

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: P510228

Luminaire Tested: **VERD-M-CA4-230-740-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510228
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-CA4-230-740-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 4000K, 1050mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29651 lumens
Efficiency: N/A
Efficacy: 127.1 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

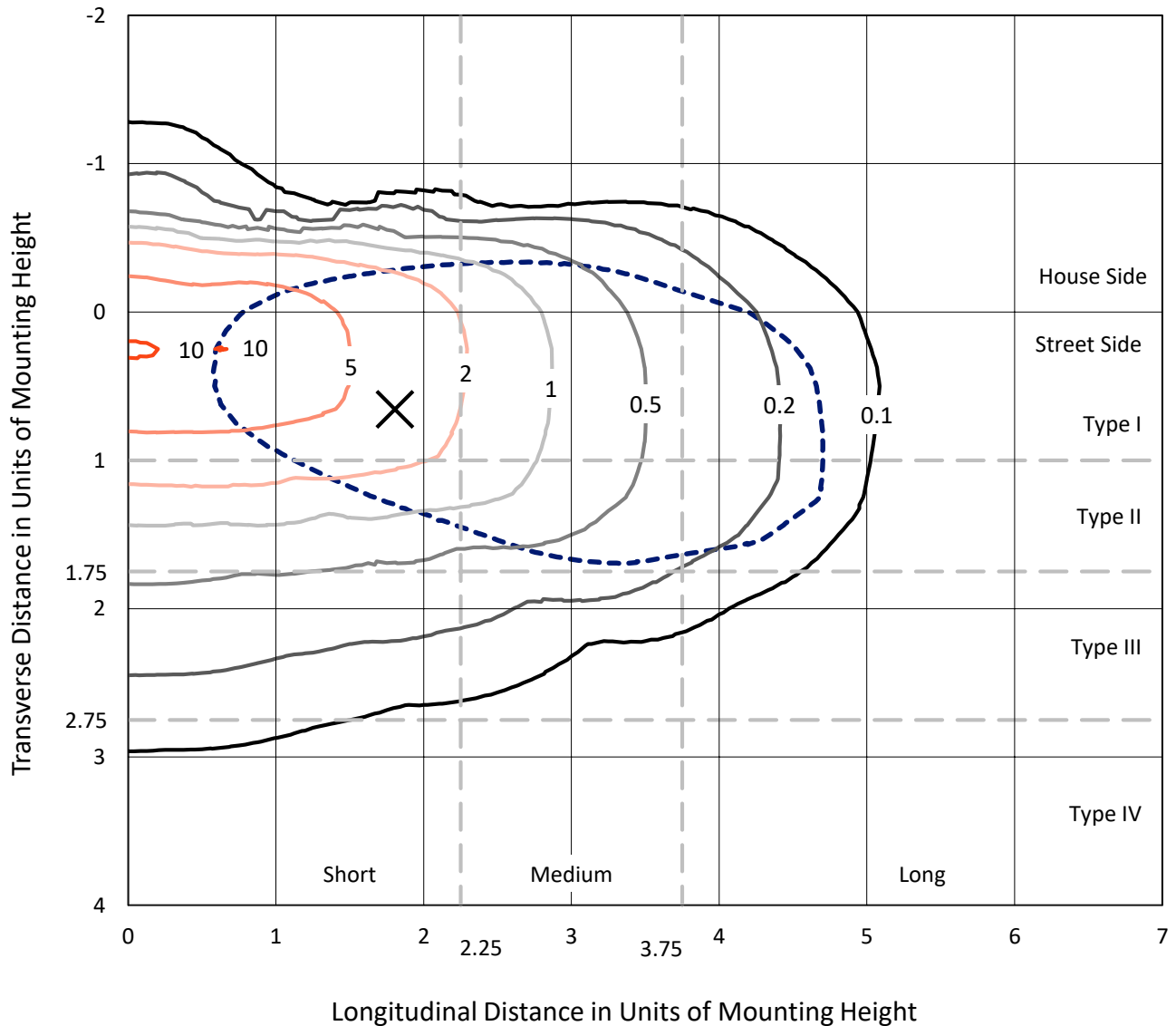
Input Watts (W): 233.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P510228
 CATALOG NUMBER: VERD-M-CA4-230-740-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

