

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: P510224

Luminaire Tested: **VERD-M-CA4-230-730-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510224
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-CA4-230-730-U-T4-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 3000K, 1050mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28617 lumens
Efficiency: N/A
Efficacy: 122.7 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

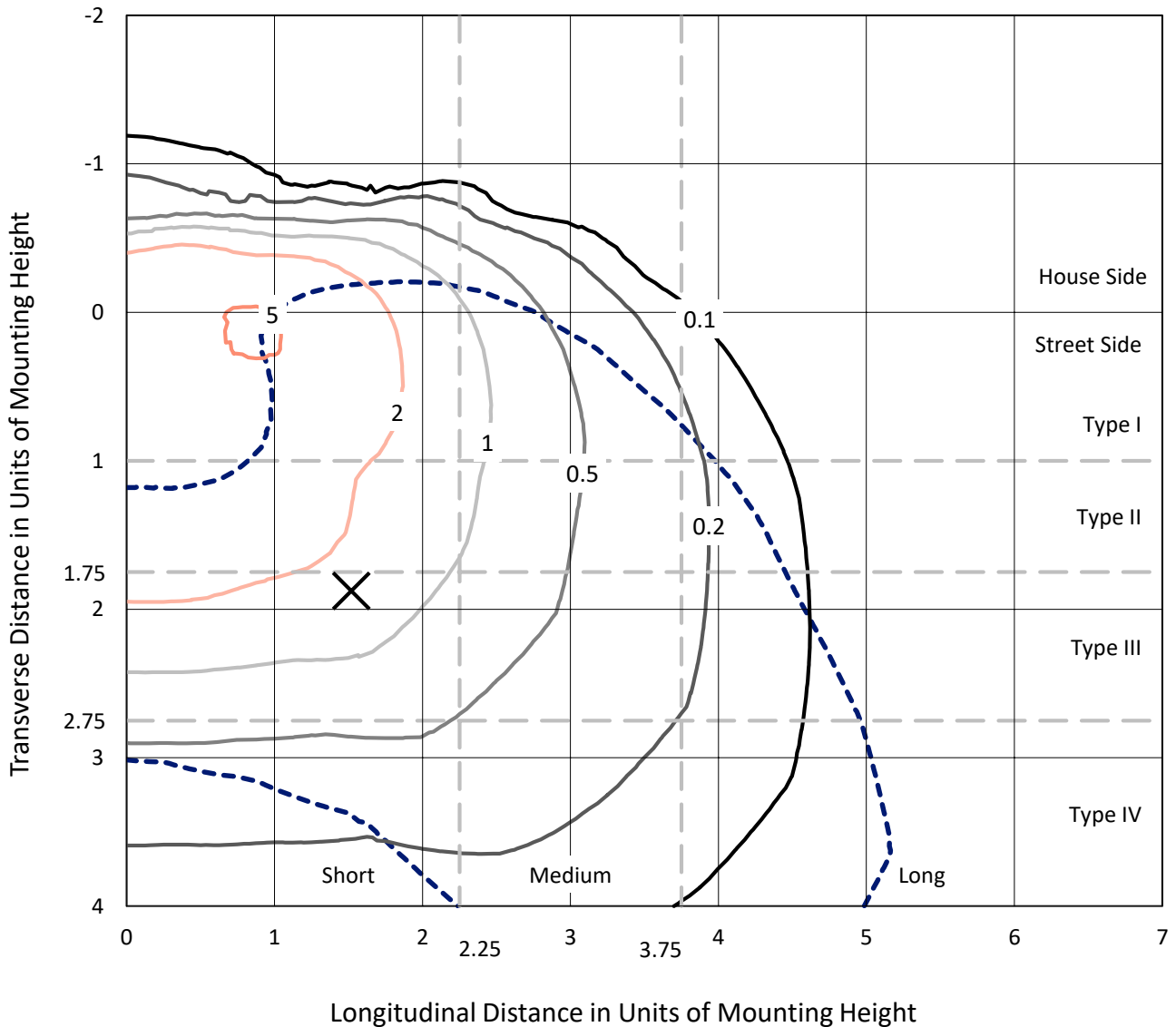
Input Watts (W): 233.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

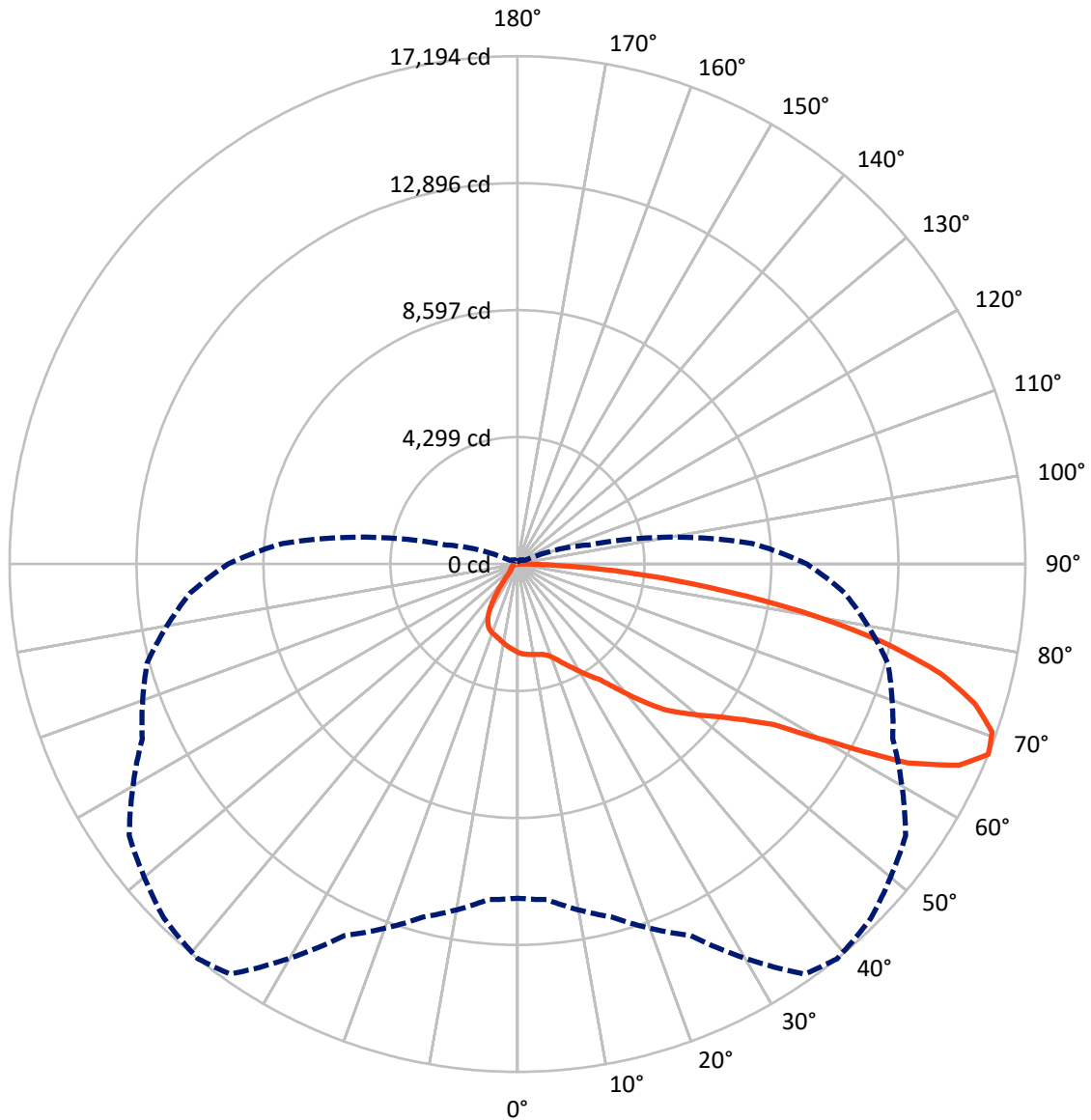
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 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
House Side	Lumens	4595.2	0.0	4595.2
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	24021.8	0.0	24021.8
	% Fixture	83.9	0.0	83.9
Total	Lumens	28617.0	0.0	28617.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.9	1.0
10°-20°	842.0	2.9
20°-30°	1491.7	5.2
30°-40°	2389.2	8.3
40°-50°	3832.8	13.4
50°-60°	5602.4	19.6
60°-70°	7465.5	26.1
70°-80°	5602.2	19.6
80°-90°	1108.4	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°	28617.0	100.0
0°-180°	28617.0	100.0

Coefficient of Utilization



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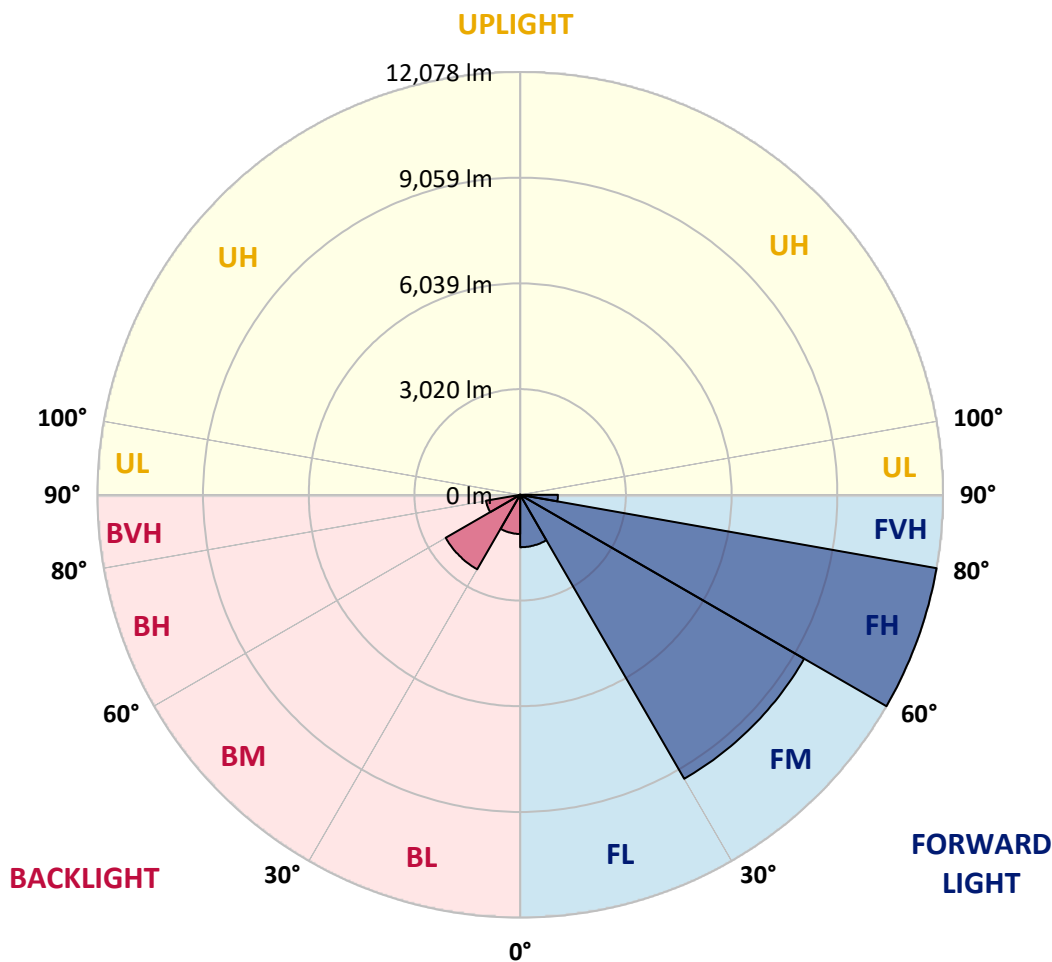
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1497.6	5.2			
FM (30°-60°)	9366.6	32.7			
FH (60°-80°)	12078.3	42.2			G5
FVH (80°-90°)	1079.4	3.8			G5
