

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: P510172

Luminaire Tested: **VERD-M-CA4-220-730-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510172
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-CA4-220-730-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 3000K, 1000mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28029 lumens
Efficiency: N/A
Efficacy: 126.0 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

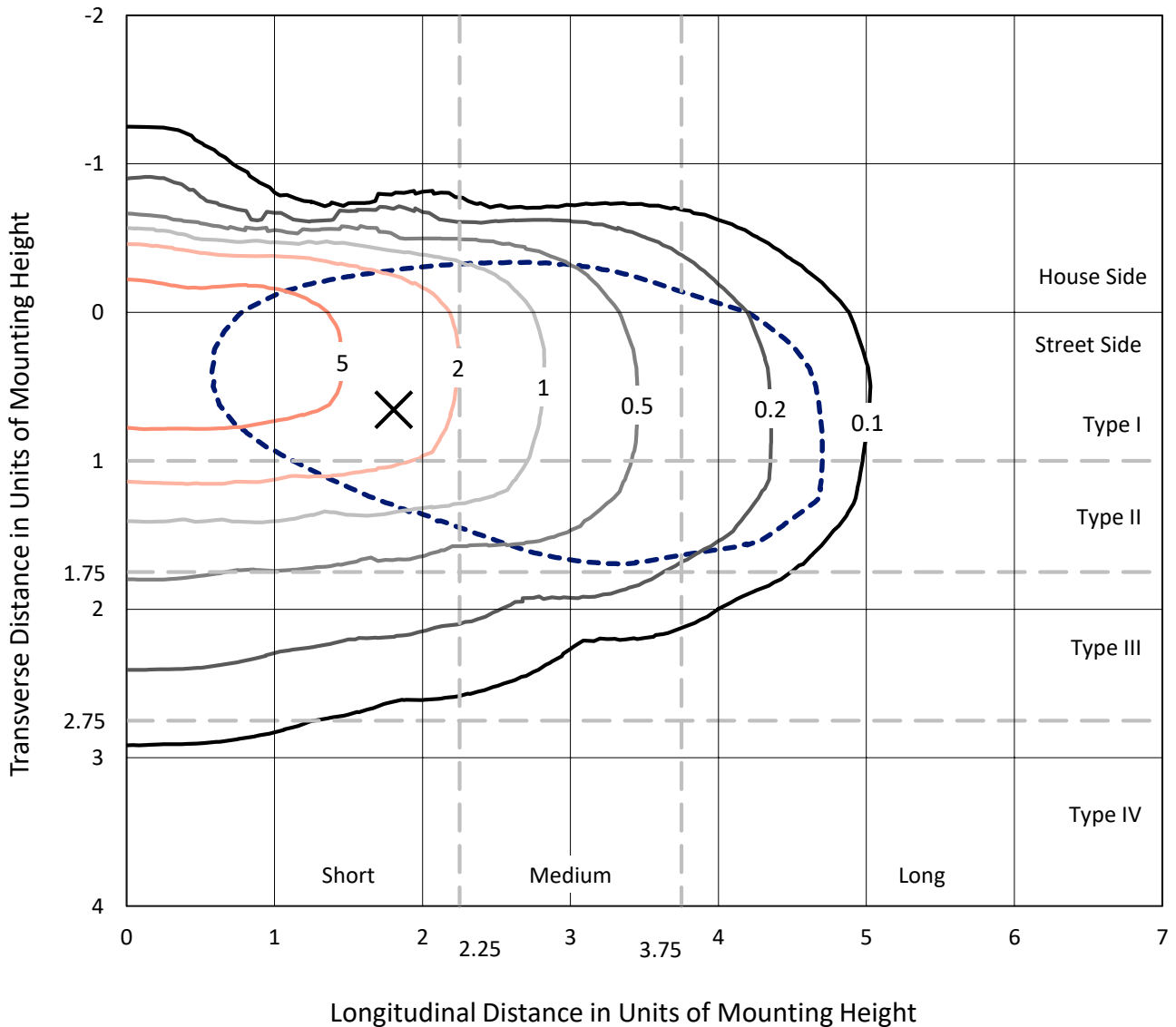
Input Watts (W): 222.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

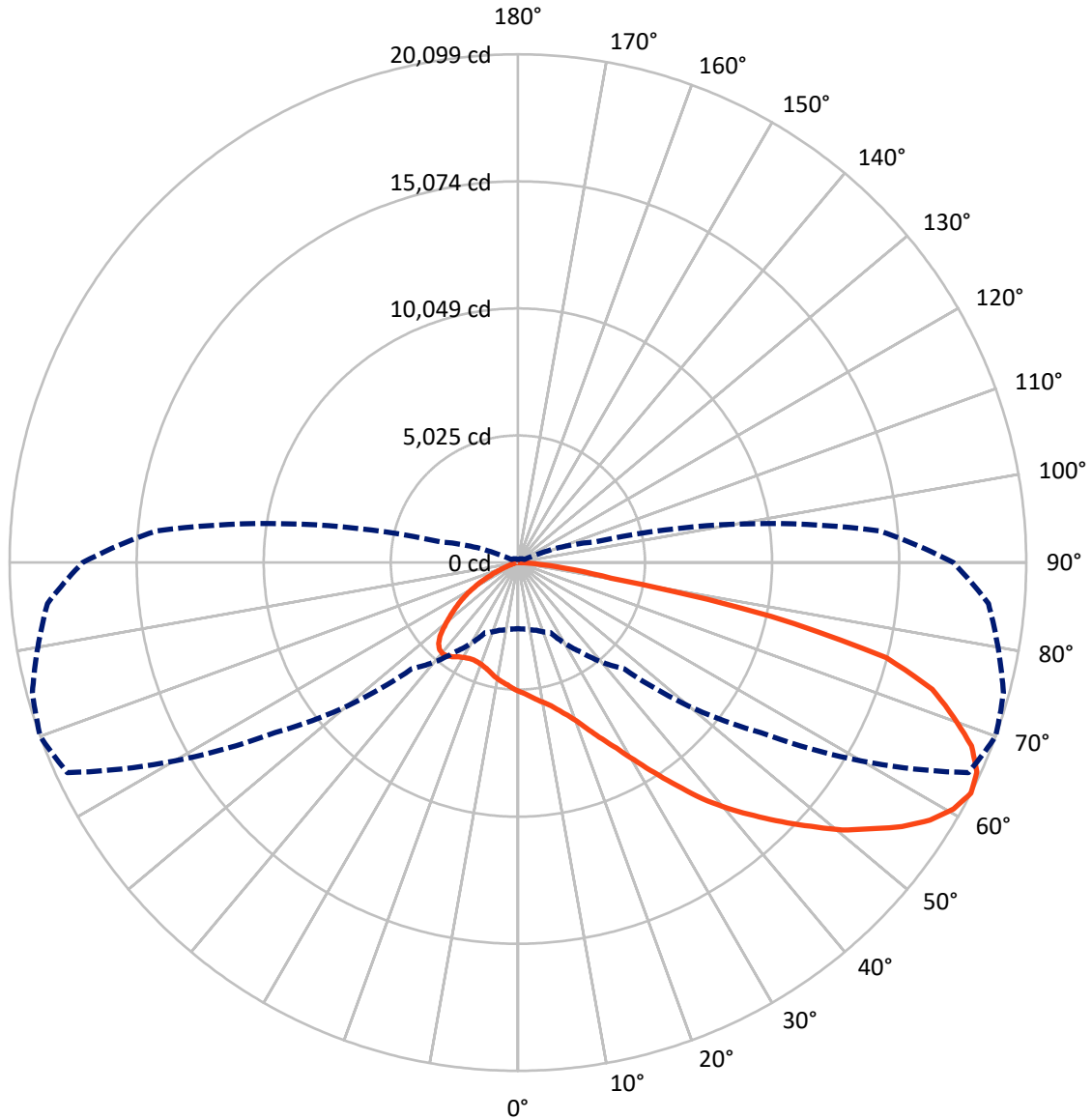
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 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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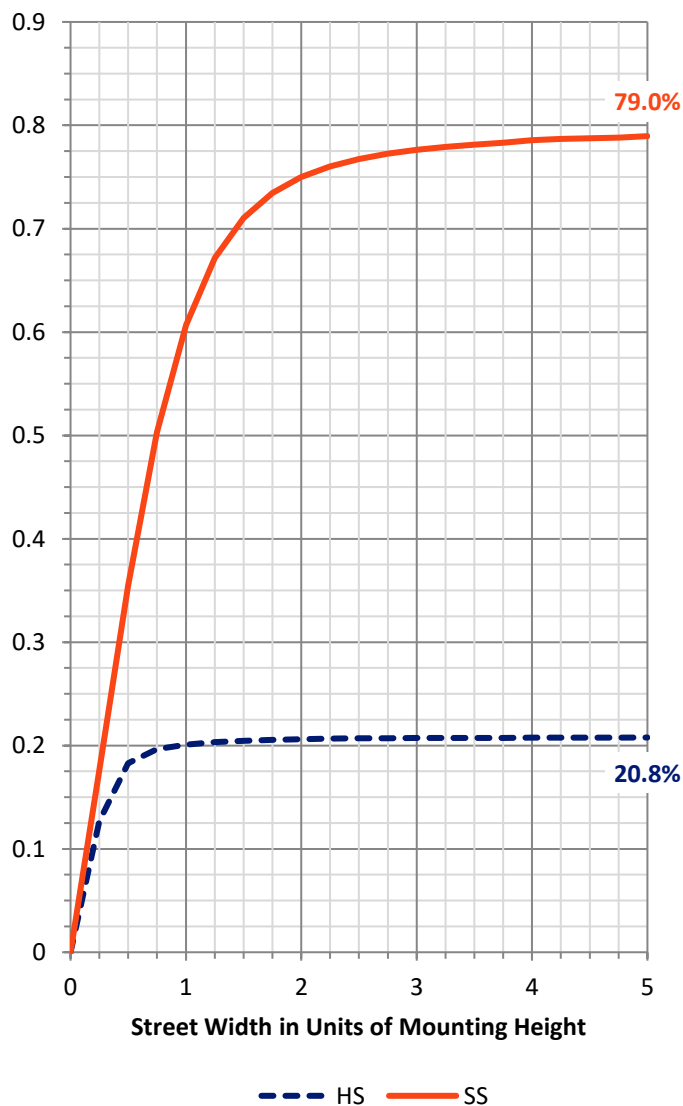
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5894.2	0.0	5894.2
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	22134.8	0.0	22134.8
	% Fixture	79.0	0.0	79.0
Total	Lumens	28029.0	0.0	28029.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	483.8	1.7
10°-20°	1443.8	5.2
20°-30°	2447.6	8.7
30°-40°	3599.4	12.8
40°-50°	4793.2	17.1
50°-60°	5607.1	20.0
60°-70°	5639.4	20.1
70°-80°	3569.9	12.7
80°-90°	444.8	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°	28029.0	100.0
