

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: P509897

Luminaire Tested: **VERD-M-CA3-160-740-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P509897
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-CA3-160-740-U-T4
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K, 1000mA LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23282 lumens
Efficiency: N/A
Efficacy: 143.1 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

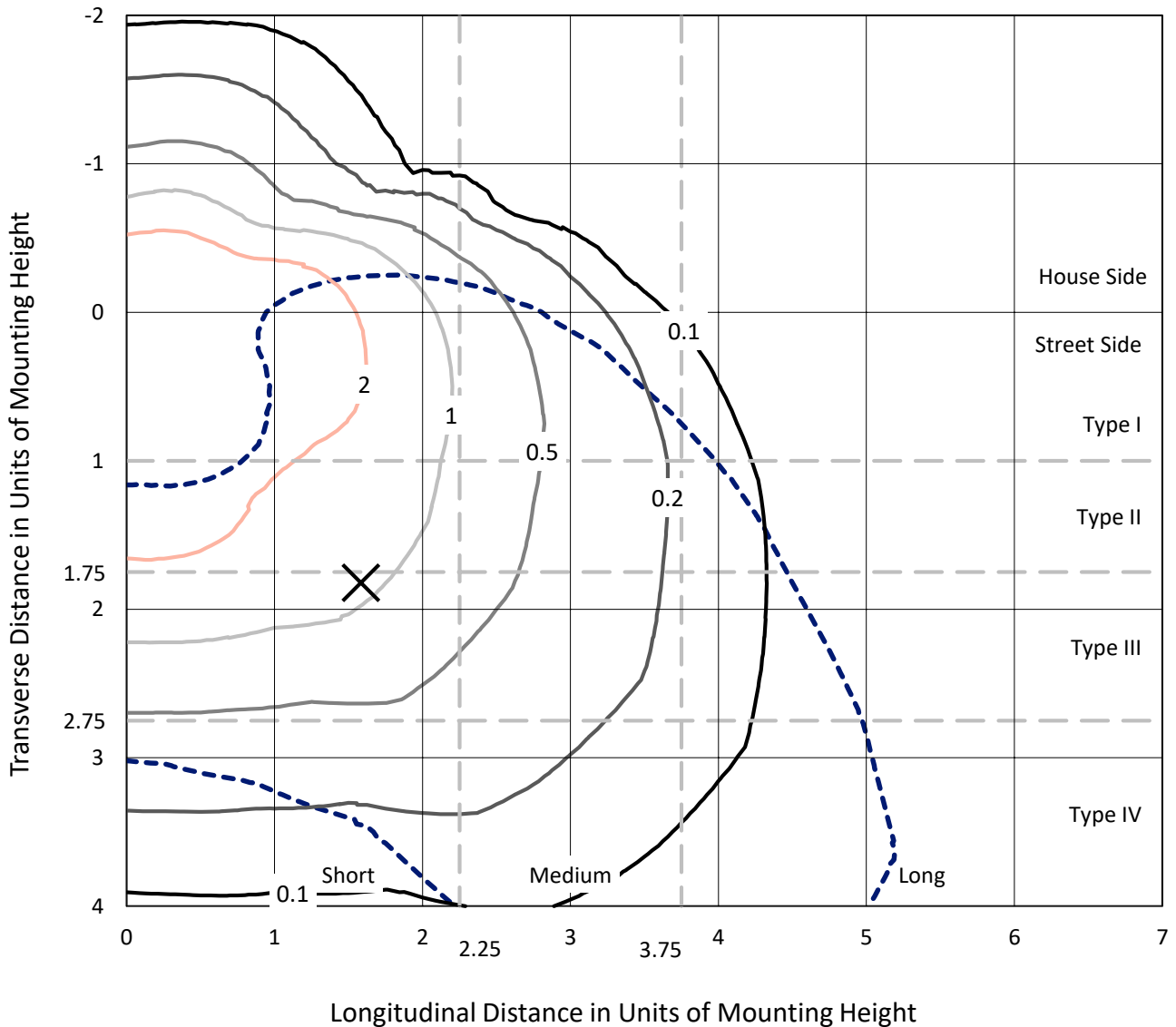
Input Watts (W): 162.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

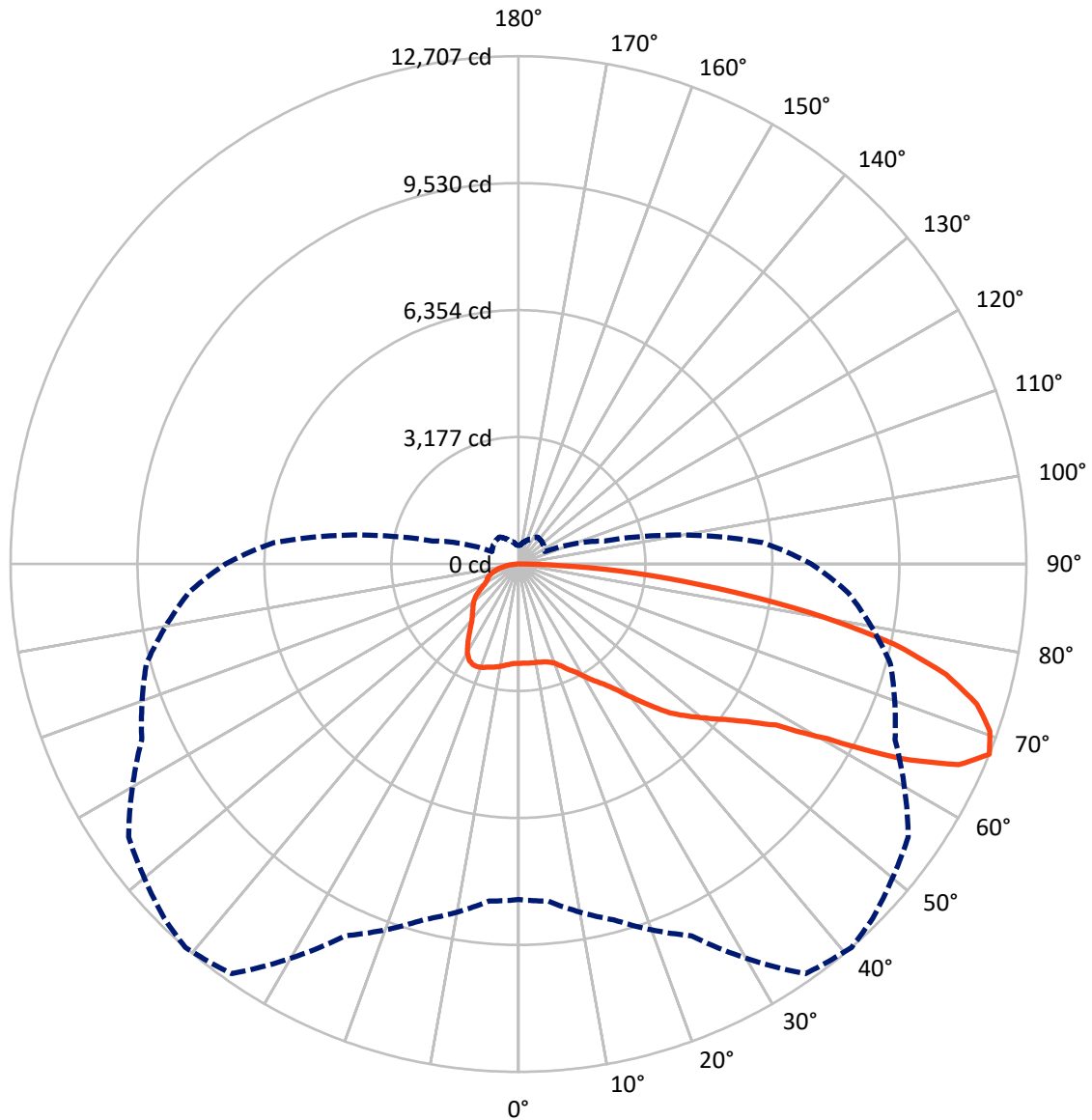
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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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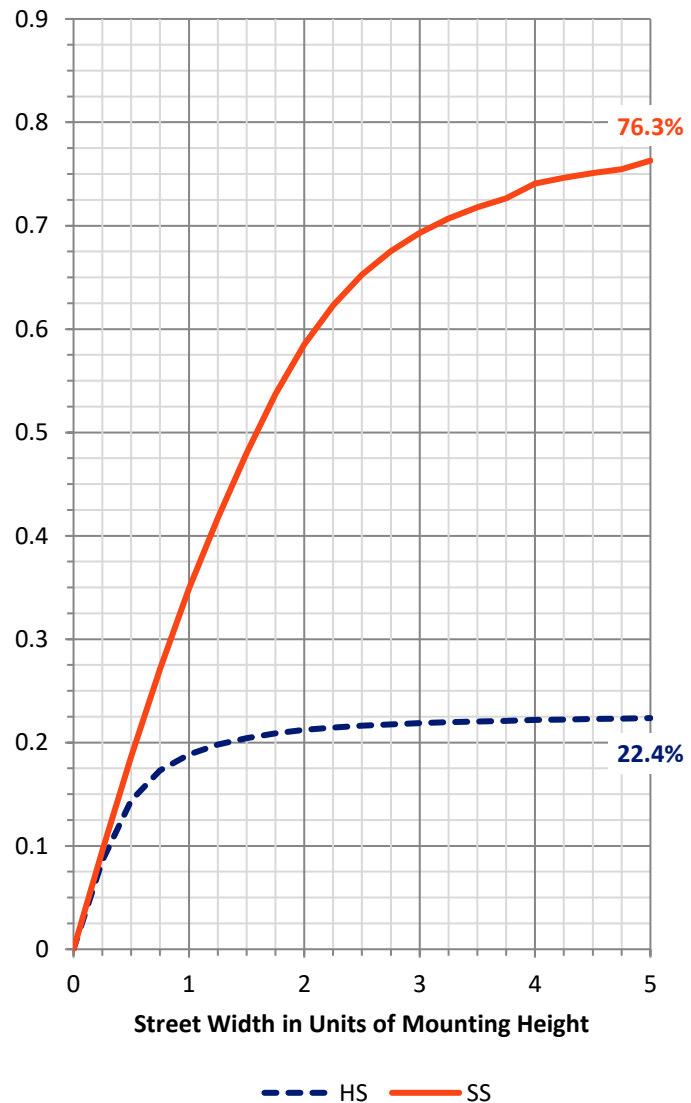
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5268.6	0.0	5268.6
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	18013.4	0.0	18013.4
	% Fixture	77.4	0.0	77.4
Total	Lumens	23282.0	0.0	23282.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.2	1.0
10°-20°	745.0	3.2
20°-30°	1332.2	5.7
30°-40°	2088.9	9.0
40°-50°	3239.3	13.9
50°-60°	4566.6	19.6
60°-70°	5821.3	25.0
70°-80°	4356.3	18.7
80°-90°	892.2	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°	23282.0	100.0
