

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: P510189

Luminaire Tested: **VERD-M-CA4-220-750-U-T2**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510189
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA4-220-750-U-T2
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 5000K, 1000mA LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31770 lumens
Efficiency: N/A
Efficacy: 142.8 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

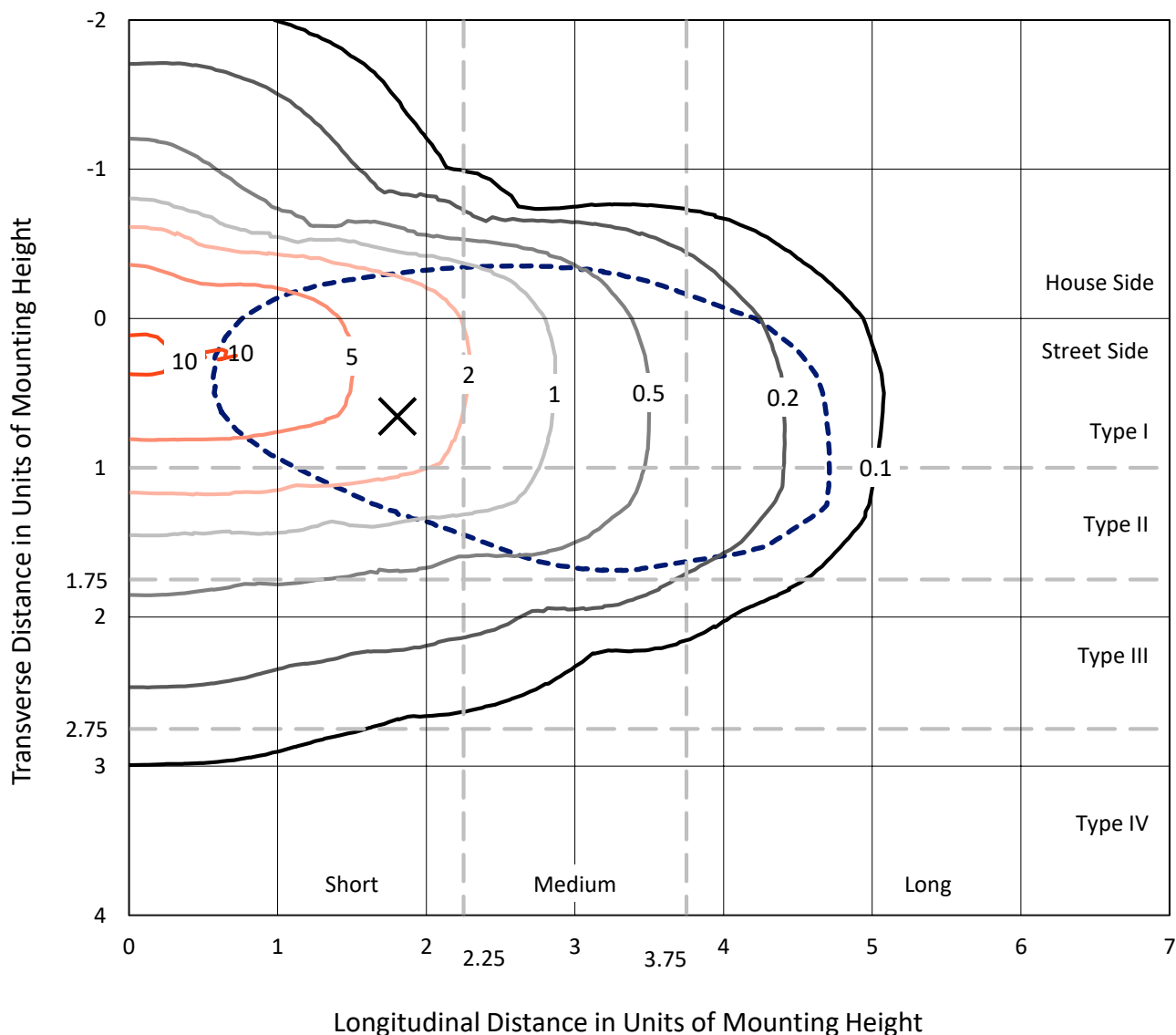
Input Watts (W): 222.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

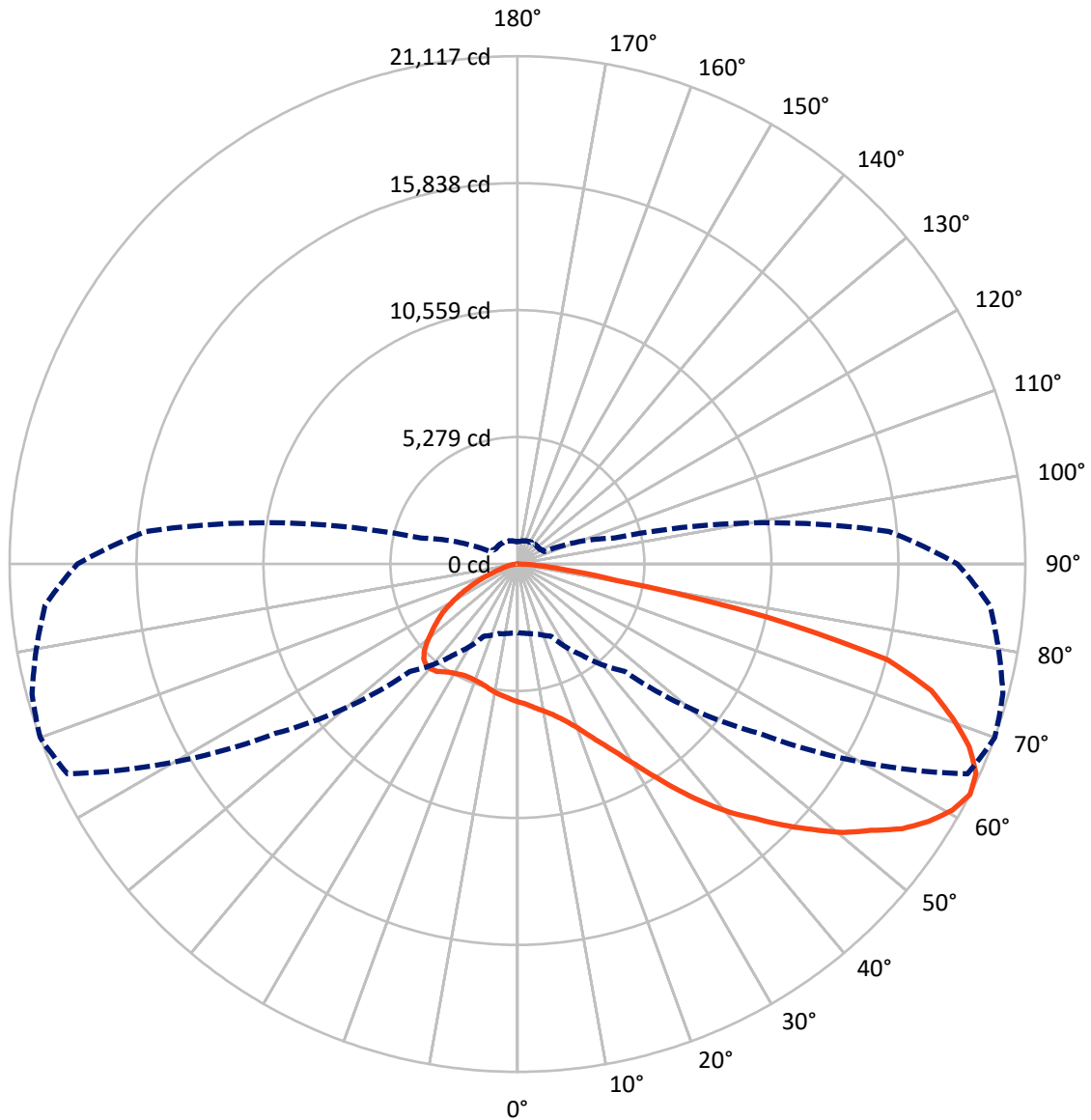
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 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	8225.4	0.0	8225.4
	% Fixture	25.9	0.0	25.9
Street Side	Lumens	23544.6	0.0	23544.6
	% Fixture	74.1	0.0	74.1
Total	Lumens	31770.0	0.0	31770.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	550.8	1.7
10°-20°	1672.5	5.3
20°-30°	2838.6	8.9
