

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: P509896

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

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P509896
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-CA3-160-740-U-T4-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K, 1000mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20971 lumens
Efficiency: N/A
Efficacy: 128.9 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

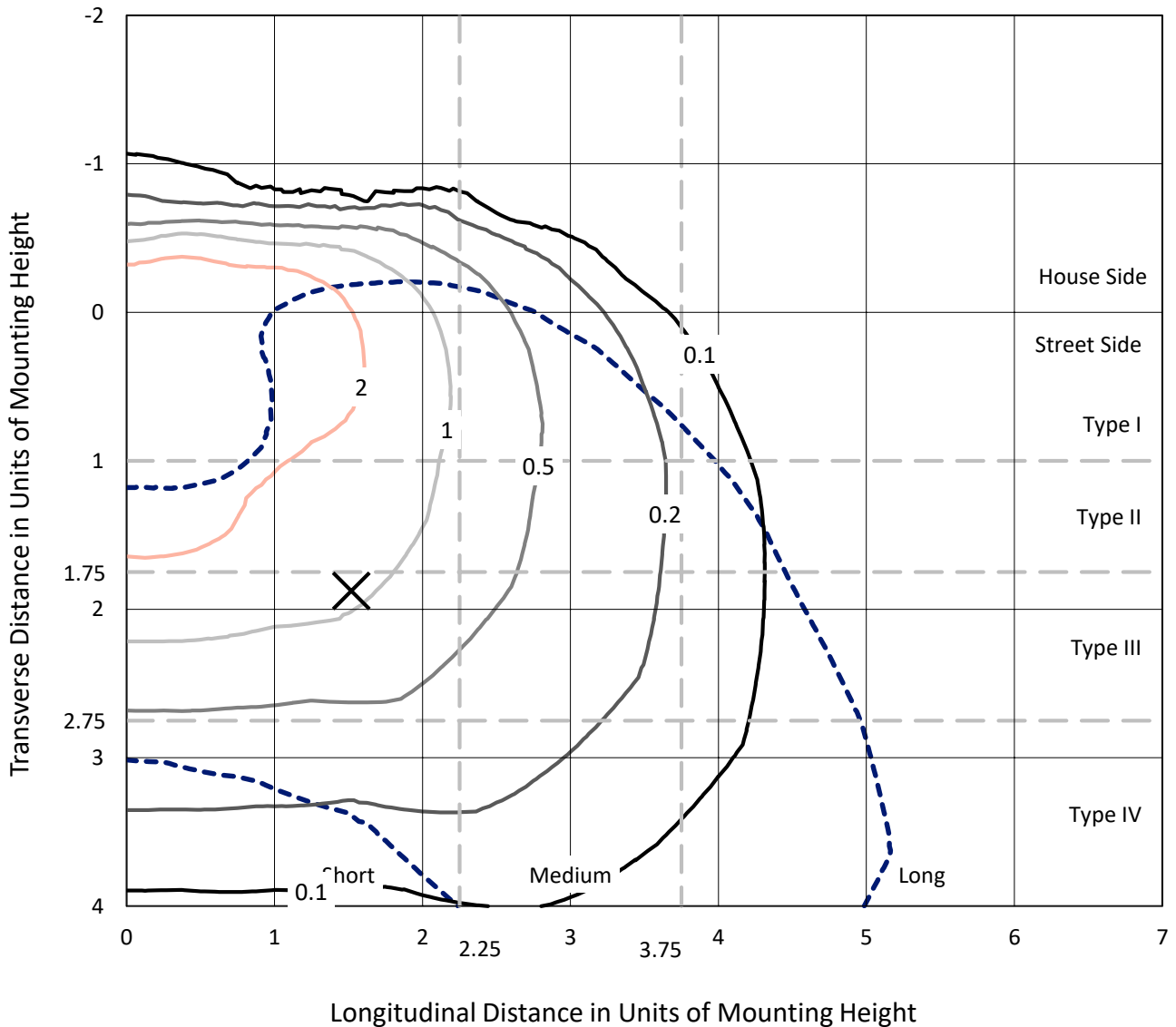
Input Watts (W): 162.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

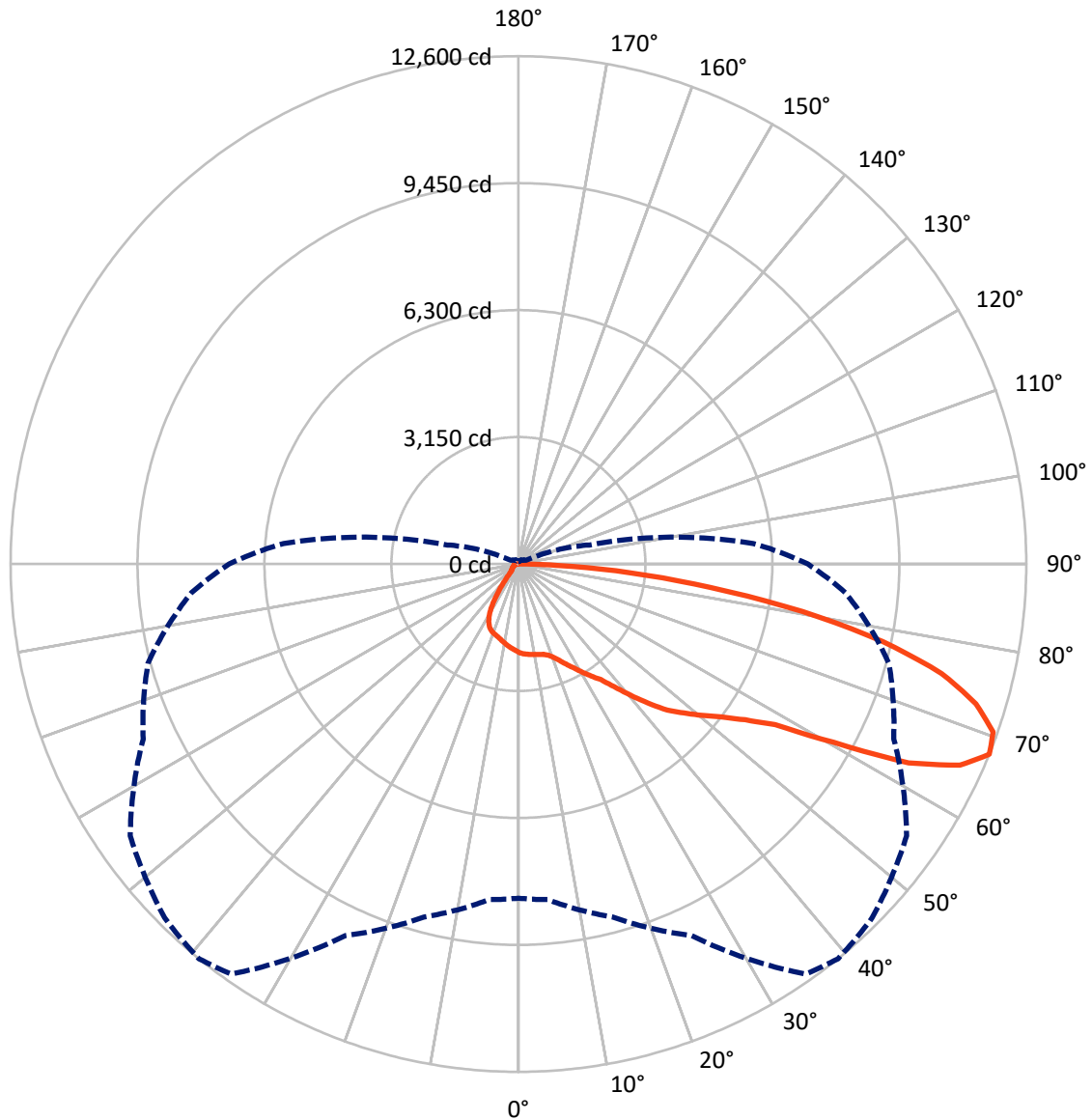
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 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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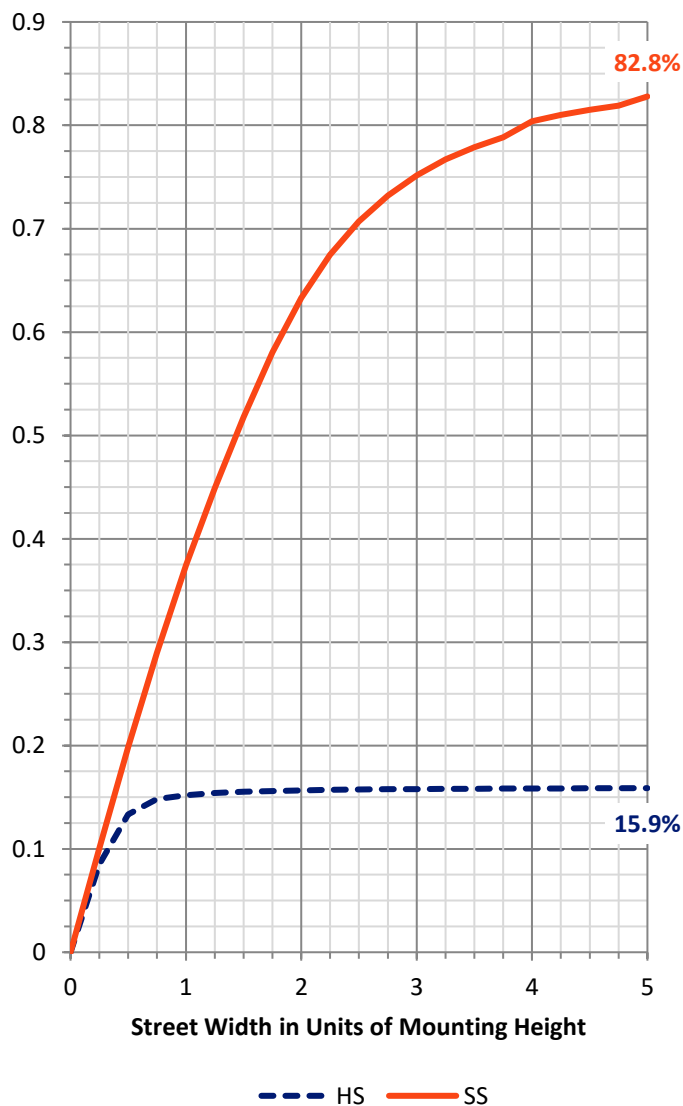
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3367.4	0.0	3367.4
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	17603.6	0.0	17603.6
	% Fixture	83.9	0.0	83.9
Total	Lumens	20971.0	0.0	20971.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.3	1.0
10°-20°	617.0	2.9
20°-30°	1093.1	5.2
30°-40°	1750.8	8.3
40°-50°	2808.7	13.4
50°-60°	4105.5	19.6
60°-70°	5470.8	26.1
70°-80°	4105.4	19.6
