

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: P510156

Luminaire Tested: **VERD-M-CA4-220-722-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510156
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-CA4-220-722-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2200K, 1000mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23265 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

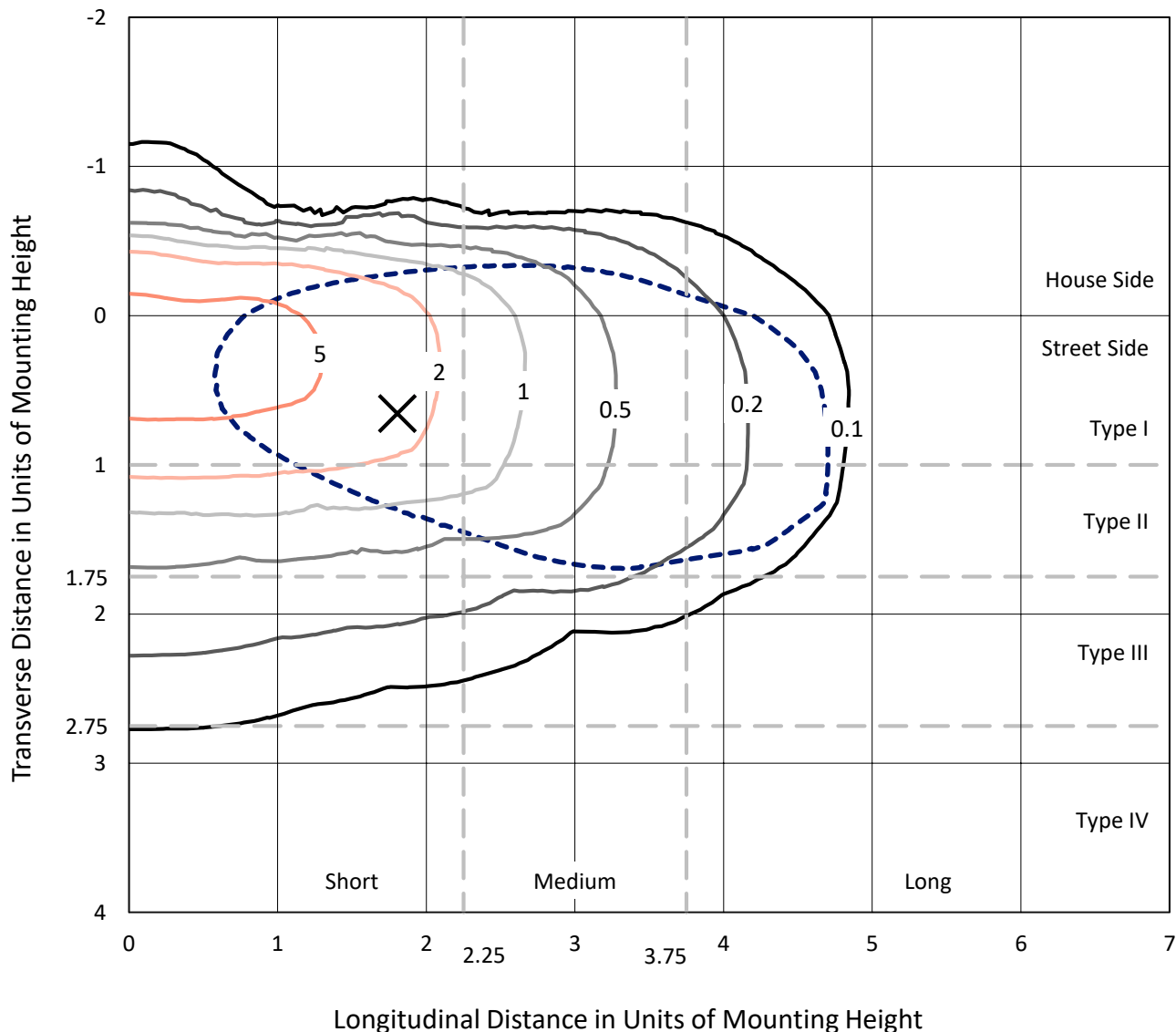
Input Watts (W): 222.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

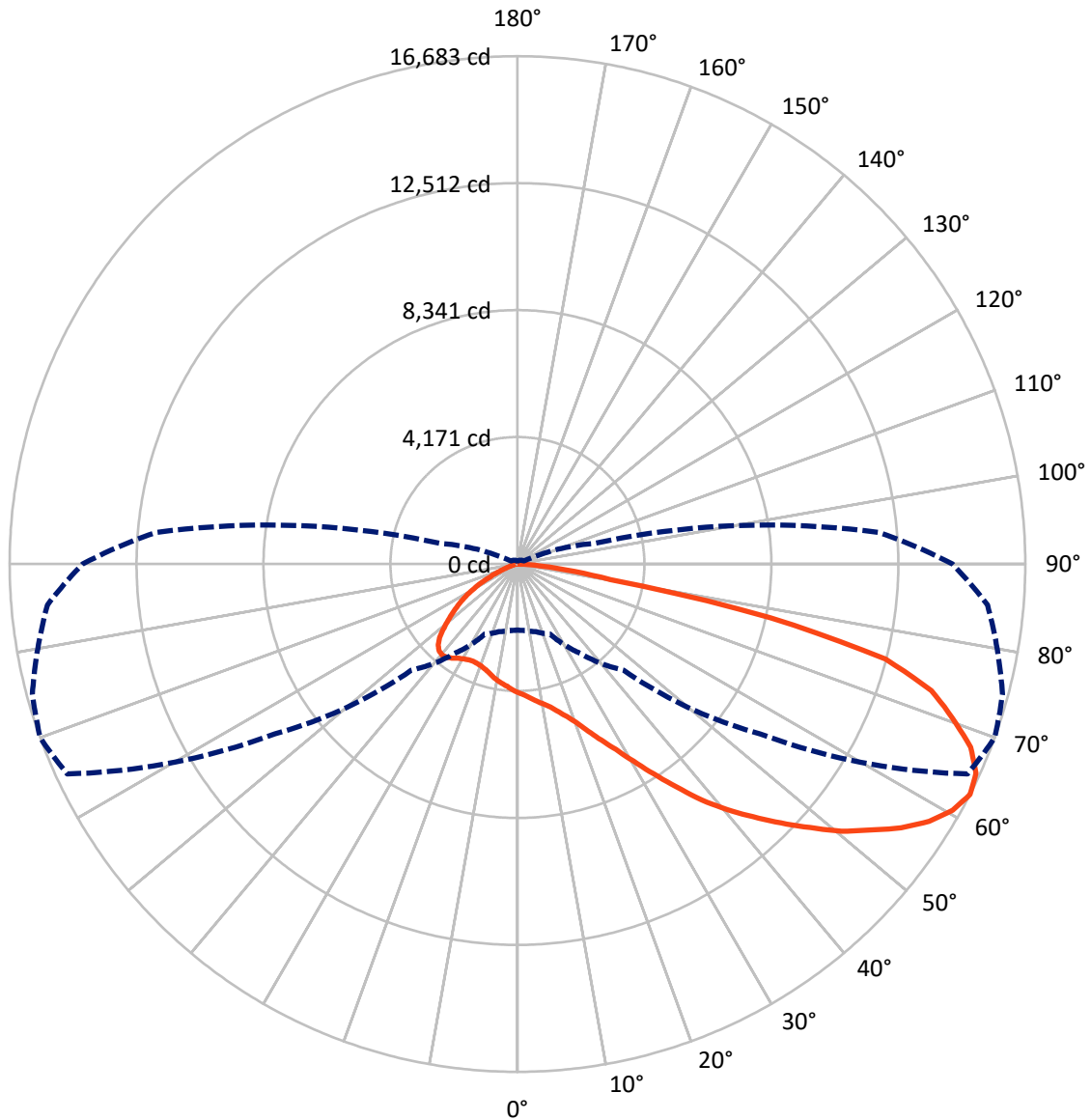
✕ Max cd
 - - - 1/2 Max cd



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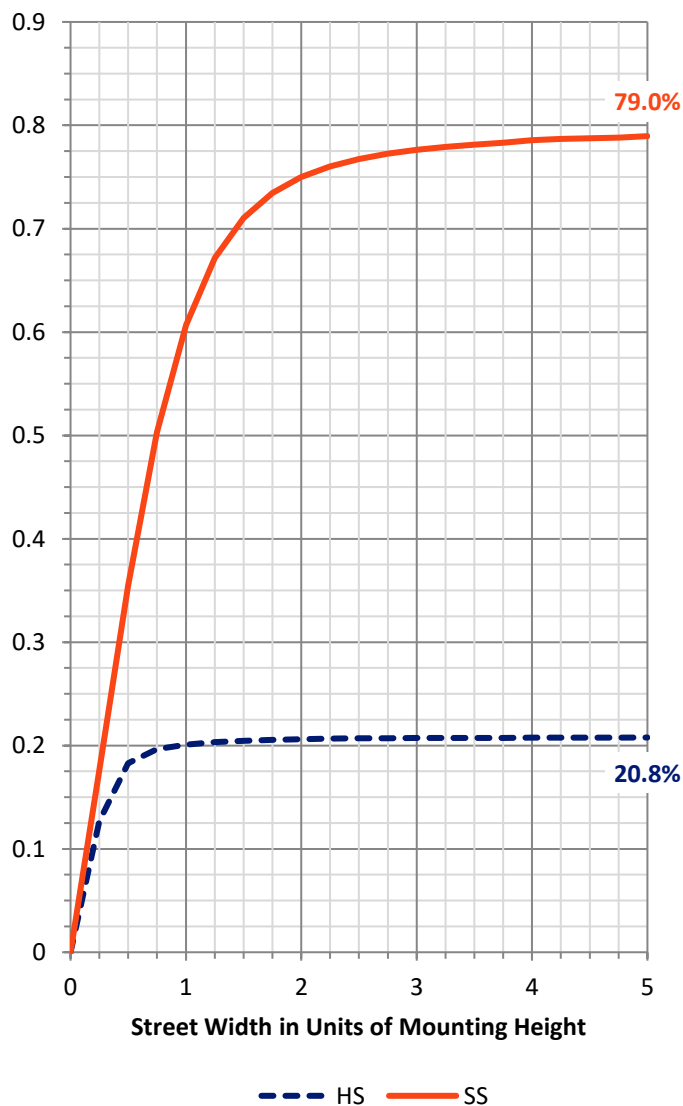
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4892.4	0.0	4892.4
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	18372.6	0.0	18372.6
	% Fixture	79.0	0.0	79.0
Total	Lumens	23265.0	0.0	23265.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.6	1.7
10°-20°	1198.4	5.2
20°-30°	2031.6	8.7
30°-40°	2987.6	12.8
40°-50°	3978.5	17.1
50°-60°	4654.1	20.0
60°-70°	4680.9	20.1
70°-80°	2963.1	12.7
80°-90°	369.2	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°	23265.0	100.0
0°-180°	23265.0	100.0