0°-180°	28029.0	100.0



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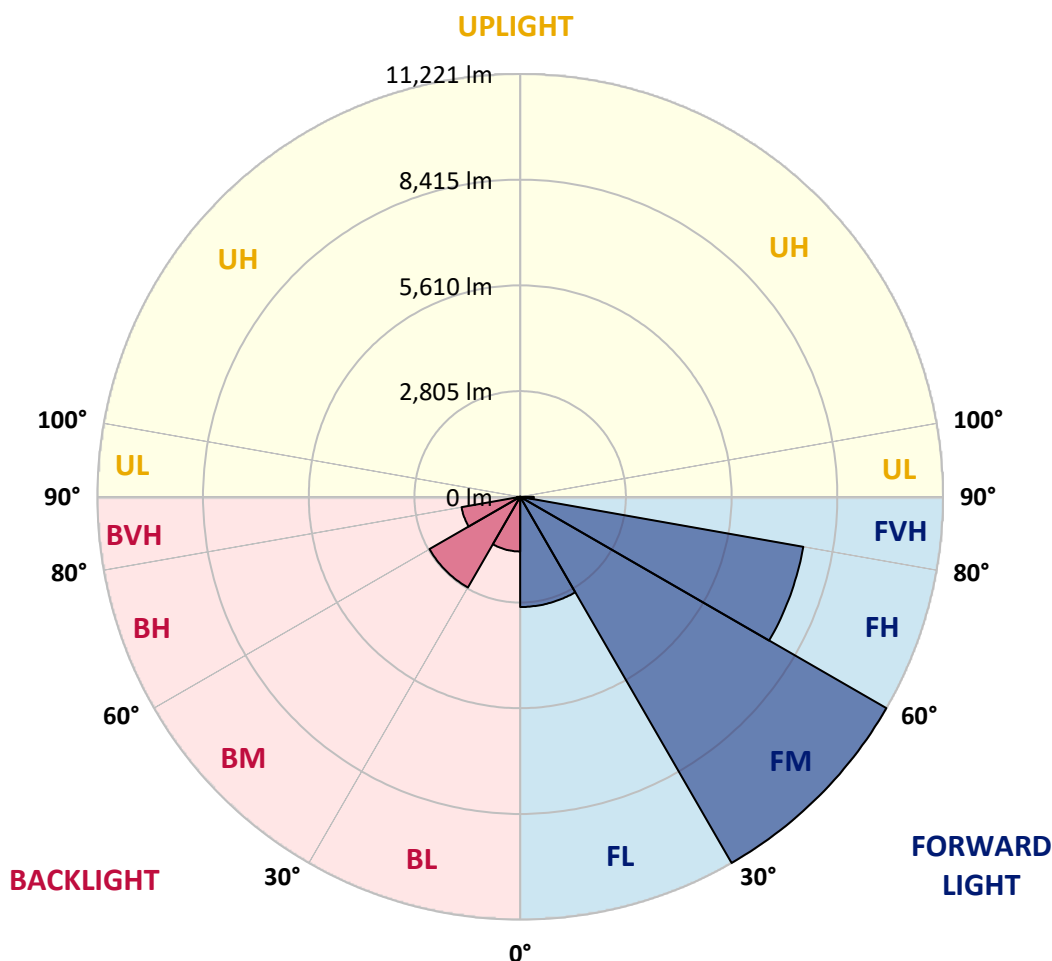
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2924.0	10.4			
FM (30°-60°)	11220.5	40.0			
FH (60°-80°)	7629.5	27.2			G4/12000
FVH (80°-90°)	360.7	1.3			G3/500
BL (0°-30°)	1451.2	5.2	B3/2500		
BM (30°-60°)	2779.2	9.9	B3/5000		
BH (60°-80°)	1579.7	5.6	B3/2500		G3/2500
BVH (80°-90°)	84.1	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°	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6
2.5°	5375.2	5422.3	5386.3	5372.5	5383.5	5328.2	5283.9	5220.2	5189.7	5167.6	5131.6
5°	5647.9	5725.5	5678.4	5649.3	5645.2	5544.1	5484.6	5397.4	5329.6	5270.0	5178.7
7.5°	5935.9	5981.6	5963.6	5930.3	5908.2	5785.0	5679.8	5556.6	5481.8	5402.9	5249.3
10°	6187.8	6243.2	6225.2	6165.7	6144.9	6018.9	5898.5	5731.0	5628.6	5530.3	5318.5
12.5°	6448.1	6510.4	6473.0	6413.5	6395.5	6268.1	6143.5	5940.0	5812.7	5701.9	5408.5
15°	6687.6	6744.3	6718.0	6650.2	6632.2	6524.2	6387.2	6197.5	6059.1	5912.3	5535.8
17.5°	6878.6	6935.3	6902.1	6870.3	6864.7	6758.2	6676.5	6482.7	6351.2	6151.8	5731.0
20°	7018.4	7076.5	7059.9	7075.2	7133.3	7054.4	7004.6	6841.2	6706.9	6491.0	6012.0
22.5°	7129.1	7203.9	7270.3	7300.8	7408.8	7403.2	7392.2	7295.3	7190.1	6965.8	6347.0