0°-180°	23282.0	100.0

Coefficient of Utilization



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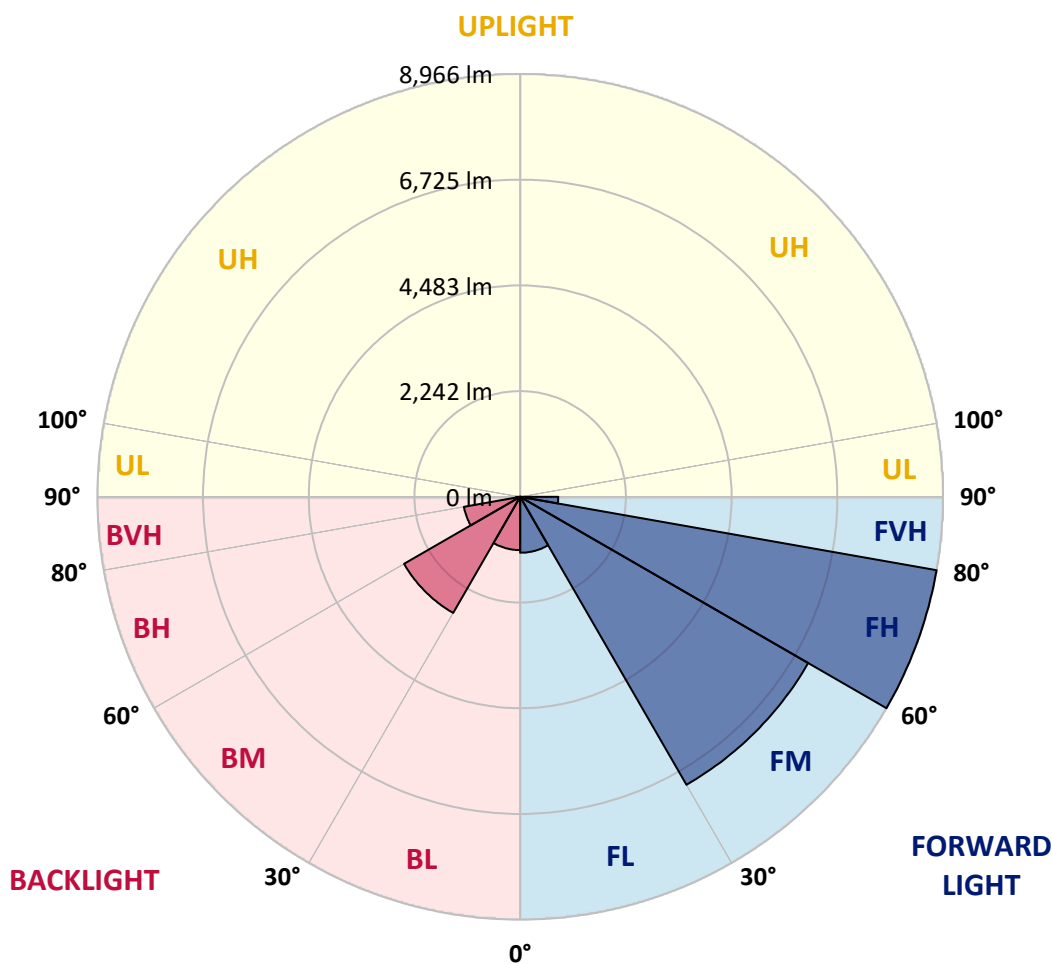
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1186.2	5.1			
FM	(30°-60°)	7051.9	30.3			
FH	(60°-80°)	8966.4	38.5			G4/12000
FVH	(80°-90°)	808.9	3.5			G5
BL	(0°-30°)	1131.1	4.9	B3/2500		
BM	(30°-60°)	2842.9	12.2	B3/5000		
BH	(60°-80°)	1211.2	5.2	B3/2500		G3/2500
BVH	(80°-90°)	83.3	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°	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8
2.5°	2455.2	2483.6	2479.4	2474.2	2482.6	2483.6	2459.4	2468.9	2474.2	2482.6	2496.3
5°	2461.5	2490.0	2487.9	2478.4	2484.7	2487.9	2465.7	2482.6	2482.6	2485.8	2501.6
7.5°	2447.8	2475.2	2475.2	2472.1	2485.8	2498.4	2478.4	2493.1	2501.6	2510.0	2520.5
10°	2435.2	2458.4	2466.8	2464.7	2496.3	2499.5	2485.8	2521.6	2535.3	2543.7	2556.4
12.5°	2421.5	2449.9	2461.5	2473.1	2506.8	2518.4	2511.0	2547.9	2576.4	2591.1	2604.8
15°	2415.2	2446.8	2465.7	2482.6	2519.5	2540.5	2540.5	2596.4	2630.1	2649.1	2673.3
17.5°	2459.4	2492.1	2506.8	2520.5	2554.2	2582.7	2580.6	2645.9	2695.4	2725.0	2769.2
20°	2569.0	2608.0	2616.4	2621.7	2642.8	2653.3	2650.1	2720.7	2789.2	2845.1	2894.6
22.5°	2759.7	2782.9	2787.1	2766.0	2771.3	2779.7	2774.5	2813.5	2891.4	2956.8	3045.3
