

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: P510140

Luminaire Tested: **VERD-M-CA4-210-750-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510140
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-CA4-210-750-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 5000K, 960mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28056 lumens
Efficiency: N/A
Efficacy: 131.3 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

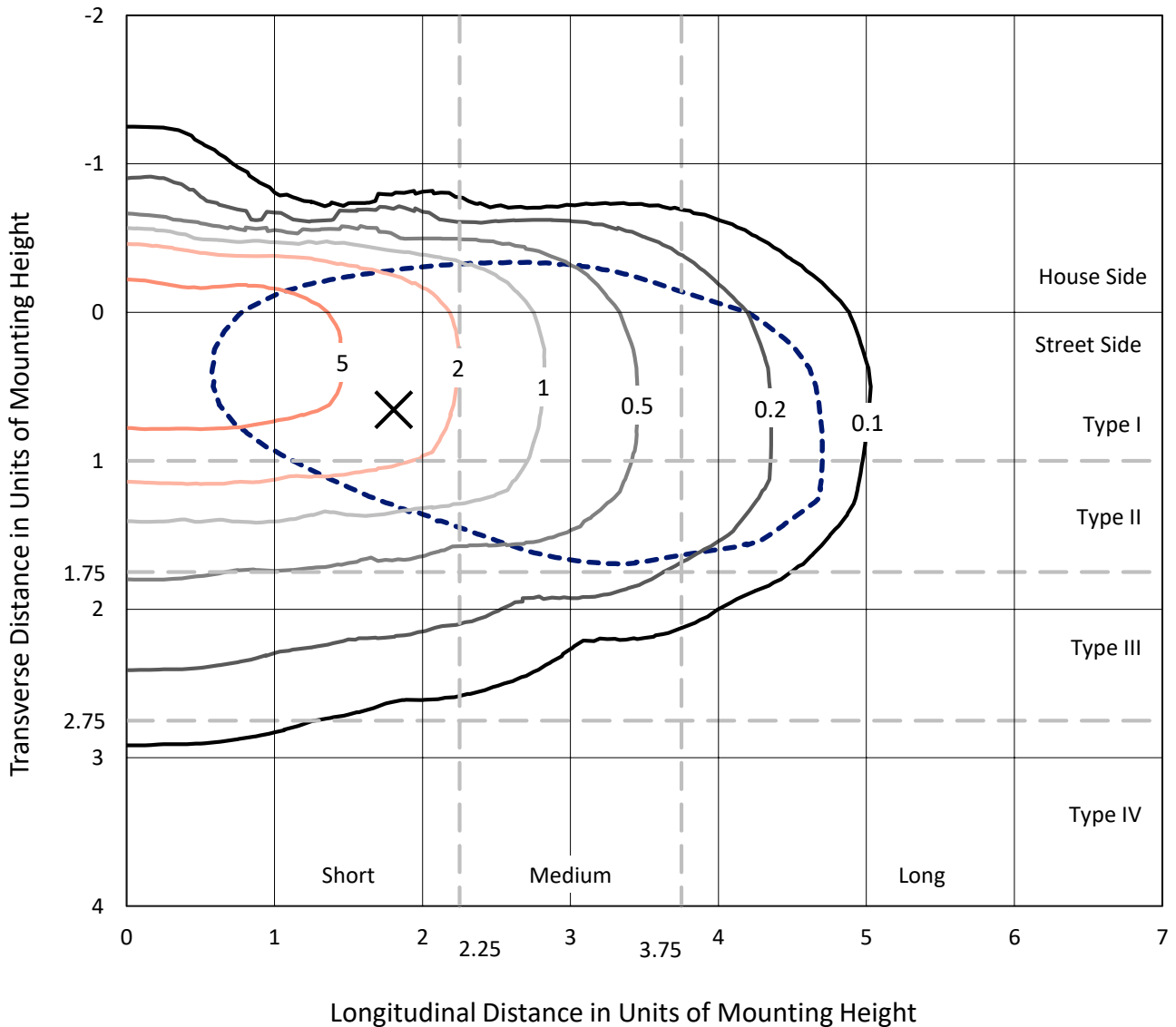
Input Watts (W): 213.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

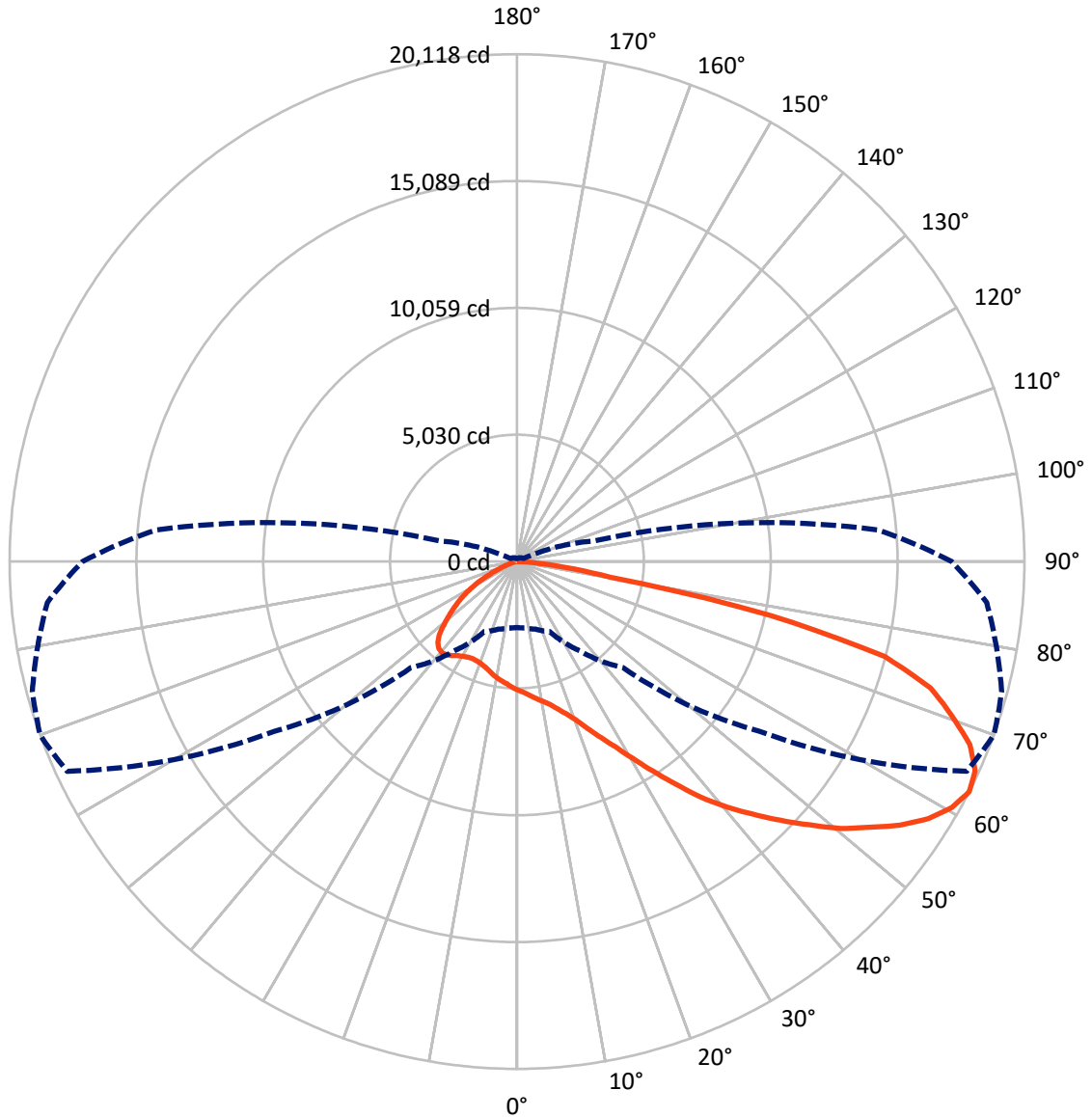
× Max cd
 - - - 1/2 Max cd



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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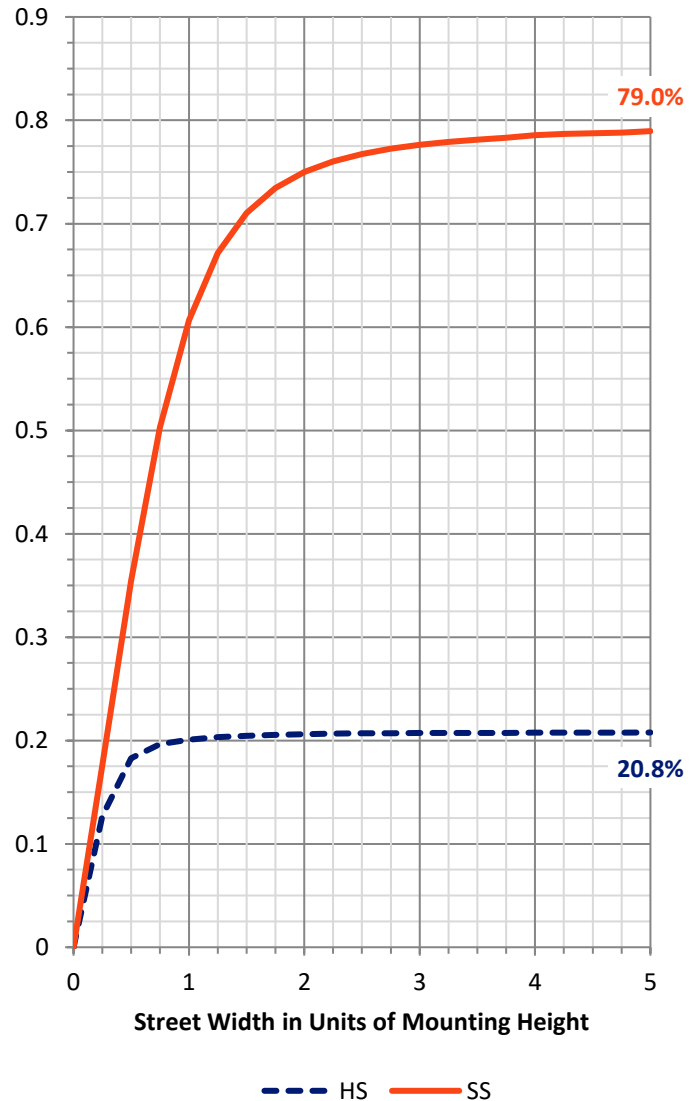
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5899.9	0.0	5899.9
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	22156.1	0.0	22156.1
	% Fixture	79.0	0.0	79.0
Total	Lumens	28056.0	0.0	28056.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	484.3	1.7
10°-20°	1445.2	5.2
20°-30°	2450.0	8.7
30°-40°	3602.9	12.8
40°-50°	4797.9	17.1
50°-60°	5612.5	20.0
60°-70°	5644.8	20.1
70°-80°	3573.3	12.7
80°-90°	445.3	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°	28056.0	100.0
