

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: P510180

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

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510180
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-3)
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-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 4000K, 1000mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28546 lumens
Efficiency: N/A
Efficacy: 128.3 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

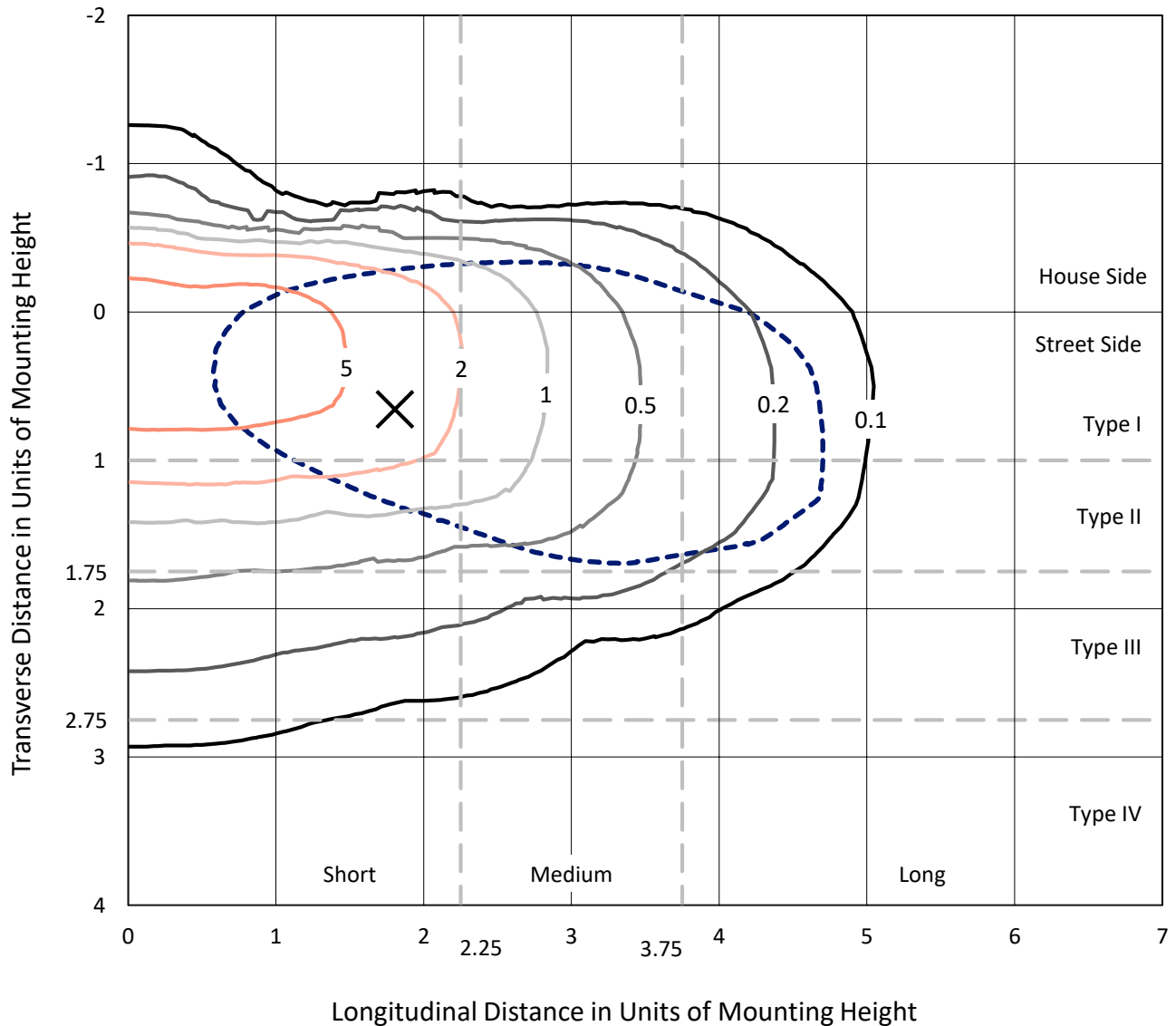
Input Watts (W): 222.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

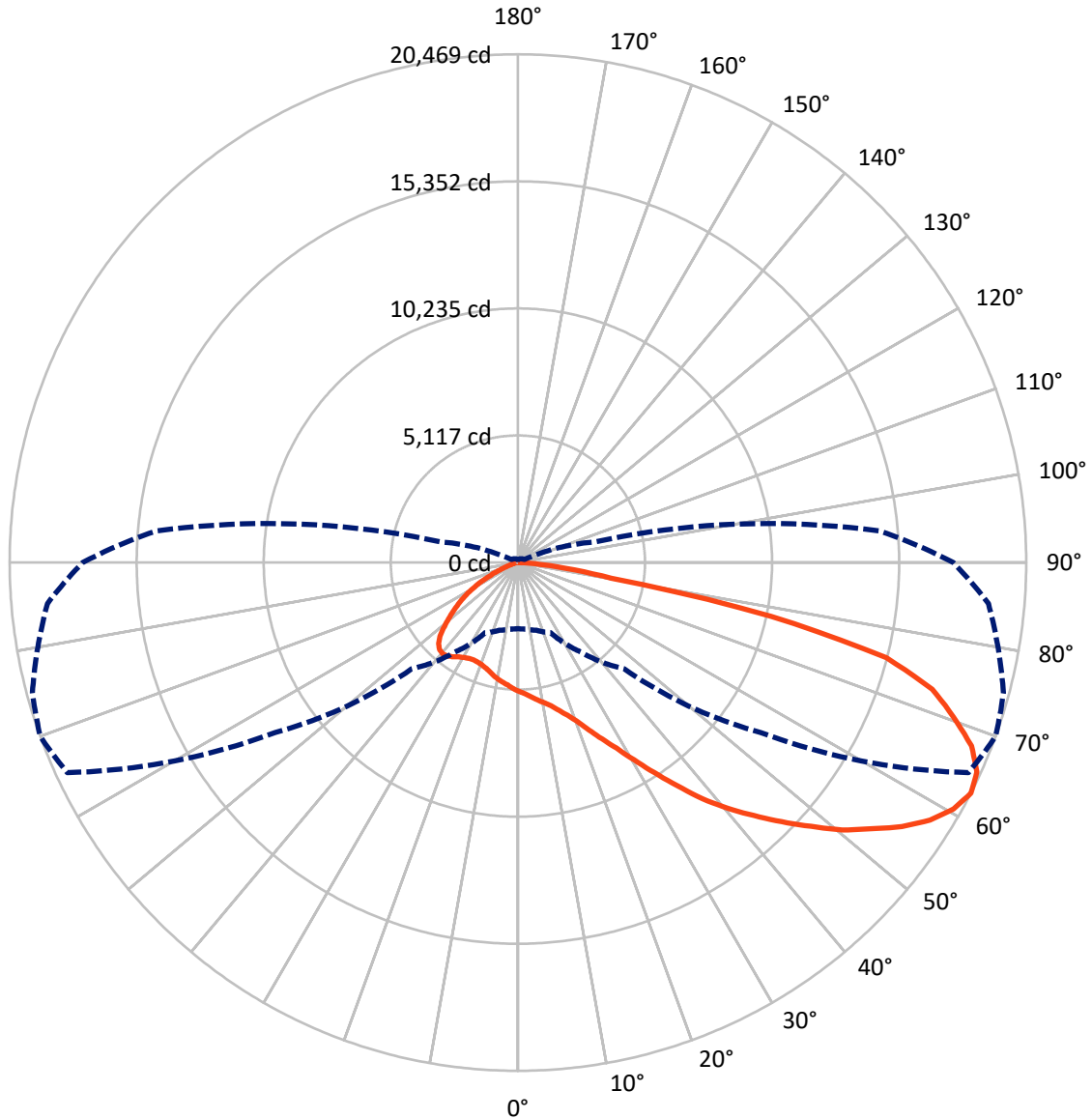
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 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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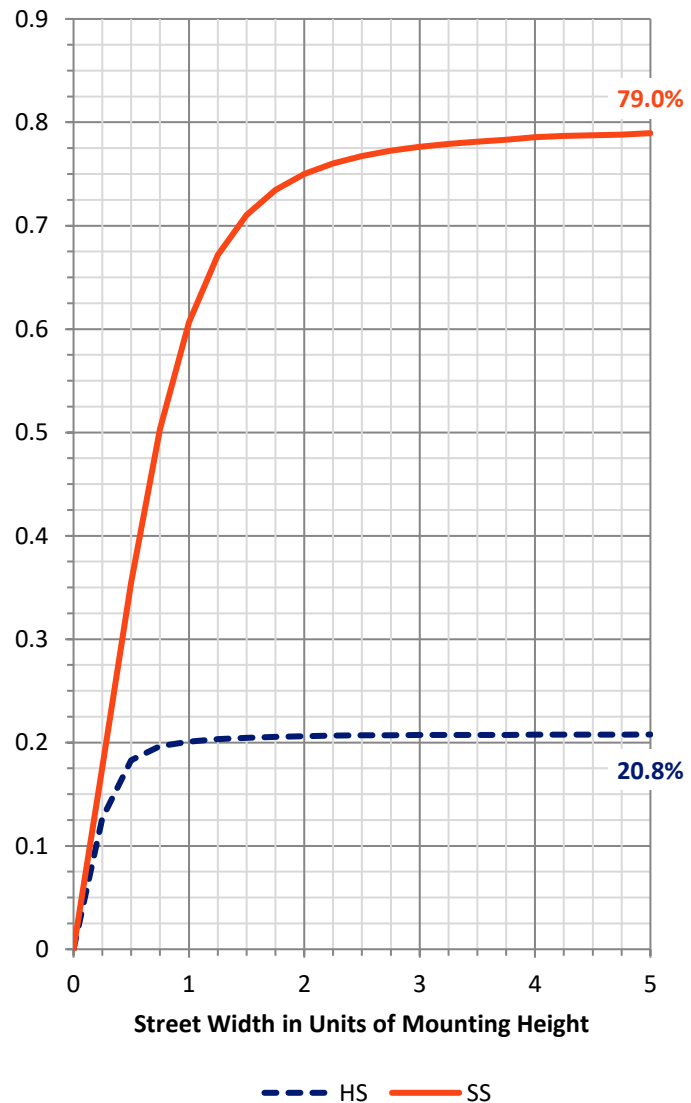
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6002.9	0.0	6002.9
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	22543.1	0.0	22543.1
	% Fixture	79.0	0.0	79.0
Total	Lumens	28546.0	0.0	28546.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	492.7	1.7
10°-20°	1470.4	5.2
20°-30°	2492.8	8.7
30°-40°	3665.8	12.8
40°-50°	4881.6	17.1
50°-60°	5710.5	20.0
60°-70°	5743.4	20.1
70°-80°	3635.7	12.7
