

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: P510037

Luminaire Tested: **VERD-M-CA4-190-740-U-T2**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510037
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-CA4-190-740-U-T2
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 4000K, 870mA LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27647 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

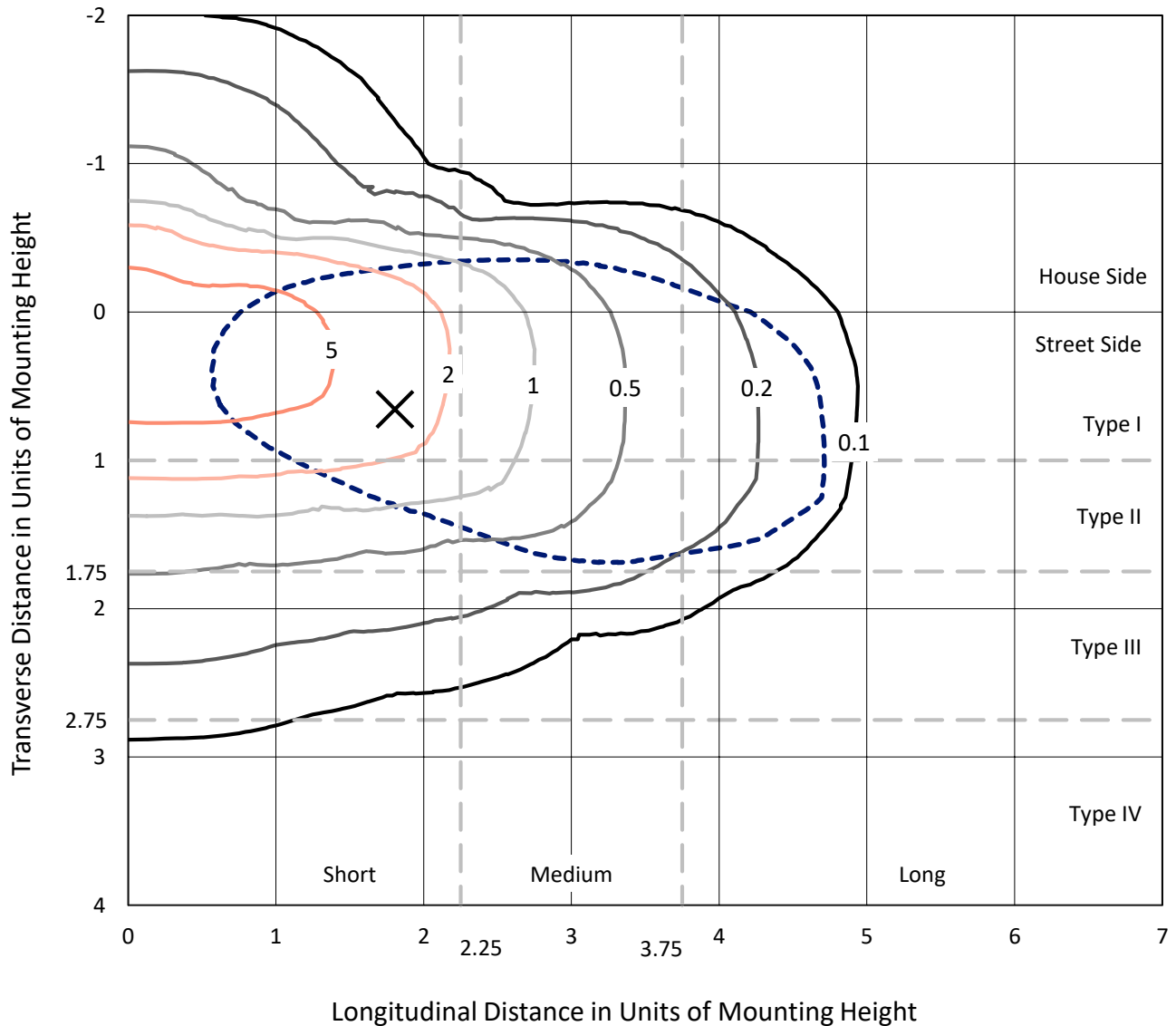
Input Watts (W): 193.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

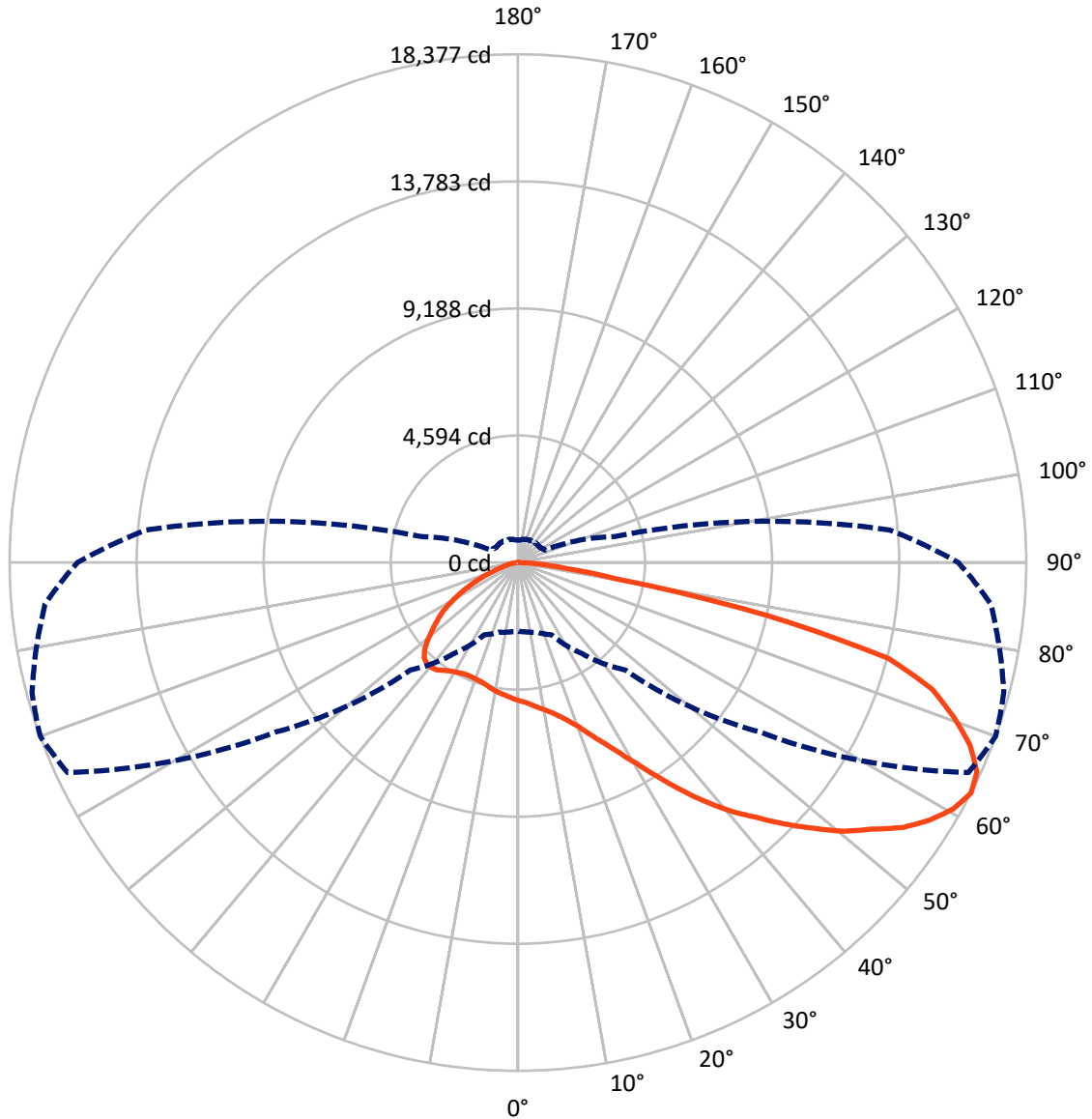
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 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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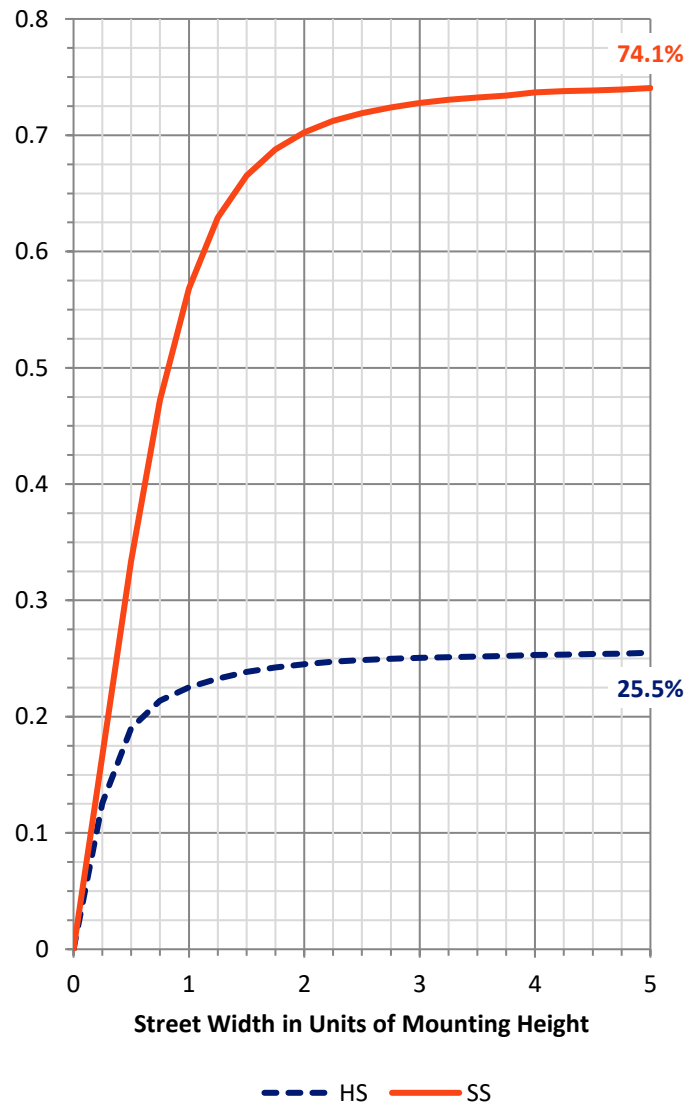
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7157.9	0.0	7157.9
	% Fixture	25.9	0.0	25.9
Street Side	Lumens	20489.1	0.0	20489.1
	% Fixture	74.1	0.0	74.1
Total	Lumens	27647.0	0.0	27647.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	479.3	1.7
10°-20°	1455.5	5.3
20°-30°	2470.2	8.9
30°-40°	3574.3	12.9
40°-50°	4690.3	17.0
50°-60°	5480.5	19.8
60°-70°	5499.9	19.9
70°-80°	3504.6	12.7
80°-90°	492.5	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°	27647.0	100.0