25°	7140.2	7226.0	7357.6	7500.1	7696.7	7790.8	7860.1	7844.8	7721.6	7500.1	6810.8
27.5°	7156.8	7245.4	7381.1	7626.1	7977.7	8197.8	8312.7	8383.3	8311.3	8163.2	7338.2
30°	7120.8	7212.2	7382.5	7695.3	8170.1	8578.5	8783.4	9045.0	9053.3	8928.7	8134.1
32.5°	6957.5	7077.9	7284.2	7703.6	8357.0	8975.8	9291.4	9793.9	9903.3	9810.5	8955.0
35°	6684.8	6794.1	7089.0	7630.3	8470.5	9306.6	9883.9	10667.4	10829.4	10823.8	9921.3
37.5°	6383.0	6493.8	6826.0	7457.2	8543.9	9601.5	10405.8	11534.0	11856.5	11788.7	10833.5
40°	6049.4	6165.7	6549.1	7239.9	8507.9	9864.5	10958.1	12374.3	12774.3	12782.6	11705.6
42.5°	5661.8	5757.3	6142.1	6939.5	8388.9	10058.3	11471.7	13258.8	13679.7	13656.1	12527.9
45°	5290.8	5390.5	5726.8	6474.4	8113.4	10166.3	11975.6	14154.5	14615.4	14540.7	13441.6
47.5°	4842.3	4984.9	5368.3	6084.0	7688.4	10158.0	12415.8	15070.9	15588.6	15527.7	14230.6
50°	3726.5	3811.0	4678.9	5681.2	7112.5	9964.2	12846.3	15970.7	16625.4	16506.4	15072.3
52.5°	3356.9	3433.1	3712.7	5198.0	6589.3	9544.7	13204.8	17000.6	17490.6	17397.9	15931.9
55°	3172.8	3214.3	3384.6	4287.2	6078.5	8863.7	13444.3	17915.6	18425.0	18220.2	16736.2
57.5°	2941.6	2992.9	3190.8	3661.5	5450.0	7818.5	13388.9	18740.7	19211.3	18897.1	17444.9