80°-90°	453.0	1.6
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°	28546.0	100.0
0°-180°	28546.0	100.0



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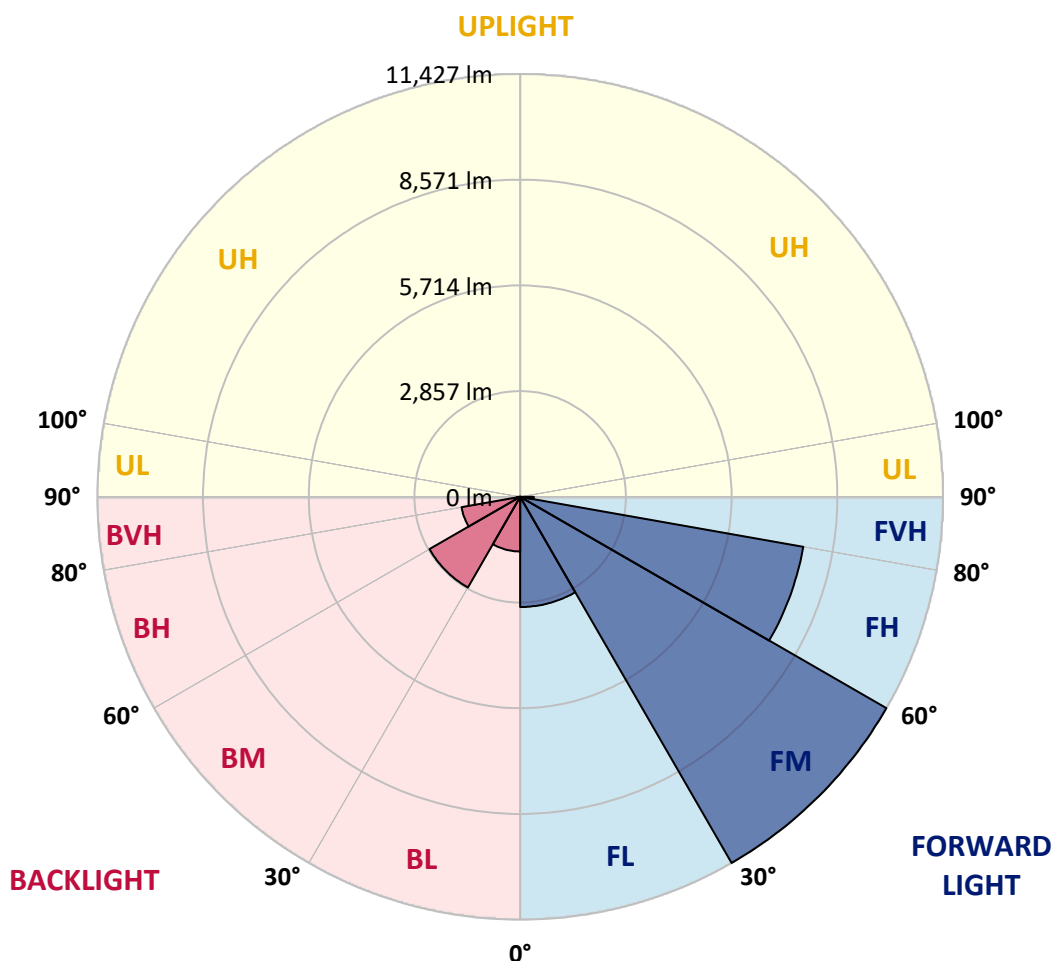
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2978.0	10.4			
FM (30°-60°)	11427.5	40.0			
FH (60°-80°)	7770.2	27.2			G4/12000
FVH (80°-90°)	367.4	1.3			G3/500
BL (0°-30°)	1477.9	5.2	B3/2500		
BM (30°-60°)	2830.5	9.9	B3/5000		
BH (60°-80°)	1608.9	5.6	B3/2500		G3/2500
BVH (80°-90°)	85.7	0.3			G1/100
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°	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6
2.5°	5474.4	5522.3	5485.7	5471.6	5482.8	5426.4	5381.3	5316.5	5285.5	5262.9	5226.3
5°	5752.1	5831.1	5783.1	5753.5	5749.3	5646.4	5585.8	5496.9	5427.9	5367.2	5274.2
7.5°	6045.4	6091.9	6073.6	6039.7	6017.2	5891.7	5784.5	5659.1	5582.9	5502.6	5346.1
10°	6302.0	6358.3	6340.0	6279.4	6258.3	6130.0	6007.3	5836.7	5732.4	5632.3	5416.6
12.5°	6567.0	6630.4	6592.4	6531.8	6513.4	6383.7	6256.8	6049.6	5919.9	5807.1	5508.2
15°	6810.9	6868.7	6841.9	6772.8	6754.5	6644.5	6505.0	6311.8	6170.8	6021.4	5637.9
17.5°	7005.5	7063.3	7029.4	6997.0	6991.4	6882.8	6799.6	6602.3	6468.3	6265.3	5836.7
20°	7147.9	7207.1	7190.2	7205.7	7264.9	7184.5	7133.8	6967.4	6830.6	6610.7	6122.9