BL (0°-30°)	1119.0	3.9	B3/2500		
BM (30°-60°)	2457.8	8.6	B2/2500		
BH (60°-80°)	989.4	3.5	B2/1000		G2/1000
BVH (80°-90°)	29.0	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°	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5
2.5°	2999.4	3039.6	3039.6	3028.1	3035.3	3041.1	2997.9	3009.4	3005.1	3003.7	3012.3
5°	3022.4	3067.0	3064.1	3049.7	3055.5	3067.0	3026.7	3044.0	3038.2	3023.8	3026.7
7.5°	3022.4	3059.8	3068.4	3052.6	3079.9	3094.3	3051.1	3067.0	3074.1	3064.1	3054.0
10°	3010.9	3044.0	3055.5	3052.6	3088.5	3111.5	3069.8	3114.4	3120.2	3120.2	3104.3
12.5°	3006.6	3044.0	3059.8	3072.7	3114.4	3138.9	3114.4	3157.5	3186.3	3184.9	3174.8
15°	3009.4	3051.1	3075.6	3097.2	3141.7	3171.9	3161.9	3228.0	3262.5	3272.6	3272.6
17.5°	3081.3	3131.7	3143.2	3166.2	3196.4	3242.4	3229.4	3314.3	3368.9	3386.2	3410.6
20°	3282.6	3321.5	3335.8	3324.3	3337.3	3366.0	3340.2	3422.1	3504.1	3550.1	3590.3
22.5°	3540.0	3568.8	3555.8	3544.3	3537.1	3544.3	3512.7	3567.3	3659.4	3725.5	3794.5
25°	3735.6	3798.8	3788.8	3757.1	3747.1	3755.7	3715.4	3783.0	3867.8	3936.9	4040.4
27.5°	3972.8	4011.6	3984.3	3972.8	3980.0	3978.6	3954.1	4018.8	4096.5	4182.7	4335.2
30°	4230.2	4263.3	4235.9	4224.4	4237.4	4246.0	4218.7	4332.3	4414.2	4507.7	4704.7
32.5°	4652.9	4732.0	4657.2	4507.7	4510.6	4523.5	4526.4	4678.8	4828.3	4901.7	5161.9
35°	5255.4	5318.7	5219.4	5038.3	4812.5	4803.9	4826.9	5054.1	5354.6	5688.2	5993.0
37.5°	5817.6	5909.6	5820.5	5609.1	5334.5	5268.3	5149.0	5419.3	5892.4	6609.9	6989.4
