

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: P509904

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

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P509904
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-CA3-160-750-U-T4-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 5000K, 1000mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21356 lumens
Efficiency: N/A
Efficacy: 131.3 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

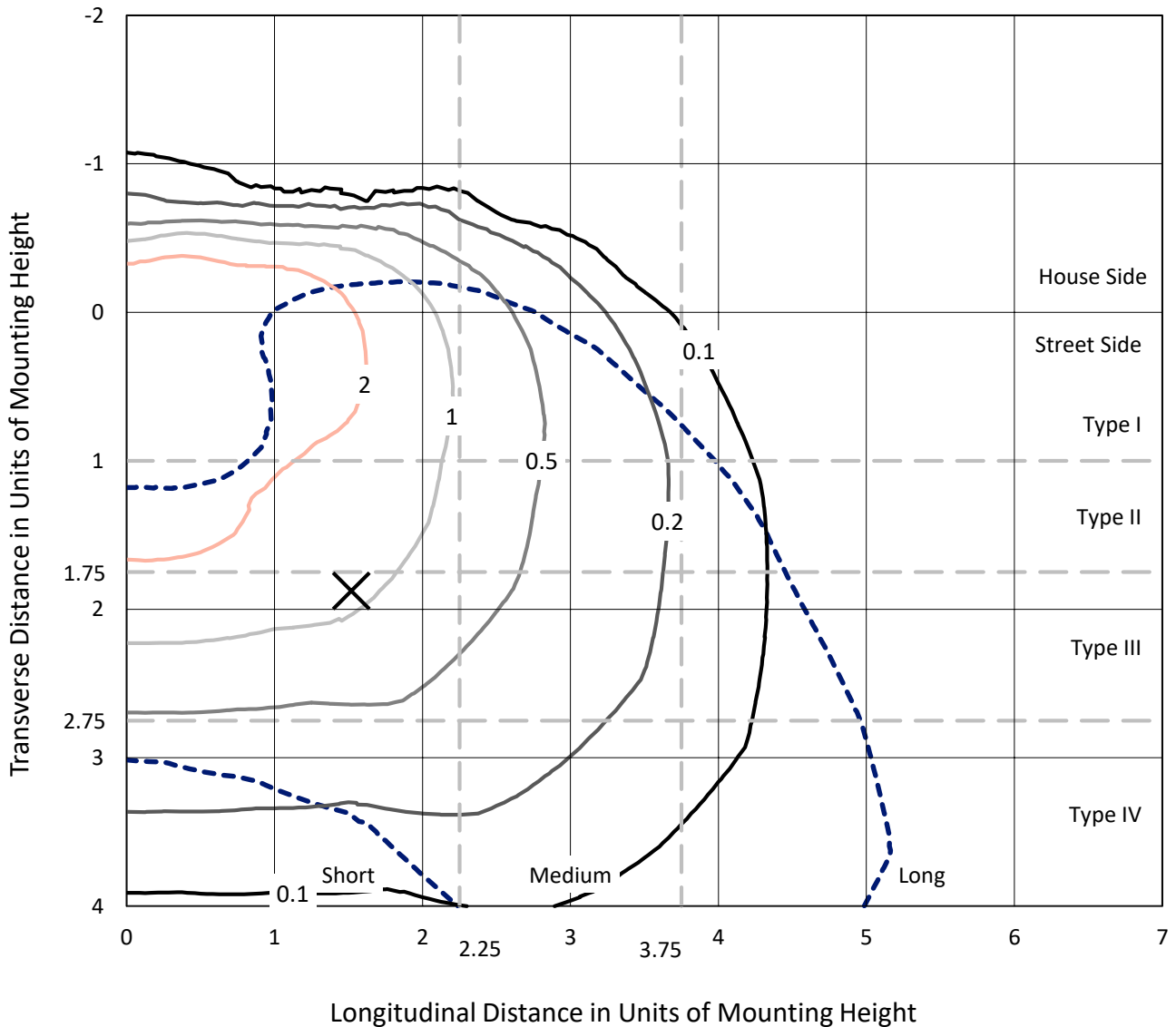
Input Watts (W): 162.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

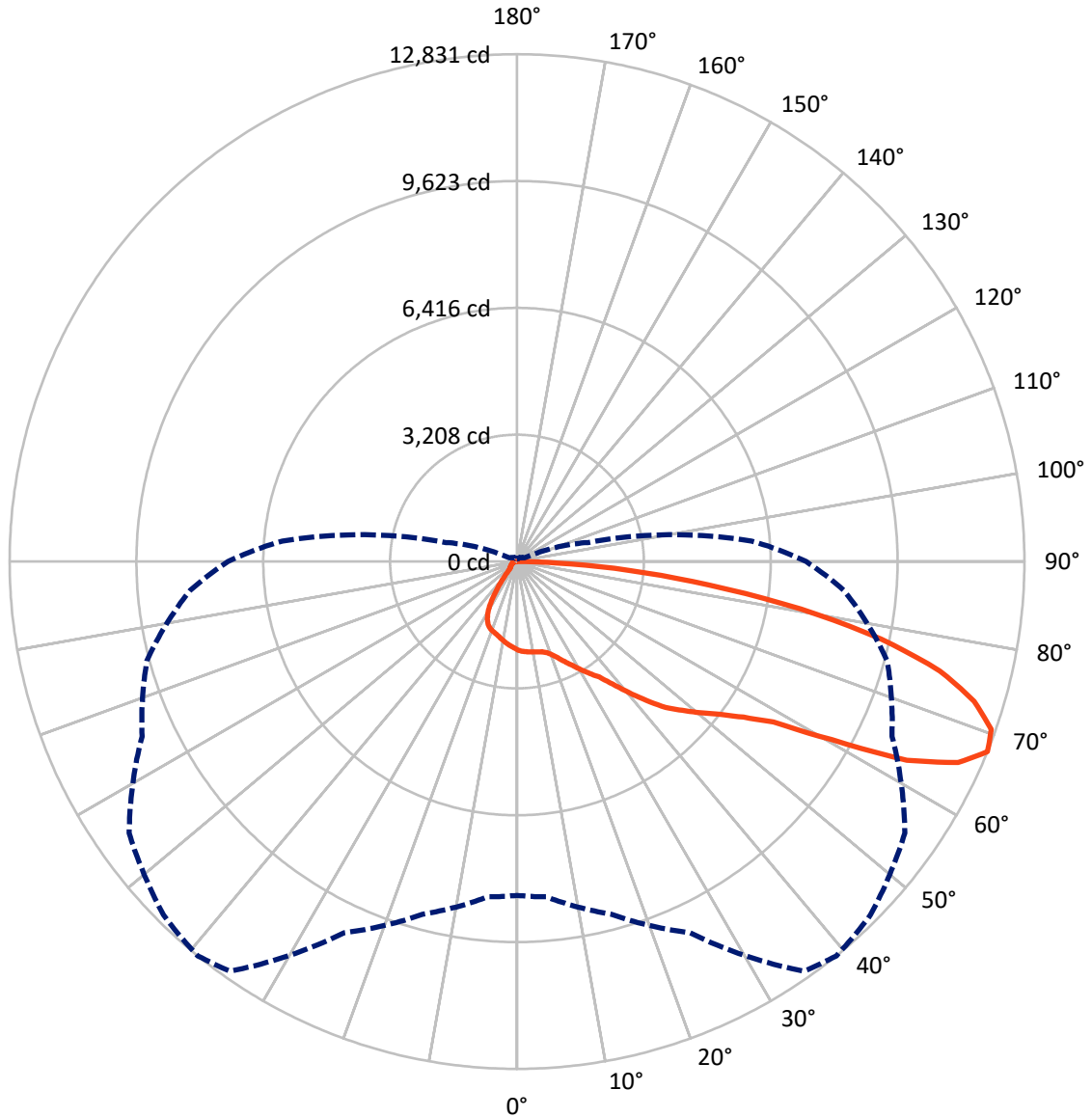
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 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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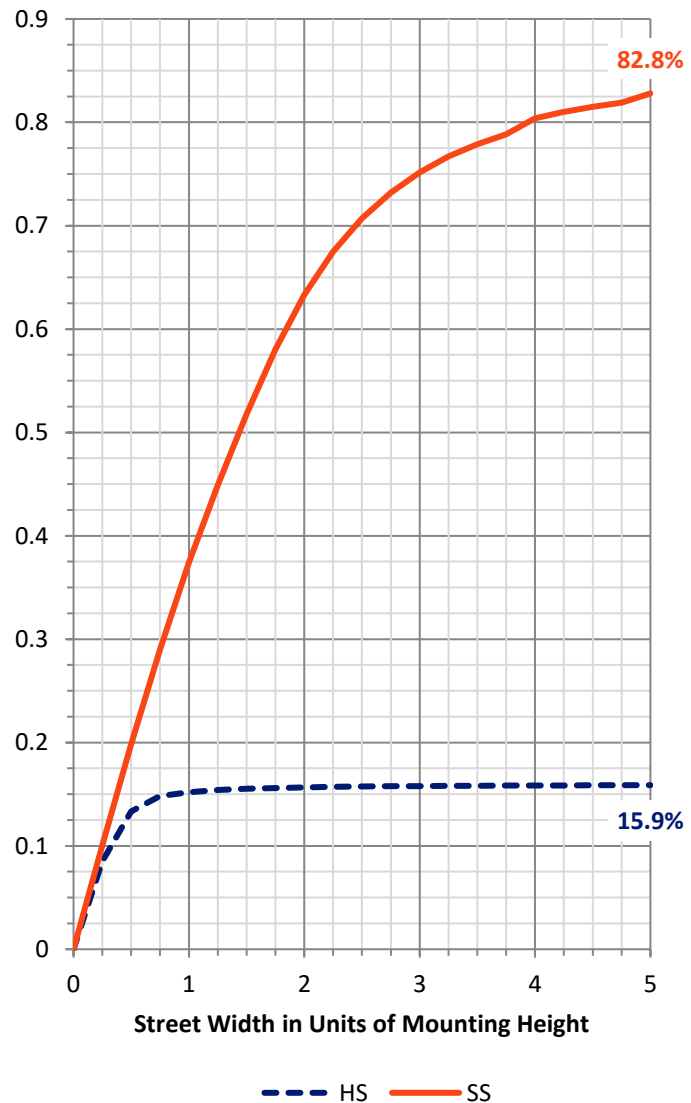
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3429.2	0.0	3429.2
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	17926.8	0.0	17926.8
	% Fixture	83.9	0.0	83.9
Total	Lumens	21356.0	0.0	21356.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.1	1.0
10°-20°	628.3	2.9
20°-30°	1113.2	5.2
30°-40°	1783.0	8.3
40°-50°	2860.3	13.4
50°-60°	4180.9	19.6
60°-70°	5571.3	26.1
70°-80°	4180.8	19.6