25°	2915.7	2952.6	2942.0	2911.5	2915.7	2927.3	2911.5	2971.5	3027.4	3112.7	3202.3
27.5°	3080.1	3107.5	3095.9	3076.9	3072.7	3064.3	3061.1	3138.0	3220.2	3287.6	3420.4
30°	3280.3	3295.0	3261.3	3252.9	3260.2	3265.5	3245.5	3343.5	3418.3	3515.3	3694.4
32.5°	3617.5	3631.2	3582.7	3453.1	3456.2	3480.5	3463.6	3586.9	3728.1	3846.1	4028.4
35°	4047.4	4047.4	4009.5	3827.2	3689.1	3690.2	3694.4	3868.3	4130.6	4395.1	4582.7
37.5°	4482.6	4497.3	4425.7	4259.2	4084.3	3991.5	3913.6	4137.0	4480.5	5070.6	5349.8
40°	4935.7	4958.9	4851.4	4698.6	4497.3	4392.0	4301.3	4437.3	4900.9	5739.7	5961.0
42.5°	5331.9	5364.6	5253.9	5092.7	4952.5	4833.5	4696.5	4751.3	5363.5	6375.1	6500.5
45°	5700.7	5718.6	5624.8	5492.1	5376.1	5310.8	5214.9	5278.1	5892.5	6996.8	6973.6
47.5°	5972.6	5998.9	5913.5	5841.9	5722.8	5683.8	5682.8	5856.6	6487.8	7492.0	7384.6
50°	6414.1	6394.0	6202.3	6114.8	6042.1	6054.7	6085.3	6385.6	7187.5	7969.4	7730.2
52.5°	7154.8	7118.0	6692.3	6510.0	6420.4	6461.5	6477.3	6865.1	7893.5	8381.4	8015.7
55°	8112.7	7994.7	7684.9	7195.9	6914.6	6953.6	6935.7	7380.3	8458.3	8774.4	8227.5
57.5°	8746.0	8856.6	8708.0	8428.8	7730.2	7602.7	7560.5	7890.3	8981.0	9150.6	8446.7
60°	9296.0	9479.4	9715.4	9536.3	9347.7	8870.3	8477.3	8469.9	9441.4	9401.4	8535.2
