

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: P510196

Luminaire Tested: **VERD-M-CA4-220-760-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510196
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-CA4-220-760-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 5700K, 1000mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28453 lumens
Efficiency: N/A
Efficacy: 127.9 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

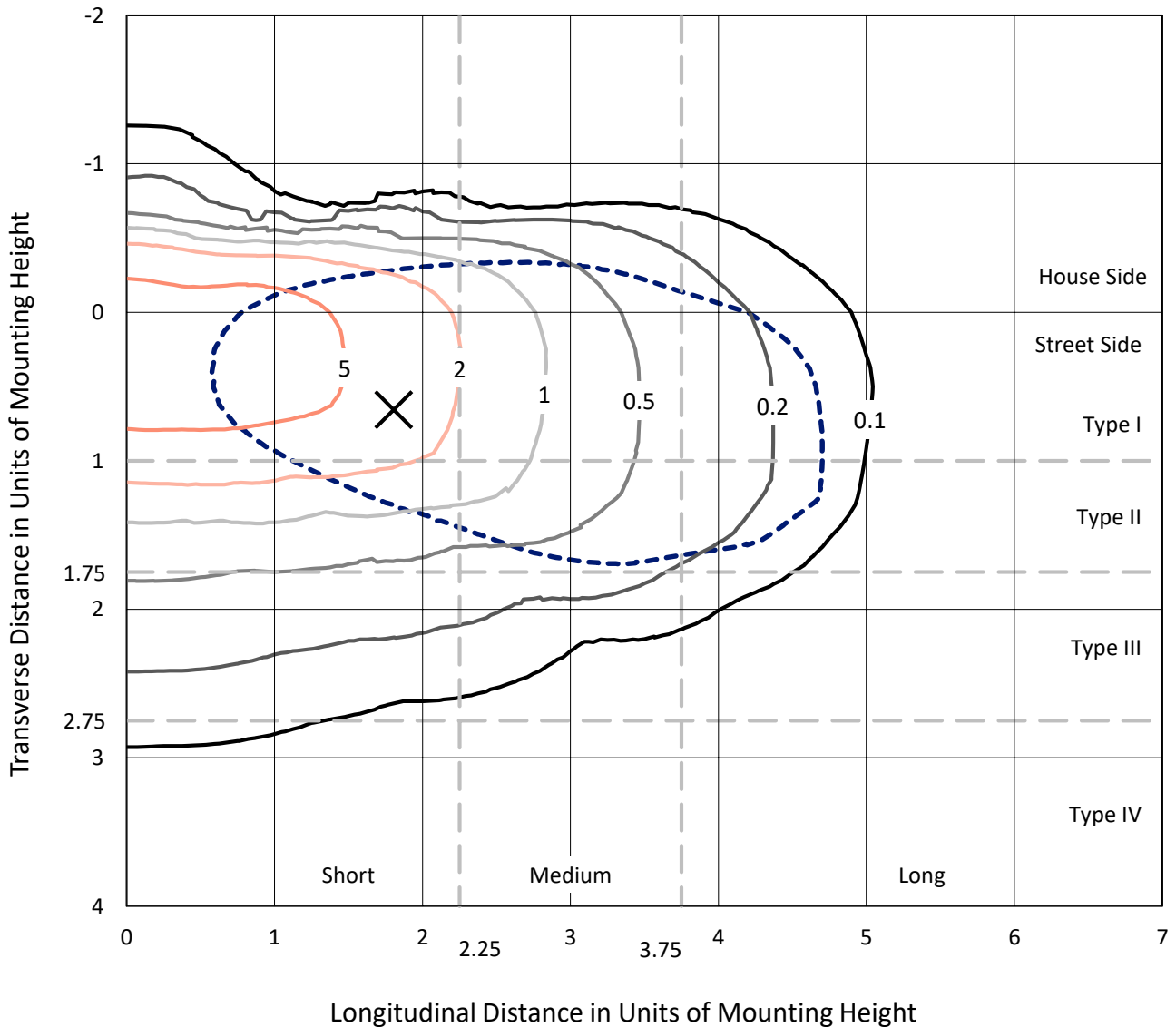
Input Watts (W): 222.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

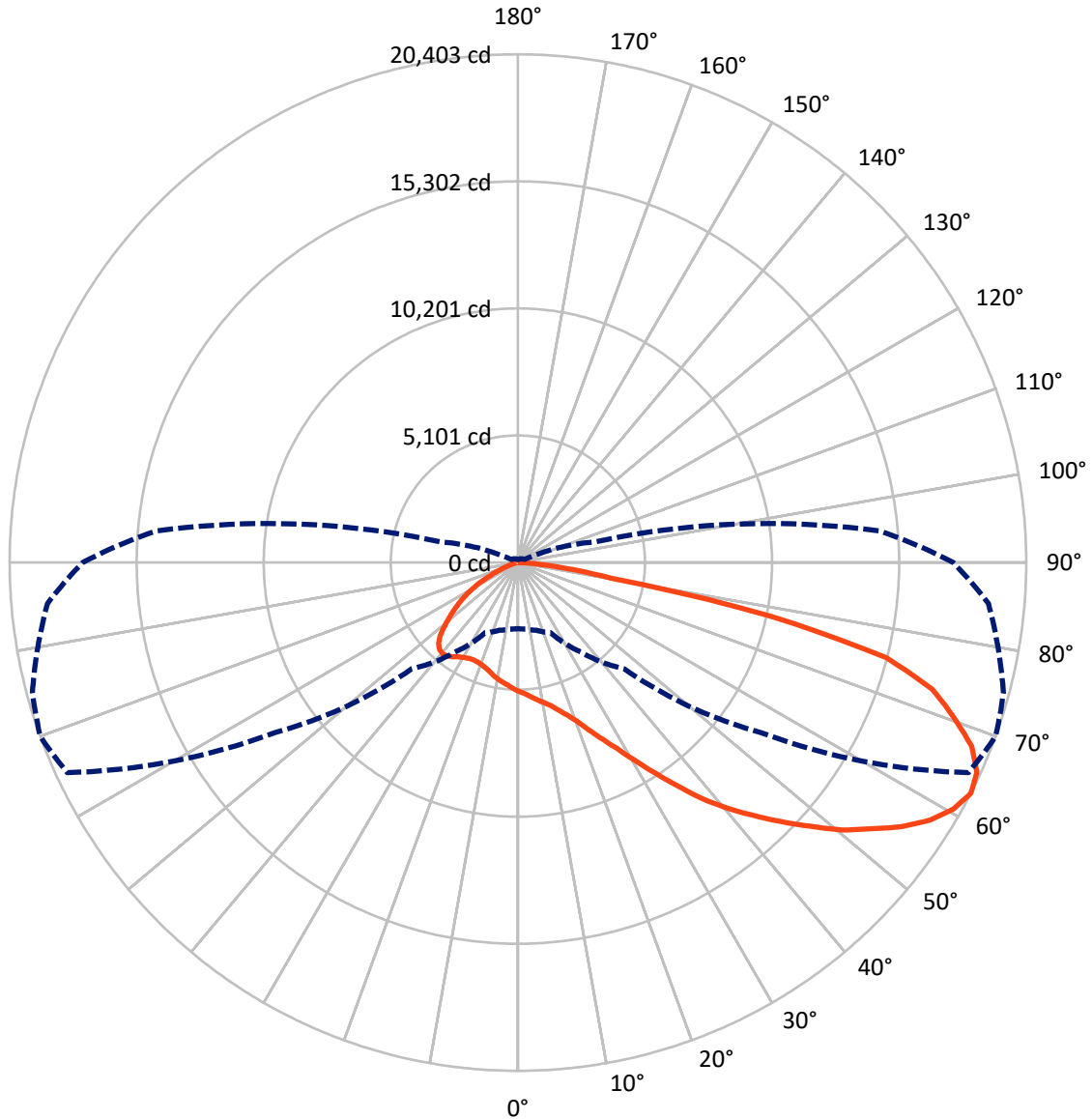
× Max cd
 - - - 1/2 Max cd



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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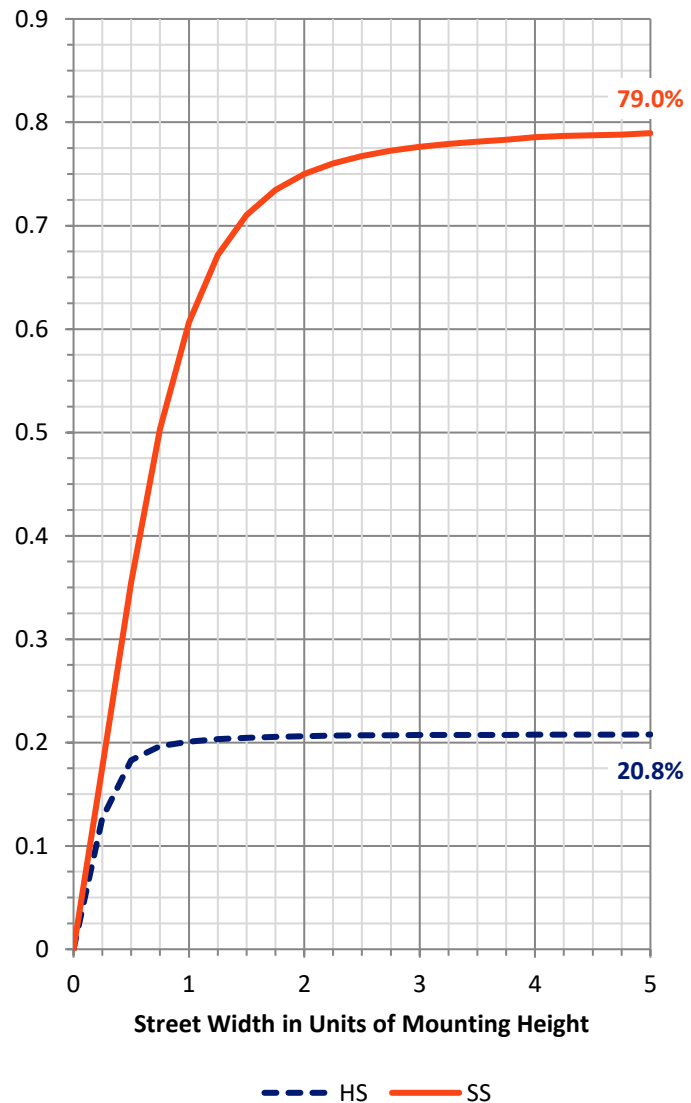
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5983.4	0.0	5983.4
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	22469.6	0.0	22469.6
	% Fixture	79.0	0.0	79.0
Total	Lumens	28453.0	0.0	28453.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	491.1	1.7
10°-20°	1465.6	5.2
20°-30°	2484.6	8.7
30°-40°	3653.8	12.8
40°-50°	4865.7	17.1
50°-60°	5691.9	20.0
60°-70°	5724.7	20.1
70°-80°	3623.8	12.7
80°-90°	451.5	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°	28453.0	100.0