80°-90°	827.2	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°	21356.0	100.0
0°-180°	21356.0	100.0



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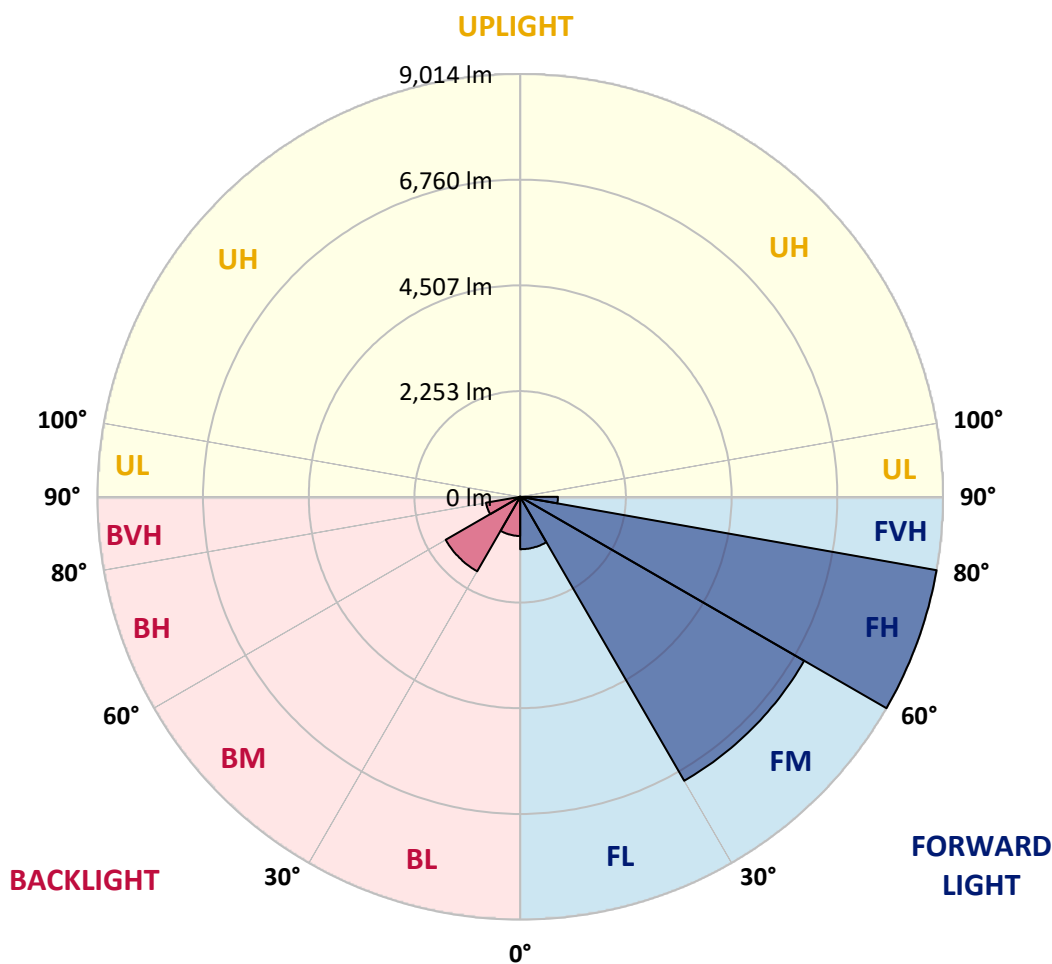
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1117.6	5.2			
FM (30°-60°)	6990.0	32.7			
FH (60°-80°)	9013.7	42.2			G4/12000
FVH (80°-90°)	805.5	3.8			G5
BL (0°-30°)	835.1	3.9	B2/1000		
BM (30°-60°)	1834.2	8.6	B2/2500		
BH (60°-80°)	738.4	3.5	B2/1000		G2/1000
BVH (80°-90°)	21.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2
2.5°	2238.3	2268.4	2268.4	2259.8	2265.2	2269.5	2237.3	2245.9	2242.6	2241.6	2248.0
5°	2255.5	2288.8	2286.6	2275.9	2280.2	2288.8	2258.7	2271.6	2267.3	2256.6	2258.7
7.5°	2255.5	2283.4	2289.9	2278.0	2298.4	2309.2	2277.0	2288.8	2294.1	2286.6	2279.1
10°	2246.9	2271.6	2280.2	2278.0	2304.9	2322.0	2290.9	2324.2	2328.5	2328.5	2316.7
12.5°	2243.7	2271.6	2283.4	2293.1	2324.2	2342.4	2324.2	2356.4	2377.8	2376.8	2369.3
15°	2245.9	2277.0	2295.2	2311.3	2344.6	2367.1	2359.6	2409.0	2434.7	2442.2	2442.2
17.5°	2299.5	2337.1	2345.7	2362.8	2385.4	2419.7	2410.0	2473.3	2514.1	2527.0	2545.2
20°	2449.7	2478.7	2489.4	2480.9	2490.5	2512.0	2492.7	2553.8	2615.0	2649.3	2679.4
22.5°	2641.8	2663.3	2653.6	2645.0	2639.7	2645.0	2621.4	2662.2	2730.9	2780.2	2831.7