62.5°	9876.6	9973.6	10337.1	10447.8	10797.6	10710.1	10183.3	9203.3	9901.9	9584.8	8586.9
65°	9289.7	9419.3	10081.1	10684.8	11979.9	12106.3	11934.6	10566.8	10221.2	9678.5	8513.1
67.5°	8396.1	8467.8	9217.0	10264.4	12515.2	12707.0	12534.1	11905.1	10398.2	9637.4	8285.5
70°	7250.7	7335.0	8050.5	9479.4	12487.8	12513.1	12445.6	12028.4	10327.6	9444.6	7712.3
72.5°	5878.8	5985.2	6614.3	8097.9	11889.3	11998.9	11892.4	11783.9	10129.5	8905.1	6724.9
75°	4447.8	4589.0	5150.6	6456.2	10506.8	11058.9	11072.6	11407.7	9360.3	7634.3	4880.9
77.5°	3033.7	3168.6	3700.7	4918.8	8721.7	9603.7	9833.4	10200.1	7820.8	5641.7	2662.8
80°	1708.1	1695.5	2370.9	3514.2	6652.2	7426.7	7715.4	7700.7	5492.1	2896.7	542.7
82.5°	789.2	791.4	1212.8	2243.4	4503.7	5014.7	5131.7	4466.8	1927.3	491.0	172.8
85°	393.0	397.3	583.8	1125.4	2542.7	2937.8	2792.4	1858.8	413.1	143.3	103.3
87.5°	156.0	149.6	230.8	462.6	917.8	972.6	849.3	372.0	74.8	50.6	34.8
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°	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8	2485.8
2.5°	2493.1	2495.2	2504.7	2485.8	2491.0	2486.8	2483.6	2500.5	2499.5	2502.6	2497.3
5°	2500.5	2505.8	2515.3	2506.8	2515.3	2511.0	2514.2	2537.4	2540.5	2539.5	2539.5
7.5°	2520.5	2525.8	2543.7	2533.2	2552.1	2546.9	2547.9	2570.1	2574.3	2567.9	2565.8