80°-90°	812.3	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°	20971.0	100.0
0°-180°	20971.0	100.0

Coefficient of Utilization



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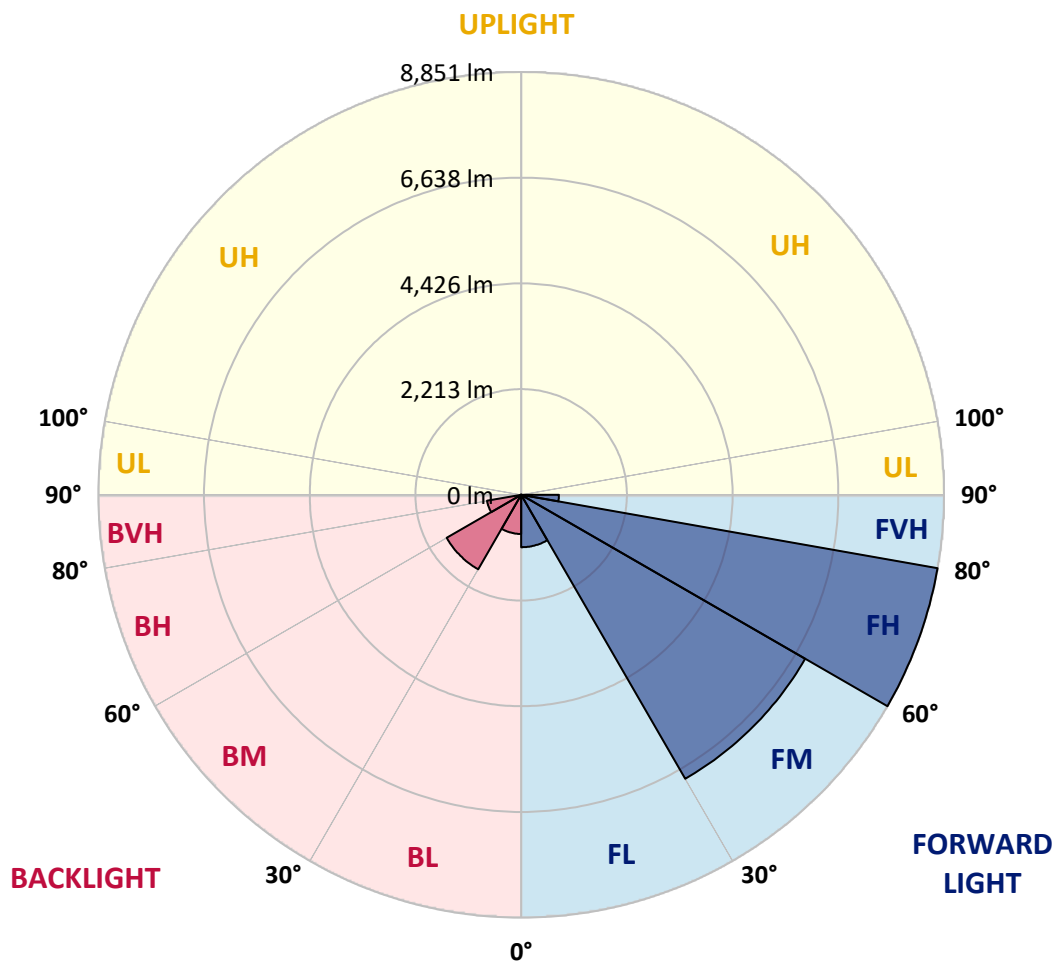
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1097.4	5.2			
FM	(30°-60°)	6864.0	32.7			
FH	(60°-80°)	8851.2	42.2			G4/12000
FVH	(80°-90°)	791.0	3.8			G5
BL	(0°-30°)	820.0	3.9	B2/1000		
BM	(30°-60°)	1801.1	8.6	B2/2500		
BH	(60°-80°)	725.1	3.5	B2/1000		G2/1000
BVH	(80°-90°)	21.3	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°	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9
2.5°	2198.0	2227.5	2227.5	2219.1	2224.3	2228.6	2196.9	2205.4	2202.2	2201.2	2207.5
5°	2214.9	2247.5	2245.4	2234.9	2239.1	2247.5	2218.0	2230.7	2226.4	2215.9	2218.0
7.5°	2214.9	2242.2	2248.6	2237.0	2257.0	2267.5	2235.9	2247.5	2252.8	2245.4	2238.0
10°	2206.4	2230.7	2239.1	2237.0	2263.3	2280.2	2249.6	2282.3	2286.5	2286.5	2274.9
12.5°	2203.3	2230.7	2242.2	2251.7	2282.3	2300.2	2282.3	2313.9	2335.0	2333.9	2326.5
15°	2205.4	2235.9	2253.8	2269.6	2302.3	2324.4	2317.1	2365.5	2390.8	2398.2	2398.2
17.5°	2258.1	2294.9	2303.4	2320.2	2342.4	2376.1	2366.6	2428.8	2468.8	2481.4	2499.3
20°	2405.6	2434.0	2444.6	2436.1	2445.6	2466.7	2447.7	2507.8	2567.8	2601.6	2631.1
