

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: P510181

Luminaire Tested: **VERD-M-CA4-220-740-U-T2**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510181
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA4-220-740-U-T2
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 4000K, 1000mA LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31198 lumens
Efficiency: N/A
Efficacy: 140.2 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

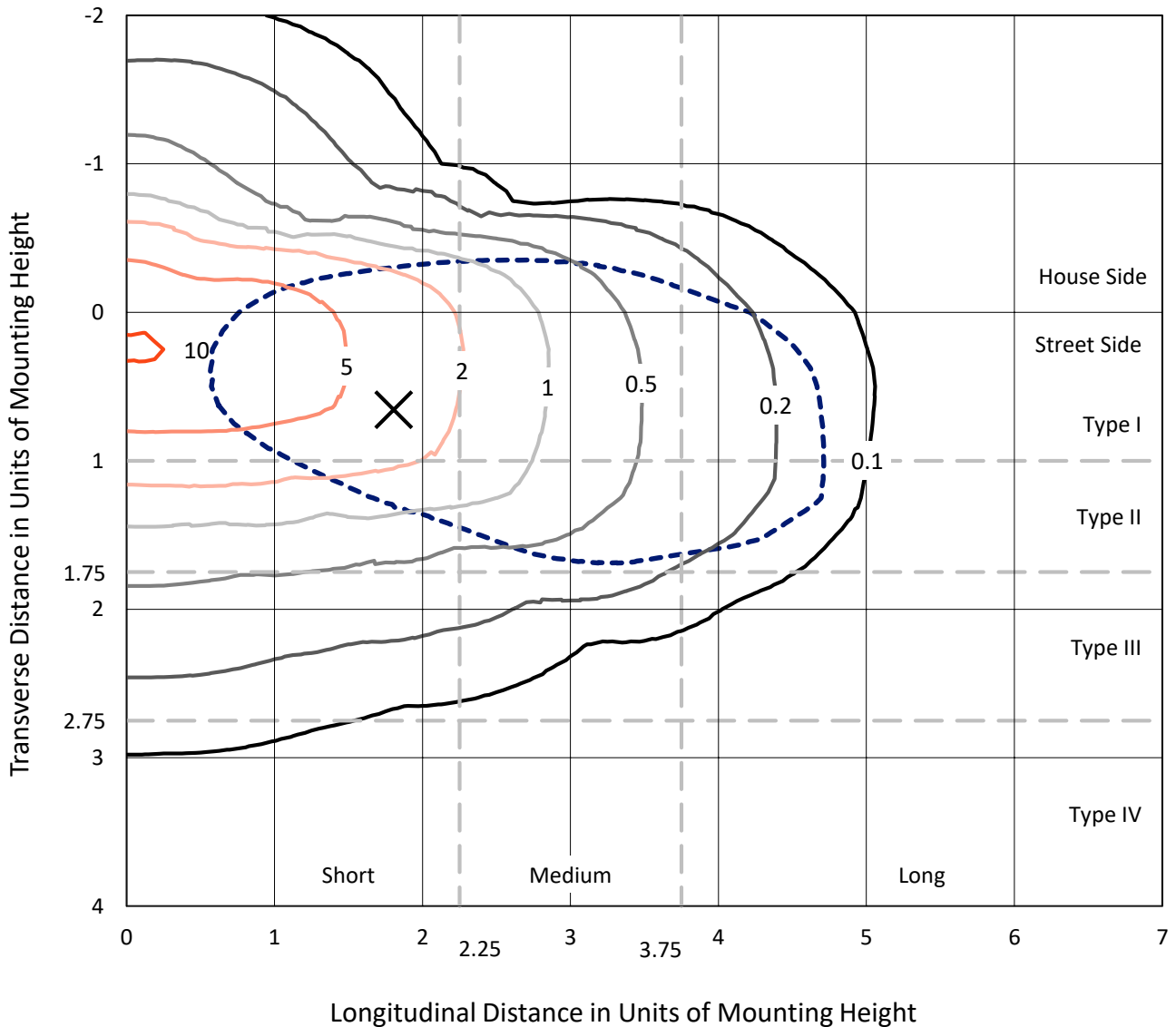
Input Watts (W): 222.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

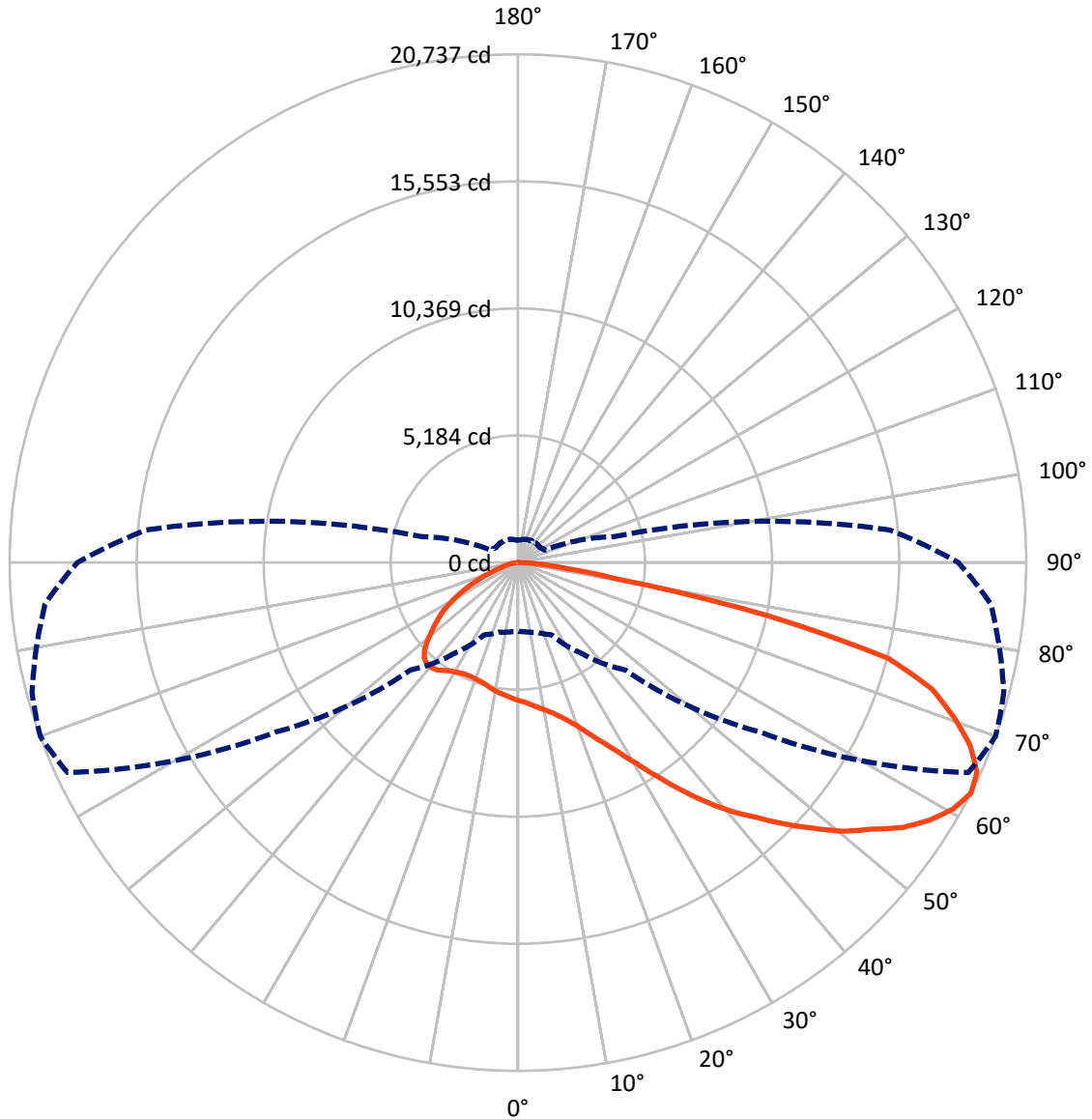
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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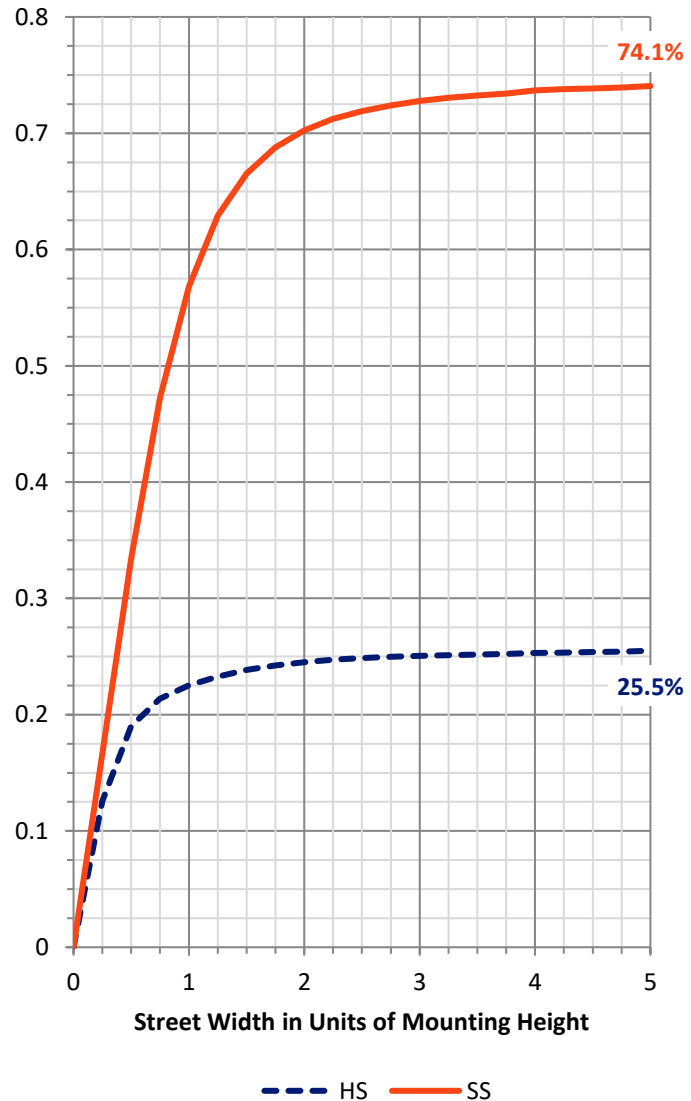
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8077.3	0.0	8077.3
	% Fixture	25.9	0.0	25.9
Street Side	Lumens	23120.7	0.0	23120.7
	% Fixture	74.1	0.0	74.1
Total	Lumens	31198.0	0.0	31198.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	540.8	1.7
10°-20°	1642.4	5.3
20°-30°	2787.5	8.9
30°-40°	4033.4	12.9
40°-50°	5292.7	17.0
50°-60°	6184.4	19.8
60°-70°	6206.3	19.9
70°-80°	3954.7	12.7
80°-90°	555.8	1.8
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°	31198.0	100.0
0°-180°	31198.0	100.0