10°	2562.7	2566.9	2592.2	2590.1	2597.5	2593.2	2589.0	2598.5	2596.4	2586.9	2582.7
12.5°	2611.1	2622.7	2651.2	2652.2	2661.7	2640.7	2618.5	2615.4	2609.0	2594.3	2591.1
15°	2683.9	2697.6	2740.8	2730.2	2723.9	2678.6	2641.7	2612.2	2586.9	2574.3	2562.7
17.5°	2788.2	2811.4	2871.4	2838.8	2792.4	2726.0	2661.7	2597.5	2543.7	2498.4	2480.5
20°	2920.9	2947.3	2997.9	2954.7	2884.1	2785.0	2680.7	2564.8	2447.8	2347.7	2333.0
22.5°	3079.0	3121.2	3158.0	3059.0	2954.7	2829.3	2680.7	2514.2	2320.3	2170.7	2133.8
25°	3263.4	3296.1	3284.5	3145.4	2994.7	2836.6	2651.2	2424.6	2150.7	1976.8	1947.3
27.5°	3463.6	3478.4	3388.8	3186.5	2998.9	2793.4	2567.9	2265.5	1952.6	1815.6	1787.1
30°	3710.2	3665.9	3495.2	3211.8	2956.8	2697.6	2419.4	2032.6	1791.3	1671.2	1638.6
32.5°	3975.7	3894.6	3571.1	3193.9	2864.0	2537.4	2189.7	1868.3	1683.9	1537.4	1510.0
35°	4481.5	4250.8	3681.7	3140.1	2702.8	2323.5	1967.3	1741.8	1570.1	1413.1	1387.8
37.5°	5164.3	4762.9	3836.6	3065.3	2512.1	2115.9	1801.9	1606.9	1458.4	1296.1	1256.0
40°	5695.4	5280.3	4085.3	2985.2	2336.1	1918.8	1681.8	1536.3	1384.6	1211.8	1177.0
42.5°	6201.2	5753.4	4390.9	2895.7	2154.9	1781.9	1629.1	1520.5	1364.6	1188.6	1155.9
45°	6648.0	6135.9	4654.3	2806.1	1950.5	1655.4	1590.1	1490.0	1336.1	1159.1	1127.5
47.5°	7009.4	6464.6	4883.0	2709.1	1765.0	1559.5	1539.5	1434.1	1281.3	1099.0	1061.1