0°-180°	28453.0	100.0



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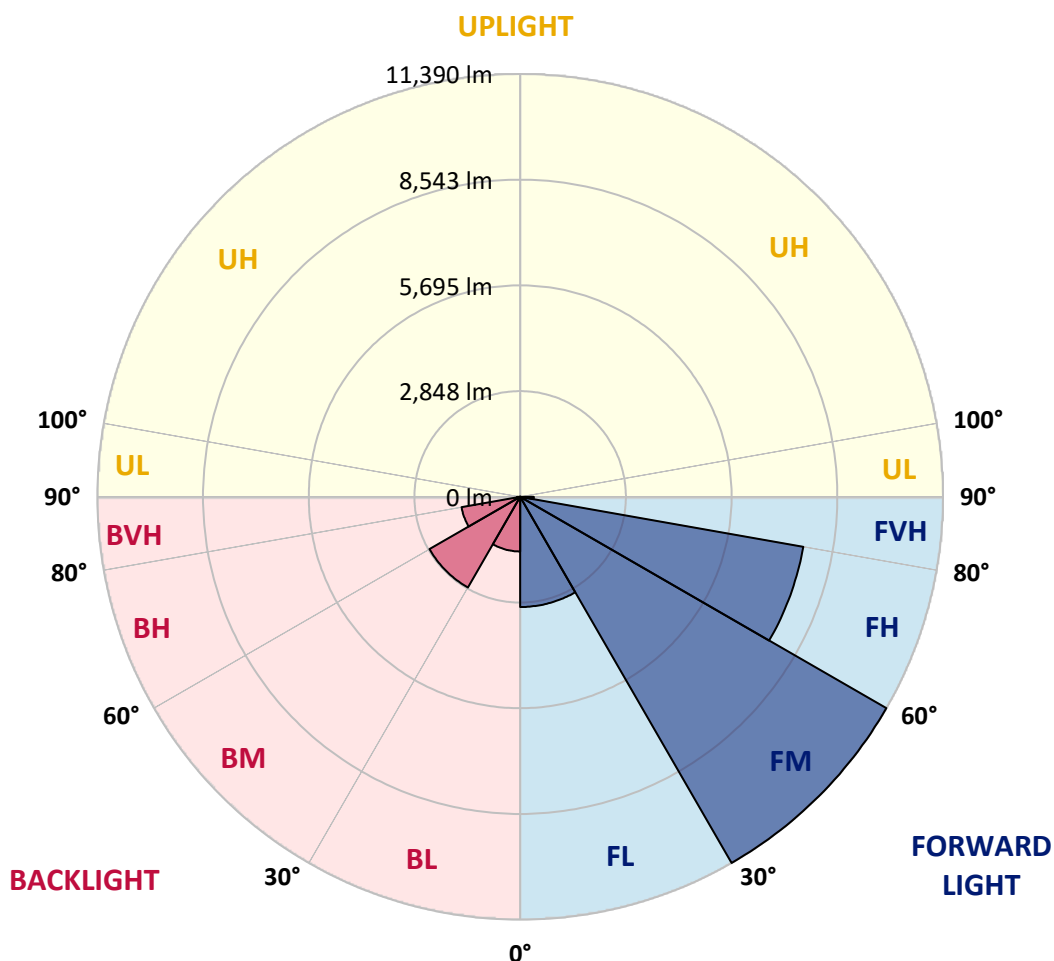
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2968.3	10.4			
FM (30°-60°)	11390.3	40.0			
FH (60°-80°)	7744.9	27.2			G4/12000
FVH (80°-90°)	366.2	1.3			G3/500
BL (0°-30°)	1473.1	5.2	B3/2500		
BM (30°-60°)	2821.2	9.9	B3/5000		
BH (60°-80°)	1603.6	5.6	B3/2500		G3/2500
BVH (80°-90°)	85.4	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°	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7
2.5°	5456.5	5504.3	5467.8	5453.7	5465.0	5408.8	5363.8	5299.2	5268.2	5245.8	5209.2
5°	5733.4	5812.1	5764.3	5734.8	5730.6	5628.0	5567.6	5479.0	5410.2	5349.8	5257.0
7.5°	6025.7	6072.0	6053.8	6020.1	5997.6	5872.5	5765.7	5640.6	5564.8	5484.7	5328.7
10°	6281.4	6337.6	6319.4	6258.9	6237.9	6110.0	5987.7	5817.7	5713.7	5613.9	5398.9
12.5°	6545.6	6608.8	6570.9	6510.5	6492.2	6362.9	6236.5	6029.9	5900.6	5788.2	5490.3
15°	6788.7	6846.3	6819.6	6750.8	6732.5	6622.9	6483.8	6291.3	6150.7	6001.8	5619.6
17.5°	6982.6	7040.3	7006.5	6974.2	6968.6	6860.4	6777.5	6580.7	6447.2	6244.9	5817.7
20°	7124.6	7183.6	7166.7	7182.2	7241.2	7161.1	7110.5	6944.7	6808.4	6589.2	6103.0
22.5°	7237.0	7312.9	7380.3	7411.2	7520.8	7515.2	7504.0	7405.6	7298.8	7071.2	6443.0
