

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: P510028

Luminaire Tested: **VERD-M-CA4-190-730-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510028
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-CA4-190-730-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 3000K, 870mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24839 lumens
Efficiency: N/A
Efficacy: 128.6 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

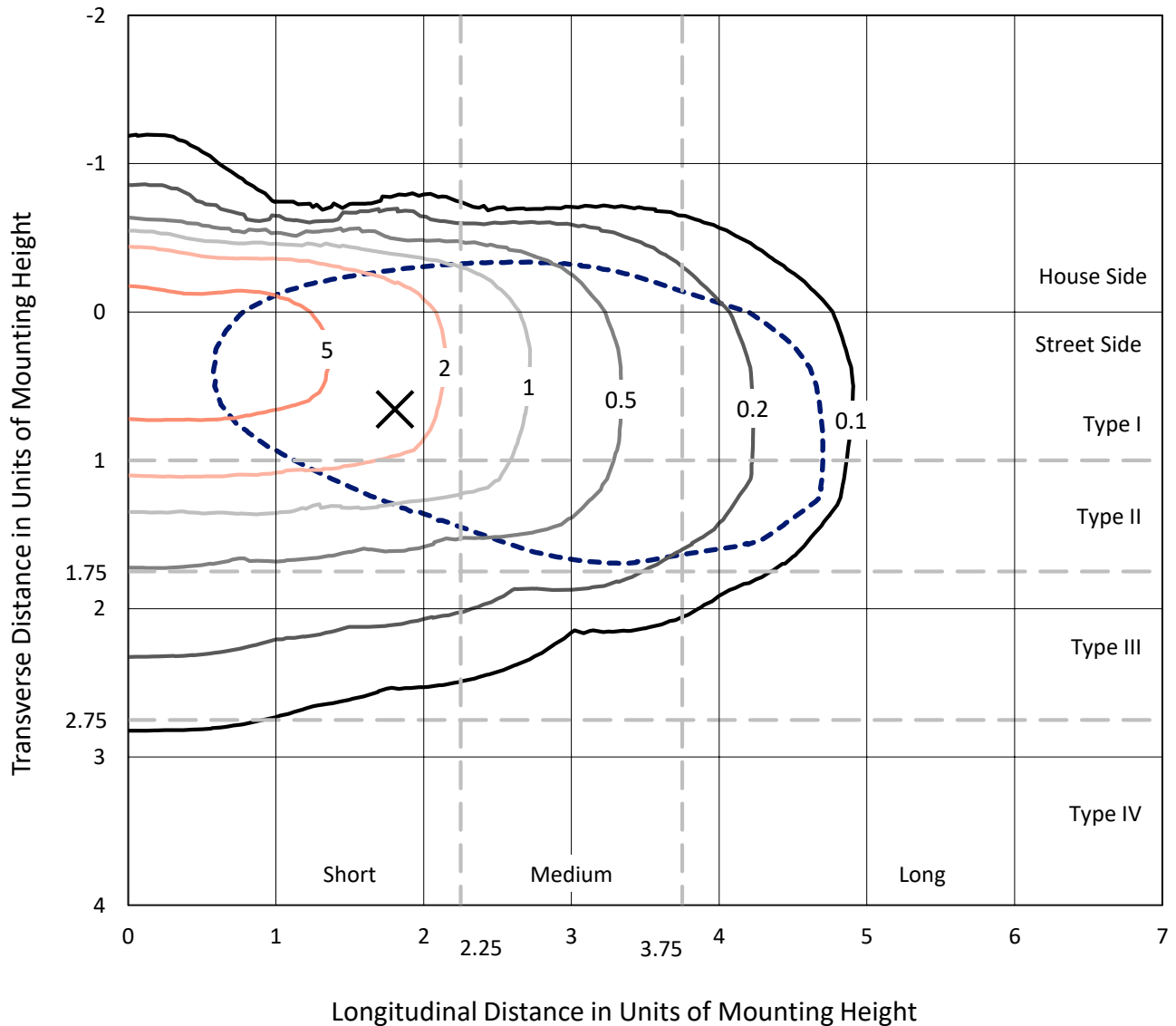
Input Watts (W): 193.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P510028
 CATALOG NUMBER: VERD-M-CA4-190-730-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