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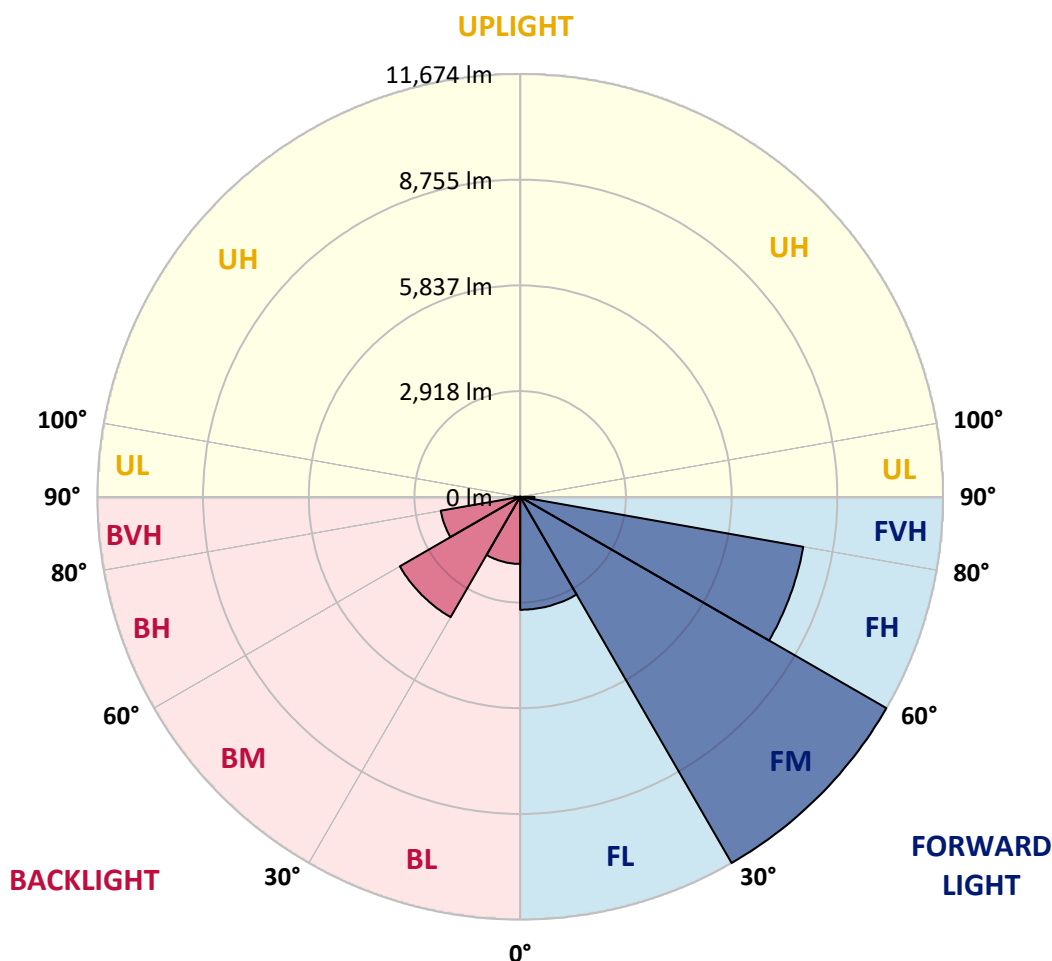
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3118.3	10.0			
FM (30°-60°)	11674.0	37.4			
FH (60°-80°)	7936.5	25.4			G4/12000
FVH (80°-90°)	392.0	1.3			G3/500
BL (0°-30°)	1852.5	5.9	B3/2500		
BM (30°-60°)	3836.5	12.3	B3/5000		
BH (60°-80°)	2224.6	7.1	B3/2500		G3/2500
BVH (80°-90°)	163.7	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8
2.5°	5846.5	5908.5	5900.1	5862.0	5888.8	5815.5	5788.7	5747.8	5705.5	5691.4	5667.5
5°	6122.8	6204.6	6189.1	6138.3	6136.9	6032.6	5973.4	5895.9	5831.0	5780.2	5705.5
7.5°	6380.8	6475.3	6461.2	6411.8	6409.0	6289.2	6166.5	6045.3	5970.6	5905.7	5769.0
10°	6654.3	6726.2	6713.5	6650.1	6637.4	6520.4	6376.6	6224.3	6114.4	6024.1	5829.6
12.5°	6906.7	6982.8	6988.5	6909.5	6889.8	6764.3	6638.8	6437.2	6294.8	6191.9	5905.7
15°	7142.1	7232.4	7215.4	7136.5	7115.3	6988.5	6865.8	6679.7	6531.7	6387.9	6029.8
17.5°	7331.0	7417.0	7395.9	7360.7	7349.4	7250.7	7149.2	6947.6	6816.5	6631.8	6221.5
20°	7460.8	7541.1	7549.6	7539.7	7604.6	7511.5	7455.1	7312.7	7168.9	7002.6	6483.7
22.5°	7511.5	7607.4	7689.1	7752.6	7886.5	7872.4	7862.5	7780.8	7639.8	7397.3	6830.6
25°	7527.0	7622.9	7749.8	7906.3	8145.9	8231.9	8294.0	8313.7	8160.0	7968.3	7262.0