40°	6491.9	6561.0	6384.1	6200.1	5925.4	5832.0	5640.7	5813.3	6461.8	7571.8	7833.5
42.5°	7034.0	7075.7	6929.1	6736.4	6497.7	6427.2	6230.3	6246.1	7070.0	8414.4	8582.6
45°	7535.8	7580.4	7459.6	7295.7	7144.7	7059.9	6916.1	6993.8	7783.1	9303.0	9200.9
47.5°	7916.9	7961.4	7865.1	7748.6	7591.9	7534.4	7537.3	7816.2	8655.9	10013.3	9755.9
50°	8540.9	8523.6	8272.0	8145.5	8023.3	8053.5	8085.1	8482.0	9535.9	10622.9	10269.2
52.5°	9629.4	9544.5	9025.5	8694.8	8543.8	8595.5	8647.3	9175.0	10535.2	11179.4	10663.2
55°	10860.2	10773.9	10332.5	9625.1	9225.3	9308.7	9264.1	9860.9	11374.9	11714.3	10988.1
57.5°	11774.7	11917.0	11748.8	11363.4	10362.7	10253.4	10154.2	10553.9	12053.6	12249.2	11300.2
60°	12569.8	12768.2	13068.7	12963.8	12538.2	12253.5	11343.3	11363.4	12706.4	12620.1	11423.8
62.5°	13346.2	13462.7	13977.5	14091.1	14618.7	14822.9	13898.4	12410.2	13337.6	12877.5	11507.2
65°	12569.8	12719.3	13615.1	14441.9	16147.2	16420.4	16095.4	14305.3	13802.0	13029.9	11410.9
67.5°	11314.5	11405.1	12372.8	13876.8	16946.6	17194.0	16940.9	16045.1	14019.2	12983.9	11111.8
70°	9673.9	9816.3	10766.7	12782.6	16917.9	17050.2	16830.2	16255.0	13937.2	12719.3	10356.9
72.5°	8000.3	8080.8	8886.0	10897.6	16091.1	16201.8	16085.4	15933.0	13661.1	11981.7	8906.1
75°	6013.1	6030.4	6855.7	8605.6	14227.6	14805.7	14948.0	15377.9	12604.3	10270.7	6586.8
77.5°	4031.8	4202.9	4995.1	6576.8	11679.8	12604.3	13278.7	13592.1	10530.9	7665.2	3502.6
80°	2164.0	2207.1	3061.2	4667.3	8875.9	9760.2	10400.1	10405.8	7364.7	3797.4	782.2