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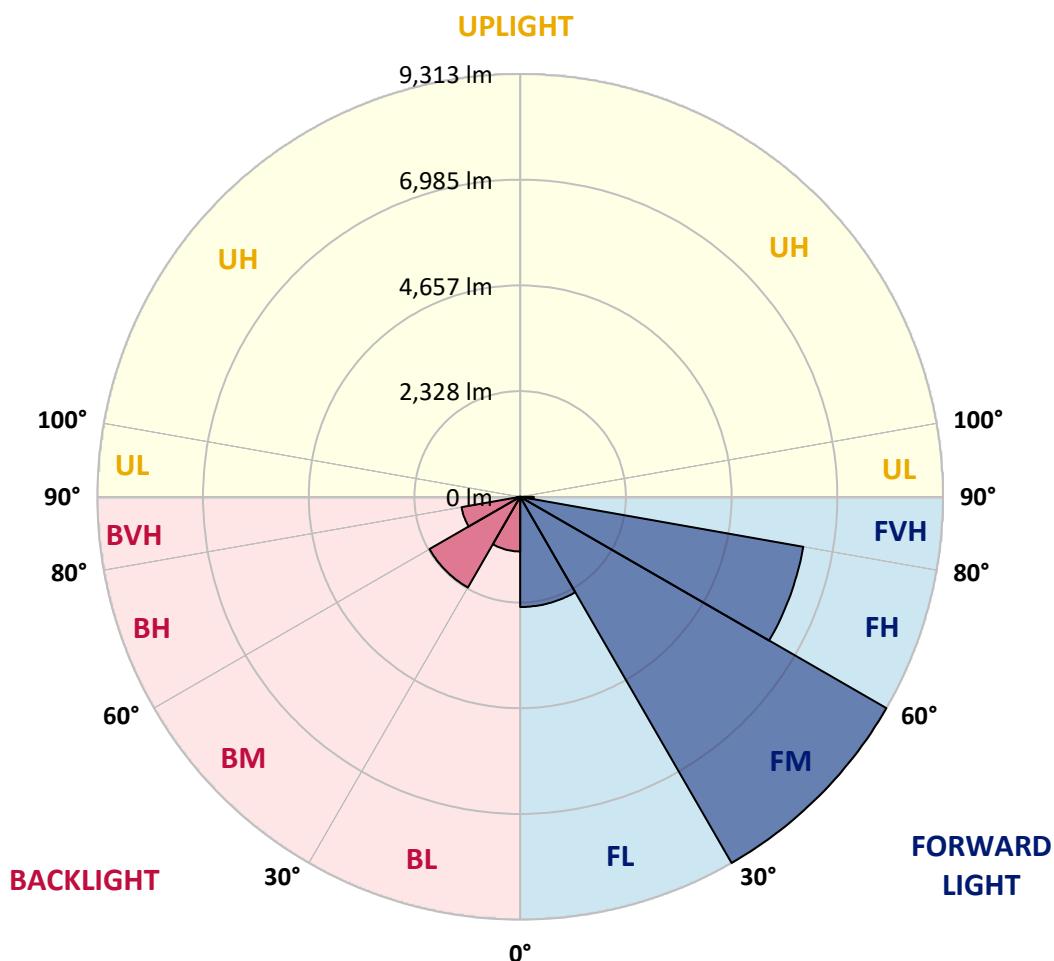
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2427.1	10.4			
FM	(30°-60°)	9313.4	40.0			
FH	(60°-80°)	6332.7	27.2			G3/7500
FVH	(80°-90°)	299.4	1.3			G3/500
BL	(0°-30°)	1204.5	5.2	B3/2500		
BM	(30°-60°)	2306.8	9.9	B2/2500		
BH	(60°-80°)	1311.2	5.6	B3/2500		G3/2500
BVH	(80°-90°)	69.8	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5
2.5°	4461.6	4500.7	4470.8	4459.3	4468.5	4422.6	4385.8	4332.9	4307.7	4289.3	4259.4
5°	4688.0	4752.3	4713.3	4689.1	4685.7	4601.8	4552.4	4480.0	4423.7	4374.3	4298.5
7.5°	4927.0	4964.9	4950.0	4922.4	4904.0	4801.7	4714.4	4612.1	4550.1	4484.6	4357.1
10°	5136.1	5182.1	5167.1	5117.7	5100.5	4995.9	4896.0	4756.9	4671.9	4590.3	4414.5
12.5°	5352.1	5403.8	5372.8	5323.4	5308.4	5202.7	5099.3	4930.4	4824.7	4732.8	4489.2
15°	5550.9	5598.0	5576.2	5519.9	5504.9	5415.3	5301.6	5144.1	5029.2	4907.4	4594.9
17.5°	5709.5	5756.6	5729.0	5702.6	5698.0	5609.5	5541.7	5380.8	5271.7	5106.2	4756.9
20°	5825.5	5873.8	5860.0	5872.6	5920.9	5855.4	5814.0	5678.4	5567.0	5387.7	4990.2
22.5°	5917.4	5979.5	6034.6	6059.9	6149.5	6144.9	6135.7	6055.3	5968.0	5781.8	5268.2
25°	5926.6	5997.9	6107.0	6225.4	6388.5	6466.7	6524.1	6511.5	6409.2	6225.4	5653.2