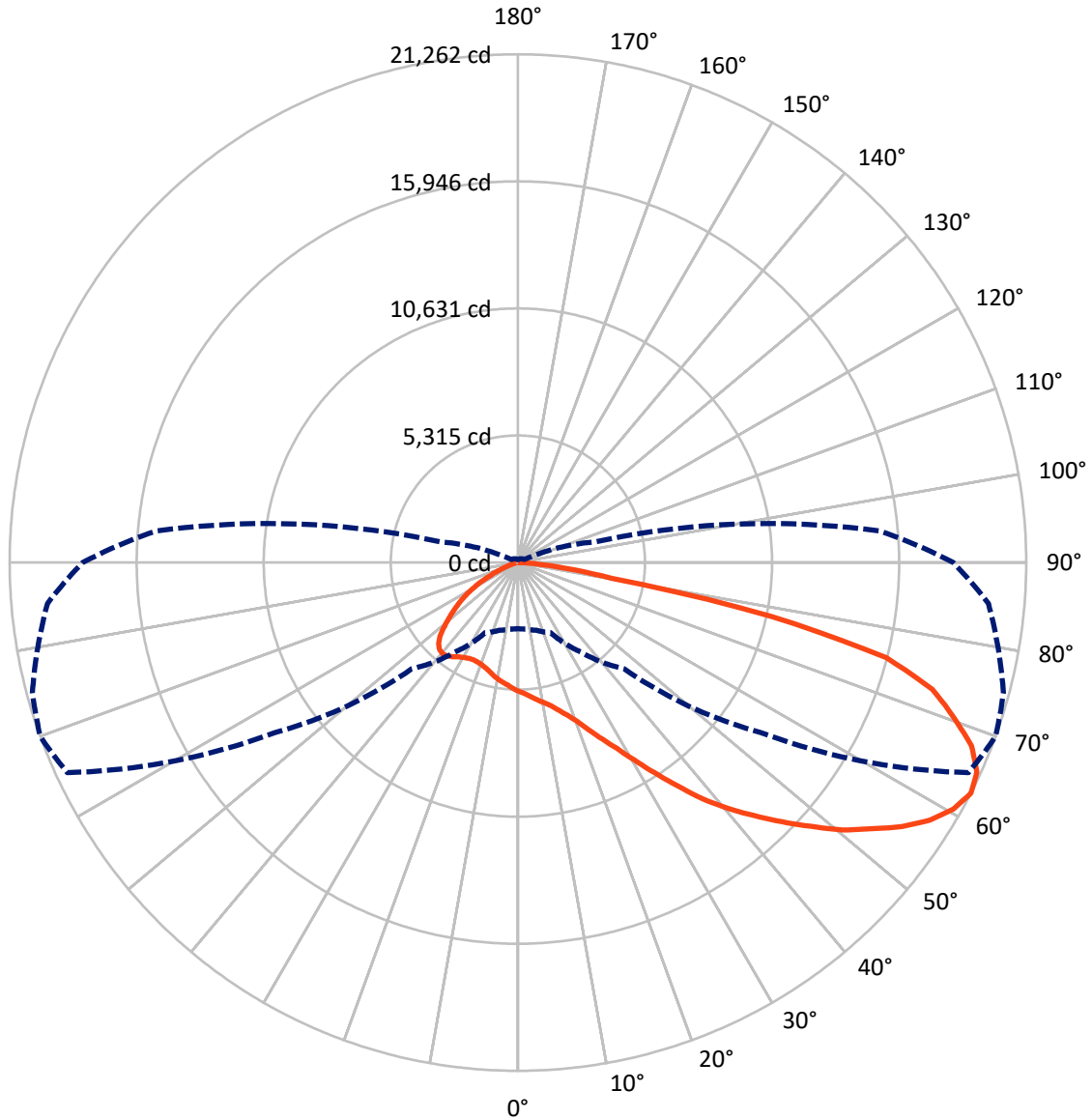
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 fc
 Type II - Short - N/A

REPORT NUMBER: P510228
CATALOG NUMBER: VERD-M-CA4-230-740-U-T2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P510228