82.5°	1002.2	960.5	1541.4	2953.4	6148.3	6542.3	6970.8	5839.2	2949.1	648.5	199.9
85°	444.3	468.7	697.4	1439.3	3412.0	3807.5	3752.8	2585.3	517.6	175.4	122.2
87.5°	165.4	174.0	270.3	580.9	1217.9	1328.6	1194.9	497.5	67.6	61.8	37.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5	2996.5
2.5°	3002.3	3002.3	2999.4	2960.6	2951.9	2933.2	2917.4	2928.9	2916.0	2924.6	2916.0
5°	3015.2	3008.0	2990.8	2944.7	2923.2	2881.5	2849.8	2857.0	2839.8	2839.8	2838.3
7.5°	3045.4	3031.0	3000.8	2927.5	2887.2	2826.8	2778.0	2762.1	2744.9	2724.7	2721.9
10°	3094.3	3074.1	3033.9	2933.2	2855.6	2775.1	2690.2	2657.2	2614.0	2582.4	2576.6
12.5°	3161.9	3131.7	3077.0	2954.8	2852.7	2724.7	2611.2	2546.5	2494.7	2448.7	2438.6
15°	3259.6	3229.4	3164.7	2997.9	2854.2	2677.3	2527.8	2419.9	2330.8	2287.6	2289.1
17.5°	3402.0	3380.4	3281.2	3088.5	2881.5	2652.9	2458.7	2287.6	2149.6	2077.7	2067.6
20°	3584.6	3570.2	3449.4	3207.9	2944.7	2657.2	2384.0	2146.7	1944.0	1787.3	1752.8
22.5°	3797.4	3775.8	3627.7	3311.4	2993.6	2645.7	2302.0	1991.4	1686.6	1482.4	1442.2
25°	4034.6	4023.1	3791.6	3402.0	2999.4	2596.8	2184.1	1790.1	1407.7	1189.1	1154.6
27.5°	4338.0	4270.5	3939.7	3450.9	2986.4	2500.4	2015.9	1514.1	1118.7	967.7	930.3
30°	4670.2	4533.6	4083.5	3488.3	2923.2	2346.6	1775.8	1194.9	832.5	698.8	680.1
32.5°	5038.3	4834.1	4218.7	3485.4	2811.0	2109.3	1463.7	829.6	562.2	507.6	488.9
35°	5704.0	5357.5	4381.2	3437.9	2622.7	1827.5	1033.8	540.6	417.0	383.9	379.6
37.5°	6628.5	6040.5	4599.7	3347.3	2379.7	1499.7	674.4	369.5	356.6	358.0	356.6