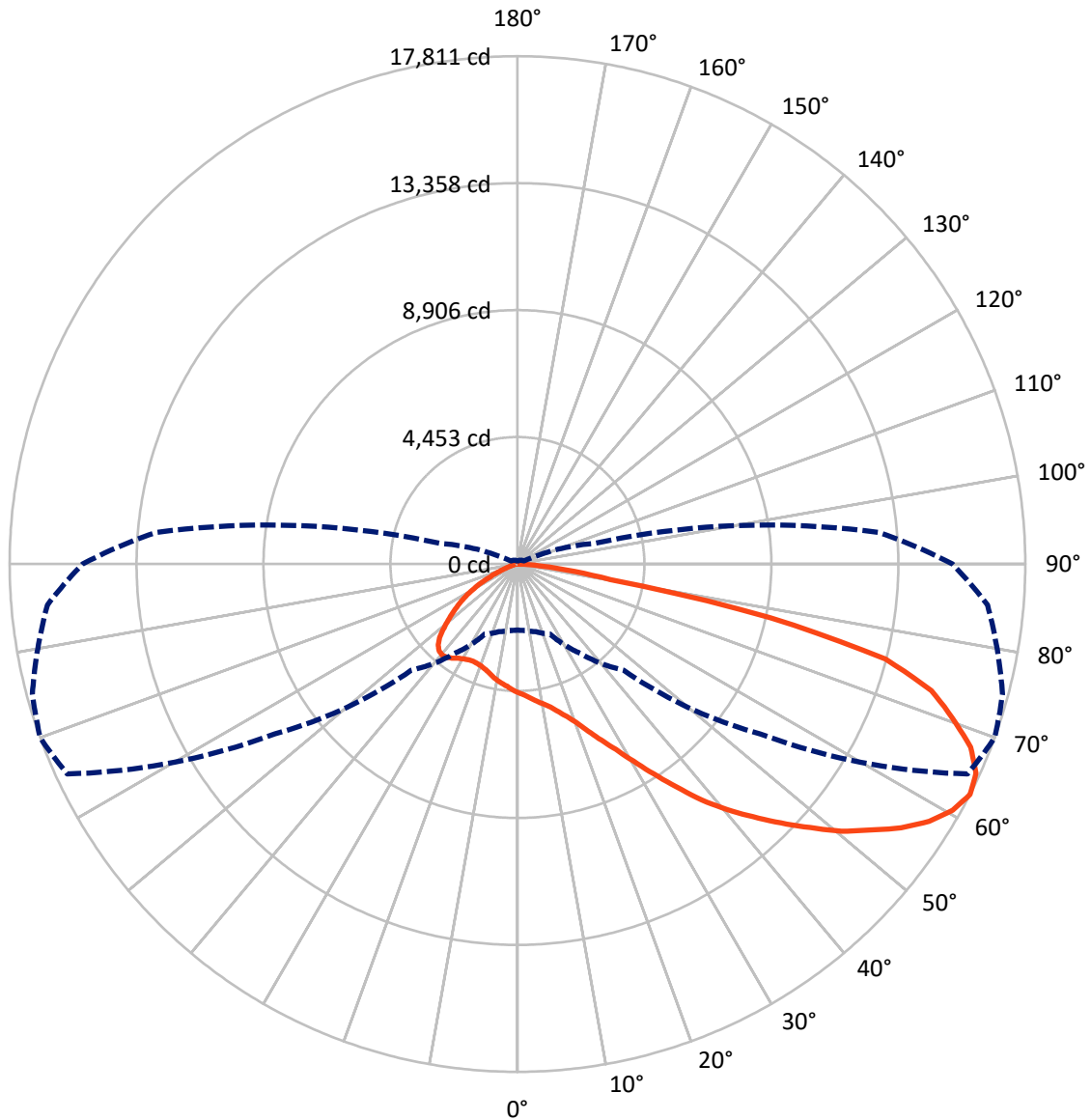
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc
 Type II - Short - N/A

REPORT NUMBER: P510028
CATALOG NUMBER: VERD-M-CA4-190-730-U-T2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P510028