50°	7336.1	6742.8	5041.1	2605.9	1583.8	1481.5	1456.3	1331.9	1172.8	1011.6	987.3
52.5°	7537.3	6931.5	5135.9	2622.7	1412.0	1394.1	1353.0	1225.5	1078.0	939.9	908.3
55°	7748.1	7109.5	5134.8	2527.9	1268.7	1262.4	1223.4	1125.4	1009.5	893.6	874.6
57.5°	7834.5	7125.3	5038.9	2082.2	1142.2	1102.2	1093.8	1042.1	941.0	831.4	810.3
60°	7892.5	7055.8	4857.7	1421.5	983.1	954.7	995.8	961.0	869.3	754.5	733.4
62.5°	7835.6	6979.9	4382.5	1026.3	862.0	877.8	916.7	878.8	782.9	678.6	660.7
65°	7699.6	6690.1	3460.5	799.8	808.2	843.0	873.5	810.3	634.3	531.1	520.5
67.5°	7328.7	6139.0	2226.5	733.4	777.7	813.5	824.0	686.0	574.3	475.2	463.6
70°	6547.9	4928.3	857.7	691.2	747.1	762.9	719.7	629.1	527.9	442.6	432.0
72.5°	5122.2	3236.0	495.3	632.2	681.8	667.0	668.1	564.8	476.3	395.1	386.7
75°	3183.3	1171.8	440.5	562.7	577.4	604.8	570.1	490.0	409.9	361.4	350.9
77.5°	1052.7	333.0	407.8	484.7	517.4	497.4	477.3	418.3	350.9	313.0	307.7
80°	255.0	249.7	365.6	379.3	405.7	372.0	369.9	347.7	296.1	274.0	268.7
82.5°	157.0	179.1	290.8	236.0	270.8	274.0	311.9	286.6	216.0	224.4	217.1
85°	96.9	138.0	152.8	113.8	114.9	153.8	186.5	172.8	129.6	122.2	121.2
87.5°	32.7	28.5	32.7	24.2	32.7	55.8	84.3	80.1	53.7	36.9	34.8
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)