0°-180°	27647.0	100.0



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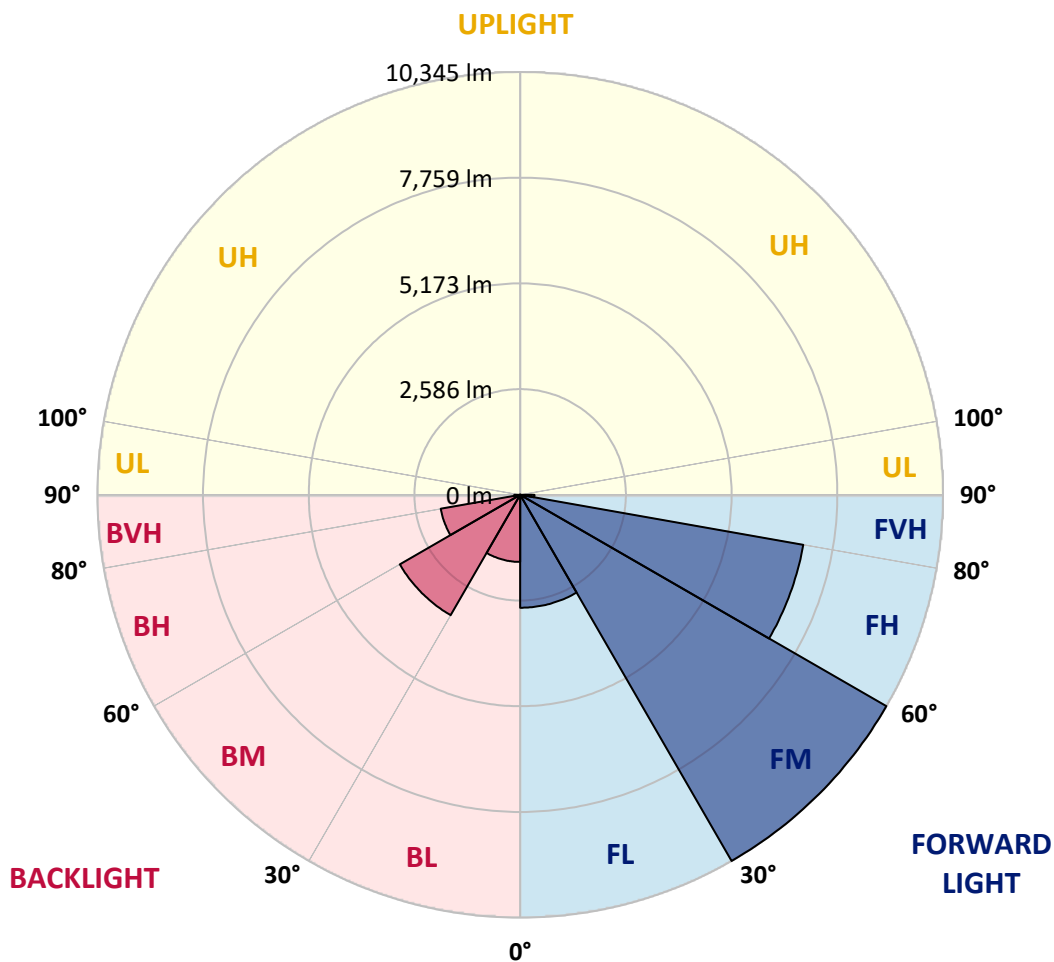
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2763.3	10.0			
FM (30°-60°)	10345.2	37.4			
FH (60°-80°)	7033.1	25.4			G3/7500
FVH (80°-90°)	347.4	1.3			G3/500
BL (0°-30°)	1641.7	5.9	B3/2500		
BM (30°-60°)	3399.8	12.3	B3/5000		
BH (60°-80°)	1971.4	7.1	B3/2500		G3/2500
BVH (80°-90°)	145.1	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9
2.5°	5181.1	5236.0	5228.5	5194.8	5218.5	5153.6	5129.8	5093.6	5056.1	5043.6	5022.4
5°	5425.9	5498.4	5484.6	5439.7	5438.4	5346.0	5293.5	5224.8	5167.3	5122.3	5056.1
7.5°	5654.6	5738.3	5725.8	5682.0	5679.5	5573.3	5464.7	5357.2	5291.0	5233.5	5112.3
10°	5896.9	5960.6	5949.4	5893.2	5881.9	5778.2	5650.8	5515.9	5418.4	5338.5	5166.1
12.5°	6120.6	6188.0	6193.0	6123.1	6105.6	5994.4	5883.2	5704.5	5578.3	5487.1	5233.5
15°	6329.2	6409.2	6394.2	6324.2	6305.5	6193.0	6084.3	5919.4	5788.2	5660.8	5343.5
17.5°	6496.6	6572.8	6554.1	6522.9	6512.9	6425.4	6335.5	6156.8	6040.6	5876.9	5513.4
20°	6611.6	6682.8	6690.3	6681.5	6739.0	6656.5	6606.6	6480.4	6352.9	6205.5	5745.8
22.5°	6656.5	6741.5	6814.0	6870.2	6988.9	6976.4	6967.6	6895.2	6770.2	6555.3	6053.1
25°	6670.3	6755.2	6867.7	7006.4	7218.7	7295.0	7349.9	7367.4	7231.2	7061.3	6435.4
