

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: P510220

Luminaire Tested: **VERD-M-CA4-230-730-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510220
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-CA4-230-730-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 3000K, 1050mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29115 lumens
Efficiency: N/A
Efficacy: 124.8 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

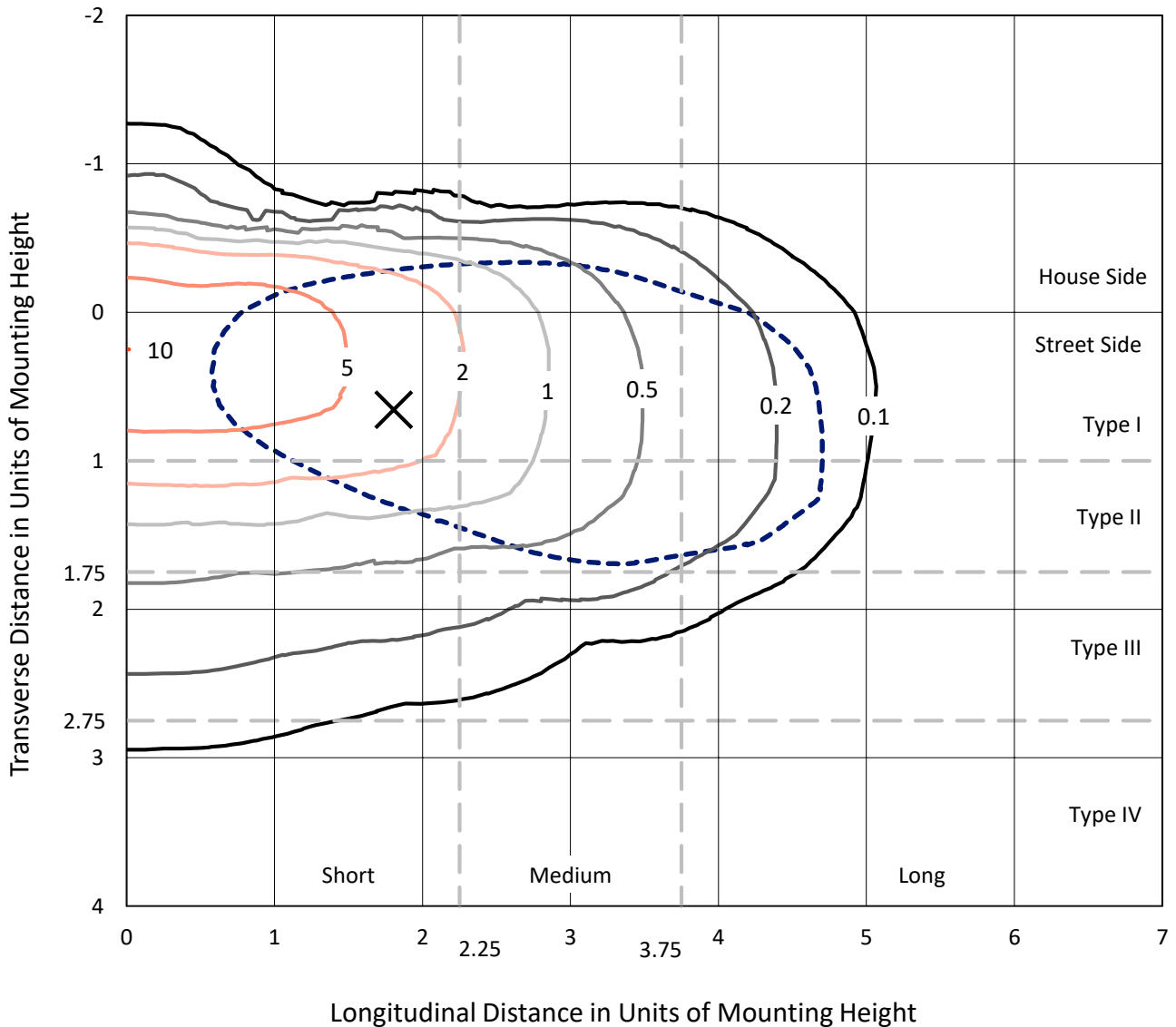
Input Watts (W): 233.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

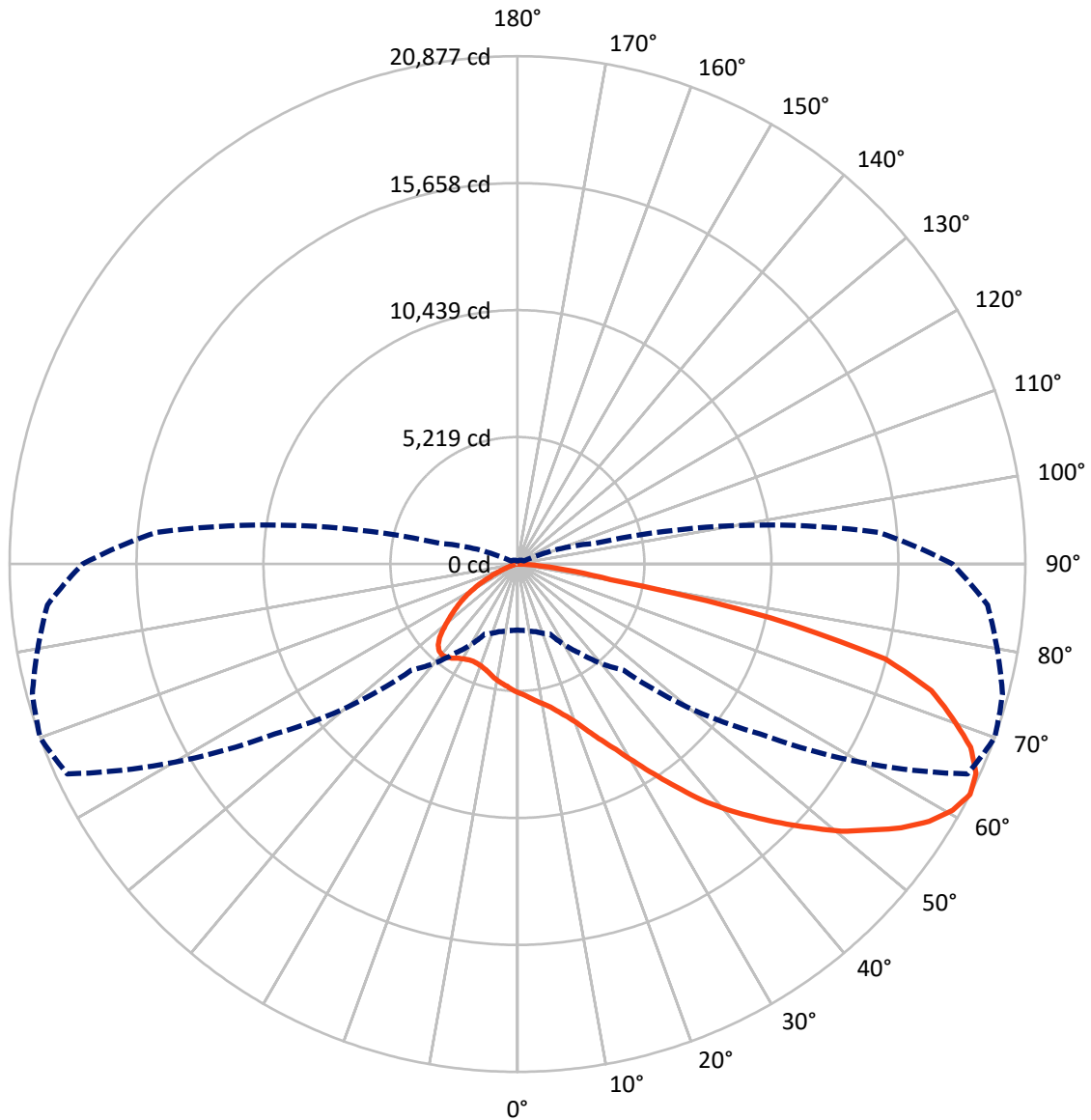
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10 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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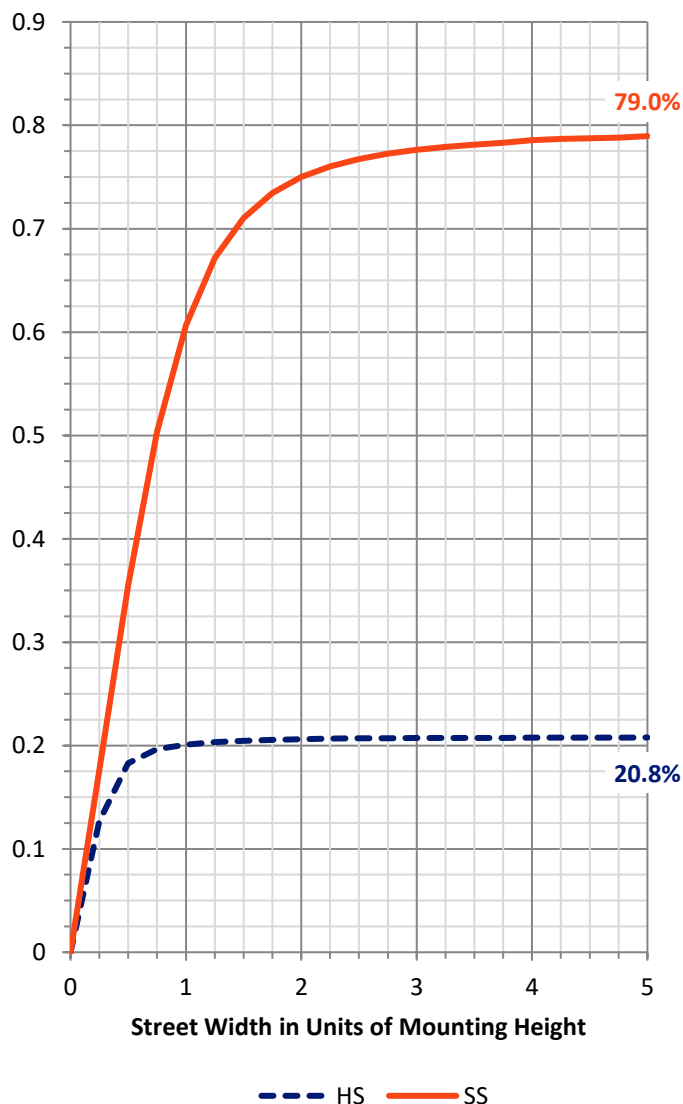
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6122.6	0.0	6122.6
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	22992.4	0.0	22992.4
	% Fixture	79.0	0.0	79.0
Total	Lumens	29115.0	0.0	29115.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	502.5	1.7
10°-20°	1499.7	5.2
20°-30°	2542.5	8.7
30°-40°	3738.9	12.8
40°-50°	4978.9	17.1
50°-60°	5824.4	20.0
60°-70°	5857.9	20.1
70°-80°	3708.2	12.7
80°-90°	462.1	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°	29115.0	100.0