25°	7248.2	7335.4	7468.9	7613.6	7813.1	7908.7	7979.0	7963.5	7838.4	7613.6	6913.8
27.5°	7265.1	7355.0	7492.7	7741.5	8098.4	8321.8	8438.5	8510.1	8437.1	8286.7	7449.2
30°	7228.6	7321.3	7494.1	7811.7	8293.7	8708.3	8916.3	9181.8	9190.3	9063.8	8257.2
32.5°	7062.7	7185.0	7394.4	7820.2	8483.4	9111.6	9432.0	9942.1	10053.1	9958.9	9090.5
35°	6785.9	6896.9	7196.2	7745.7	8598.7	9447.4	10033.4	10828.8	10993.2	10987.6	10071.4
37.5°	6479.6	6592.0	6929.2	7570.0	8673.1	9746.7	10563.2	11708.5	12035.9	11967.0	10997.4
40°	6140.9	6258.9	6648.2	7349.4	8636.6	10013.7	11123.9	12561.4	12967.6	12976.0	11882.7
42.5°	5747.4	5844.4	6235.1	7044.5	8515.8	10210.5	11645.2	13459.4	13886.6	13862.7	12717.4
45°	5370.8	5472.0	5813.5	6572.3	8236.1	10320.1	12156.7	14368.6	14836.5	14760.6	13644.9
47.5°	4915.5	5060.3	5449.5	6176.0	7804.7	10311.7	12603.6	15298.9	15824.4	15762.6	14445.9
50°	3782.9	3868.6	4749.7	5767.1	7220.1	10114.9	13040.6	16212.3	16876.9	16756.1	15300.3
52.5°	3407.7	3485.0	3768.9	5276.7	6688.9	9689.1	13404.6	17257.8	17755.2	17661.1	16172.9
55°	3220.8	3263.0	3435.8	4352.0	6170.4	8997.8	13647.7	18186.6	18703.8	18495.8	16989.4
57.5°	2986.1	3038.1	3239.1	3716.9	5532.4	7936.8	13591.5	19024.1	19501.9	19182.9	17708.8