60°	2764.4	2803.2	2988.7	3296.0	4800.8	6736.0	12822.8	19550.5	19787.2	19477.1	18150.9
62.5°	2614.9	2637.1	2767.2	3059.3	4306.6	5945.6	11718.1	19658.4	20098.7	19874.4	18677.0
65°	2429.4	2435.0	2588.6	2817.1	3849.7	5470.8	10769.9	19104.7	19943.6	19868.9	18866.6
67.5°	2212.1	2223.2	2378.2	2552.6	3300.2	4965.5	9292.8	18807.1	19341.4	19294.4	18491.5
70°	1939.4	1961.6	2104.1	2237.0	2794.9	4359.2	7396.3	17630.4	18264.5	18195.2	17255.3
72.5°	1676.4	1663.9	1796.8	1928.3	2328.4	3639.3	5606.4	15605.2	17132.1	17065.6	15649.5
75°	1377.4	1369.1	1506.1	1630.7	1908.9	2940.3	3943.9	11540.9	15052.9	15257.8	13494.2
77.5°	848.6	855.5	934.4	1017.5	1292.9	2196.9	2516.7	6420.4	10225.8	12126.5	10589.9
80°	614.6	614.6	672.8	722.6	855.5	1338.6	1252.8	2677.2	3737.6	5852.8	6604.5
82.5°	398.7	382.1	418.1	461.0	476.2	580.0	573.1	1342.8	1904.8	2292.4	2750.6
85°	207.6	229.8	138.4	195.2	206.3	192.4	198.0	629.9	845.8	1083.9	1193.3
87.5°	31.8	24.9	33.2	45.7	52.6	44.3	38.8	73.4	113.5	150.9	178.6
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°	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6	5095.6
2.5°	5108.1	5101.1	5037.5	4944.7	4868.6	4804.9	4763.4	4735.7	4766.1	4710.8	4703.9
5°	5121.9	5074.8	4936.4	4803.5	4701.1	4564.0	4471.3	4409.0	4433.9	4385.5	4366.1