CATALOG NUMBER: VERD-M-CA4-230-740-U-T2-HSS

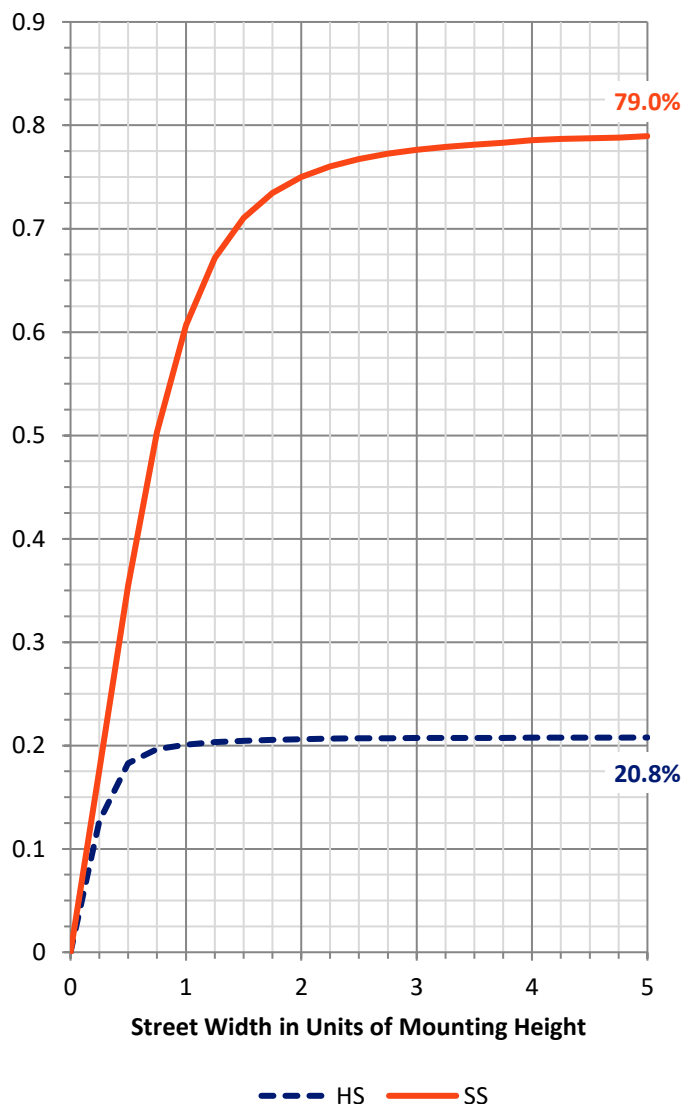
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6235.3	0.0	6235.3
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	23415.7	0.0	23415.7
	% Fixture	79.0	0.0	79.0
Total	Lumens	29651.0	0.0	29651.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	511.8	1.7
10°-20°	1527.3	5.2
20°-30°	2589.3	8.7
30°-40°	3807.7	12.8
40°-50°	5070.6	17.1
50°-60°	5931.6	20.0
60°-70°	5965.7	20.1
70°-80°	3776.4	12.7
80°-90°	470.6	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°	29651.0	100.0
0°-180°	29651.0	100.0