60°	2806.3	2845.6	3033.9	3345.9	4873.4	6837.9	13016.7	19846.2	20086.5	19771.7	18425.5
62.5°	2654.5	2677.0	2809.1	3105.6	4371.7	6035.5	11895.4	19955.8	20402.7	20175.0	18959.5
65°	2466.2	2471.8	2627.8	2859.7	3908.0	5553.5	10932.8	19393.7	20245.3	20169.4	19152.0
67.5°	2245.6	2256.8	2414.2	2591.3	3350.1	5040.6	9433.4	19091.6	19634.0	19586.2	18771.2
70°	1968.7	1991.2	2136.0	2270.9	2837.2	4425.1	7508.2	17897.1	18540.7	18470.5	17516.3
72.5°	1701.7	1689.1	1824.0	1957.5	2363.6	3694.4	5691.2	15841.3	17391.3	17323.8	15886.2
75°	1398.2	1389.8	1528.9	1655.4	1937.8	2984.7	4003.5	11715.5	15280.6	15488.6	13698.3
77.5°	861.4	868.4	948.5	1032.9	1312.5	2230.1	2554.7	6517.5	10380.5	12309.9	10750.1
80°	623.9	623.9	682.9	733.5	868.4	1358.9	1271.7	2717.7	3794.1	5941.4	6704.4
82.5°	404.7	387.8	424.4	467.9	483.4	588.8	581.8	1363.1	1933.6	2327.1	2792.2
85°	210.8	233.3	140.5	198.1	209.4	195.3	200.9	639.4	858.6	1100.3	1211.3
87.5°	32.3	25.3	33.7	46.4	53.4	45.0	39.3	74.5	115.2	153.2	181.3
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°	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7	5172.7
2.5°	5185.3	5178.3	5113.7	5019.5	4942.2	4877.6	4835.4	4807.3	4838.2	4782.0	4775.0
5°	5199.4	5151.6	5011.1	4876.2	4772.2	4633.1	4538.9	4475.7	4501.0	4451.8	4432.1
