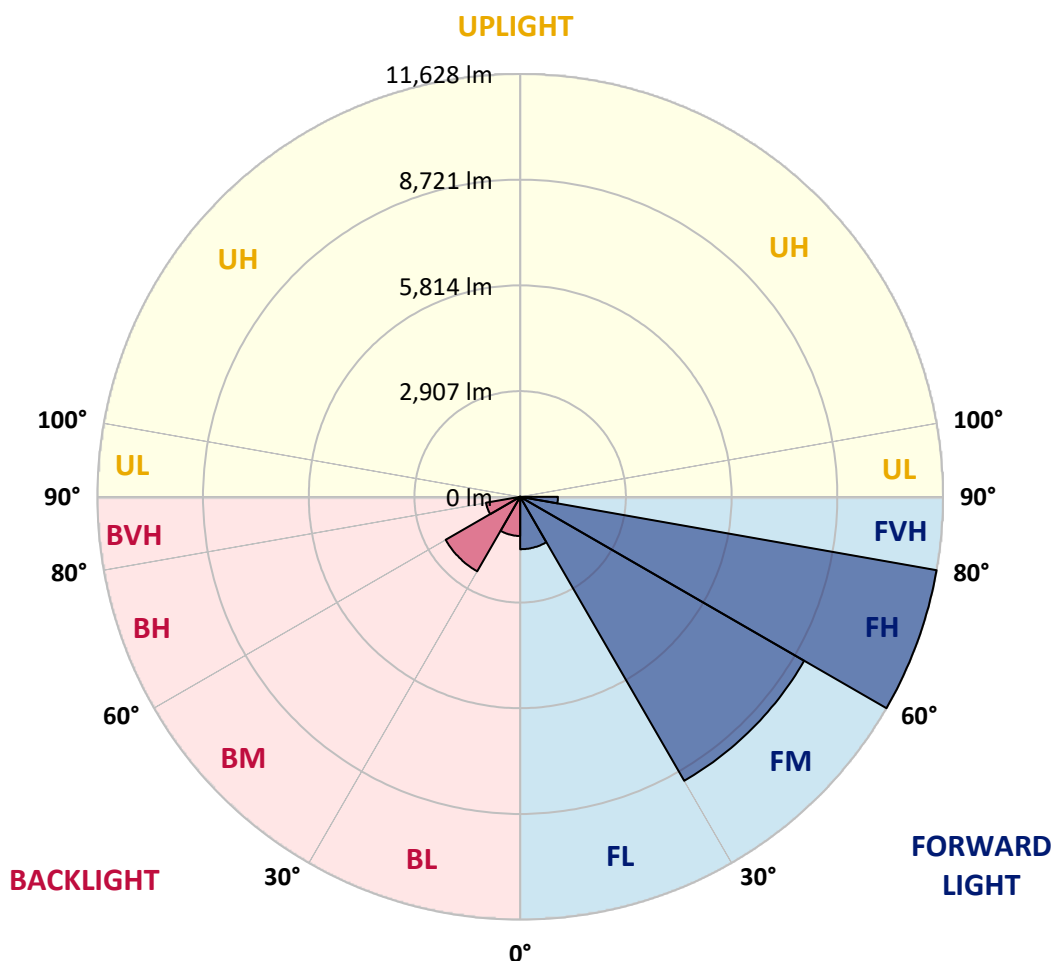
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1441.7	5.2			
FM	(30°-60°)	9017.4	32.7			
FH	(60°-80°)	11627.9	42.2			G4/12000
FVH	(80°-90°)	1039.1	3.8			G5
BL	(0°-30°)	1077.2	3.9	B3/2500		
BM	(30°-60°)	2366.1	8.6	B2/2500		
BH	(60°-80°)	952.5	3.5	B2/1000		G2/1000
BVH	(80°-90°)	27.9	0.1			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°	39°	45°	55°	65°	75°	85°
0°	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8
2.5°	2887.5	2926.3	2926.3	2915.2	2922.2	2927.7	2886.2	2897.2	2893.1	2891.7	2900.0
5°	2909.7	2952.6	2949.8	2936.0	2941.5	2952.6	2913.8	2930.5	2924.9	2911.1	2913.8
7.5°	2909.7	2945.7	2954.0	2938.8	2965.1	2978.9	2937.4	2952.6	2959.5	2949.8	2940.1
10°	2898.6	2930.5	2941.5	2938.8	2973.4	2995.5	2955.4	2998.3	3003.8	3003.8	2988.6
12.5°	2894.5	2930.5	2945.7	2958.1	2998.3	3021.8	2998.3	3039.8	3067.5	3066.1	3056.4
15°	2897.2	2937.4	2960.9	2981.7	3024.6	3053.7	3044.0	3107.6	3140.9	3150.6	3150.6
17.5°	2966.4	3014.9	3026.0	3048.1	3077.2	3121.5	3109.0	3190.7	3243.3	3259.9	3283.4
20°	3160.2	3197.6	3211.5	3200.4	3212.8	3240.5	3215.6	3294.5	3373.4	3417.7	3456.5
22.5°	3408.0	3435.7	3423.3	3412.2	3405.3	3412.2	3381.7	3434.3	3522.9	3586.6	3653.0
25°	3596.3	3657.2	3647.5	3617.0	3607.4	3615.7	3576.9	3642.0	3723.6	3790.1	3889.7
27.5°	3824.7	3862.1	3835.8	3824.7	3831.6	3830.2	3806.7	3869.0	3943.7	4026.8	4173.5
30°	4072.5	4104.3	4078.0	4066.9	4079.4	4087.7	4061.4	4170.7	4249.7	4339.6	4529.3
32.5°	4479.4	4555.6	4483.6	4339.6	4342.4	4354.9	4357.6	4504.4	4648.3	4718.9	4969.5
35°	5059.4	5120.3	5024.8	4850.4	4633.1	4624.8	4646.9	4865.6	5155.0	5476.1	5769.6
37.5°	5600.7	5689.3	5603.4	5400.0	5135.6	5071.9	4957.0	5217.2	5672.7	6363.4	6728.8
40°	6249.9	6316.3	6146.1	5968.9	5704.5	5614.5	5430.4	5596.5	6220.8	7289.5	7541.4
42.5°	6771.8	6811.9	6670.7	6485.2	6255.4	6187.6	5998.0	6013.2	6806.4	8100.6	8262.6
45°	7254.9	7297.8	7181.5	7023.7	6878.3	6796.7	6658.2	6733.0	7493.0	8956.1	8857.8
47.5°	7621.7	7664.6	7571.9	7459.7	7308.8	7253.5	7256.2	7524.8	8333.2	9639.9	9392.1
50°	8222.5	8205.8	7963.6	7841.8	7724.1	7753.2	7783.6	8165.7	9180.4	10226.8	9886.3