0°-180°	29115.0	100.0

Coefficient of Utilization



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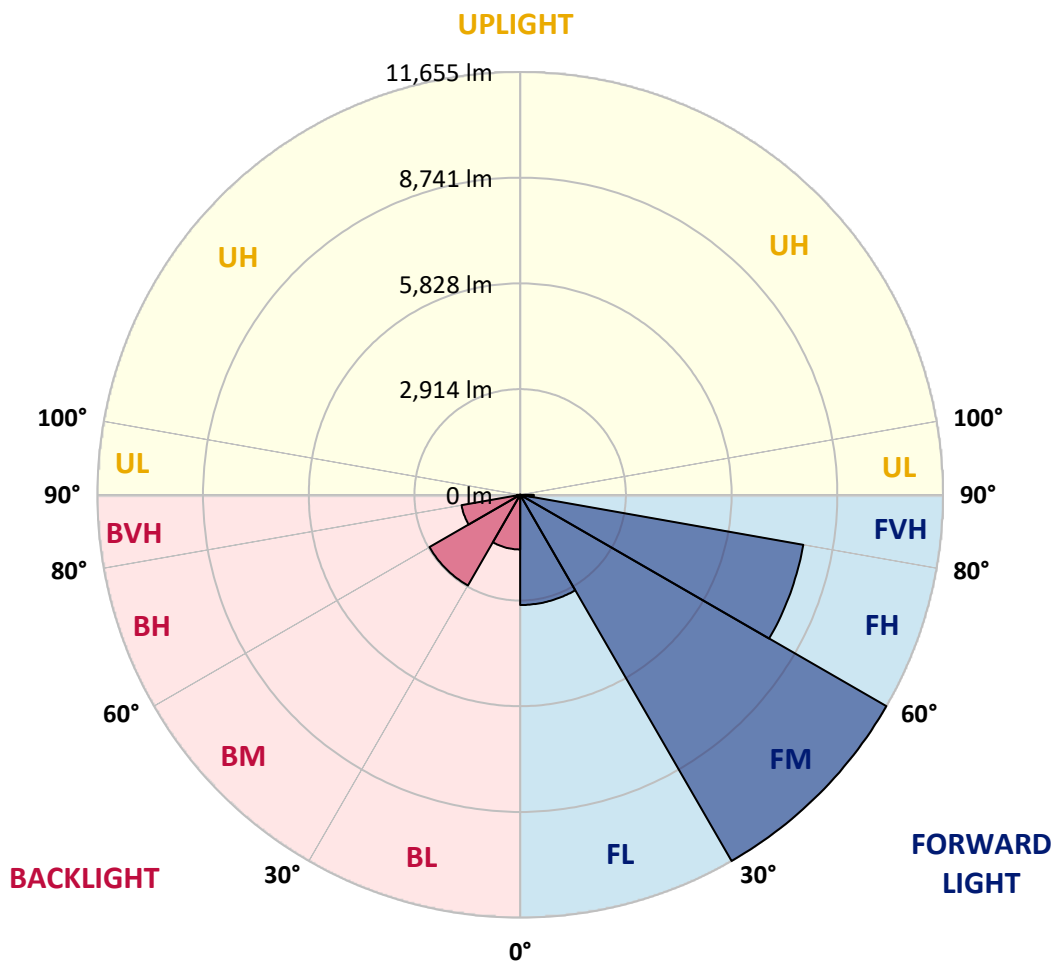
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3037.3	10.4			
FM	(30°-60°)	11655.3	40.0			
FH	(60°-80°)	7925.1	27.2			G4/12000
FVH	(80°-90°)	374.7	1.3			G3/500
BL	(0°-30°)	1507.4	5.2	B3/2500		
BM	(30°-60°)	2886.9	9.9	B3/5000		
BH	(60°-80°)	1641.0	5.6	B3/2500		G3/2500
BVH	(80°-90°)	87.4	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°	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0
2.5°	5583.5	5632.4	5595.0	5580.6	5592.1	5534.6	5488.6	5422.5	5390.8	5367.8	5330.4
5°	5866.8	5947.3	5898.4	5868.2	5863.9	5758.9	5697.1	5606.5	5536.1	5474.2	5379.3
7.5°	6165.9	6213.3	6194.6	6160.1	6137.1	6009.1	5899.8	5771.9	5694.2	5612.3	5452.7
10°	6427.6	6485.1	6466.4	6404.6	6383.0	6252.1	6127.0	5953.1	5846.6	5744.6	5524.5
12.5°	6697.9	6762.6	6723.8	6662.0	6643.3	6511.0	6381.6	6170.2	6037.9	5922.9	5618.0
15°	6946.7	7005.6	6978.3	6907.8	6889.1	6777.0	6634.6	6437.6	6293.8	6141.4	5750.3
17.5°	7145.1	7204.1	7169.5	7136.5	7130.7	7020.0	6935.2	6733.9	6597.2	6390.2	5953.1
20°	7290.3	7350.7	7333.5	7349.3	7409.7	7327.7	7276.0	7106.3	6966.8	6742.5	6245.0
