

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: P509905

Luminaire Tested: **VERD-M-CA3-160-750-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P509905
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-CA3-160-750-U-T4
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 5000K, 1000mA LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23709 lumens
Efficiency: N/A
Efficacy: 145.7 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

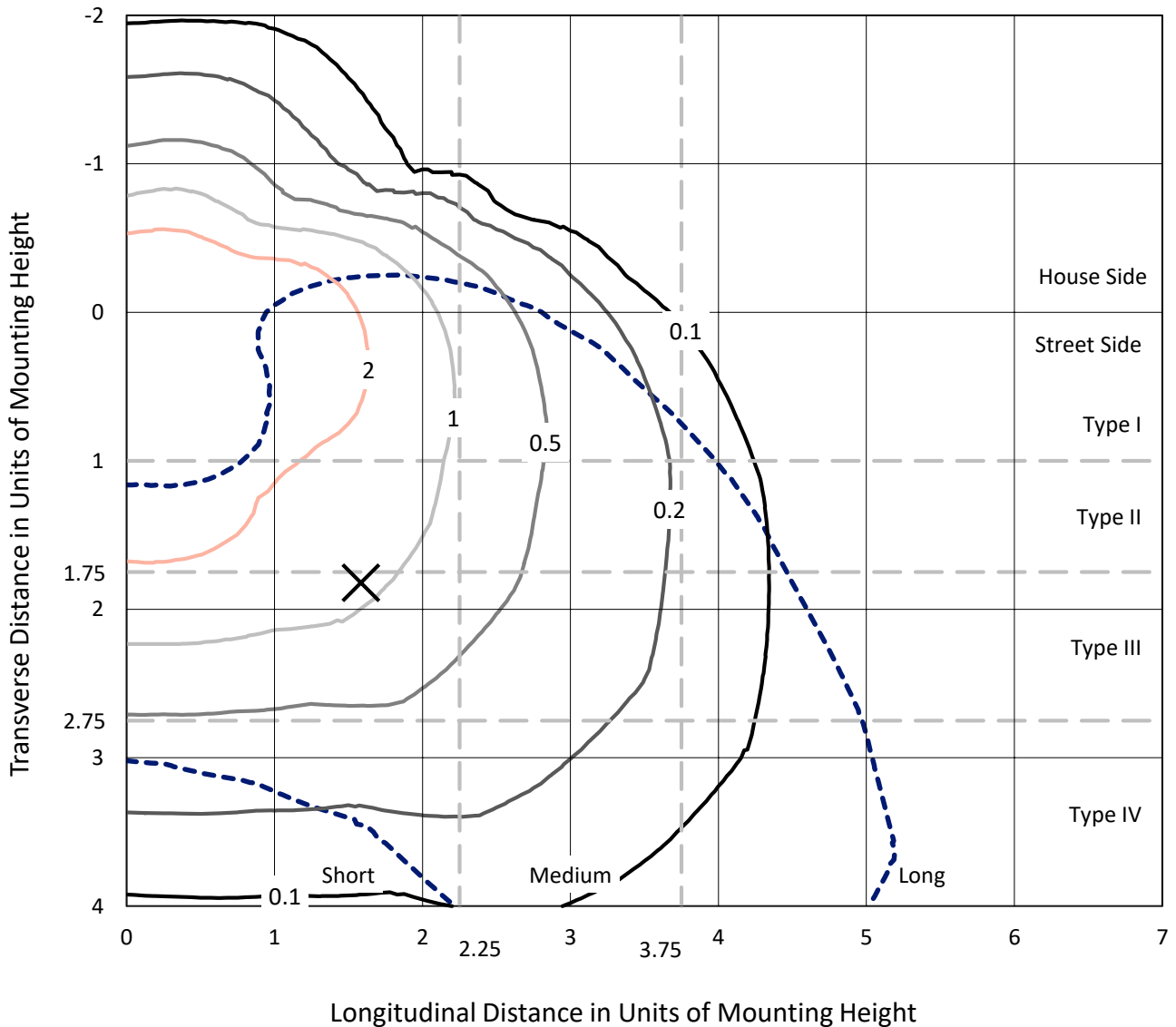
Input Watts (W): 162.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

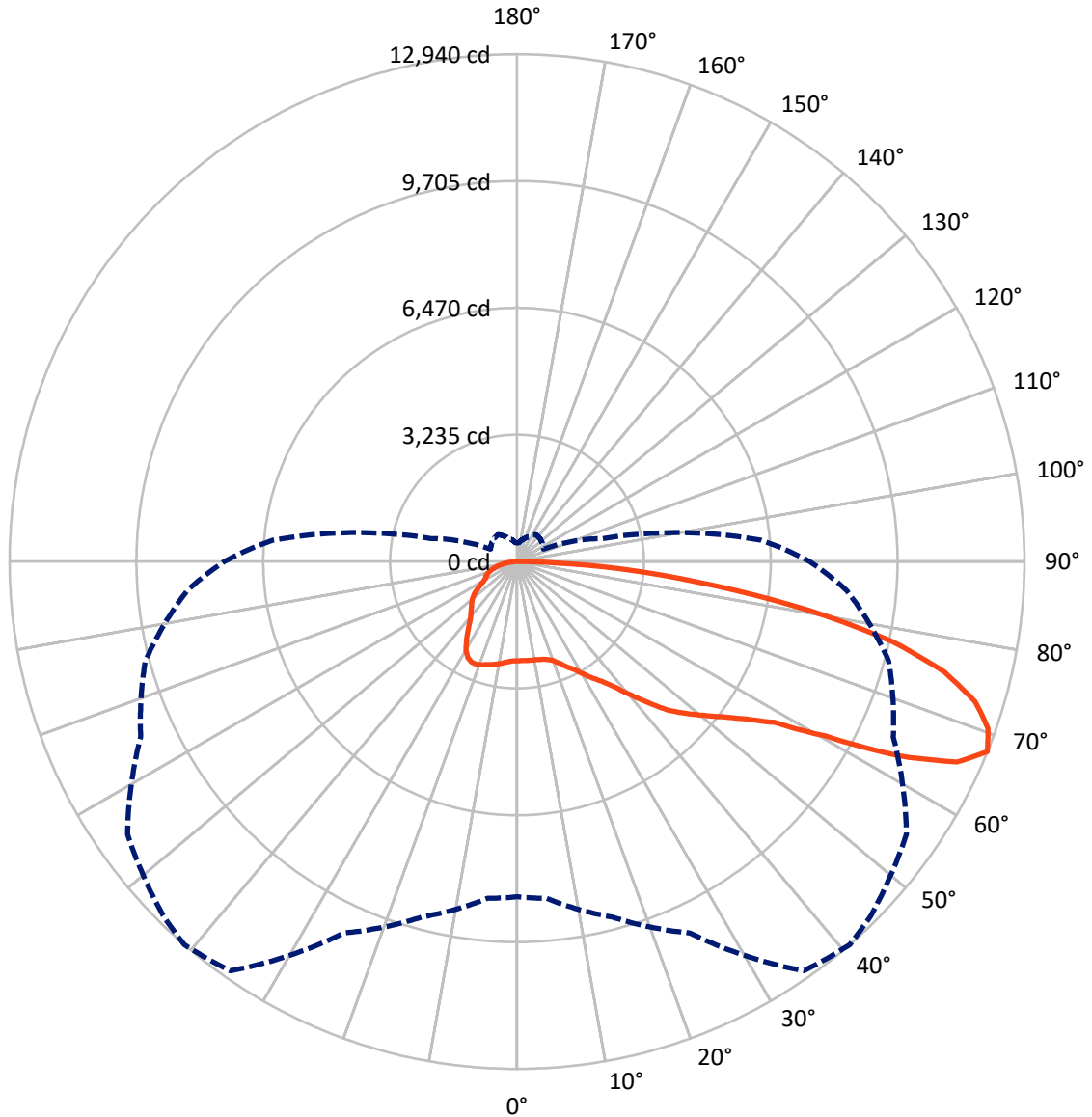
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 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	5365.2	0.0	5365.2
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	18343.8	0.0	18343.8
	% Fixture	77.4	0.0	77.4
Total	Lumens	23709.0	0.0	23709.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.6	1.0
10°-20°	758.6	3.2
20°-30°	1356.6	5.7
30°-40°	2127.2	9.0
40°-50°	3298.7	13.9
50°-60°	4650.4	19.6
60°-70°	5928.1	25.0
70°-80°	4436.2	18.7
80°-90°	908.6	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°	23709.0	100.0
0°-180°	23709.0	100.0

Coefficient of Utilization



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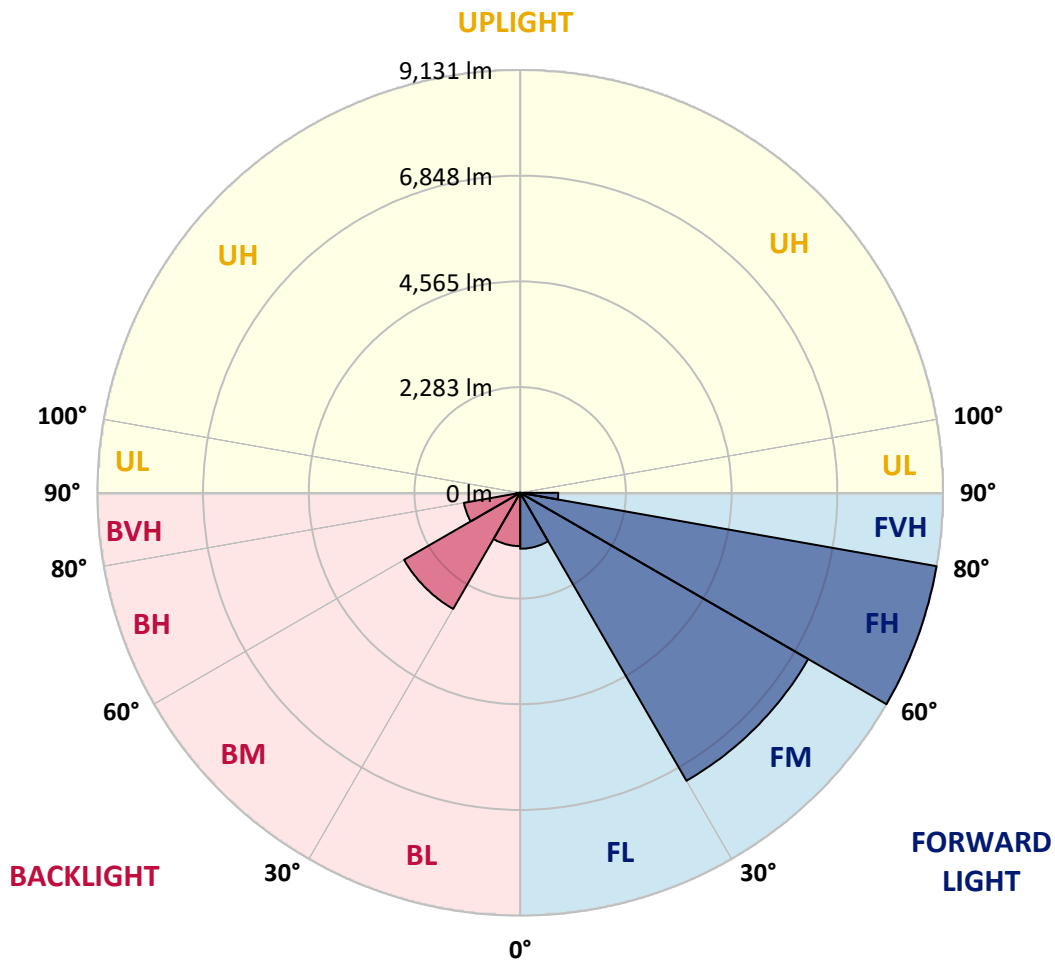
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1208.0	5.1			
FM	(30°-60°)	7181.3	30.3			
FH	(60°-80°)	9130.8	38.5			G4/12000
FVH	(80°-90°)	823.7	3.5			G5
BL	(0°-30°)	1151.9	4.9	B3/2500		