27.5°	5940.4	6013.9	6126.5	6329.9	6621.8	6804.5	6899.8	6958.4	6898.7	6775.7	6090.9
30°	5910.5	5986.4	6127.7	6387.4	6781.5	7120.4	7290.5	7507.7	7514.6	7411.1	6751.6
32.5°	5774.9	5874.9	6046.1	6394.3	6936.6	7450.2	7712.2	8129.3	8220.1	8143.1	7433.0
35°	5548.6	5639.4	5884.1	6333.4	7030.8	7724.8	8204.0	8854.3	8988.7	8984.1	8235.0
37.5°	5298.1	5390.0	5665.8	6189.7	7091.7	7969.6	8637.1	9573.6	9841.3	9785.0	8992.2
40°	5021.2	5117.7	5436.0	6009.3	7061.8	8187.9	9095.6	10271.0	10603.1	10610.0	9716.1
42.5°	4699.5	4778.8	5098.2	5760.0	6963.0	8348.7	9521.9	11005.3	11354.6	11335.0	10398.6
45°	4391.5	4474.3	4753.5	5373.9	6734.4	8438.4	9940.1	11748.7	12131.3	12069.3	11156.9
47.5°	4019.3	4137.6	4455.9	5049.9	6381.6	8431.5	10305.5	12509.3	12939.1	12888.5	11811.9
50°	3093.1	3163.2	3883.7	4715.6	5903.6	8270.6	10662.9	13256.2	13799.7	13700.9	12510.5
52.5°	2786.4	2849.6	3081.7	4314.6	5469.3	7922.5	10960.5	14111.1	14517.8	14440.8	13224.0
55°	2633.5	2668.0	2809.3	3558.5	5045.3	7357.1	11159.2	14870.6	15293.4	15123.3	13891.6
57.5°	2441.7	2484.2	2648.5	3039.1	4523.7	6489.6	11113.3	15555.4	15946.0	15685.2	14479.9
60°	2294.6	2326.8	2480.7	2735.8	3984.8	5591.1	10643.3	16227.5	16424.0	16166.6	15065.9