27.5°	7529.8	7632.7	7762.5	8014.8	8380.0	8639.4	8787.4	8856.5	8770.5	8618.2	7848.5
30°	7470.6	7576.4	7742.7	8079.7	8563.2	8989.0	9234.3	9540.2	9503.6	9375.3	8583.0
32.5°	7300.0	7395.9	7625.7	8068.4	8745.1	9347.1	9729.1	10259.2	10383.3	10300.1	9430.3
35°	6994.1	7111.1	7408.6	7975.3	8843.8	9695.3	10311.4	11136.1	11360.3	11365.9	10469.3
37.5°	6685.4	6774.2	7123.8	7800.5	8898.8	10004.1	10864.0	12014.5	12340.1	12347.2	11333.5
40°	6356.9	6438.6	6823.5	7566.5	8842.4	10246.5	11378.6	12858.9	13325.6	13281.9	12182.2
42.5°	5931.1	6021.3	6403.4	7247.9	8701.4	10434.1	11901.7	13745.7	14194.0	14243.4	13067.6
45°	5567.4	5639.3	5973.4	6750.2	8443.4	10535.6	12392.3	14691.7	15204.9	15152.7	14012.2
47.5°	5119.0	5226.2	5582.9	6345.6	7979.6	10510.2	12861.8	15627.8	16198.8	16150.9	14831.3
50°	3948.9	4073.0	4901.9	5921.2	7387.4	10311.4	13287.5	16523.1	17232.2	17106.7	15698.3
52.5°	3586.6	3621.8	3951.7	5433.4	6803.8	9860.3	13600.5	17653.7	18073.9	18024.5	16576.6
55°	3365.2	3432.9	3583.8	4476.2	6279.3	9127.2	13817.6	18598.3	19072.0	18840.8	17371.8
57.5°	3170.7	3218.6	3397.7	3831.9	5675.9	8117.7	13754.2	19394.8	19817.8	19494.9	18148.6
60°	2963.4	2994.5	3173.5	3497.8	5024.6	7002.6	13109.9	20216.8	20404.3	20108.2	18805.5
62.5°	2802.7	2832.3	2939.5	3251.0	4517.1	6204.6	12055.3	20274.6	20737.0	20521.3	19363.8