BM	(30°-60°)	2895.0	12.2	B3/5000		
BH	(60°-80°)	1233.5	5.2	B3/2500		G3/2500
BVH	(80°-90°)	84.9	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°	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3
2.5°	2500.2	2529.2	2524.9	2519.5	2528.1	2529.2	2504.5	2514.2	2519.5	2528.1	2542.1
5°	2506.7	2535.6	2533.5	2523.8	2530.3	2533.5	2511.0	2528.1	2528.1	2531.3	2547.4
7.5°	2492.7	2520.6	2520.6	2517.4	2531.3	2544.2	2523.8	2538.9	2547.4	2556.0	2566.8
10°	2479.8	2503.4	2512.0	2509.9	2542.1	2545.3	2531.3	2567.8	2581.8	2590.4	2603.2
12.5°	2465.9	2494.9	2506.7	2518.5	2552.8	2564.6	2557.1	2594.7	2623.6	2638.7	2652.6
15°	2459.4	2491.6	2511.0	2528.1	2565.7	2587.1	2587.1	2644.0	2678.4	2697.7	2722.3
17.5°	2504.5	2537.8	2552.8	2566.8	2601.1	2630.1	2627.9	2694.4	2744.9	2774.9	2820.0
20°	2616.1	2655.8	2664.4	2669.8	2691.2	2702.0	2698.7	2770.6	2840.4	2897.3	2947.7
22.5°	2810.3	2833.9	2838.2	2816.8	2822.1	2830.7	2825.4	2865.1	2944.5	3011.0	3101.1
25°	2969.2	3006.7	2996.0	2964.9	2969.2	2981.0	2964.9	3026.0	3082.9	3169.8	3261.0
27.5°	3136.5	3164.4	3152.6	3133.3	3129.0	3120.5	3117.2	3195.6	3279.3	3347.9	3483.1
30°	3340.4	3355.5	3321.1	3312.5	3320.0	3325.4	3305.0	3404.8	3481.0	3579.7	3762.1
32.5°	3683.8	3697.8	3648.4	3516.4	3519.6	3544.3	3527.1	3652.7	3796.5	3916.7	4102.3
35°	4121.6	4121.6	4083.0	3897.3	3756.8	3757.9	3762.1	3939.2	4206.4	4475.7	4666.7
37.5°	4564.8	4579.8	4506.8	4337.3	4159.2	4064.7	3985.3	4212.8	4562.6	5163.6	5447.9
40°	5026.2	5049.8	4940.4	4784.8	4579.8	4472.5	4380.2	4518.6	4990.8	5844.9	6070.3