0°-180°	28056.0	100.0



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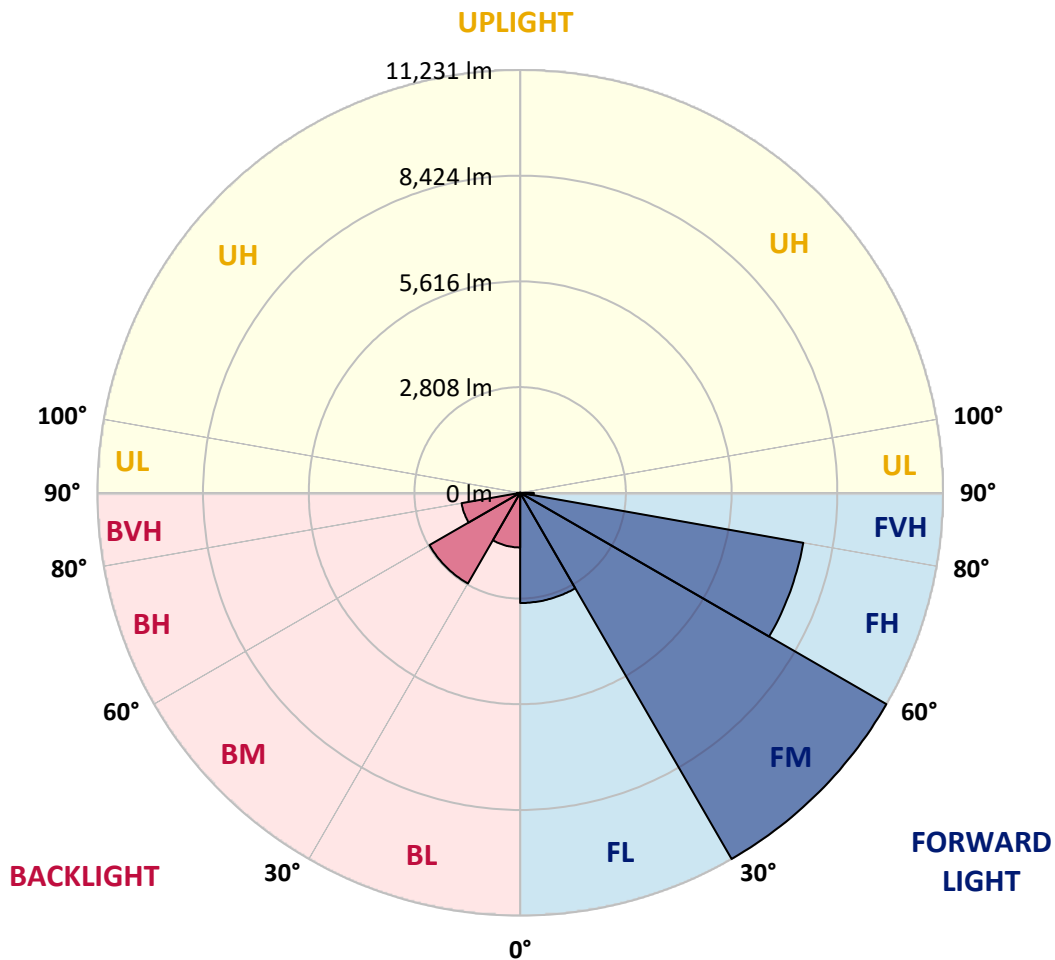
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2926.9	10.4			
FM (30°-60°)	11231.3	40.0			
FH (60°-80°)	7636.9	27.2			G4/12000
FVH (80°-90°)	361.1	1.3			G3/500
BL (0°-30°)	1452.6	5.2	B3/2500		
BM (30°-60°)	2781.9	9.9	B3/5000		
BH (60°-80°)	1581.3	5.6	B3/2500		G3/2500
BVH (80°-90°)	84.2	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°	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5
2.5°	5380.4	5427.5	5391.5	5377.6	5388.7	5333.3	5289.0	5225.2	5194.7	5172.6	5136.5
5°	5653.4	5731.0	5683.9	5654.8	5650.6	5549.5	5489.9	5402.6	5334.7	5275.1	5183.7
7.5°	5941.6	5987.3	5969.3	5936.1	5913.9	5790.6	5685.3	5561.9	5487.1	5408.1	5254.3
10°	6193.8	6249.2	6231.2	6171.6	6150.8	6024.7	5904.2	5736.5	5634.0	5535.6	5323.6
12.5°	6454.3	6516.6	6479.2	6419.6	6401.6	6274.1	6149.4	5945.8	5818.3	5707.4	5413.7
15°	6694.0	6750.8	6724.5	6656.6	6638.6	6530.5	6393.3	6203.5	6064.9	5918.0	5541.1
17.5°	6885.2	6942.0	6908.8	6876.9	6871.4	6764.7	6682.9	6488.9	6357.3	6157.8	5736.5
20°	7025.2	7083.4	7066.7	7082.0	7140.2	7061.2	7011.3	6847.8	6713.4	6497.2	6017.8
22.5°	7136.0	7210.8	7277.3	7307.8	7415.9	7410.4	7399.3	7302.3	7197.0	6972.5	6353.1