22.5°	7405.4	7483.0	7552.0	7583.7	7695.8	7690.1	7678.6	7577.9	7468.6	7235.7	6592.9
25°	7416.9	7506.0	7642.6	7790.7	7994.9	8092.7	8164.6	8148.8	8020.8	7790.7	7074.6
27.5°	7434.1	7526.2	7667.1	7921.6	8286.8	8515.5	8634.8	8708.1	8633.4	8479.5	7622.5
30°	7396.7	7491.6	7668.5	7993.5	8486.7	8910.9	9123.7	9395.5	9404.1	9274.7	8449.3
32.5°	7227.1	7352.2	7566.4	8002.1	8680.8	9323.6	9651.4	10173.4	10287.0	10190.6	9302.0
35°	6943.8	7057.4	7363.7	7925.9	8798.7	9667.2	10266.9	11080.7	11249.0	11243.2	10305.7
37.5°	6630.3	6745.4	7090.5	7746.2	8874.9	9973.5	10809.0	11980.9	12315.9	12245.5	11253.3
40°	6283.8	6404.6	6802.9	7520.4	8837.6	10246.7	11382.7	12853.7	13269.3	13277.9	12159.2
42.5°	5881.2	5980.4	6380.1	7208.4	8713.9	10448.0	11916.2	13772.5	14209.7	14185.2	13013.3
45°	5495.8	5599.3	5948.7	6725.2	8427.7	10560.2	12439.6	14702.9	15181.7	15104.1	13962.4
47.5°	5029.9	5178.0	5576.3	6319.7	7986.3	10551.6	12896.8	15654.8	16192.6	16129.3	14782.0
50°	3870.9	3958.6	4860.2	5901.3	7388.1	10350.3	13344.0	16589.5	17269.6	17145.9	15656.2
52.5°	3487.0	3566.1	3856.5	5399.4	6844.6	9914.6	13716.5	17659.3	18168.3	18072.0	16549.2
55°	3295.7	3338.9	3515.8	4453.3	6314.0	9207.1	13965.2	18609.8	19138.9	18926.1	17384.6
57.5°	3055.6	3108.8	3314.4	3803.3	5661.2	8121.5	13907.7	19466.8	19955.7	19629.3	18120.9