30°-40°	4107.3	12.9
40°-50°	5389.8	17.0
50°-60°	6297.8	19.8
60°-70°	6320.1	19.9
70°-80°	4027.2	12.7
80°-90°	566.0	1.8
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°	31770.0	100.0
0°-180°	31770.0	100.0

Coefficient of Utilization



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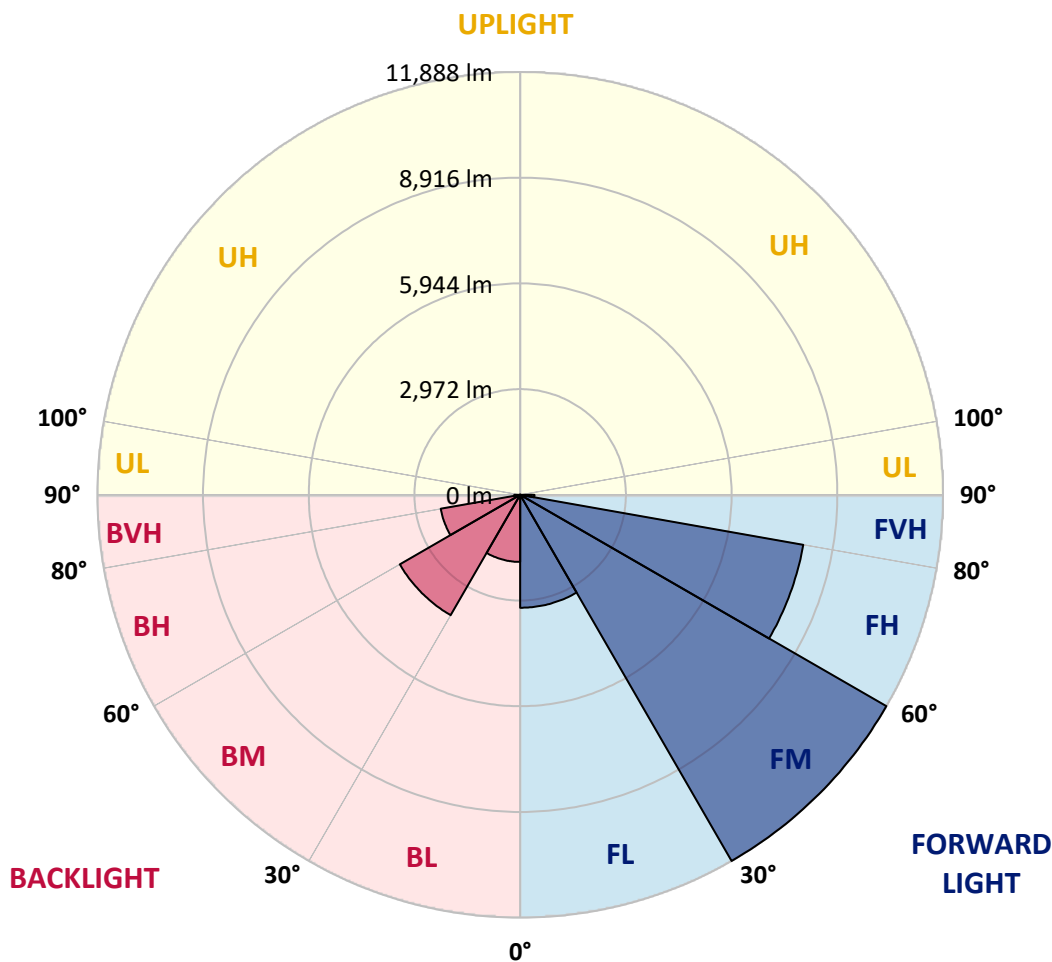
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3175.4	10.0			
FM (30°-60°)	11888.0	37.4			
FH (60°-80°)	8082.0	25.4			G4/12000
FVH (80°-90°)	399.2	1.3			G3/500
BL (0°-30°)	1886.5	5.9	B3/2500		
BM (30°-60°)	3906.8	12.3	B3/5000		
BH (60°-80°)	2265.4	7.1	B3/2500		G3/2500
BVH (80°-90°)	166.8	0.5			G2/225
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°	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0
2.5°	5953.7	6016.9	6008.3	5969.5	5996.8	5922.1	5894.8	5853.2	5810.1	5795.8	5771.4
5°	6235.1	6318.4	6302.6	6250.9	6249.5	6143.2	6082.9	6004.0	5937.9	5886.2	5810.1
7.5°	6497.8	6594.0	6579.7	6529.4	6526.5	6404.5	6279.6	6156.1	6080.0	6014.0	5874.7