52.5°	9270.3	9188.7	8688.9	8370.6	8225.2	8275.1	8324.9	8832.9	10142.4	10762.6	10265.6
55°	10455.2	10372.2	9947.2	9266.2	8881.4	8961.6	8918.7	9493.2	10950.8	11277.5	10578.4
57.5°	11335.6	11472.7	11310.7	10939.7	9976.3	9871.1	9775.6	10160.4	11604.2	11792.4	10878.8
60°	12101.1	12292.1	12581.5	12480.4	12070.7	11796.6	10920.4	10939.7	12232.6	12149.6	10997.9
62.5°	12848.6	12960.7	13456.3	13565.7	14073.7	14270.2	13380.2	11947.5	12840.3	12397.4	11078.2
65°	12101.1	12245.1	13107.5	13903.4	15545.1	15808.1	15495.3	13771.9	13287.4	12544.1	10985.4
67.5°	10892.7	10979.9	11911.5	13359.4	16314.8	16552.9	16309.2	15446.9	13496.4	12499.8	10697.5
70°	9313.2	9450.3	10365.3	12306.0	16287.1	16414.4	16202.7	15649.0	13417.5	12245.1	9970.8
72.5°	7702.0	7779.5	8554.7	10491.2	15491.2	15597.7	15485.6	15338.9	13151.8	11535.0	8574.1
75°	5788.9	5805.5	6600.1	8284.7	13697.2	14253.6	14390.7	14804.6	12134.3	9887.7	6341.3
77.5°	3881.4	4046.2	4808.9	6331.6	11244.3	12134.3	12783.6	13085.3	10138.3	7379.4	3372.0
80°	2083.3	2124.8	2947.1	4493.3	8545.0	9396.3	10012.3	10017.8	7090.1	3655.8	753.0
82.5°	964.8	924.7	1483.9	2843.3	5919.1	6298.3	6710.8	5621.4	2839.1	624.3	192.4
85°	427.7	451.3	671.4	1385.6	3284.8	3665.5	3612.9	2488.9	498.3	168.9	117.7
87.5°	159.2	167.5	260.2	559.2	1172.5	1279.0	1150.3	479.0	65.1	59.5	36.0
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°	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8	2884.8
2.5°	2890.3	2890.3	2887.5	2850.2	2841.9	2823.9	2808.6	2819.7	2807.3	2815.6	2807.3
5°	2902.8	2895.9	2879.2	2834.9	2814.2	2774.0	2743.6	2750.5	2733.9	2733.9	2732.5
7.5°	2931.8	2918.0	2888.9	2818.3	2779.6	2721.4	2674.4	2659.1	2642.5	2623.2	2620.4
10°	2978.9	2959.5	2920.8	2823.9	2749.1	2671.6	2589.9	2558.1	2516.6	2486.1	2480.6
12.5°	3044.0	3014.9	2962.3	2844.6	2746.4	2623.2	2513.8	2451.5	2401.7	2357.4	2347.7
15°	3138.1	3109.0	3046.7	2886.2	2747.7	2577.5	2433.5	2329.7	2243.9	2202.3	2203.7
17.5°	3275.1	3254.4	3158.9	2973.4	2774.0	2553.9	2367.1	2202.3	2069.5	2000.2	1990.6
20°	3450.9	3437.1	3320.8	3088.3	2834.9	2558.1	2295.1	2066.7	1871.5	1720.6	1687.4