Coefficient of Utilization



REPORT NUMBER: P510228

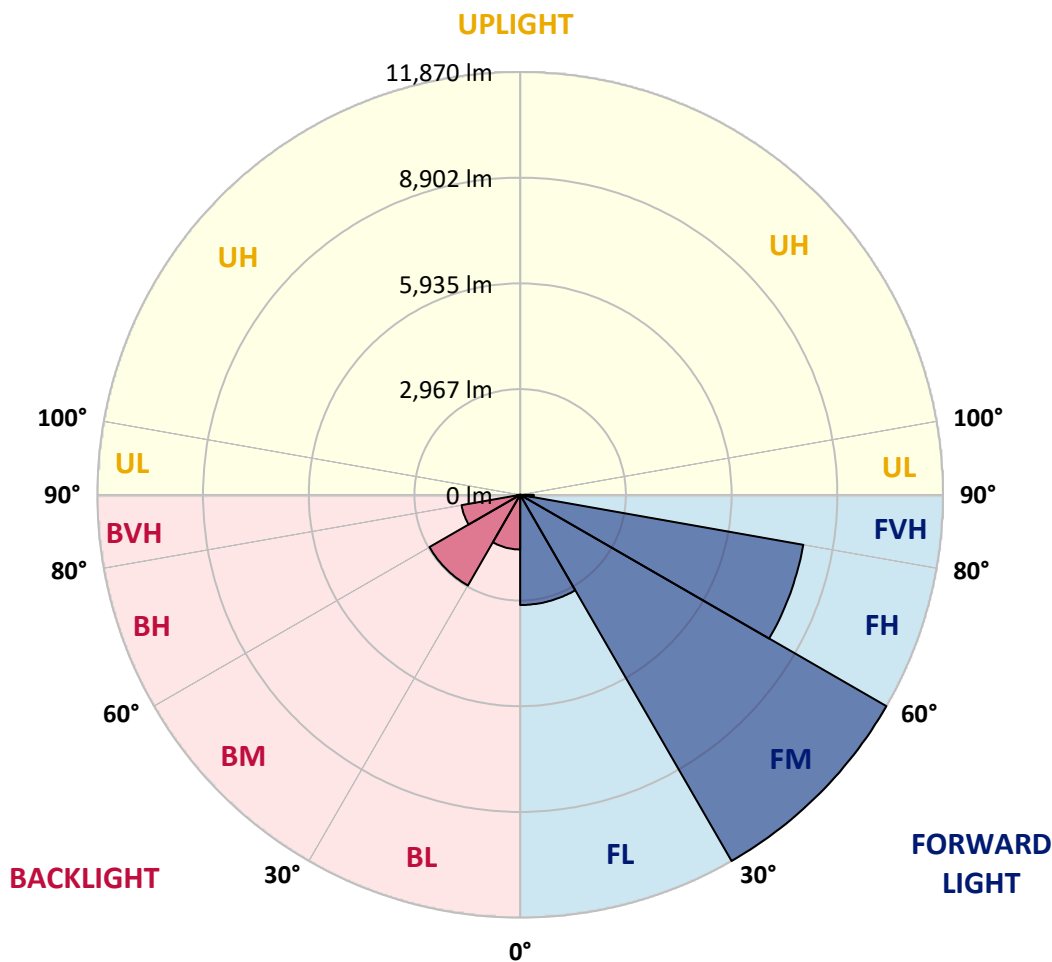
CATALOG NUMBER: VERD-M-CA4-230-740-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3093.3	10.4			
FM (30°-60°)	11869.8	40.0			
FH (60°-80°)	8071.0	27.2			G4/12000
FVH (80°-90°)	381.6	1.3			G3/500
BL (0°-30°)	1535.1	5.2	B3/2500		
BM (30°-60°)	2940.0	9.9	B3/5000		
BH (60°-80°)	1671.2	5.6	B3/2500		G3/2500
BVH (80°-90°)	89.0	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