62.5°	2170.5	2188.9	2296.9	2539.3	3574.6	4935.0	9726.4	16317.2	16682.5	16496.4	15502.5
65°	2016.5	2021.1	2148.7	2338.2	3195.4	4540.9	8939.3	15857.6	16553.9	16491.8	15659.9
67.5°	1836.1	1845.3	1974.0	2118.8	2739.3	4121.5	7713.3	15610.5	16054.0	16015.0	15348.5
70°	1609.8	1628.2	1746.5	1856.8	2319.9	3618.2	6139.2	14633.9	15160.1	15102.7	14322.5
72.5°	1391.5	1381.1	1491.4	1600.6	1932.6	3020.8	4653.5	12952.8	14220.2	14165.1	12989.6
75°	1143.3	1136.4	1250.1	1353.5	1584.5	2440.5	3273.5	9579.3	12494.4	12664.4	11200.6
77.5°	704.3	710.1	775.6	844.5	1073.2	1823.5	2088.9	5329.1	8487.8	10065.4	8790.0
80°	510.2	510.2	558.4	599.8	710.1	1111.1	1039.9	2222.2	3102.3	4858.0	5482.0
82.5°	330.9	317.1	347.0	382.6	395.3	481.4	475.7	1114.5	1581.0	1902.8	2283.1
85°	172.4	190.7	114.9	162.0	171.2	159.7	164.3	522.8	702.0	899.7	990.5
87.5°	26.4	20.7	27.6	37.9	43.7	36.8	32.2	60.9	94.2	125.2	148.2
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°	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5	4229.5
2.5°	4239.9	4234.1	4181.3	4104.3	4041.1	3988.2	3953.8	3930.8	3956.1	3910.1	3904.4
5°	4251.4	4212.3	4097.4	3987.1	3902.1	3788.3	3711.3	3659.6	3680.3	3640.1	3624.0
7.5°	4282.4	4211.1	4052.6	3876.8	3715.9	3594.1	3475.8	3362.0	3344.8	3319.5	3320.7
