

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: P510164

Luminaire Tested: **VERD-M-CA4-220-727-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510164
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-CA4-220-727-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2700K, 1000mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24173 lumens
Efficiency: N/A
Efficacy: 108.6 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

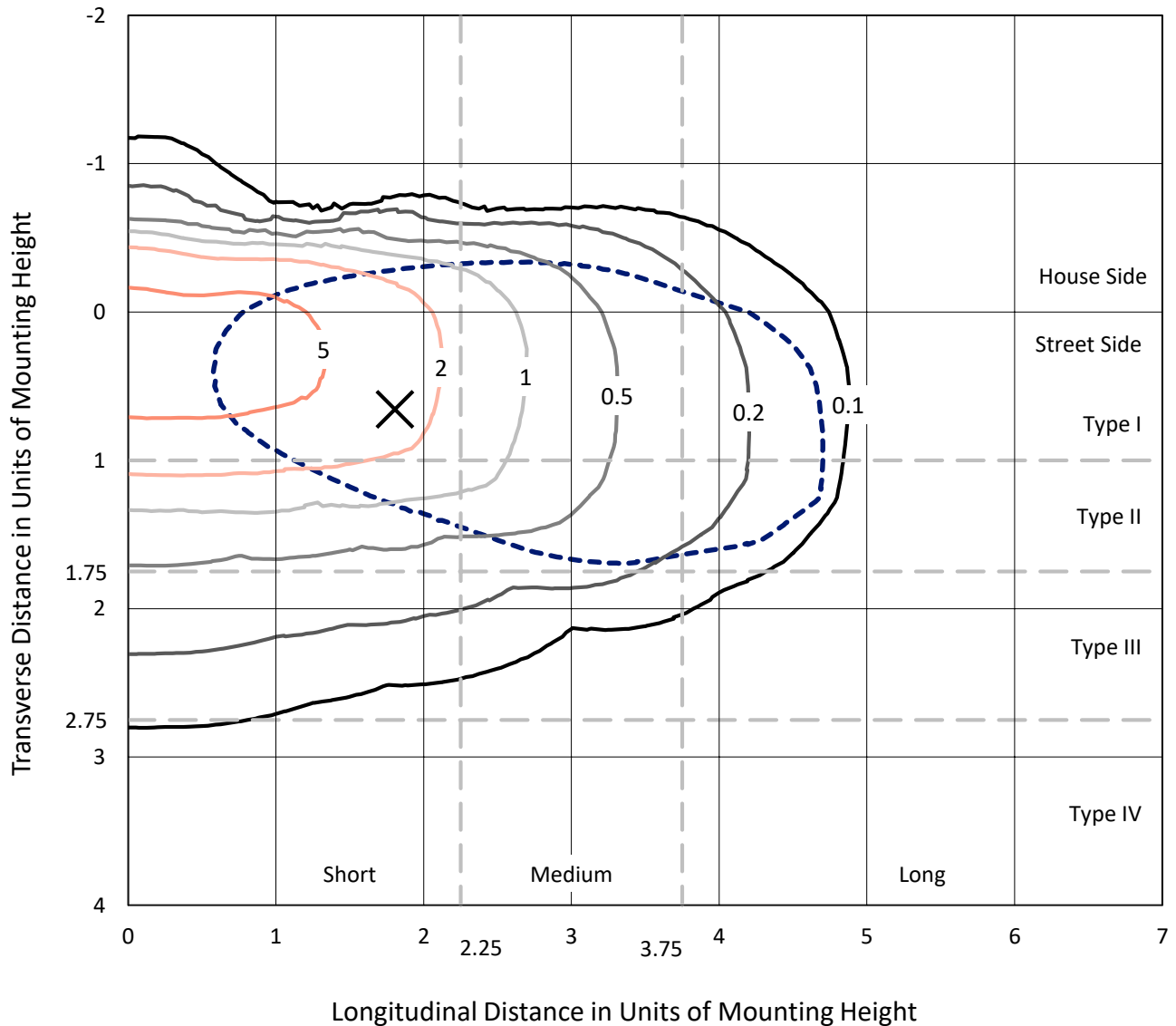
Input Watts (W): 222.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

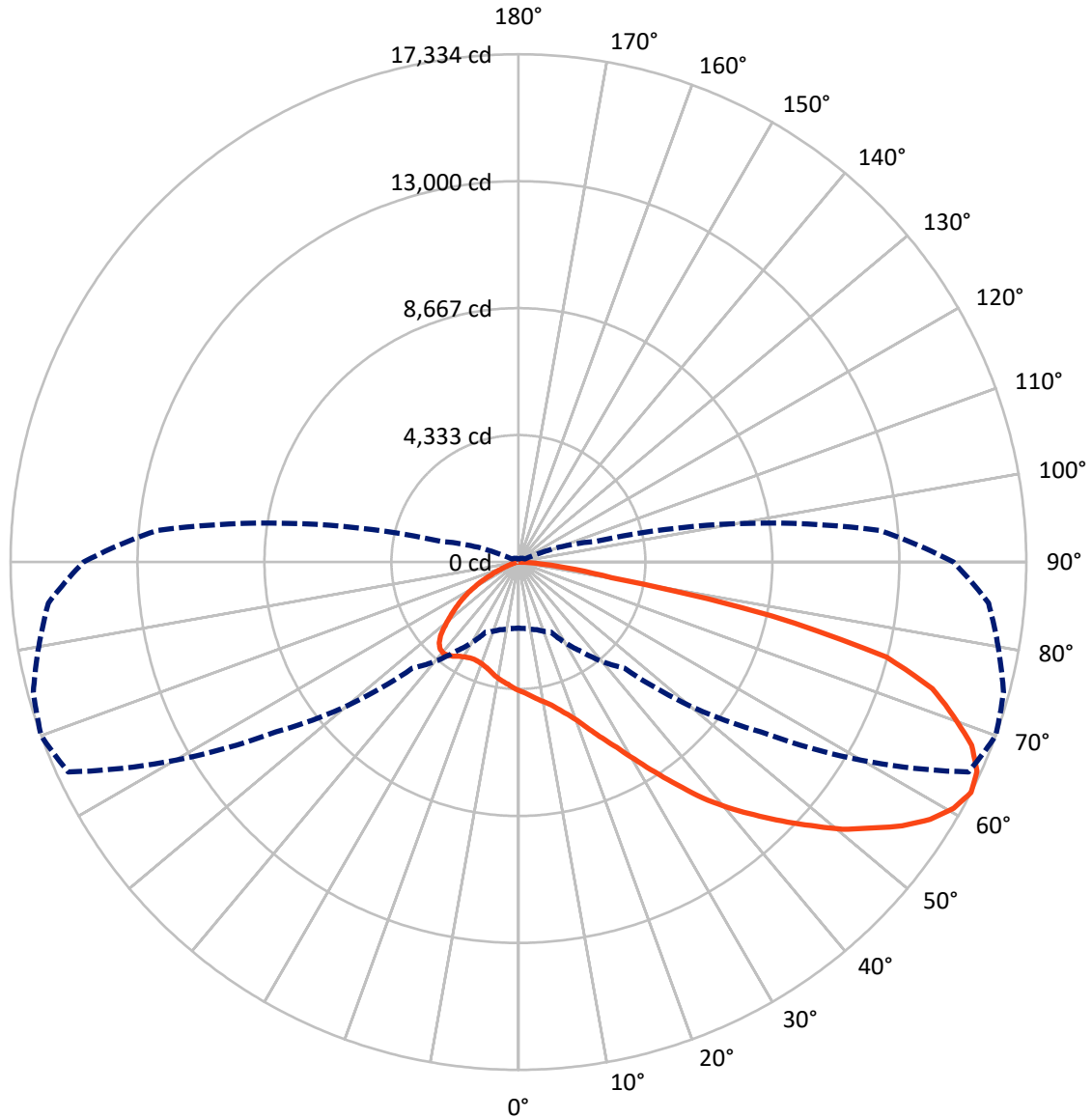
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.3 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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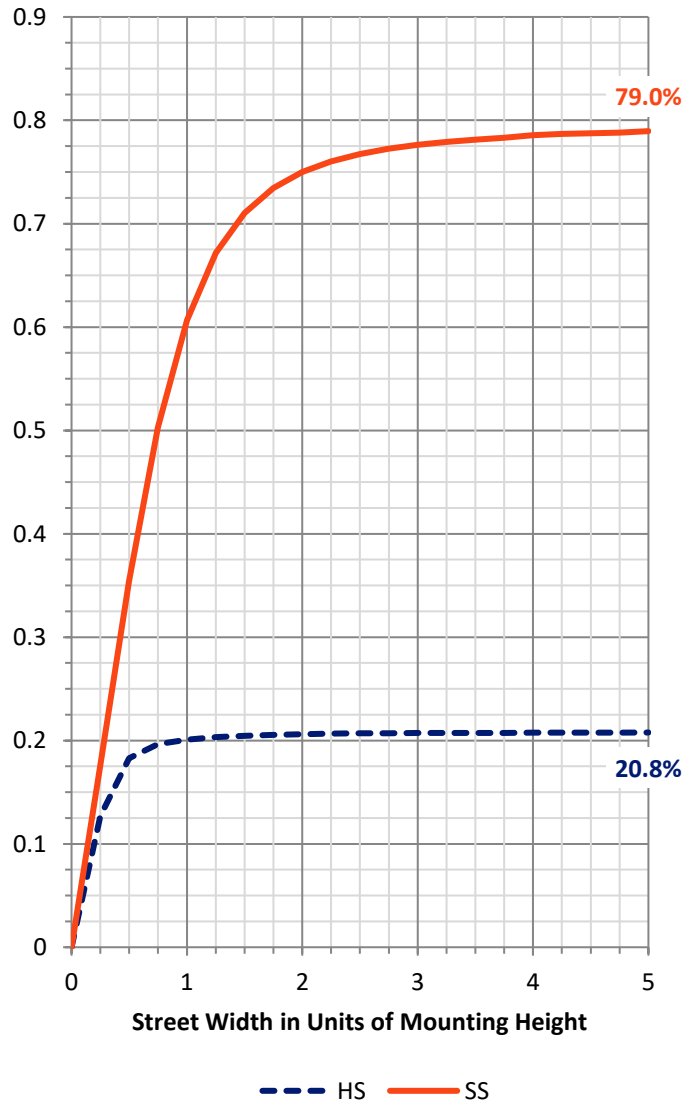
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5083.3	0.0	5083.3
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	19089.7	0.0	19089.7
	% Fixture	79.0	0.0	79.0
Total	Lumens	24173.0	0.0	24173.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.2	1.7
10°-20°	1245.2	5.2
20°-30°	2110.9	8.7
30°-40°	3104.2	12.8
40°-50°	4133.8	17.1
50°-60°	4835.7	20.0
60°-70°	4863.6	20.1
70°-80°	3078.7	12.7
80°-90°	383.6	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°	24173.0	100.0