27.5°	6672.8	6764.0	6878.9	7102.6	7426.1	7656.0	7787.2	7848.4	7772.2	7637.3	6955.1
30°	6620.3	6714.0	6861.4	7160.0	7588.5	7965.9	8183.2	8454.3	8421.9	8308.2	7606.0
32.5°	6469.1	6554.1	6757.7	7150.0	7749.7	8283.2	8621.8	9091.5	9201.5	9127.7	8356.9
35°	6198.0	6301.7	6565.3	7067.6	7837.2	8591.8	9137.7	9868.6	10067.3	10072.3	9277.7
37.5°	5924.4	6003.1	6313.0	6912.7	7885.9	8865.4	9627.5	10647.0	10935.6	10941.8	10043.5
40°	5633.3	5705.8	6046.9	6705.3	7835.9	9080.3	10083.5	11395.3	11808.9	11770.1	10795.6
42.5°	5256.0	5336.0	5674.5	6422.9	7711.0	9246.4	10547.0	12181.2	12578.5	12622.2	11580.2
45°	4933.7	4997.4	5293.5	5981.9	7482.4	9336.4	10981.8	13019.5	13474.2	13428.0	12417.3
47.5°	4536.4	4631.3	4947.4	5623.3	7071.3	9313.9	11397.8	13849.0	14355.0	14312.5	13143.2
50°	3499.4	3609.4	4344.0	5247.3	6546.6	9137.7	11775.1	14642.4	15270.8	15159.6	13911.5
52.5°	3178.3	3209.6	3501.9	4815.0	6029.4	8738.0	12052.5	15644.4	16016.7	15972.9	14689.9
55°	2982.2	3042.2	3175.8	3966.7	5564.6	8088.3	12244.9	16481.4	16901.2	16696.3	15394.5
57.5°	2809.8	2852.3	3010.9	3395.7	5029.9	7193.8	12188.7	17187.3	17562.1	17276.0	16082.9
60°	2626.1	2653.6	2812.3	3099.6	4452.7	6205.5	11617.7	17915.7	18081.8	17819.5	16665.1