60°	2871.6	2911.8	3104.5	3423.7	4986.8	6997.0	13319.6	20308.0	20553.8	20231.8	18854.2
62.5°	2716.3	2739.3	2874.4	3177.8	4473.4	6175.9	12172.1	20420.1	20877.4	20644.4	19400.6
65°	2523.6	2529.3	2688.9	2926.2	3998.9	5682.7	11187.1	19844.9	20716.3	20638.7	19597.6
67.5°	2297.8	2309.3	2470.4	2651.6	3428.0	5157.9	9652.9	19535.8	20090.8	20041.9	19207.9
70°	2014.5	2037.6	2185.7	2323.7	2903.2	4528.1	7682.9	18313.5	18972.1	18900.2	17923.9
72.5°	1741.3	1728.4	1866.4	2003.0	2418.6	3780.3	5823.6	16209.8	17795.9	17726.9	16255.9
75°	1430.7	1422.1	1564.5	1693.9	1982.9	3054.2	4096.7	11988.1	15636.1	15848.9	14017.0
77.5°	881.5	888.6	970.6	1056.9	1343.0	2282.0	2614.2	6669.1	10622.0	12596.3	11000.2
80°	638.4	638.4	698.8	750.6	888.6	1390.5	1301.3	2781.0	3882.4	6079.6	6860.4
82.5°	414.1	396.9	434.3	478.8	494.6	602.5	595.3	1394.8	1978.6	2381.2	2857.2
85°	215.7	238.7	143.8	202.7	214.3	199.9	205.6	654.3	878.6	1125.9	1239.5
87.5°	33.1	25.9	34.5	47.5	54.6	46.0	40.3	76.2	117.9	156.7	185.5
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°	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0	5293.0
2.5°	5306.0	5298.8	5232.6	5136.3	5057.2	4991.1	4947.9	4919.2	4950.8	4893.3	4886.1
5°	5320.4	5271.5	5127.7	4989.6	4883.2	4740.9	4644.5	4579.8	4605.7	4555.4	4535.2