25°	2787.7	2835.0	2827.4	2803.8	2796.3	2802.8	2772.7	2823.2	2886.5	2938.0	3015.2
27.5°	2964.8	2993.8	2973.4	2964.8	2970.2	2969.1	2950.8	2999.1	3057.1	3121.5	3235.2
30°	3156.9	3181.5	3161.2	3152.6	3162.2	3168.7	3148.3	3233.0	3294.2	3364.0	3511.0
32.5°	3472.3	3531.4	3475.6	3364.0	3366.1	3375.8	3377.9	3491.6	3603.2	3658.0	3852.2
35°	3921.9	3969.1	3895.1	3759.9	3591.4	3585.0	3602.2	3771.7	3996.0	4244.9	4472.4
37.5°	4341.5	4410.2	4343.6	4185.9	3981.0	3931.6	3842.5	4044.3	4397.3	4932.7	5216.0
40°	4844.7	4896.3	4764.3	4626.9	4422.0	4352.2	4209.5	4338.3	4822.2	5650.6	5845.9
42.5°	5249.3	5280.4	5170.9	5027.2	4849.0	4796.5	4649.5	4661.3	5276.1	6279.4	6404.9
45°	5623.8	5657.0	5566.9	5444.6	5331.9	5268.6	5161.3	5219.2	5808.3	6942.5	6866.3
47.5°	5908.1	5941.4	5869.5	5782.6	5665.6	5622.7	5624.8	5833.0	6459.7	7472.6	7280.5
50°	6373.8	6360.9	6173.2	6078.7	5987.5	6010.1	6033.7	6329.8	7116.4	7927.6	7663.6
52.5°	7186.1	7122.8	6735.4	6488.6	6376.0	6414.6	6453.2	6847.0	7862.1	8342.8	7957.6
55°	8104.6	8040.2	7710.8	7182.9	6884.6	6946.8	6913.6	7358.9	8488.8	8742.0	8200.1
57.5°	8787.1	8893.3	8767.8	8480.2	7733.4	7651.8	7577.8	7876.1	8995.2	9141.2	8433.0
60°	9380.5	9528.5	9752.8	9674.5	9356.8	9144.4	8465.2	8480.2	9482.4	9418.0	8525.2