0°-180°	24173.0	100.0



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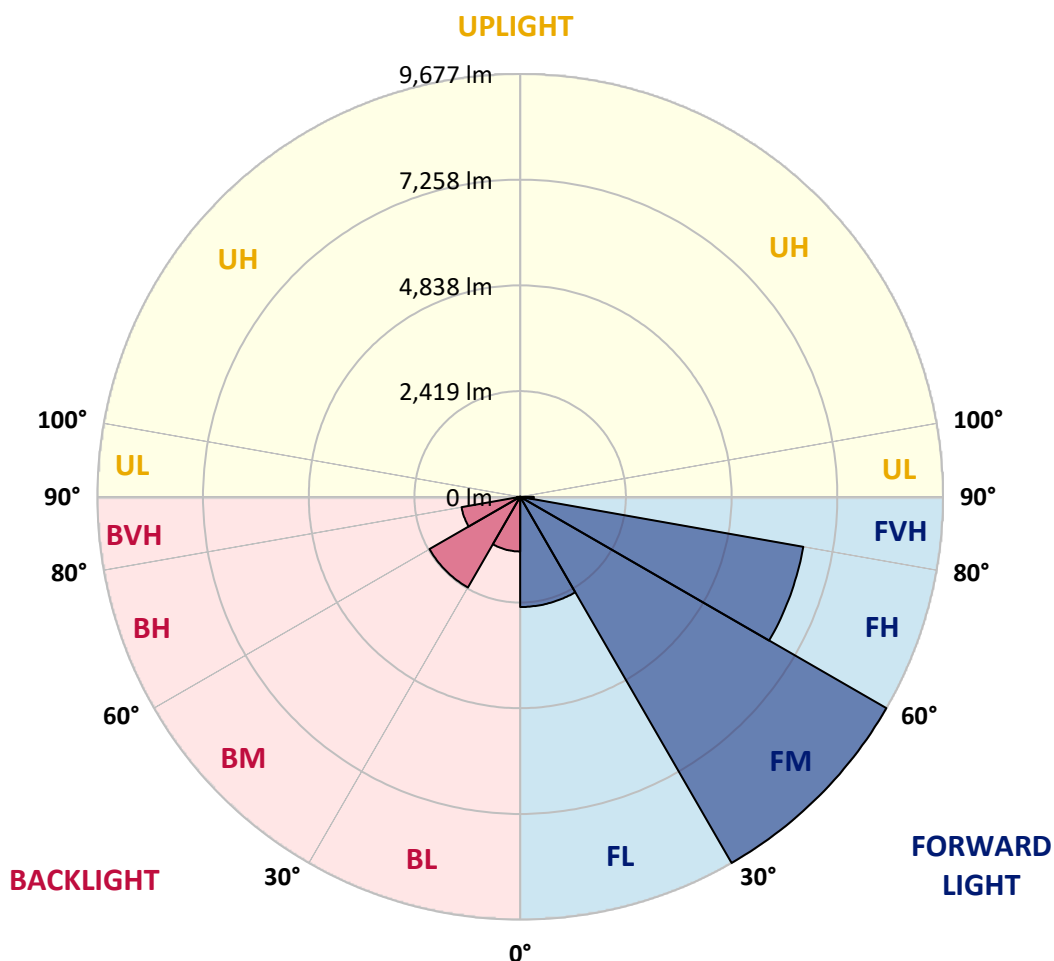
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2521.8	10.4			
FM	(30°-60°)	9676.9	40.0			
FH	(60°-80°)	6579.9	27.2			G3/7500
FVH	(80°-90°)	311.1	1.3			G3/500
BL	(0°-30°)	1251.5	5.2	B3/2500		
BM	(30°-60°)	2396.9	9.9	B2/2500		
BH	(60°-80°)	1362.4	5.6	B3/2500		G3/2500
BVH	(80°-90°)	72.5	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°	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6
2.5°	4635.8	4676.3	4645.3	4633.4	4642.9	4595.2	4557.0	4502.0	4475.8	4456.7	4425.6
5°	4870.9	4937.8	4897.2	4872.1	4868.6	4781.4	4730.1	4654.9	4596.4	4545.0	4466.2
7.5°	5119.3	5158.7	5143.1	5114.5	5095.4	4989.1	4898.4	4792.2	4727.7	4659.6	4527.1
10°	5336.6	5384.3	5368.8	5317.4	5299.5	5190.9	5087.0	4942.6	4854.2	4769.5	4586.8
12.5°	5561.0	5614.7	5582.5	5531.2	5515.6	5405.8	5298.3	5122.9	5013.0	4917.5	4664.4
15°	5767.5	5816.5	5793.8	5735.3	5719.8	5626.7	5508.5	5344.9	5225.5	5099.0	4774.2
17.5°	5932.3	5981.2	5952.6	5925.1	5920.3	5828.4	5758.0	5590.8	5477.4	5305.5	4942.6
20°	6052.9	6103.0	6088.7	6101.8	6152.0	6083.9	6040.9	5900.1	5784.2	5598.0	5184.9