22.5°	2594.2	2615.3	2605.8	2597.3	2592.1	2597.3	2574.2	2614.2	2681.6	2730.1	2780.7
25°	2737.5	2783.8	2776.5	2753.3	2745.9	2752.2	2722.7	2772.3	2834.4	2885.0	2960.9
27.5°	2911.3	2939.8	2919.8	2911.3	2916.6	2915.6	2897.6	2945.1	3002.0	3065.2	3176.9
30°	3100.0	3124.2	3104.2	3095.7	3105.2	3111.5	3091.5	3174.8	3234.8	3303.3	3447.7
32.5°	3409.7	3467.7	3412.9	3303.3	3305.4	3314.9	3317.0	3428.7	3538.3	3592.0	3782.7
35°	3851.2	3897.6	3824.9	3692.1	3526.7	3520.4	3537.2	3703.7	3923.9	4168.4	4391.8
37.5°	4263.2	4330.7	4265.3	4110.4	3909.2	3860.7	3773.3	3971.4	4318.0	4843.8	5122.0
40°	4757.4	4808.0	4678.4	4543.5	4342.3	4273.8	4133.6	4260.1	4735.3	5548.7	5740.5
42.5°	5154.6	5185.2	5077.7	4936.5	4761.6	4710.0	4565.6	4577.2	5181.0	6166.2	6289.5
45°	5522.4	5555.0	5466.5	5346.4	5235.8	5173.6	5068.2	5125.1	5703.6	6817.4	6742.6
47.5°	5801.6	5834.3	5763.7	5678.3	5563.5	5521.3	5523.4	5727.9	6343.2	7337.9	7149.3
50°	6258.9	6246.3	6061.9	5969.1	5879.6	5901.7	5924.9	6215.7	6988.1	7784.7	7525.4
52.5°	7056.6	6994.4	6614.0	6371.7	6261.0	6299.0	6336.9	6723.6	7720.4	8192.4	7814.2
55°	7958.5	7895.3	7571.8	7053.4	6760.5	6821.6	6788.9	7226.2	8335.7	8584.4	8052.3
57.5°	8628.7	8733.0	8609.7	8327.3	7593.9	7513.9	7441.2	7734.1	8833.1	8976.4	8280.9