22.5°	7260.6	7336.8	7404.4	7435.5	7545.4	7539.8	7528.5	7429.8	7322.7	7094.3	6464.1
25°	7271.9	7359.3	7493.3	7638.5	7838.7	7934.5	8005.0	7989.5	7864.1	7638.5	6936.4
27.5°	7288.8	7379.1	7517.2	7766.8	8124.9	8349.0	8466.1	8538.0	8464.6	8313.8	7473.5
30°	7252.2	7345.2	7518.6	7837.3	8320.8	8736.7	8945.4	9211.9	9220.3	9093.4	8284.2
32.5°	7085.8	7208.5	7418.5	7845.7	8511.2	9141.4	9462.8	9974.6	10085.9	9991.5	9120.2
35°	6808.1	6919.5	7219.8	7771.0	8626.8	9478.3	10066.2	10864.2	11029.1	11023.5	10104.3
37.5°	6500.7	6613.5	6951.9	7594.8	8701.5	9778.6	10597.7	11746.7	12075.2	12006.1	11033.4
40°	6161.0	6279.4	6669.9	7373.4	8664.8	10046.5	11160.2	12602.5	13009.9	13018.4	11921.6
42.5°	5766.2	5863.5	6255.4	7067.5	8543.6	10243.9	11683.3	13503.4	13932.0	13908.0	12759.0
45°	5388.4	5489.9	5832.5	6593.8	8263.0	10353.8	12196.5	14415.5	14885.0	14808.9	13689.5
47.5°	4931.6	5076.8	5467.3	6196.2	7830.2	10345.4	12644.8	15348.9	15876.1	15814.1	14493.1
50°	3795.3	3881.3	4765.2	5786.0	7243.7	10148.0	13083.3	16265.3	16932.1	16810.9	15350.3
52.5°	3418.8	3496.4	3781.2	5293.9	6710.8	9720.8	13448.4	17314.2	17813.2	17718.8	16225.8
55°	3231.3	3273.6	3447.0	4366.3	6190.6	9027.2	13692.3	18246.1	18764.9	18556.2	17044.9
57.5°	2995.9	3048.1	3249.7	3729.0	5550.5	7962.7	13635.9	19086.3	19565.7	19245.6	17766.7