25°	7147.1	7233.0	7364.6	7507.4	7704.1	7798.3	7867.6	7852.4	7729.1	7507.4	6817.3
27.5°	7163.7	7252.4	7388.2	7633.5	7985.4	8205.7	8320.7	8391.4	8319.3	8171.1	7345.2
30°	7127.7	7219.2	7389.6	7702.7	8178.0	8586.8	8791.8	9053.7	9062.0	8937.3	8142.0
32.5°	6964.2	7084.7	7291.2	7711.1	8365.1	8984.4	9300.4	9803.4	9912.8	9820.0	8963.7
35°	6691.2	6800.7	7095.8	7637.6	8478.7	9315.6	9893.4	10677.7	10839.8	10834.3	9930.8
37.5°	6389.2	6500.0	6832.6	7464.4	8552.1	9610.8	10415.8	11545.1	11868.0	11800.1	10844.0
40°	6055.2	6171.6	6555.4	7246.9	8516.1	9874.0	10968.7	12386.2	12786.6	12794.9	11716.9
42.5°	5667.2	5762.8	6148.1	6946.2	8396.9	10068.0	11482.7	13271.6	13692.8	13669.3	12540.0
45°	5295.9	5395.7	5732.4	6480.6	8121.2	10176.1	11987.1	14168.1	14629.5	14554.7	13454.5
47.5°	4846.9	4989.7	5373.5	6089.9	7695.8	10167.8	12427.7	15085.4	15603.6	15542.7	14244.3
50°	3730.1	3814.6	4683.4	5686.6	7119.4	9973.8	12858.7	15986.1	16641.5	16522.3	15086.8
52.5°	3360.2	3436.4	3716.3	5203.1	6595.6	9553.9	13217.6	17017.0	17507.5	17414.6	15947.3
55°	3175.9	3217.4	3387.9	4291.3	6084.3	8872.2	13457.3	17932.9	18442.8	18237.7	16752.3
57.5°	2944.5	2995.7	3193.9	3665.0	5455.2	7826.1	13401.8	18758.7	19229.8	18915.3	17461.8