10°	4310.0	4207.7	4000.9	3771.1	3583.8	3368.9	3226.4	3109.2	3082.8	3052.9	3038.0
12.5°	4353.6	4215.7	3936.5	3658.5	3408.0	3159.8	3005.8	2867.9	2841.5	2782.9	2770.3
15°	4440.9	4244.5	3873.3	3519.4	3210.3	2959.9	2761.1	2640.4	2592.2	2526.7	2525.5
17.5°	4554.7	4328.3	3841.2	3388.4	3042.6	2762.2	2552.0	2430.2	2348.6	2309.5	2299.2
20°	4716.7	4437.5	3840.0	3270.1	2867.9	2550.8	2309.5	2171.6	2102.7	2070.5	2051.0
22.5°	4966.0	4598.4	3860.7	3187.4	2692.1	2346.3	2106.1	1916.6	1802.8	1714.3	1727.0
25°	5276.3	4839.7	3907.8	3111.5	2539.3	2151.0	1849.9	1586.8	1383.4	1294.9	1301.8
27.5°	5670.4	5128.1	4029.6	3034.5	2365.8	1940.7	1515.6	1181.2	1027.2	923.8	931.9
30°	6174.8	5486.5	4189.3	2974.8	2205.0	1646.5	1141.0	871.0	735.4	650.3	642.3
32.5°	6778.0	6005.9	4364.0	2934.6	2029.2	1278.9	822.7	638.9	506.7	458.5	465.4
35°	7524.9	6589.6	4630.5	2876.0	1728.1	910.0	587.1	432.0	364.2	355.0	356.2
37.5°	8206.3	7187.1	4894.8	2777.2	1363.9	646.9	398.7	328.6	313.7	310.2	314.8
40°	8873.8	7731.7	5133.8	2633.5	937.6	443.5	293.0	296.4	283.8	274.6	270.0
42.5°	9498.9	8256.8	5321.1	2369.3	641.2	293.0	259.7	270.0	267.7	249.3	241.3
45°	10173.4	8811.8	5424.5	1999.3	403.3	249.3	233.3	251.6	263.1	242.4	233.3