62.5°	9959.9	10046.8	10431.0	10515.7	10909.5	11061.9	10371.9	9261.3	9953.5	9610.1	8587.5
65°	9380.5	9492.1	10160.6	10777.5	12050.2	12254.0	12011.5	10675.6	10300.0	9723.8	8515.6
67.5°	8443.7	8511.3	9233.5	10355.8	12646.8	12831.3	12642.5	11974.0	10462.1	9689.5	8292.4
70°	7219.4	7325.6	8034.9	9539.3	12625.3	12724.0	12559.9	12130.6	10400.9	9492.1	7729.1
72.5°	5970.4	6030.4	6631.3	8132.5	12008.3	12090.9	12004.0	11890.3	10194.9	8941.6	6646.4
75°	4487.4	4500.3	5116.2	6422.1	10617.7	11049.0	11155.3	11476.1	9406.2	7664.7	4915.6
77.5°	3008.8	3136.5	3727.7	4908.1	8716.2	9406.2	9909.5	10143.4	7858.9	5720.3	2613.9
80°	1614.9	1647.1	2284.5	3483.1	6623.8	7283.7	7761.2	7765.5	5496.1	2833.9	583.7
82.5°	747.9	716.8	1150.3	2204.0	4588.3	4882.3	5202.1	4357.6	2200.8	483.9	149.2
85°	331.6	349.8	520.4	1074.1	2546.3	2841.4	2800.6	1929.3	386.3	130.9	91.2
87.5°	123.4	129.8	201.7	433.5	908.9	991.5	891.7	371.3	50.4	46.1	27.9
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°	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2	2236.2
2.5°	2240.5	2240.5	2238.3	2209.4	2202.9	2189.0	2177.2	2185.8	2176.1	2182.5	2176.1
5°	2250.2	2244.8	2231.9	2197.6	2181.5	2150.4	2126.8	2132.1	2119.2	2119.2	2118.2