22.5°	6148.4	6212.8	6270.1	6296.4	6389.5	6384.8	6375.2	6291.6	6200.9	6007.5	5473.8
25°	6157.9	6231.9	6345.4	6468.3	6637.9	6719.0	6778.7	6765.6	6659.3	6468.3	5873.8
27.5°	6172.3	6248.7	6365.7	6577.0	6880.2	7070.0	7169.1	7230.0	7167.9	7040.2	6328.6
30°	6141.2	6220.0	6366.9	6636.7	7046.2	7398.3	7575.0	7800.7	7807.8	7700.4	7015.1
32.5°	6000.3	6104.2	6282.1	6643.8	7207.3	7741.0	8013.2	8446.6	8540.9	8460.9	7723.1
35°	5765.1	5859.5	6113.8	6580.6	7305.2	8026.3	8524.2	9199.9	9339.6	9334.8	8556.4
37.5°	5504.9	5600.4	5886.9	6431.3	7368.5	8280.6	8974.2	9947.2	10225.4	10166.9	9343.1
40°	5217.2	5317.4	5648.1	6243.9	7337.5	8507.4	9450.6	10671.9	11016.9	11024.1	10095.3
42.5°	4882.9	4965.3	5297.2	5984.8	7234.8	8674.6	9893.5	11434.8	11797.7	11777.4	10804.4
45°	4562.9	4648.9	4939.0	5583.7	6997.2	8767.7	10328.1	12207.2	12604.8	12540.3	11592.4
47.5°	4176.1	4299.1	4629.8	5247.0	6630.7	8760.5	10707.7	12997.5	13444.0	13391.5	12272.9
50°	3213.9	3286.7	4035.2	4899.6	6134.0	8593.4	11079.0	13773.6	14338.3	14235.6	12998.7
52.5°	2895.1	2960.8	3201.9	4482.9	5682.8	8231.7	11388.2	14661.8	15084.4	15004.4	13740.1
55°	2736.3	2772.1	2919.0	3697.4	5242.2	7644.3	11594.8	15450.9	15890.3	15713.6	14433.8
57.5°	2537.0	2581.1	2751.8	3157.8	4700.2	6742.9	11547.0	16162.5	16568.4	16297.4	15045.0