47.5°	10749.0	9353.0	5419.9	1531.6	273.5	235.5	219.5	235.5	249.3	234.4	226.4
50°	11413.2	9801.1	5272.8	972.1	242.4	218.3	210.3	216.0	234.4	224.1	216.0
52.5°	12150.8	10414.7	5049.9	542.3	229.8	206.8	195.3	202.2	218.3	205.7	210.3
55°	12762.1	10923.7	4526.0	370.0	224.1	193.0	186.1	190.7	197.6	185.0	191.9
57.5°	13307.9	11344.2	3996.3	303.3	216.0	183.8	182.7	173.5	172.4	164.3	157.4
60°	13860.6	11676.3	3281.6	274.6	208.0	185.0	165.5	152.8	142.5	134.4	131.0
62.5°	14284.6	11906.1	2595.6	248.2	196.5	173.5	151.7	131.0	113.8	103.4	103.4
65°	14408.6	11803.8	1826.9	225.2	183.8	163.2	135.6	106.9	86.2	79.3	75.8
67.5°	14011.1	11216.7	1272.0	208.0	171.2	151.7	119.5	87.3	68.9	59.7	57.5
70°	12998.8	10234.3	750.3	183.8	155.1	132.1	109.2	71.2	56.3	47.1	44.8
72.5°	11502.8	8761.2	467.6	156.3	133.3	108.0	81.6	58.6	44.8	36.8	35.6
75°	9501.2	6829.7	305.6	120.6	105.7	85.0	62.0	47.1	39.1	31.0	28.7
77.5°	7619.1	4831.6	273.5	91.9	78.1	60.9	47.1	39.1	32.2	27.6	27.6
80°	4384.6	2757.6	224.1	63.2	48.3	46.0	36.8	32.2	29.9	26.4	25.3
82.5°	2154.4	1324.8	144.8	39.1	27.6	29.9	31.0	28.7	25.3	23.0	23.0
85°	742.3	441.2	58.6	25.3	18.4	18.4	19.5	20.7	19.5	18.4	18.4
87.5°	114.9	83.9	16.1	14.9	11.5	10.3	11.5	12.6	12.6	11.5	11.5
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)