62.5°	2483.7	2509.9	2604.9	2881.0	4002.9	5498.4	10683.2	17966.9	18376.7	18185.5	17159.8
65°	2301.3	2318.8	2437.5	2654.9	3585.6	5077.4	9859.9	17485.9	18234.3	18186.8	17349.7
67.5°	2100.2	2121.4	2233.8	2387.5	3052.2	4581.4	8483.1	17226.0	17632.1	17678.3	16993.7
70°	1864.0	1879.0	1995.2	2106.4	2611.1	4021.7	6744.0	16230.3	16703.8	16702.6	15894.2
72.5°	1609.2	1607.9	1722.9	1840.3	2187.6	3378.2	5279.8	14410.0	15663.1	15569.4	14330.0
75°	1326.8	1345.5	1456.7	1549.2	1820.3	2738.6	3676.8	10438.3	13827.8	13956.5	12367.3
77.5°	848.3	860.8	923.3	1018.2	1273.1	2092.7	2398.8	5800.7	9232.7	11136.7	9734.9
80°	619.7	625.9	680.9	735.9	847.1	1274.3	1219.4	2521.2	3659.3	5467.2	5971.9
82.5°	422.3	423.5	467.3	479.8	486.0	574.7	578.4	1226.9	1742.8	2052.7	2637.4
85°	279.9	232.4	181.2	239.9	246.1	211.1	206.1	553.5	864.5	1037.0	977.0
87.5°	62.5	61.2	71.2	72.5	70.0	60.0	50.0	85.0	129.9	128.7	164.9
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°	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9	4989.9
2.5°	5002.4	4996.1	4961.2	4887.5	4837.5	4786.3	4757.5	4740.0	4746.3	4717.5	4705.1
5°	5014.9	4983.7	4885.0	4797.5	4718.8	4630.1	4556.4	4546.4	4561.4	4535.1	4520.1
7.5°	5047.4	4981.2	4855.0	4705.1	4573.9	4490.2	4384.0	4330.2	4326.5	4300.3	4305.3
10°	5066.1	4979.9	4811.2	4630.1	4476.4	4327.7	4214.1	4154.1	4150.3	4112.9	4104.1