7.5°	5359.2	5270.0	5071.6	4851.6	4650.3	4497.9	4349.8	4207.4	4185.8	4154.2	4155.6
10°	5393.7	5265.7	5006.9	4719.3	4484.9	4216.0	4037.7	3891.1	3858.0	3820.6	3801.9
12.5°	5448.3	5275.8	4926.4	4578.4	4264.9	3954.3	3761.6	3589.1	3556.0	3482.7	3466.9
15°	5557.6	5311.7	4847.3	4404.4	4017.6	3704.1	3455.4	3304.4	3244.0	3162.0	3160.6
17.5°	5700.0	5416.7	4807.0	4240.5	3807.7	3456.8	3193.7	3041.2	2939.1	2890.3	2877.3
20°	5902.7	5553.3	4805.6	4092.4	3589.1	3192.2	2890.3	2717.7	2631.4	2591.2	2566.7
22.5°	6214.8	5754.6	4831.5	3988.8	3369.1	2936.3	2635.7	2398.5	2256.1	2145.4	2161.2
25°	6603.0	6056.6	4890.4	3893.9	3177.8	2691.8	2315.1	1985.8	1731.3	1620.6	1629.2
27.5°	7096.2	6417.5	5042.8	3797.6	2960.7	2428.7	1896.6	1478.2	1285.5	1156.1	1166.2
30°	7727.5	6866.1	5242.7	3722.8	2759.4	2060.6	1427.9	1090.0	920.3	813.9	803.8
32.5°	8482.4	7516.1	5461.3	3672.5	2539.4	1600.4	1029.6	799.5	634.1	573.7	582.4
35°	9417.0	8246.6	5794.9	3599.2	2162.7	1138.8	734.8	540.7	455.8	444.3	445.8
37.5°	10269.7	8994.3	6125.6	3475.5	1706.8	809.6	499.0	411.2	392.6	388.2	394.0
40°	11105.2	9675.9	6424.7	3295.7	1173.4	555.0	366.7	371.0	355.2	343.7	337.9
42.5°	11887.4	10333.0	6659.1	2965.0	802.4	366.7	325.0	337.9	335.0	312.0	302.0
45°	12731.5	11027.5	6788.5	2502.0	504.7	312.0	291.9	314.9	329.3	303.4	291.9