40°	7386.3	6802.5	4903.1	3210.7	2073.4	1071.2	404.0	329.3	336.5	340.8	342.2
42.5°	8128.2	7423.7	5278.4	3039.6	1752.8	695.9	327.8	314.9	309.1	316.3	319.2
45°	8724.9	7965.8	5632.1	2839.8	1377.5	411.2	317.8	291.9	281.8	284.7	289.0
47.5°	9202.3	8397.1	5844.9	2606.8	1006.5	310.6	309.1	271.8	257.4	254.5	253.1
50°	9652.4	8766.6	5981.5	2325.0	641.3	299.1	286.1	248.8	231.5	228.6	228.6
52.5°	9958.6	9008.2	6027.5	1991.4	382.5	291.9	270.3	230.1	207.1	211.4	214.2
55°	10257.7	9252.6	5932.6	1557.2	293.3	273.2	253.1	207.1	188.4	205.6	211.4
57.5°	10400.1	9288.6	5718.4	1082.7	284.7	247.3	228.6	185.5	171.1	181.2	181.2
60°	10515.1	9264.1	5419.3	685.9	277.5	230.1	208.5	168.2	151.0	145.2	140.9
62.5°	10438.9	9166.4	4818.3	447.2	257.4	209.9	189.8	155.3	130.8	115.0	113.6
65°	10276.4	8821.3	3846.3	352.3	238.7	199.9	172.5	139.5	115.0	96.3	94.9
67.5°	9797.6	7981.6	2488.9	291.9	228.6	192.7	159.6	129.4	102.1	83.4	82.0
70°	8650.2	6447.4	763.5	261.7	237.2	185.5	156.7	117.9	90.6	73.3	70.5
72.5°	6839.9	4307.8	283.3	217.1	204.2	178.3	152.4	106.4	77.6	61.8	59.0
75°	4405.6	1407.7	240.1	168.2	174.0	169.7	140.9	97.8	66.1	50.3	48.9
77.5°	1248.1	294.8	218.6	123.7	153.9	163.9	123.7	82.0	59.0	43.1	41.7
80°	261.7	209.9	199.9	87.7	115.0	106.4	83.4	63.3	56.1	37.4	37.4
82.5°	171.1	166.8	171.1	60.4	76.2	77.6	66.1	54.6	48.9	34.5	34.5
85°	120.8	152.4	82.0	43.1	35.9	33.1	38.8	47.4	43.1	28.8	28.8
87.5°	41.7	24.4	17.3	17.3	15.8	15.8	18.7	21.6	23.0	23.0	21.6
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)