12.5°	5117.3	4993.6	4760.0	4538.9	4367.7	4169.1	4049.1	3994.2	3987.9	3935.5	3915.5
15°	5196.0	5024.9	4706.3	4432.7	4211.6	4025.4	3881.7	3808.0	3796.8	3735.6	3714.3
17.5°	5321.0	5113.6	4690.1	4336.5	4075.4	3871.7	3703.1	3623.1	3558.1	3524.4	3495.7
20°	5489.6	5223.5	4708.8	4246.5	3904.2	3669.3	3459.4	3354.5	3309.5	3254.6	3258.3
22.5°	5729.5	5395.9	4741.3	4176.6	3749.3	3453.2	3217.1	3099.6	3018.4	2972.2	2974.7
25°	6066.8	5655.8	4805.0	4110.4	3580.6	3217.1	2938.5	2774.8	2692.3	2662.4	2631.1
27.5°	6492.9	5966.9	4956.2	4029.2	3380.7	2949.7	2641.1	2450.0	2366.3	2321.3	2315.0
30°	7040.1	6375.4	5133.6	3969.2	3170.8	2616.1	2272.6	2121.4	2047.7	1984.0	1954.0
32.5°	7707.2	6952.6	5331.0	3909.2	2911.0	2242.6	1931.5	1815.3	1697.9	1616.7	1620.4
35°	8481.8	7581.1	5624.6	3833.0	2606.1	1894.0	1679.1	1529.2	1419.3	1365.5	1340.6
37.5°	9212.7	8225.7	5969.4	3755.5	2265.1	1667.9	1430.5	1291.8	1206.9	1165.6	1174.4
40°	9952.3	8890.4	6266.7	3565.6	1882.8	1463.0	1184.4	1105.7	1071.9	1039.5	1043.2
42.5°	10614.5	9420.1	6484.1	3354.5	1615.4	1228.1	1009.5	1027.0	1047.0	1028.2	1023.2
45°	11304.1	10039.8	6675.3	2994.7	1391.8	1043.2	965.7	1014.5	1058.2	1055.7	1049.5
47.5°	11996.3	10614.5	6694.0	2517.4	1188.1	980.7	964.5	1000.7	1058.2	1068.2	1060.7