60°	9211.3	9356.8	9577.0	9500.1	9188.2	8979.5	8312.6	8327.3	9311.4	9248.2	8371.6
62.5°	9780.3	9865.7	10242.9	10326.2	10712.9	10862.5	10185.0	9094.4	9774.0	9436.8	8432.7
65°	9211.3	9320.9	9977.4	10583.3	11832.9	12033.1	11795.0	10483.2	10114.4	9548.5	8362.1
67.5°	8291.5	8357.9	9067.0	10169.2	12418.8	12600.0	12414.6	11758.1	10273.5	9514.8	8142.9
70°	7089.2	7193.5	7890.0	9367.3	12397.7	12494.6	12333.4	11912.0	10213.4	9320.9	7589.7
72.5°	5862.7	5921.7	6511.8	7985.9	11791.8	11873.0	11787.6	11675.9	10011.1	8780.4	6526.5
75°	4406.5	4419.2	5024.0	6306.3	10426.3	10849.8	10954.1	11269.2	9236.6	7526.5	4826.9
77.5°	2954.5	3079.9	3660.5	4819.6	8559.1	9236.6	9730.8	9960.5	7717.2	5617.2	2566.8
80°	1585.8	1617.4	2243.3	3420.3	6504.4	7152.4	7621.3	7625.5	5397.0	2782.8	573.2
82.5°	734.4	703.9	1129.6	2164.3	4505.6	4794.3	5108.3	4279.0	2161.1	475.2	146.5
85°	325.6	343.5	511.0	1054.7	2500.4	2790.2	2750.1	1894.5	379.3	128.6	89.6
87.5°	121.2	127.5	198.1	425.7	892.5	973.6	875.6	364.6	49.5	45.3	27.4
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°	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9
2.5°	2200.1	2200.1	2198.0	2169.5	2163.2	2149.5	2137.9	2146.4	2136.9	2143.2	2136.9
5°	2209.6	2204.3	2191.7	2158.0	2142.1	2111.6	2088.4	2093.7	2081.0	2081.0	2080.0