65°	2596.9	2616.6	2750.6	2995.9	4046.2	5729.5	11126.3	19731.8	20576.3	20522.7	19578.1
67.5°	2369.9	2393.9	2520.8	2694.2	3444.2	5169.8	9572.7	19438.6	19896.7	19948.9	19176.3
70°	2103.4	2120.4	2251.5	2377.0	2946.5	4538.2	7610.2	18314.9	18849.3	18847.8	17935.7
72.5°	1815.8	1814.4	1944.1	2076.7	2468.6	3812.1	5957.9	16260.8	17674.9	17569.1	16170.6
75°	1497.2	1518.4	1643.8	1748.2	2054.1	3090.3	4149.1	11779.0	15603.9	15749.1	13955.8
77.5°	957.3	971.4	1041.9	1149.0	1436.6	2361.4	2706.8	6545.8	10418.5	12567.1	10985.3
80°	699.3	706.3	768.4	830.4	955.9	1438.0	1376.0	2845.0	4129.4	6169.4	6738.9
82.5°	476.5	477.9	527.3	541.4	548.4	648.5	652.7	1384.4	1966.7	2316.3	2976.1
85°	315.8	262.2	204.4	270.7	277.7	238.3	232.6	624.5	975.6	1170.1	1102.5
87.5°	70.5	69.1	80.4	81.8	78.9	67.7	56.4	95.9	146.6	145.2	186.1
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°	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8	5630.8
2.5°	5644.9	5637.9	5598.4	5515.2	5458.8	5401.0	5368.6	5348.8	5355.9	5323.5	5309.4
5°	5659.0	5623.8	5512.4	5413.7	5324.9	5224.8	5141.6	5130.3	5147.2	5117.6	5100.7
7.5°	5695.7	5620.9	5478.5	5309.4	5161.3	5066.9	4947.0	4886.4	4882.2	4852.6	4858.2
10°	5716.8	5619.5	5429.2	5224.8	5051.4	4883.6	4755.3	4687.6	4683.4	4641.1	4631.2