50°	12709.6	11216.7	6584.1	1955.2	1101.9	988.2	965.7	972.0	1035.7	1047.0	1043.2
52.5°	13500.5	11867.6	6313.0	1486.7	1068.2	1000.7	969.5	960.7	997.0	1017.0	1020.7
55°	14227.6	12384.8	5804.5	1313.1	1043.2	1002.0	997.0	968.2	969.5	959.5	984.5
57.5°	14838.5	12878.3	5227.3	1218.1	1020.7	990.7	1009.5	955.8	940.8	899.5	889.5
60°	15470.7	13279.3	4415.2	1153.1	994.5	977.0	978.2	934.5	897.0	837.1	819.6
62.5°	15919.2	13491.7	3626.9	1076.9	958.3	955.8	937.0	904.5	870.8	818.3	810.8
65°	16049.1	13379.3	2786.0	997.0	910.8	920.8	887.0	842.1	702.1	637.2	637.2
67.5°	15619.4	12687.1	2062.7	904.5	853.3	873.3	807.1	663.4	590.9	552.2	558.5
70°	14441.2	11569.0	1343.1	769.6	770.8	787.1	665.9	597.2	528.5	504.7	517.2
72.5°	12867.1	9911.1	885.8	613.4	649.7	622.2	608.4	549.7	488.5	461.0	469.8
75°	10603.2	7825.9	614.7	482.2	421.0	531.0	541.0	462.3	414.8	503.5	523.5
77.5°	8376.9	5439.7	507.2	337.3	311.1	392.3	433.5	428.5	685.9	805.8	797.1
80°	4981.2	3132.1	413.5	233.6	219.9	252.4	341.1	492.2	768.3	577.2	549.7
82.5°	2258.8	1424.3	219.9	122.4	143.7	167.4	254.9	612.2	503.5	369.8	348.6
85°	882.0	464.8	87.5	53.7	50.0	62.5	116.2	294.8	202.4	163.7	163.7
87.5°	113.7	83.7	25.0	18.7	16.2	20.0	37.5	163.7	95.0	80.0	77.5
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)