60°	2767.1	2805.9	2991.6	3299.2	4805.4	6742.5	12835.1	19569.3	19806.2	19495.9	18168.4
62.5°	2617.5	2639.6	2769.9	3062.2	4310.7	5951.3	11729.4	19677.4	20118.0	19893.5	18695.0
65°	2431.8	2437.3	2591.1	2819.8	3853.4	5476.0	10780.2	19123.1	19962.8	19888.0	18884.8
67.5°	2214.2	2225.3	2380.5	2555.1	3303.4	4970.3	9301.8	18825.2	19360.1	19313.0	18509.3
70°	1941.3	1963.4	2106.2	2239.2	2797.6	4363.4	7403.4	17647.4	18282.0	18212.8	17271.9
72.5°	1678.0	1665.5	1798.6	1930.2	2330.6	3642.8	5611.8	15620.2	17148.6	17082.1	15664.6
75°	1378.7	1370.4	1507.6	1632.3	1910.8	2943.1	3947.7	11552.0	15067.4	15272.5	13507.2
77.5°	849.4	856.3	935.3	1018.4	1294.2	2199.0	2519.1	6426.6	10235.7	12138.1	10600.1
80°	615.2	615.2	673.4	723.3	856.3	1339.9	1254.0	2679.8	3741.2	5858.5	6610.9
82.5°	399.1	382.4	418.5	461.4	476.7	580.6	573.7	1344.1	1906.6	2294.6	2753.3
85°	207.8	230.0	138.6	195.4	206.5	192.6	198.1	630.5	846.6	1085.0	1194.4
87.5°	31.9	24.9	33.3	45.7	52.7	44.3	38.8	73.4	113.6	151.0	178.7
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°	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5	5100.5
2.5°	5113.0	5106.1	5042.3	4949.5	4873.3	4809.5	4768.0	4740.3	4770.7	4715.3	4708.4
5°	5126.8	5079.7	4941.2	4808.1	4705.6	4568.4	4475.6	4413.2	4438.2	4389.7	4370.3