12.5°	5774.6	5635.0	5371.4	5121.9	4928.7	4704.6	4569.2	4507.2	4500.1	4440.9	4418.4
15°	5863.4	5670.3	5310.8	5002.0	4752.5	4542.4	4380.3	4297.1	4284.4	4215.4	4191.4
17.5°	6004.4	5770.4	5292.5	4893.5	4598.8	4369.0	4178.7	4088.5	4015.2	3977.1	3944.7
20°	6194.7	5894.4	5313.6	4792.0	4405.7	4140.6	3903.8	3785.4	3734.6	3672.6	3676.8
22.5°	6465.4	6089.0	5350.3	4713.0	4230.9	3896.7	3630.3	3497.8	3406.1	3354.0	3356.8
25°	6846.1	6382.2	5422.2	4638.3	4040.5	3630.3	3315.9	3131.2	3038.2	3004.3	2969.1
27.5°	7326.8	6733.3	5592.7	4546.7	3815.0	3328.6	2980.4	2764.7	2670.2	2619.4	2612.4
30°	7944.3	7194.3	5792.9	4479.0	3578.1	2952.2	2564.5	2393.9	2310.7	2238.8	2205.0
32.5°	8697.2	7845.6	6015.7	4411.3	3284.9	2530.6	2179.6	2048.5	1915.9	1824.3	1828.5
35°	9571.2	8554.8	6347.0	4325.3	2940.9	2137.3	1894.8	1725.6	1601.6	1540.9	1512.7
37.5°	10396.0	9282.2	6736.1	4237.9	2556.0	1882.1	1614.2	1457.8	1361.9	1315.4	1325.2
40°	11230.6	10032.3	7071.6	4023.6	2124.6	1650.9	1336.5	1247.7	1209.6	1173.0	1177.2
42.5°	11977.8	10630.0	7316.9	3785.4	1822.9	1385.8	1139.1	1158.9	1181.4	1160.3	1154.6
45°	12756.0	11329.3	7532.7	3379.3	1570.5	1177.2	1089.8	1144.8	1194.1	1191.3	1184.2
47.5°	13537.1	11977.8	7553.8	2840.8	1340.7	1106.7	1088.4	1129.3	1194.1	1205.4	1196.9