42.5°	5429.7	5462.9	5350.3	5186.1	5043.4	4922.1	4782.6	4838.4	5461.9	6492.0	6619.7
45°	5805.2	5823.5	5728.0	5592.8	5474.7	5408.2	5310.6	5374.9	6000.5	7125.1	7101.5
47.5°	6082.1	6108.9	6022.0	5949.0	5827.8	5788.1	5787.0	5964.1	6606.8	7629.4	7520.0
50°	6531.7	6511.3	6316.0	6227.0	6152.9	6165.8	6196.9	6502.7	7319.3	8115.5	7872.0
52.5°	7286.1	7248.5	6815.0	6629.4	6538.1	6580.0	6596.1	6991.0	8038.3	8535.1	8162.8
55°	8261.5	8141.3	7825.8	7327.9	7041.4	7081.1	7062.9	7515.7	8613.4	8935.4	8378.4
57.5°	8906.4	9019.1	8867.8	8583.4	7872.0	7742.1	7699.2	8035.1	9145.7	9318.4	8601.6
60°	9466.5	9653.2	9893.6	9711.2	9519.1	9033.0	8632.8	8625.2	9614.6	9573.8	8691.8
62.5°	10057.8	10156.5	10526.7	10639.4	10995.6	10906.6	10370.0	9372.1	10083.5	9760.5	8744.4
65°	9460.1	9592.1	10265.9	10880.8	12199.6	12328.4	12153.5	10760.6	10408.7	9856.0	8669.2
67.5°	8550.1	8623.1	9386.0	10452.7	12744.7	12940.0	12764.0	12123.4	10588.9	9814.2	8437.5
70°	7383.7	7469.6	8198.2	9653.2	12716.8	12742.6	12673.9	12249.0	10517.0	9617.8	7853.7
72.5°	5986.6	6095.0	6735.6	8246.5	12107.3	12218.9	12110.5	12000.0	10315.3	9068.4	6848.3
75°	4529.4	4673.2	5245.1	6574.6	10699.5	11261.7	11275.7	11616.9	9532.0	7774.3	4970.4
77.5°	3089.3	3226.7	3768.6	5009.0	8881.7	9779.9	10013.8	10387.2	7964.2	5745.2	2711.6
80°	1739.4	1726.6	2414.4	3578.6	6774.2	7562.9	7856.9	7841.9	5592.8	2949.8	552.6
82.5°	803.7	805.9	1235.1	2284.5	4586.3	5106.7	5225.8	4548.7	1962.6	500.0	176.0
85°	400.3	404.5	594.5	1146.0	2589.3	2991.7	2843.6	1892.9	420.6	145.9	105.2