60°	2815.4	2854.9	3043.8	3356.8	4889.3	6860.3	13059.3	19911.1	20152.2	19836.4	18485.7
62.5°	2663.2	2685.7	2818.3	3115.7	4386.0	6055.2	11934.2	20021.0	20469.4	20241.0	19021.5
65°	2474.3	2479.9	2636.4	2869.0	3920.7	5571.7	10968.5	19457.1	20311.5	20235.3	19214.6
67.5°	2252.9	2264.2	2422.1	2599.7	3361.0	5057.1	9464.2	19154.0	19698.2	19650.3	18832.6
70°	1975.2	1997.7	2142.9	2278.3	2846.5	4439.6	7532.7	17955.6	18601.3	18530.9	17573.6
72.5°	1707.3	1694.6	1830.0	1963.9	2371.3	3706.5	5709.8	15893.1	17448.1	17380.4	15938.2
75°	1402.8	1394.3	1533.9	1660.8	1944.2	2994.5	4016.6	11753.8	15330.5	15539.2	13743.1
77.5°	864.2	871.3	951.6	1036.2	1316.8	2237.4	2563.1	6538.8	10414.4	12350.1	10785.2
80°	626.0	626.0	685.2	735.9	871.3	1363.3	1275.9	2726.6	3806.6	5960.8	6726.3
82.5°	406.0	389.1	425.8	469.5	485.0	590.7	583.7	1367.5	1939.9	2334.7	2801.3
85°	211.5	234.0	141.0	198.8	210.1	196.0	201.6	641.5	861.4	1103.9	1215.3
87.5°	32.4	25.4	33.8	46.5	53.6	45.1	39.5	74.7	115.6	153.7	181.9
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°	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6	5189.6
2.5°	5202.3	5195.2	5130.4	5035.9	4958.4	4893.5	4851.2	4823.0	4854.1	4797.7	4790.6
5°	5216.4	5168.5	5027.5	4892.1	4787.8	4648.2	4553.8	4490.3	4515.7	4466.4	4446.6