7.5°	5237.3	5150.2	4956.3	4741.3	4544.5	4395.6	4250.9	4111.7	4090.7	4059.7	4061.1
10°	5271.1	5146.0	4893.0	4612.0	4382.9	4120.2	3945.9	3802.6	3770.3	3733.7	3715.5
12.5°	5324.5	5155.8	4814.4	4474.3	4167.9	3864.4	3676.1	3507.5	3475.2	3403.5	3388.0
15°	5431.3	5191.0	4737.1	4304.3	3926.2	3619.9	3376.8	3229.2	3170.2	3090.1	3088.7
17.5°	5570.4	5293.5	4697.7	4144.1	3721.1	3378.2	3121.0	2972.1	2872.3	2824.5	2811.9
20°	5768.5	5427.0	4696.3	3999.3	3507.5	3119.6	2824.5	2655.9	2571.6	2532.2	2508.4
22.5°	6073.4	5623.8	4721.6	3898.1	3292.5	2869.5	2575.8	2343.9	2204.8	2096.6	2112.1
25°	6452.9	5918.9	4779.2	3805.4	3105.6	2630.6	2262.4	1940.6	1691.9	1583.7	1592.1
27.5°	6934.9	6271.6	4928.2	3711.2	2893.4	2373.5	1853.5	1444.6	1256.3	1129.8	1139.7
30°	7551.8	6710.0	5123.5	3638.2	2696.7	2013.7	1395.4	1065.2	899.4	795.4	785.5
32.5°	8289.5	7345.2	5337.1	3589.0	2481.7	1564.0	1006.2	781.3	619.7	560.7	569.1
35°	9202.9	8059.1	5663.1	3517.3	2113.5	1113.0	718.1	528.4	445.5	434.2	435.6
37.5°	10036.2	8789.8	5986.3	3396.5	1668.0	791.2	487.6	401.9	383.6	379.4	385.0
40°	10852.7	9455.9	6278.6	3220.8	1146.7	542.4	358.3	362.6	347.1	335.9	330.2
42.5°	11617.1	10098.1	6507.7	2897.6	784.1	358.3	317.6	330.2	327.4	304.9	295.1
45°	12442.0	10776.8	6634.1	2445.1	493.2	304.9	285.3	307.7	321.8	296.5	285.3