50°	14342.1	12657.3	7429.7	2206.4	1243.5	1115.2	1089.8	1096.8	1168.7	1181.4	1177.2
52.5°	15234.5	13391.8	7123.8	1677.7	1205.4	1129.3	1094.0	1084.1	1125.0	1147.6	1151.8
55°	16055.0	13975.5	6550.0	1481.7	1177.2	1130.7	1125.0	1092.6	1094.0	1082.7	1110.9
57.5°	16744.4	14532.4	5898.7	1374.6	1151.8	1118.0	1139.1	1078.5	1061.6	1015.1	1003.8
60°	17457.8	14984.9	4982.3	1301.3	1122.2	1102.5	1103.9	1054.5	1012.2	944.6	924.8
62.5°	17963.9	15224.6	4092.7	1215.3	1081.3	1078.5	1057.4	1020.7	982.6	923.4	915.0
65°	18110.5	15097.7	3143.9	1125.0	1027.8	1039.0	1001.0	950.2	792.3	719.0	719.0
67.5°	17625.5	14316.7	2327.6	1020.7	962.9	985.5	910.7	748.6	666.8	623.1	630.2
70°	16296.1	13054.9	1515.6	868.4	869.9	888.2	751.4	673.9	596.4	569.6	583.7
72.5°	14519.7	11184.1	999.6	692.2	733.1	702.1	686.6	620.3	551.2	520.2	530.1
75°	11965.1	8831.1	693.6	544.2	475.1	599.2	610.5	521.6	468.1	568.2	590.7
77.5°	9452.8	6138.3	572.4	380.7	351.0	442.7	489.2	483.6	774.0	909.3	899.5
80°	5620.9	3534.4	466.6	263.6	248.1	284.8	384.9	555.5	867.0	651.3	620.3
82.5°	2548.9	1607.2	248.1	138.2	162.1	188.9	287.6	690.8	568.2	417.3	393.3
85°	995.3	524.5	98.7	60.6	56.4	70.5	131.1	332.7	228.4	184.7	184.7
87.5°	128.3	94.5	28.2	21.1	18.3	22.6	42.3	184.7	107.1	90.2	87.4
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)