7.5°	2231.7	2221.2	2199.0	2145.3	2115.8	2071.6	2035.7	2024.1	2011.5	1996.7	1994.6
10°	2267.5	2252.8	2223.3	2149.5	2092.6	2033.6	1971.5	1947.2	1915.6	1892.4	1888.2
12.5°	2317.1	2294.9	2254.9	2165.3	2090.5	1996.7	1913.5	1866.1	1828.2	1794.4	1787.1
15°	2388.7	2366.6	2319.2	2196.9	2091.6	1962.0	1852.4	1773.4	1708.0	1676.4	1677.5
17.5°	2493.0	2477.2	2404.5	2263.3	2111.6	1944.1	1801.8	1676.4	1575.3	1522.6	1515.2
20°	2626.8	2616.3	2527.8	2350.8	2158.0	1947.2	1747.0	1573.2	1424.6	1309.7	1284.4
22.5°	2782.8	2767.0	2658.5	2426.6	2193.8	1938.8	1687.0	1459.4	1236.0	1086.4	1056.8
25°	2956.7	2948.2	2778.6	2493.0	2198.0	1903.0	1600.6	1311.8	1031.6	871.4	846.1
27.5°	3179.0	3129.5	2887.1	2528.9	2188.5	1832.4	1477.3	1109.5	819.8	709.1	681.7
30°	3422.4	3322.3	2992.5	2556.2	2142.1	1719.6	1301.3	875.6	610.1	512.1	498.4
32.5°	3692.1	3542.5	3091.5	2554.1	2060.0	1545.8	1072.7	608.0	412.0	372.0	358.3
35°	4180.0	3926.0	3210.6	2519.4	1921.9	1339.2	757.6	396.2	305.6	281.3	278.2
37.5°	4857.5	4426.5	3370.8	2453.0	1743.9	1099.0	494.2	270.8	261.3	262.4	261.3
40°	5412.8	4985.0	3593.1	2352.9	1519.4	785.0	296.1	241.3	246.6	249.7	250.8
42.5°	5956.5	5440.2	3868.1	2227.5	1284.4	510.0	240.2	230.8	226.5	231.8	233.9
45°	6393.8	5837.4	4127.3	2081.0	1009.4	301.4	232.9	213.9	206.5	208.6	211.8