87.5°	158.8	152.4	235.0	471.1	934.6	990.4	864.9	378.8	76.2	51.5	35.4
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°	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3	2531.3
2.5°	2538.9	2541.0	2550.7	2531.3	2536.7	2532.4	2529.2	2546.4	2545.3	2548.5	2543.1
5°	2546.4	2551.7	2561.4	2552.8	2561.4	2557.1	2560.3	2583.9	2587.1	2586.1	2586.1
7.5°	2566.8	2572.1	2590.4	2579.6	2598.9	2593.6	2594.7	2617.2	2621.5	2615.0	2612.9
10°	2609.7	2614.0	2639.7	2637.6	2645.1	2640.8	2636.5	2646.2	2644.0	2634.4	2630.1
12.5°	2659.0	2670.8	2699.8	2700.9	2710.5	2689.1	2666.5	2663.3	2656.9	2641.9	2638.7
15°	2733.1	2747.0	2791.0	2780.3	2773.9	2727.7	2690.2	2660.1	2634.4	2621.5	2609.7
17.5°	2839.3	2862.9	2924.1	2890.8	2843.6	2776.0	2710.5	2645.1	2590.4	2544.2	2526.0
20°	2974.5	3001.3	3052.9	3008.9	2937.0	2836.1	2729.9	2611.8	2492.7	2390.8	2375.8
22.5°	3135.5	3178.4	3216.0	3115.1	3008.9	2881.2	2729.9	2560.3	2362.9	2210.5	2172.9
25°	3323.3	3356.5	3344.7	3203.1	3049.6	2888.7	2699.8	2469.1	2190.1	2013.1	1983.0
27.5°	3527.1	3542.2	3451.0	3244.9	3053.9	2844.7	2615.0	2307.1	1988.4	1848.9	1819.9
30°	3778.2	3733.2	3559.3	3270.7	3011.0	2747.0	2463.7	2069.9	1824.2	1701.9	1668.6
32.5°	4048.6	3966.0	3636.6	3252.4	2916.6	2583.9	2229.8	1902.5	1714.7	1565.6	1537.7
35°	4563.7	4328.7	3749.3	3197.7	2752.4	2366.1	2003.4	1773.8	1598.9	1439.0	1413.2
37.5°	5259.1	4850.2	3907.0	3121.5	2558.2	2154.7	1834.9	1636.4	1485.1	1319.9	1279.1
40°	5799.9	5377.1	4160.2	3040.0	2379.0	1954.0	1712.6	1564.5	1410.0	1234.0	1198.6