60°	2384.1	2417.6	2577.5	2842.6	4140.3	5809.3	11058.7	16860.9	17065.0	16797.6	15653.9
62.5°	2255.2	2274.3	2386.5	2638.4	3714.1	5127.6	10106.0	16954.0	17333.6	17140.2	16107.6
65°	2095.2	2100.0	2232.5	2429.5	3320.1	4718.1	9288.2	16476.5	17199.9	17135.5	16271.1
67.5°	1907.8	1917.3	2051.1	2201.5	2846.2	4282.4	8014.4	16219.8	16680.6	16640.0	15947.6
70°	1672.6	1691.7	1814.7	1929.3	2410.4	3759.5	6378.8	15205.0	15751.8	15692.1	14881.5
72.5°	1445.8	1435.0	1549.6	1663.0	2008.1	3138.7	4835.1	13458.4	14775.2	14717.9	13496.6
75°	1187.9	1180.7	1298.9	1406.4	1646.3	2535.8	3401.3	9953.2	12982.0	13158.7	11637.7
77.5°	731.8	737.8	805.9	877.5	1115.1	1894.7	2170.4	5537.1	8819.0	10458.2	9133.0
80°	530.1	530.1	580.2	623.2	737.8	1154.5	1080.4	2308.9	3223.4	5047.6	5695.9
82.5°	343.8	329.5	360.5	397.6	410.7	500.2	494.3	1158.0	1642.8	1977.0	2372.2
85°	179.1	198.2	119.4	168.3	177.9	165.9	170.7	543.2	729.4	934.8	1029.1
87.5°	27.5	21.5	28.7	39.4	45.4	38.2	33.4	63.3	97.9	130.1	154.0
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°	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6	4394.6
2.5°	4405.3	4399.4	4344.5	4264.5	4198.8	4143.9	4108.1	4084.2	4110.5	4062.7	4056.7
5°	4417.3	4376.7	4257.3	4142.7	4054.3	3936.2	3856.2	3802.4	3823.9	3782.1	3765.4