CATALOG NUMBER: VERD-M-CA4-190-730-U-T2-HSS

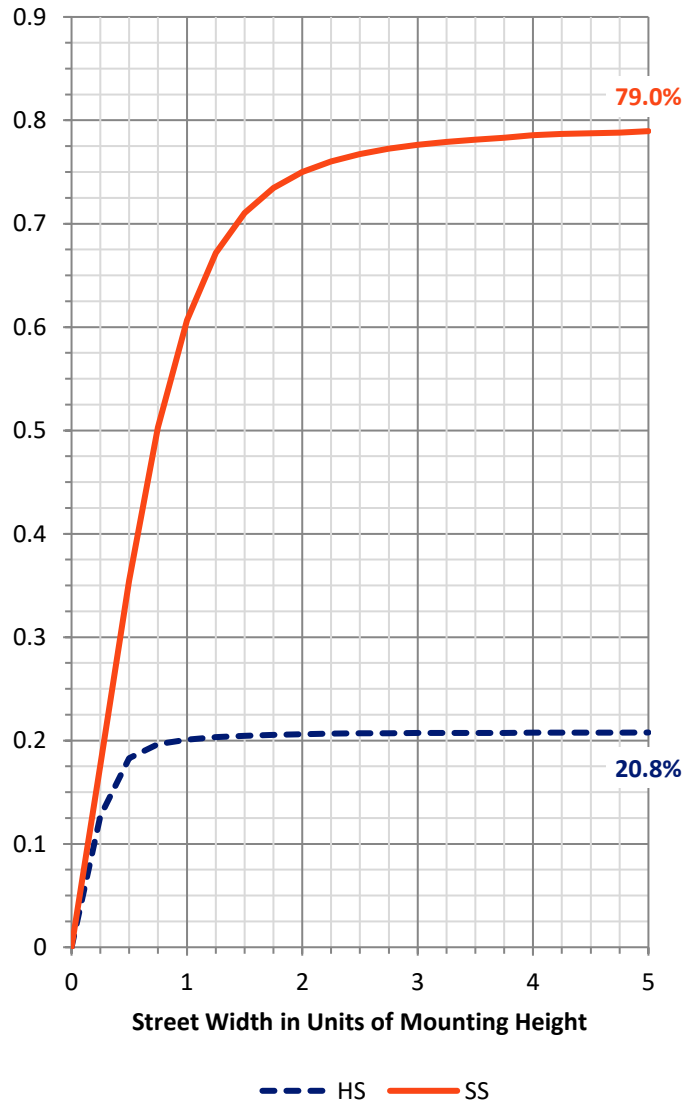
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5223.4	0.0	5223.4
	% Fixture	21.0	0.0	21.0
Street Side	Lumens	19615.6	0.0	19615.6
	% Fixture	79.0	0.0	79.0
Total	Lumens	24839.0	0.0	24839.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	428.7	1.7
10°-20°	1279.5	5.2
20°-30°	2169.1	8.7
30°-40°	3189.7	12.8
40°-50°	4247.7	17.1
50°-60°	4969.0	20.0
60°-70°	4997.6	20.1
70°-80°	3163.6	12.7
80°-90°	394.2	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°	24839.0	100.0
0°-180°	24839.0	100.0