7.5°	2272.7	2262.0	2239.4	2184.7	2154.7	2109.6	2073.1	2061.3	2048.4	2033.4	2031.3
10°	2309.2	2294.1	2264.1	2189.0	2131.0	2071.0	2007.6	1983.0	1950.8	1927.2	1922.9
12.5°	2359.6	2337.1	2296.3	2205.1	2128.9	2033.4	1948.6	1900.3	1861.7	1827.4	1819.9
15°	2432.6	2410.0	2361.7	2237.3	2130.0	1998.0	1886.4	1805.9	1739.4	1707.2	1708.3
17.5°	2538.8	2522.7	2448.7	2304.9	2150.4	1979.7	1834.9	1707.2	1604.2	1550.5	1543.0
20°	2675.1	2664.3	2574.2	2393.9	2197.6	1983.0	1779.1	1602.0	1450.7	1333.8	1308.0
22.5°	2833.9	2817.8	2707.3	2471.2	2234.1	1974.4	1717.9	1486.2	1258.7	1106.3	1076.3
25°	3010.9	3002.3	2829.6	2538.8	2238.3	1937.9	1629.9	1335.9	1050.5	887.4	861.6
27.5°	3237.3	3186.9	2940.1	2575.3	2228.7	1866.0	1504.4	1129.9	834.8	722.2	694.3
30°	3485.2	3383.3	3047.4	2603.2	2181.5	1751.2	1325.2	891.7	621.3	521.5	507.5
32.5°	3759.9	3607.5	3148.3	2601.0	2097.8	1574.1	1092.3	619.1	419.6	378.8	364.8
35°	4256.7	3998.1	3269.5	2565.6	1957.2	1363.8	771.5	403.5	311.2	286.5	283.3
37.5°	4946.7	4507.8	3432.6	2498.0	1775.9	1119.2	503.3	275.8	266.1	267.2	266.1
40°	5512.2	5076.5	3659.0	2396.1	1547.3	799.4	301.5	245.7	251.1	254.3	255.4
42.5°	6065.9	5540.1	3939.1	2268.4	1308.0	519.3	244.7	235.0	230.7	236.1	238.2
45°	6511.2	5944.6	4203.1	2119.2	1028.0	306.9	237.1	217.8	210.3	212.5	215.7