7.5°	5159.3	5073.5	4882.4	4670.6	4476.8	4330.1	4187.5	4050.5	4029.7	3999.2	4000.6
10°	5192.5	5069.3	4820.1	4543.3	4317.6	4058.8	3887.1	3745.9	3714.1	3678.1	3660.1
12.5°	5245.1	5079.0	4742.6	4407.6	4105.8	3806.8	3621.3	3455.2	3423.4	3352.8	3337.5
15°	5350.3	5113.6	4666.5	4240.1	3867.7	3566.0	3326.5	3181.1	3123.0	3044.1	3042.7
17.5°	5487.4	5214.7	4627.7	4082.3	3665.6	3327.9	3074.5	2927.8	2829.5	2782.4	2770.0
20°	5682.6	5346.2	4626.3	3939.7	3455.2	3073.1	2782.4	2616.3	2533.3	2494.5	2471.0
22.5°	5982.9	5540.0	4651.2	3840.0	3243.4	2826.7	2537.4	2309.0	2172.0	2065.4	2080.6
25°	6356.7	5830.7	4708.0	3748.7	3059.3	2591.4	2228.7	1911.7	1666.7	1560.1	1568.4
27.5°	6831.5	6178.1	4854.7	3655.9	2850.3	2338.1	1825.9	1423.1	1237.6	1113.0	1122.7
30°	7439.2	6610.0	5047.2	3584.0	2656.5	1983.7	1374.6	1049.3	886.0	783.5	773.8
32.5°	8166.0	7235.7	5257.6	3535.5	2444.7	1540.7	991.2	769.7	610.5	552.3	560.6
35°	9065.8	7939.0	5578.7	3464.9	2082.0	1096.4	707.4	520.5	438.8	427.7	429.1
37.5°	9886.7	8658.8	5897.1	3345.9	1643.2	779.4	480.4	395.9	377.9	373.8	379.3
40°	10690.9	9315.0	6185.1	3172.8	1129.6	534.3	353.0	357.1	341.9	330.8	325.3
42.5°	11444.0	9947.6	6410.7	2854.4	772.4	353.0	312.9	325.3	322.5	300.4	290.7
45°	12256.6	10616.2	6535.3	2408.7	485.9	300.4	281.0	303.2	317.0	292.1	281.0