7.5°	5164.3	5078.3	4887.1	4675.1	4481.1	4334.3	4191.5	4054.4	4033.6	4003.1	4004.5
10°	5197.5	5074.2	4824.8	4547.6	4321.8	4062.7	3890.9	3749.5	3717.7	3681.6	3663.6
12.5°	5250.2	5083.9	4747.2	4411.9	4109.8	3810.5	3624.8	3458.5	3426.7	3356.0	3340.8
15°	5355.5	5118.5	4671.0	4244.2	3871.5	3569.4	3329.7	3184.2	3126.0	3047.0	3045.6
17.5°	5492.7	5219.7	4632.2	4086.2	3669.2	3331.1	3077.5	2930.6	2832.2	2785.1	2772.7
20°	5688.0	5351.3	4630.8	3943.5	3458.5	3076.1	2785.1	2618.8	2535.7	2496.9	2473.4
22.5°	5988.7	5545.3	4655.7	3843.7	3246.5	2829.5	2539.9	2311.2	2174.1	2067.4	2082.6
25°	6362.8	5836.3	4712.5	3752.3	3062.2	2593.9	2230.9	1913.6	1668.3	1561.6	1569.9
27.5°	6838.1	6184.1	4859.4	3659.5	2853.0	2340.3	1827.7	1424.4	1238.8	1114.0	1123.7
30°	7446.4	6616.4	5052.0	3587.4	2659.0	1985.6	1375.9	1050.3	886.8	784.3	774.6
32.5°	8173.9	7242.7	5262.6	3538.9	2447.0	1542.2	992.1	770.4	611.1	552.9	561.2
35°	9074.5	7946.6	5584.1	3468.2	2084.0	1097.4	708.1	521.0	439.2	428.2	429.5
37.5°	9896.2	8667.1	5902.8	3349.1	1644.7	780.1	480.8	396.3	378.3	374.1	379.7
40°	10701.2	9323.9	6191.0	3175.9	1130.7	534.9	353.3	357.5	342.3	331.2	325.6
42.5°	11455.0	9957.2	6416.9	2857.2	773.2	353.3	313.2	325.6	322.9	300.7	291.0
45°	12268.4	10626.4	6541.6	2411.0	486.4	300.7	281.3	303.5	317.3	292.4	281.3