10°	6776.3	6849.6	6836.6	6772.0	6759.1	6640.0	6493.5	6338.5	6226.5	6134.6	5936.5
12.5°	7033.3	7110.8	7116.6	7036.2	7016.1	6888.3	6760.5	6555.2	6410.2	6305.4	6014.0
15°	7273.1	7365.0	7347.7	7267.3	7245.8	7116.6	6991.7	6802.2	6651.4	6505.0	6140.3
17.5°	7465.5	7553.0	7531.5	7495.6	7484.1	7383.6	7280.3	7075.0	6941.4	6753.4	6335.6
20°	7597.5	7679.4	7688.0	7677.9	7744.0	7649.2	7591.8	7446.8	7300.4	7130.9	6602.6
22.5°	7649.2	7746.8	7830.1	7894.7	8031.1	8016.8	8006.7	7923.4	7779.9	7532.9	6955.8
25°	7665.0	7762.6	7891.9	8051.2	8295.3	8382.8	8446.0	8466.1	8309.6	8114.4	7395.1
27.5°	7667.9	7772.7	7904.8	8161.8	8533.6	8797.8	8948.5	9018.8	8931.3	8776.2	7992.3
30°	7607.6	7715.3	7884.7	8227.8	8720.2	9153.8	9403.6	9715.1	9677.8	9547.2	8740.3
32.5°	7433.9	7531.5	7765.5	8216.3	8905.4	9518.5	9907.5	10447.3	10573.7	10489.0	9603.2
35°	7122.3	7241.5	7544.4	8121.6	9005.9	9873.1	10500.5	11340.3	11568.6	11574.3	10661.2