47.5°	13146.0	11438.7	6628.5	1873.2	334.4	288.1	268.4	288.1	304.9	286.7	276.8
50°	13958.3	11986.7	6448.6	1188.8	296.5	267.0	257.2	264.2	286.7	274.0	264.2
52.5°	14860.4	12737.1	6176.0	663.3	281.0	252.9	238.9	247.3	267.0	251.5	257.2
55°	15608.0	13359.6	5535.2	452.5	274.0	236.1	227.6	233.3	241.7	226.2	234.7
57.5°	16275.5	13873.9	4887.4	371.0	264.2	224.8	223.4	212.2	210.8	200.9	192.5
60°	16951.4	14280.1	4013.4	335.9	254.3	226.2	202.4	186.9	174.2	164.4	160.2
62.5°	17470.0	14561.1	3174.4	303.5	240.3	212.2	185.5	160.2	139.1	126.5	126.5
65°	17621.7	14436.0	2234.3	275.4	224.8	199.5	165.8	130.7	105.4	97.0	92.7
67.5°	17135.5	13718.0	1555.6	254.3	209.4	185.5	146.1	106.8	84.3	73.1	70.3
70°	15897.5	12516.5	917.6	224.8	189.7	161.6	133.5	87.1	68.9	57.6	54.8
72.5°	14067.9	10715.0	571.9	191.1	163.0	132.1	99.8	71.7	54.8	45.0	43.6
75°	11619.9	8352.7	373.8	147.6	129.3	104.0	75.9	57.6	47.8	37.9	35.1
77.5°	9318.1	5909.0	334.4	112.4	95.6	74.5	57.6	47.8	39.3	33.7	33.7
80°	5362.4	3372.6	274.0	77.3	59.0	56.2	45.0	39.3	36.5	32.3	30.9
82.5°	2634.8	1620.2	177.1	47.8	33.7	36.5	37.9	35.1	30.9	28.1	28.1
85°	907.8	539.6	71.7	30.9	22.5	22.5	23.9	25.3	23.9	22.5	22.5
87.5°	140.5	102.6	19.7	18.3	14.1	12.6	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)