7.5°	5254.4	5167.0	4972.5	4756.8	4559.4	4410.0	4264.7	4125.2	4104.0	4073.0	4074.4
10°	5288.3	5162.8	4909.0	4627.1	4397.3	4133.6	3958.8	3815.0	3782.6	3745.9	3727.6
12.5°	5341.9	5172.7	4830.1	4488.9	4181.6	3877.0	3688.1	3518.9	3486.5	3414.6	3399.1
15°	5449.0	5207.9	4752.5	4318.3	3939.1	3631.7	3387.8	3239.8	3180.6	3100.2	3098.8
17.5°	5588.6	5310.8	4713.1	4157.6	3733.2	3389.2	3131.2	2981.8	2881.7	2833.8	2821.1
20°	5787.4	5444.8	4711.7	4012.4	3518.9	3129.8	2833.8	2664.6	2580.0	2540.5	2516.6
22.5°	6093.3	5642.2	4737.0	3910.9	3303.2	2878.9	2584.2	2351.6	2212.0	2103.5	2119.0
25°	6474.0	5938.2	4794.8	3817.8	3115.7	2639.2	2269.8	1947.0	1697.4	1588.9	1597.3
27.5°	6957.5	6292.1	4944.3	3723.4	2902.8	2381.2	1859.6	1449.3	1260.4	1133.5	1143.4
30°	7576.4	6732.0	5140.3	3650.1	2705.5	2020.3	1400.0	1068.7	902.3	798.0	788.1
32.5°	8316.6	7369.2	5354.5	3600.7	2489.8	1569.1	1009.4	783.9	621.7	562.5	571.0
35°	9233.0	8085.4	5681.6	3528.8	2120.4	1116.6	720.4	530.1	446.9	435.6	437.0
37.5°	10069.0	8818.5	6005.9	3407.6	1673.5	793.7	489.2	403.2	384.9	380.7	386.3
40°	10888.1	9486.8	6299.1	3231.3	1150.4	544.2	359.5	363.7	348.2	337.0	331.3
42.5°	11655.1	10131.1	6528.9	2907.1	786.7	359.5	318.6	331.3	328.5	305.9	296.1
45°	12482.7	10812.0	6655.8	2453.1	494.9	305.9	286.2	308.8	322.9	297.5	286.2