Coefficient of Utilization



REPORT NUMBER: P510028

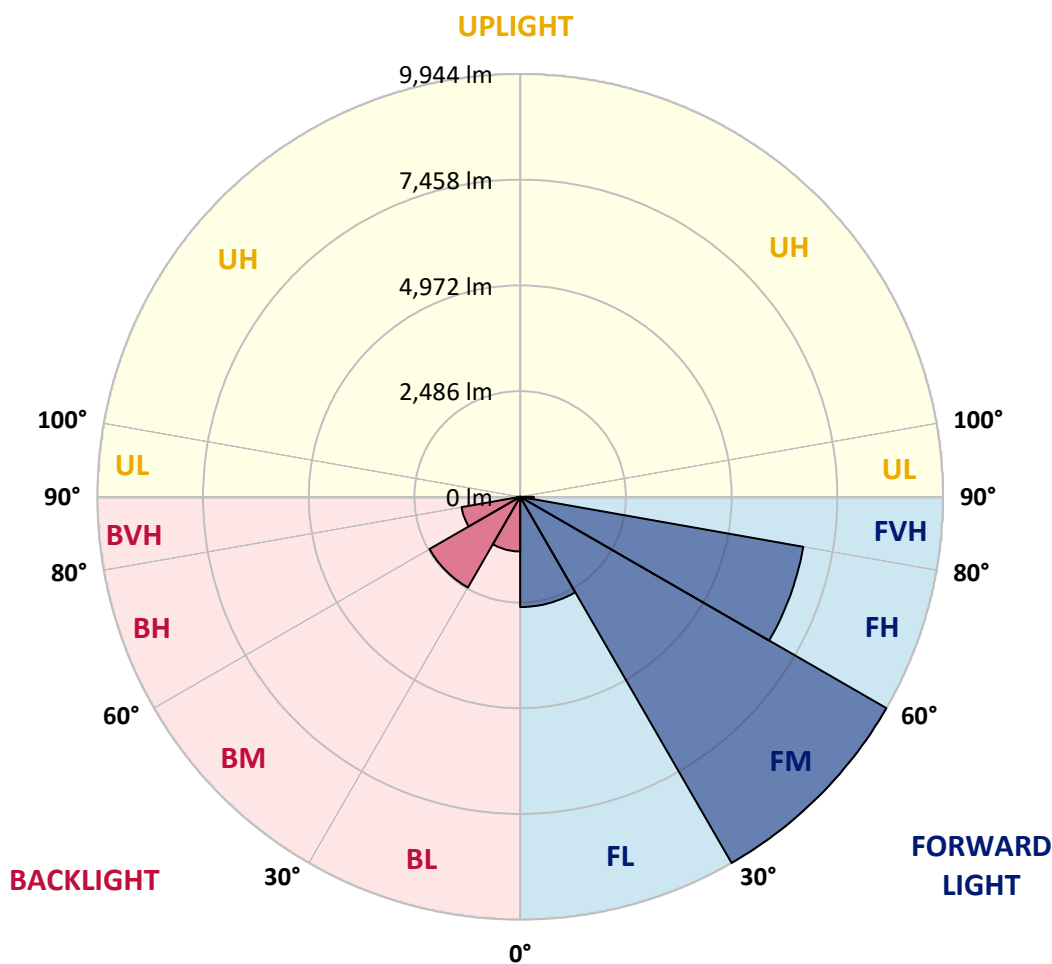
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2591.3	10.4			
FM (30°-60°)	9943.5	40.0			
FH (60°-80°)	6761.2	27.2			G3/7500
FVH (80°-90°)	319.7	1.3			G3/500
BL (0°-30°)	1286.0	5.2	B3/2500		
BM (30°-60°)	2462.9	9.9	B2/2500		
BH (60°-80°)	1399.9	5.6	B3/2500		G3/2500
BVH (80°-90°)	74.5	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