42.5°	6314.9	5858.9	4471.4	2948.8	2194.4	1814.5	1658.9	1548.4	1389.6	1210.4	1177.1
45°	6769.9	6248.4	4739.7	2857.6	1986.2	1685.8	1619.2	1517.3	1360.6	1180.4	1148.2
47.5°	7138.0	6583.2	4972.6	2758.8	1797.4	1588.1	1567.7	1460.4	1304.8	1119.2	1080.6
50°	7470.6	6866.5	5133.5	2653.7	1612.8	1508.7	1483.0	1356.3	1194.3	1030.1	1005.5
52.5°	7675.6	7058.6	5230.1	2670.8	1437.9	1419.7	1377.8	1248.0	1097.7	957.2	925.0
55°	7890.2	7239.9	5229.0	2574.3	1292.0	1285.5	1245.8	1146.0	1028.0	910.0	890.6
57.5°	7978.2	7256.0	5131.4	2120.4	1163.2	1122.4	1113.8	1061.3	958.2	846.6	825.2
60°	8037.2	7185.2	4946.8	1447.6	1001.2	972.2	1014.0	978.6	885.3	768.3	746.8
62.5°	7979.3	7107.9	4462.8	1045.2	877.8	893.9	933.6	894.9	797.3	691.0	672.8
65°	7840.8	6812.8	3523.9	814.5	823.0	858.4	889.6	825.2	646.0	540.8	530.1
67.5°	7463.1	6251.6	2267.4	746.8	791.9	828.4	839.1	698.6	584.8	483.9	472.1
70°	6668.0	5018.7	873.5	703.9	760.8	776.9	732.9	640.6	537.6	450.7	440.0
72.5°	5216.1	3295.4	504.3	643.8	694.3	679.2	680.3	575.2	485.0	402.4	393.8
75°	3241.7	1193.2	448.5	573.0	588.0	615.9	580.5	499.0	417.4	368.1	357.3
77.5°	1072.0	339.1	415.3	493.6	526.9	506.5	486.1	426.0	357.3	318.7	313.3
80°	259.7	254.3	372.4	386.3	413.1	378.8	376.6	354.1	301.5	279.0	273.6
82.5°	159.9	182.4	296.2	240.4	275.8	279.0	317.6	291.9	220.0	228.6	221.1
85°	98.7	140.6	155.6	115.9	117.0	156.7	189.9	176.0	132.0	124.5	123.4
87.5°	33.3	29.0	33.3	24.7	33.3	56.9	85.8	81.6	54.7	37.6	35.4
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)