REPORT NUMBER: P510228

CATALOG NUMBER: VERD-M-CA4-230-740-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5
2.5°	5686.3	5736.1	5698.0	5683.4	5695.1	5636.5	5589.6	5522.3	5490.1	5466.6	5428.6
5°	5974.8	6056.8	6007.0	5976.2	5971.9	5865.0	5802.0	5709.7	5638.0	5575.0	5478.3
7.5°	6279.4	6327.7	6308.7	6273.5	6250.1	6119.8	6008.5	5878.1	5799.1	5715.6	5553.0
10°	6545.9	6604.5	6585.4	6522.5	6500.5	6367.2	6239.8	6062.6	5954.3	5850.3	5626.3
12.5°	6821.2	6887.1	6847.6	6784.6	6765.6	6630.8	6499.0	6283.8	6149.0	6031.9	5721.4
15°	7074.6	7134.6	7106.8	7035.0	7016.0	6901.8	6756.8	6556.2	6409.7	6254.5	5856.2
17.5°	7276.6	7336.7	7301.5	7267.9	7262.0	7149.2	7062.8	6857.8	6718.7	6507.8	6062.6
20°	7424.5	7486.1	7468.5	7484.6	7546.1	7462.6	7409.9	7237.1	7095.1	6866.6	6359.9
22.5°	7541.7	7620.8	7691.1	7723.3	7837.5	7831.7	7819.9	7717.4	7606.1	7368.9	6714.3
25°	7553.4	7644.2	7783.3	7934.2	8142.1	8241.7	8314.9	8298.8	8168.5	7934.2	7204.9
27.5°	7571.0	7664.7	7808.2	8067.4	8439.4	8672.2	8793.8	8868.5	8792.3	8635.6	7762.8
30°	7532.9	7629.6	7809.7	8140.6	8642.9	9074.9	9291.7	9568.4	9577.2	9445.4	8604.9
32.5°	7360.1	7487.5	7705.7	8149.4	8840.6	9495.2	9829.1	10360.7	10476.4	10378.3	9473.3
35°	7071.6	7187.3	7499.2	8071.8	8960.7	9845.2	10455.9	11284.7	11456.1	11450.2	10495.4
37.5°	6752.4	6869.5	7221.0	7888.8	9038.3	10157.1	11008.0	12201.4	12542.7	12470.9	11460.5
40°	6399.5	6522.5	6928.1	7658.9	9000.2	10435.4	11592.2	13090.3	13513.6	13522.3	12383.0
42.5°	5989.4	6090.5	6497.6	7341.1	8874.3	10640.4	12135.5	14026.1	14471.3	14446.4	13252.9
45°	5597.0	5702.4	6058.3	6849.0	8582.9	10754.6	12668.6	14973.6	15461.2	15382.1	14219.4
47.5°	5122.5	5273.3	5679.0	6436.1	8133.3	10745.8	13134.3	15943.0	16490.7	16426.3	15054.1
50°	3942.2	4031.5	4949.7	6009.9	7524.1	10540.8	13589.7	16894.9	17587.5	17461.6	15944.5
52.5°	3551.2	3631.7	3927.5	5498.9	6970.6	10097.1	13969.0	17984.4	18502.8	18404.7	16853.9
55°	3356.4	3400.4	3580.5	4535.3	6430.2	9376.6	14222.3	18952.4	19491.3	19274.5	17704.7
57.5°	3111.9	3166.0	3375.5	3873.4	5765.4	8271.0	14163.7	19825.1	20323.0	19990.6	18454.5
60°	2924.4	2965.4	3161.7	3486.8	5078.6	7125.8	13564.8	20681.8	20932.2	20604.2	19201.3
62.5°	2766.3	2789.7	2927.4	3236.3	4555.8	6289.6	12396.2	20796.1	21261.7	21024.5	19757.8
65°	2570.0	2575.9	2738.4	2980.1	4072.5	5787.3	11393.1	20210.3	21097.7	21018.6	19958.4
67.5°	2340.1	2351.8	2515.9	2700.4	3491.1	5252.8	9830.6	19895.4	20460.7	20410.9	19561.6
70°	2051.6	2075.1	2225.9	2366.5	2956.6	4611.4	7824.3	18650.7	19321.4	19248.2	18253.8
72.5°	1773.4	1760.2	1900.8	2039.9	2463.1	3849.9	5930.9	16508.3	18123.5	18053.2	16555.1
75°	1457.1	1448.3	1593.3	1725.1	2019.4	3110.4	4172.1	12208.8	15924.0	16140.7	14275.0
77.5°	897.7	905.0	988.5	1076.3	1367.8	2324.0	2662.3	6791.9	10817.6	12828.2	11202.7
80°	650.2	650.2	711.7	764.4	905.0	1416.1	1325.3	2832.2	3953.9	6191.5	6986.7
82.5°	421.7	404.2	442.3	487.6	503.8	613.6	606.3	1420.5	2015.0	2425.1	2909.8
85°	219.7	243.1	146.4	206.5	218.2	203.6	209.4	666.3	894.8	1146.6	1262.3
87.5°	33.7	26.4	35.1	48.3	55.6	46.9	41.0	77.6	120.1	159.6	188.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P510228