47.5°	6743.6	6153.5	4283.2	1910.3	737.6	227.6	226.5	199.1	188.6	186.5	185.4
50°	7073.4	6424.3	4383.3	1703.8	469.9	219.2	209.7	182.3	169.6	167.5	167.5
52.5°	7297.8	6601.4	4417.1	1459.4	280.3	213.9	198.1	168.6	151.7	154.9	157.0
55°	7517.0	6780.5	4347.5	1141.1	215.0	200.2	185.4	151.7	138.0	150.7	154.9
57.5°	7621.3	6806.8	4190.5	793.4	208.6	181.2	167.5	135.9	125.4	132.8	132.8
60°	7705.6	6788.9	3971.4	502.6	203.4	168.6	152.8	123.3	110.6	106.4	103.3
62.5°	7649.8	6717.3	3530.9	327.7	188.6	153.8	139.1	113.8	95.9	84.3	83.2
65°	7530.7	6464.4	2818.6	258.2	174.9	146.5	126.4	102.2	84.3	70.6	69.5
67.5°	7179.8	5849.0	1823.9	213.9	167.5	141.2	117.0	94.8	74.8	61.1	60.1
70°	6339.0	4724.7	559.5	191.8	173.9	135.9	114.9	86.4	66.4	53.7	51.6
72.5°	5012.4	3156.9	207.6	159.1	149.6	130.7	111.7	78.0	56.9	45.3	43.2
75°	3228.5	1031.6	176.0	123.3	127.5	124.3	103.3	71.7	48.5	36.9	35.8
77.5°	914.6	216.0	160.2	90.6	112.7	120.1	90.6	60.1	43.2	31.6	30.6
80°	191.8	153.8	146.5	64.3	84.3	78.0	61.1	46.4	41.1	27.4	27.4
82.5°	125.4	122.2	125.4	44.3	55.8	56.9	48.5	40.0	35.8	25.3	25.3
85°	88.5	111.7	60.1	31.6	26.3	24.2	28.4	34.8	31.6	21.1	21.1
87.5°	30.6	17.9	12.6	12.6	11.6	11.6	13.7	15.8	16.9	16.9	15.8
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)