REPORT NUMBER: P510028

CATALOG NUMBER: VERD-M-CA4-190-730-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7
2.5°	4763.5	4805.2	4773.3	4761.0	4770.8	4721.8	4682.5	4626.1	4599.1	4579.5	4547.6
5°	5005.1	5073.8	5032.1	5006.4	5002.7	4913.1	4860.4	4783.1	4723.0	4670.2	4589.3
7.5°	5260.3	5300.8	5284.8	5255.4	5235.8	5126.6	5033.4	4924.2	4857.9	4788.0	4651.8
10°	5483.6	5532.7	5516.7	5464.0	5445.6	5333.9	5227.2	5078.8	4988.0	4900.9	4713.2
12.5°	5714.2	5769.4	5736.3	5683.5	5667.6	5554.7	5444.3	5264.0	5151.1	5053.0	4792.9
15°	5926.4	5976.7	5953.4	5893.3	5877.4	5781.7	5660.2	5492.2	5369.5	5239.5	4905.8
17.5°	6095.7	6146.0	6116.6	6088.4	6083.5	5989.0	5916.6	5744.9	5628.3	5451.7	5078.8
20°	6219.6	6271.2	6256.4	6269.9	6321.5	6251.5	6207.4	6062.6	5943.6	5752.2	5327.8
22.5°	6317.8	6384.0	6442.9	6469.9	6565.6	6560.7	6550.9	6465.0	6371.7	6173.0	5624.7
25°	6327.6	6403.6	6520.2	6646.5	6820.7	6904.2	6965.5	6952.0	6842.8	6646.5	6035.6
27.5°	6342.3	6420.8	6541.0	6758.2	7069.8	7264.8	7366.6	7429.2	7365.4	7234.2	6503.0
30°	6310.4	6391.4	6542.3	6819.5	7240.3	7602.2	7783.7	8015.6	8023.0	7912.5	7208.4
32.5°	6165.7	6272.4	6455.2	6826.9	7405.9	7954.3	8234.0	8679.3	8776.2	8694.0	7935.9
35°	5924.0	6020.9	6282.2	6761.9	7506.5	8247.5	8759.0	9453.3	9596.9	9592.0	8792.1
37.5°	5656.6	5754.7	6049.1	6608.5	7571.5	8508.8	9221.5	10221.3	10507.1	10447.0	9600.6
40°	5360.9	5464.0	5803.8	6415.9	7539.6	8741.8	9711.0	10965.9	11320.5	11327.8	10373.4
42.5°	5017.4	5102.1	5443.1	6149.7	7434.1	8913.6	10166.1	11749.8	12122.8	12101.9	11102.1
45°	4688.6	4777.0	5075.1	5737.5	7190.0	9009.3	10612.6	12543.5	12952.0	12885.8	11911.8
47.5°	4291.2	4417.5	4757.3	5391.6	6813.4	9001.9	11002.7	13355.6	13814.5	13760.5	12611.0
50°	3302.4	3377.2	4146.4	5034.6	6303.1	8830.2	11384.3	14153.0	14733.3	14627.8	13356.9
52.5°	2974.9	3042.3	3290.1	4606.5	5839.3	8458.5	11702.0	15065.7	15500.0	15417.8	14118.7
55°	2811.7	2848.5	2999.4	3799.3	5386.7	7854.9	11914.2	15876.6	16328.1	16146.5	14831.4
57.5°	2606.8	2652.2	2827.7	3244.8	4829.7	6928.7	11865.1	16607.8	17024.9	16746.4	15459.5
60°	2449.8	2484.2	2648.6	2920.9	4254.4	5969.4	11363.4	17325.4	17535.2	17260.4	16085.2
62.5°	2317.3	2337.0	2452.3	2711.1	3816.4	5268.9	10384.5	17421.1	17811.2	17612.5	16551.3
65°	2152.9	2157.9	2294.0	2496.4	3411.6	4848.1	9544.1	16930.4	17673.8	17607.6	16719.4
67.5°	1960.3	1970.2	2107.6	2262.1	2924.6	4400.4	8235.2	16666.7	17140.2	17098.5	16387.0
70°	1718.7	1738.3	1864.7	1982.4	2476.8	3863.0	6554.5	15623.9	16185.8	16124.4	15291.5
72.5°	1485.6	1474.6	1592.3	1708.9	2063.4	3225.1	4968.3	13829.2	15182.3	15123.4	13868.4
75°	1220.6	1213.3	1334.7	1445.1	1691.7	2605.6	3495.0	10227.4	13339.7	13521.3	11958.4
77.5°	752.0	758.1	828.1	901.7	1145.8	1946.9	2230.2	5689.7	9062.0	10746.3	9384.7
80°	544.7	544.7	596.2	640.4	758.1	1186.3	1110.2	2372.5	3312.2	5186.7	5852.8
82.5°	353.3	338.6	370.5	408.5	422.0	514.0	507.9	1189.9	1688.0	2031.5	2437.6
85°	184.0	203.6	122.7	173.0	182.8	170.5	175.4	558.2	749.5	960.5	1057.5
87.5°	28.2	22.1	29.4	40.5	46.6	39.3	34.3	65.0	100.6	133.7	158.3
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: P510028