CATALOG NUMBER: VERD-M-CA4-230-740-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5	5390.5
2.5°	5403.7	5396.3	5329.0	5230.9	5150.3	5083.0	5039.0	5009.7	5042.0	4983.4	4976.1
5°	5418.3	5368.5	5222.1	5081.5	4973.1	4828.2	4730.0	4664.1	4690.5	4639.2	4618.7
7.5°	5457.8	5367.1	5165.0	4940.9	4735.9	4580.7	4429.8	4284.9	4262.9	4230.7	4232.1
10°	5493.0	5362.7	5099.1	4806.2	4567.5	4293.6	4112.1	3962.7	3929.0	3890.9	3871.9
12.5°	5548.6	5372.9	5017.1	4662.7	4343.4	4027.1	3830.9	3655.2	3621.5	3546.8	3530.7
15°	5659.9	5409.5	4936.5	4485.5	4091.6	3772.3	3519.0	3365.2	3303.7	3220.2	3218.8
17.5°	5804.9	5516.4	4895.5	4318.5	3877.8	3520.4	3252.4	3097.2	2993.2	2943.5	2930.3
20°	6011.4	5655.5	4894.0	4167.7	3655.2	3251.0	2943.5	2767.7	2679.9	2638.9	2614.0
22.5°	6329.2	5860.6	4920.4	4062.3	3431.1	2990.3	2684.3	2442.6	2297.7	2184.9	2201.0
25°	6724.6	6168.1	4980.4	3965.6	3236.3	2741.4	2357.7	2022.3	1763.1	1650.4	1659.2
27.5°	7226.9	6535.7	5135.7	3867.5	3015.2	2473.4	1931.6	1505.4	1309.2	1177.4	1187.6
30°	7869.7	6992.5	5339.2	3791.4	2810.2	2098.5	1454.2	1110.0	937.2	828.9	818.6
32.5°	8638.5	7654.5	5561.8	3740.1	2586.1	1629.9	1048.5	814.2	645.8	584.3	593.1
35°	9590.4	8398.4	5901.6	3665.4	2202.5	1159.8	748.3	550.6	464.2	452.5	454.0
37.5°	10458.8	9159.9	6238.4	3539.5	1738.3	824.5	508.1	418.8	399.8	395.4	401.2
40°	11309.6	9854.0	6543.0	3356.4	1195.0	565.3	373.4	377.8	361.7	350.0	344.1
42.5°	12106.3	10523.2	6781.7	3019.6	817.1	373.4	331.0	344.1	341.2	317.8	307.5
45°	12965.9	11230.5	6913.5	2548.1	514.0	317.8	297.3	320.7	335.3	309.0	297.3
47.5°	13699.5	11920.3	6907.6	1952.1	348.5	300.2	279.7	300.2	317.8	298.7	288.5
50°	14546.0	12491.4	6720.2	1238.9	309.0	278.2	268.0	275.3	298.7	285.6	275.3
52.5°	15486.1	13273.4	6436.1	691.2	292.9	263.6	248.9	257.7	278.2	262.1	268.0
55°	16265.2	13922.1	5768.3	471.5	285.6	246.0	237.2	243.1	251.9	235.8	244.6
57.5°	16960.8	14458.1	5093.2	386.6	275.3	234.3	232.8	221.1	219.7	209.4	200.6
60°	17665.1	14881.3	4182.3	350.0	265.1	235.8	210.9	194.8	181.6	171.3	166.9
62.5°	18205.5	15174.2	3308.1	316.3	250.4	221.1	193.3	166.9	145.0	131.8	131.8
65°	18363.7	15043.9	2328.4	287.0	234.3	207.9	172.8	136.2	109.8	101.0	96.7
67.5°	17857.0	14295.5	1621.1	265.1	218.2	193.3	152.3	111.3	87.9	76.1	73.2
70°	16566.8	13043.5	956.3	234.3	197.7	168.4	139.1	90.8	71.8	60.0	57.1
72.5°	14660.2	11166.1	596.0	199.2	169.9	137.7	104.0	74.7	57.1	46.9	45.4
75°	12109.2	8704.4	389.5	153.8	134.7	108.4	79.1	60.0	49.8	39.5	36.6
77.5°	9710.5	6157.8	348.5	117.2	99.6	77.6	60.0	49.8	41.0	35.1	35.1
80°	5588.2	3514.6	285.6	80.5	61.5	58.6	46.9	41.0	38.1	33.7	32.2
82.5°	2745.8	1688.5	184.5	49.8	35.1	38.1	39.5	36.6	32.2	29.3	29.3
85°	946.0	562.3	74.7	32.2	23.4	23.4	24.9	26.4	24.9	23.4	23.4
87.5°	146.4	106.9	20.5	19.0	14.6	13.2	14.6	16.1	16.1	14.6	14.6
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)