47.5°	12950.1	11268.2	6529.7	1845.3	329.5	283.8	264.4	283.8	300.4	282.4	272.7
50°	13750.3	11808.1	6352.6	1171.1	292.1	263.0	253.3	260.2	282.4	269.9	260.2
52.5°	14639.0	12547.3	6084.0	653.4	276.9	249.2	235.3	243.6	263.0	247.8	253.3
55°	15375.4	13160.5	5452.8	445.7	269.9	232.6	224.3	229.8	238.1	222.9	231.2
57.5°	16033.0	13667.2	4814.6	365.5	260.2	221.5	220.1	209.0	207.6	198.0	189.6
60°	16698.8	14067.3	3953.6	330.8	250.6	222.9	199.3	184.1	171.7	162.0	157.8
62.5°	17209.6	14344.1	3127.1	299.0	236.7	209.0	182.7	157.8	137.0	124.6	124.6
65°	17359.1	14220.9	2201.0	271.3	221.5	196.6	163.3	128.7	103.8	95.5	91.4
67.5°	16880.2	13513.5	1532.4	250.6	206.3	182.7	144.0	105.2	83.1	72.0	69.2
70°	15660.6	12330.0	903.9	221.5	186.9	159.2	131.5	85.8	67.8	56.8	54.0
72.5°	13858.2	10555.3	563.4	188.3	160.6	130.1	98.3	70.6	54.0	44.3	42.9
75°	11446.8	8228.3	368.2	145.4	127.4	102.4	74.8	56.8	47.1	37.4	34.6
77.5°	9179.3	5821.0	329.5	110.7	94.1	73.4	56.8	47.1	38.8	33.2	33.2
80°	5282.5	3322.3	269.9	76.1	58.1	55.4	44.3	38.8	36.0	31.8	30.5
82.5°	2595.6	1596.1	174.4	47.1	33.2	36.0	37.4	34.6	30.5	27.7	27.7
85°	894.3	531.6	70.6	30.5	22.1	22.1	23.5	24.9	23.5	22.1	22.1
87.5°	138.4	101.1	19.4	18.0	13.8	12.5	13.8	15.2	15.2	13.8	13.8
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)