CATALOG NUMBER: VERD-M-CA4-190-730-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7	4515.7
2.5°	4526.7	4520.6	4464.1	4382.0	4314.5	4258.1	4221.3	4196.7	4223.7	4174.6	4168.5
5°	4539.0	4497.3	4374.6	4256.8	4166.0	4044.6	3962.4	3907.2	3929.3	3886.3	3869.2
7.5°	4572.1	4496.0	4326.8	4139.1	3967.3	3837.3	3710.9	3589.5	3571.1	3544.1	3545.3
10°	4601.5	4492.4	4271.5	4026.2	3826.2	3596.8	3444.7	3319.6	3291.4	3259.5	3243.5
12.5°	4648.2	4501.0	4202.9	3906.0	3638.5	3373.6	3209.2	3062.0	3033.8	2971.2	2957.7
15°	4741.4	4531.6	4135.4	3757.5	3427.5	3160.1	2947.9	2819.1	2767.6	2697.6	2696.4
17.5°	4862.8	4621.2	4101.0	3617.7	3248.4	2949.1	2724.6	2594.6	2507.5	2465.8	2454.7
20°	5035.8	4737.7	4099.8	3491.3	3062.0	2723.4	2465.8	2318.6	2245.0	2210.6	2189.8
22.5°	5302.0	4909.5	4121.9	3403.0	2874.3	2505.0	2248.6	2046.2	1924.8	1830.3	1843.8
25°	5633.2	5167.1	4172.2	3322.0	2711.1	2296.5	1975.1	1694.1	1477.0	1382.5	1389.9
27.5°	6054.0	5475.0	4302.2	3239.9	2525.9	2072.0	1618.1	1261.1	1096.7	986.3	994.9
30°	6592.6	5857.7	4472.7	3176.1	2354.1	1757.9	1218.2	929.9	785.1	694.3	685.8
32.5°	7236.6	6412.2	4659.2	3133.1	2166.4	1365.4	878.4	682.1	541.0	489.5	496.8
35°	8034.0	7035.4	4943.8	3070.6	1845.0	971.6	626.9	461.3	388.9	379.1	380.3
37.5°	8761.5	7673.3	5226.0	2965.1	1456.2	690.7	425.7	350.9	334.9	331.2	336.1
40°	9474.2	8254.8	5481.1	2811.7	1001.0	473.5	312.8	316.5	303.0	293.2	288.3
42.5°	10141.6	8815.4	5681.1	2529.6	684.5	312.8	277.2	288.3	285.8	266.2	257.6
45°	10861.7	9408.0	5791.5	2134.5	430.6	266.2	249.0	268.7	280.9	258.8	249.0
47.5°	11476.3	9985.8	5786.6	1635.3	292.0	251.5	234.3	251.5	266.2	250.3	241.7
50°	12185.3	10464.2	5629.6	1037.8	258.8	233.1	224.5	230.6	250.3	239.2	230.6
52.5°	12972.9	11119.3	5391.6	579.0	245.4	220.8	208.5	215.9	233.1	219.6	224.5
55°	13625.5	11662.7	4832.2	395.0	239.2	206.1	198.7	203.6	211.0	197.5	204.9
57.5°	14208.2	12111.7	4266.6	323.9	230.6	196.3	195.1	185.2	184.0	175.4	168.1
60°	14798.3	12466.3	3503.6	293.2	222.0	197.5	176.7	163.2	152.1	143.5	139.8
62.5°	15251.0	12711.6	2771.2	265.0	209.8	185.2	161.9	139.8	121.4	110.4	110.4
65°	15383.5	12602.4	1950.5	240.4	196.3	174.2	144.8	114.1	92.0	84.6	81.0
67.5°	14959.0	11975.6	1358.0	222.0	182.8	161.9	127.6	93.2	73.6	63.8	61.3
70°	13878.2	10926.7	801.1	196.3	165.6	141.1	116.5	76.1	60.1	50.3	47.8
72.5°	12281.0	9354.0	499.3	166.8	142.3	115.3	87.1	62.6	47.8	39.3	38.0
75°	10144.0	7291.8	326.3	128.8	112.9	90.8	66.2	50.3	41.7	33.1	30.7
77.5°	8134.6	5158.5	292.0	98.1	83.4	65.0	50.3	41.7	34.3	29.4	29.4
80°	4681.3	2944.2	239.2	67.5	51.5	49.1	39.3	34.3	31.9	28.2	27.0
82.5°	2300.2	1414.4	154.6	41.7	29.4	31.9	33.1	30.7	27.0	24.5	24.5
85°	792.5	471.1	62.6	27.0	19.6	19.6	20.9	22.1	20.9	19.6	19.6
87.5°	122.7	89.6	17.2	15.9	12.3	11.0	12.3	13.5	13.5	12.3	12.3
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)