47.5°	6867.4	6266.5	4361.9	1945.4	751.1	231.8	230.7	202.8	192.1	189.9	188.9
50°	7203.3	6542.3	4463.8	1735.1	478.6	223.2	213.5	185.6	172.8	170.6	170.6
52.5°	7431.8	6722.6	4498.2	1486.2	285.4	217.8	201.7	171.7	154.5	157.7	159.9
55°	7655.0	6905.0	4427.3	1162.1	218.9	203.9	188.9	154.5	140.6	153.4	157.7
57.5°	7761.2	6931.8	4267.5	808.0	212.5	184.6	170.6	138.4	127.7	135.2	135.2
60°	7847.1	6913.6	4044.3	511.8	207.1	171.7	155.6	125.5	112.7	108.4	105.2
62.5°	7790.2	6840.6	3595.7	333.7	192.1	156.7	141.6	115.9	97.6	85.8	84.8
65°	7669.0	6583.1	2870.4	262.9	178.1	149.2	128.8	104.1	85.8	71.9	70.8
67.5°	7311.6	5956.4	1857.4	217.8	170.6	143.8	119.1	96.6	76.2	62.2	61.2
70°	6455.4	4811.5	569.8	195.3	177.1	138.4	117.0	88.0	67.6	54.7	52.6
72.5°	5104.4	3214.8	211.4	162.0	152.4	133.1	113.7	79.4	57.9	46.1	44.0
75°	3287.8	1050.5	179.2	125.5	129.8	126.6	105.2	73.0	49.4	37.6	36.5
77.5°	931.4	220.0	163.1	92.3	114.8	122.3	92.3	61.2	44.0	32.2	31.1
80°	195.3	156.7	149.2	65.5	85.8	79.4	62.2	47.2	41.8	27.9	27.9
82.5°	127.7	124.5	127.7	45.1	56.9	57.9	49.4	40.8	36.5	25.8	25.8
85°	90.1	113.7	61.2	32.2	26.8	24.7	29.0	35.4	32.2	21.5	21.5
87.5°	31.1	18.2	12.9	12.9	11.8	11.8	13.9	16.1	17.2	17.2	16.1
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)