7.5°	4449.5	4375.5	4210.7	4028.1	3860.9	3734.4	3611.4	3493.2	3475.3	3449.1	3450.3
10°	4478.2	4371.9	4157.0	3918.2	3723.6	3500.4	3352.4	3230.6	3203.1	3172.1	3156.6
12.5°	4523.5	4380.3	4090.2	3801.2	3541.0	3283.1	3123.1	2979.9	2952.4	2891.5	2878.4
15°	4614.3	4410.1	4024.5	3656.8	3335.6	3075.4	2868.8	2743.5	2693.3	2625.3	2624.1
17.5°	4732.5	4497.3	3991.1	3520.7	3161.3	2870.0	2651.6	2525.0	2440.2	2399.7	2388.9
20°	4900.8	4610.7	3989.9	3397.7	2979.9	2650.4	2399.7	2256.4	2184.8	2151.3	2131.0
22.5°	5159.9	4777.8	4011.4	3311.8	2797.2	2437.9	2188.3	1991.4	1873.2	1781.2	1794.4
25°	5482.2	5028.5	4060.3	3233.0	2638.4	2234.9	1922.1	1648.7	1437.4	1345.5	1352.6
27.5°	5891.7	5328.2	4186.9	3153.0	2458.2	2016.4	1574.7	1227.3	1067.3	959.9	968.2
30°	6415.8	5700.7	4352.8	3090.9	2291.0	1710.8	1185.5	904.9	764.1	675.7	667.4
32.5°	7042.6	6240.3	4534.3	3049.1	2108.4	1328.8	854.8	663.8	526.5	476.3	483.5
35°	7818.6	6846.8	4811.3	2988.2	1795.6	945.5	610.1	448.9	378.5	368.9	370.1
37.5°	8526.5	7467.6	5085.8	2885.6	1417.1	672.1	414.3	341.4	325.9	322.3	327.1
40°	9220.2	8033.5	5334.2	2736.3	974.2	460.8	304.4	308.0	294.9	285.3	280.6
42.5°	9869.6	8579.1	5528.8	2461.7	666.2	304.4	269.8	280.6	278.2	259.1	250.7
45°	10570.4	9155.7	5636.2	2077.3	419.0	259.1	242.4	261.5	273.4	251.9	242.4