22.5°	3655.8	3635.0	3492.5	3187.9	2882.0	2547.0	2216.2	1917.2	1623.7	1427.2	1388.4
25°	3884.2	3873.1	3650.3	3275.1	2887.5	2500.0	2102.7	1723.4	1355.2	1144.8	1111.6
27.5°	4176.3	4111.2	3792.8	3322.2	2875.1	2407.2	1940.7	1457.6	1076.9	931.6	895.6
30°	4496.0	4364.5	3931.3	3358.2	2814.2	2259.1	1709.5	1150.3	801.5	672.7	654.8
32.5°	4850.4	4653.9	4061.4	3355.4	2706.2	2030.7	1409.2	798.7	541.2	488.6	470.6
35°	5491.3	5157.7	4217.8	3309.7	2524.9	1759.4	995.3	520.5	401.4	369.6	365.4
37.5°	6381.4	5815.2	4428.2	3222.5	2290.9	1443.8	649.2	355.8	343.3	344.7	343.3
40°	7110.9	6548.9	4720.3	3091.0	1996.1	1031.3	389.0	317.0	323.9	328.1	329.5
42.5°	7825.2	7146.9	5081.6	2926.3	1687.4	670.0	315.6	303.2	297.6	304.5	307.3
45°	8399.6	7668.8	5422.1	2733.9	1326.1	395.9	305.9	281.0	271.3	274.1	278.2
47.5°	8859.2	8084.0	5627.0	2509.6	969.0	299.0	297.6	261.6	247.8	245.0	243.6
50°	9292.5	8439.8	5758.5	2238.3	617.4	287.9	275.5	239.5	222.9	220.1	220.1
52.5°	9587.3	8672.3	5802.8	1917.2	368.2	281.0	260.2	221.5	199.3	203.5	206.3
55°	9875.2	8907.7	5711.4	1499.1	282.4	263.0	243.6	199.3	181.3	197.9	203.5
57.5°	10012.3	8942.3	5505.2	1042.3	274.1	238.1	220.1	178.6	164.7	174.4	174.4
60°	10123.0	8918.7	5217.2	660.3	267.2	221.5	200.7	162.0	145.3	139.8	135.7
62.5°	10049.7	8824.6	4638.6	430.5	247.8	202.1	182.7	149.5	126.0	110.7	109.4
65°	9893.2	8492.4	3702.9	339.1	229.8	192.4	166.1	134.3	110.7	92.7	91.4
67.5°	9432.3	7684.0	2396.1	281.0	220.1	185.5	153.7	124.6	98.3	80.3	78.9
70°	8327.7	6207.0	735.0	251.9	228.4	178.6	150.9	113.5	87.2	70.6	67.8
72.5°	6584.9	4147.2	272.7	209.0	196.6	171.6	146.7	102.4	74.7	59.5	56.8
75°	4241.3	1355.2	231.2	162.0	167.5	163.3	135.7	94.1	63.7	48.4	47.1
77.5°	1201.5	283.8	210.4	119.0	148.1	157.8	119.0	78.9	56.8	41.5	40.1
80°	251.9	202.1	192.4	84.4	110.7	102.4	80.3	60.9	54.0	36.0	36.0
82.5°	164.7	160.6	164.7	58.1	73.4	74.7	63.7	52.6	47.1	33.2	33.2
85°	116.3	146.7	78.9	41.5	34.6	31.8	37.4	45.7	41.5	27.7	27.7
87.5°	40.1	23.5	16.6	16.6	15.2	15.2	18.0	20.8	22.1	22.1	20.8
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)