47.5°	13451.9	11704.8	6782.7	1916.8	342.2	294.8	274.6	294.8	312.0	293.3	283.3
50°	14283.0	12265.6	6598.7	1216.5	303.4	273.2	263.1	270.3	293.3	280.4	270.3
52.5°	15206.2	13033.4	6319.7	678.7	287.6	258.8	244.4	253.1	273.2	257.4	263.1
55°	15971.1	13670.5	5664.0	463.0	280.4	241.6	232.9	238.7	247.3	231.5	240.1
57.5°	16654.2	14196.7	5001.1	379.6	270.3	230.1	228.6	217.1	215.7	205.6	197.0
60°	17345.8	14612.3	4106.7	343.7	260.3	231.5	207.1	191.2	178.3	168.2	163.9
62.5°	17876.4	14899.9	3248.3	310.6	245.9	217.1	189.8	163.9	142.4	129.4	129.4
65°	18031.7	14771.9	2286.3	281.8	230.1	204.2	169.7	133.7	107.8	99.2	94.9
67.5°	17534.2	14037.1	1591.8	260.3	214.3	189.8	149.5	109.3	86.3	74.8	71.9
70°	16267.4	12807.7	939.0	230.1	194.1	165.4	136.6	89.2	70.5	59.0	56.1
72.5°	14395.2	10964.3	585.2	195.6	166.8	135.2	102.1	73.3	56.1	46.0	44.6
75°	11890.3	8547.1	382.5	151.0	132.3	106.4	77.6	59.0	48.9	38.8	35.9
77.5°	9535.0	6046.5	342.2	115.0	97.8	76.2	59.0	48.9	40.3	34.5	34.5
80°	5487.2	3451.0	280.4	79.1	60.4	57.5	46.0	40.3	37.4	33.1	31.6
82.5°	2696.1	1657.9	181.2	48.9	34.5	37.4	38.8	35.9	31.6	28.8	28.8
85°	928.9	552.2	73.3	31.6	23.0	23.0	24.4	25.9	24.4	23.0	23.0
87.5°	143.8	105.0	20.1	18.7	14.4	12.9	14.4	15.8	15.8	14.4	14.4
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)