47.5°	13189.0	11476.0	6650.2	1879.3	335.5	289.0	269.3	289.0	305.9	287.6	277.7
50°	14003.9	12025.9	6469.7	1192.7	297.5	267.9	258.0	265.0	287.6	274.9	265.0
52.5°	14909.0	12778.7	6196.2	665.4	282.0	253.8	239.7	248.1	267.9	252.4	258.0
55°	15659.0	13403.3	5553.3	454.0	274.9	236.9	228.4	234.0	242.5	227.0	235.4
57.5°	16328.7	13919.3	4903.4	372.2	265.0	225.6	224.2	212.9	211.5	201.6	193.1
60°	17006.8	14326.7	4026.5	337.0	255.2	227.0	203.0	187.5	174.8	165.0	160.7
62.5°	17527.1	14608.7	3184.8	304.5	241.1	212.9	186.1	160.7	139.6	126.9	126.9
65°	17679.3	14483.2	2241.6	276.3	225.6	200.2	166.4	131.1	105.7	97.3	93.0
67.5°	17191.5	13762.8	1560.7	255.2	210.1	186.1	146.6	107.1	84.6	73.3	70.5
70°	15949.4	12557.4	920.6	225.6	190.3	162.1	133.9	87.4	69.1	57.8	55.0
72.5°	14113.8	10750.0	573.8	191.7	163.5	132.5	100.1	71.9	55.0	45.1	43.7
75°	11657.9	8380.1	375.0	148.0	129.7	104.3	76.1	57.8	47.9	38.1	35.2
77.5°	9348.6	5928.4	335.5	112.8	95.9	74.7	57.8	47.9	39.5	33.8	33.8
80°	5379.9	3383.6	274.9	77.5	59.2	56.4	45.1	39.5	36.7	32.4	31.0
82.5°	2643.4	1625.5	177.6	47.9	33.8	36.7	38.1	35.2	31.0	28.2	28.2
85°	910.8	541.4	71.9	31.0	22.6	22.6	24.0	25.4	24.0	22.6	22.6
87.5°	141.0	102.9	19.7	18.3	14.1	12.7	14.1	15.5	15.5	14.1	14.1
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)