47.5°	12962.6	11279.1	6536.0	1847.0	329.8	284.1	264.7	284.1	300.7	282.7	273.0
50°	13763.5	11819.5	6358.7	1172.2	292.4	263.3	253.6	260.5	282.7	270.2	260.5
52.5°	14653.1	12559.4	6089.9	654.0	277.1	249.4	235.6	243.9	263.3	248.0	253.6
55°	15390.2	13173.2	5458.0	446.2	270.2	232.8	224.5	230.0	238.3	223.1	231.4
57.5°	16048.4	13680.4	4819.2	365.8	260.5	221.7	220.3	209.2	207.8	198.1	189.8
60°	16714.9	14080.8	3957.4	331.2	250.8	223.1	199.5	184.3	171.8	162.1	158.0
62.5°	17226.2	14357.9	3130.1	299.3	236.9	209.2	182.9	158.0	137.2	124.7	124.7
65°	17375.8	14234.6	2203.2	271.6	221.7	196.8	163.5	128.9	103.9	95.6	91.5
67.5°	16896.4	13526.6	1533.9	250.8	206.5	182.9	144.1	105.3	83.1	72.1	69.3
70°	15675.7	12341.8	904.8	221.7	187.1	159.3	131.6	85.9	67.9	56.8	54.0
72.5°	13871.6	10565.5	564.0	188.4	160.7	130.2	98.4	70.7	54.0	44.3	43.0
75°	11457.8	8236.2	368.6	145.5	127.5	102.5	74.8	56.8	47.1	37.4	34.6
77.5°	9188.1	5826.6	329.8	110.9	94.2	73.4	56.8	47.1	38.8	33.3	33.3
80°	5287.6	3325.5	270.2	76.2	58.2	55.4	44.3	38.8	36.0	31.9	30.5
82.5°	2598.1	1597.6	174.6	47.1	33.3	36.0	37.4	34.6	30.5	27.7	27.7
85°	895.1	532.1	70.7	30.5	22.2	22.2	23.6	24.9	23.6	22.2	22.2
87.5°	138.6	101.2	19.4	18.0	13.9	12.5	13.9	15.2	15.2	13.9	13.9
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)