47.5°	11168.6	9718.0	5631.4	1591.4	284.1	244.7	228.0	244.7	259.1	243.5	235.2
50°	11858.6	10183.6	5478.6	1010.0	251.9	226.8	218.5	224.4	243.5	232.8	224.4
52.5°	12625.1	10821.1	5247.0	563.5	238.8	214.9	203.0	210.1	226.8	213.7	218.5
55°	13260.2	11350.0	4702.6	384.4	232.8	200.6	193.4	198.2	205.3	192.2	199.4
57.5°	13827.3	11787.0	4152.2	315.2	224.4	191.0	189.8	180.3	179.1	170.7	163.6
60°	14401.5	12132.0	3409.7	285.3	216.1	192.2	171.9	158.8	148.0	139.7	136.1
62.5°	14842.1	12370.8	2696.9	257.9	204.1	180.3	157.6	136.1	118.2	107.4	107.4
65°	14971.0	12264.5	1898.2	234.0	191.0	169.5	140.9	111.0	89.5	82.4	78.8
67.5°	14557.9	11654.5	1321.6	216.1	177.9	157.6	124.2	90.7	71.6	62.1	59.7
70°	13506.1	10633.7	779.6	191.0	161.2	137.3	113.4	74.0	58.5	48.9	46.6
72.5°	11951.7	9103.2	485.9	162.4	138.5	112.2	84.8	60.9	46.6	38.2	37.0
75°	9872.0	7096.3	317.6	125.4	109.8	88.3	64.5	48.9	40.6	32.2	29.8
77.5°	7916.5	5020.2	284.1	95.5	81.2	63.3	48.9	40.6	33.4	28.7	28.7
80°	4555.8	2865.3	232.8	65.7	50.1	47.8	38.2	33.4	31.0	27.5	26.3
82.5°	2238.5	1376.5	150.4	40.6	28.7	31.0	32.2	29.8	26.3	23.9	23.9
85°	771.2	458.4	60.9	26.3	19.1	19.1	20.3	21.5	20.3	19.1	19.1
87.5°	119.4	87.2	16.7	15.5	11.9	10.7	11.9	13.1	13.1	11.9	11.9
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)