37.5°	6807.9	6898.4	7254.4	7943.5	9061.9	10187.5	11063.2	12234.7	12566.4	12573.6	11541.3
40°	6473.4	6556.7	6948.6	7705.2	9004.5	10434.4	11587.3	13094.7	13569.9	13525.4	12405.6
42.5°	6039.8	6131.7	6520.8	7380.8	8860.9	10625.4	12119.9	13997.7	14454.3	14504.5	13307.2
45°	5669.4	5742.7	6082.9	6874.0	8598.2	10728.7	12619.5	14961.1	15483.6	15430.5	14269.1
47.5°	5212.9	5322.0	5685.2	6461.9	8125.9	10702.9	13097.6	15914.3	16495.8	16447.0	15103.2
50°	4021.3	4147.6	4991.8	6029.8	7522.9	10500.5	13531.1	16826.0	17548.1	17420.4	15986.1
52.5°	3652.3	3688.2	4024.2	5533.1	6928.5	10041.0	13849.9	17977.4	18405.2	18355.0	16880.6
55°	3426.9	3495.8	3649.5	4558.2	6394.5	9294.5	14071.0	18939.3	19421.7	19186.2	17690.3
57.5°	3228.8	3277.6	3460.0	3902.1	5780.0	8266.6	14006.3	19750.4	20181.1	19852.4	18481.3
60°	3017.8	3049.4	3231.7	3561.9	5116.7	7130.9	13350.2	20587.4	20778.4	20476.9	19150.3
62.5°	2854.1	2884.3	2993.4	3310.6	4599.9	6318.4	12276.4	20646.3	21117.2	20897.5	19718.9
65°	2644.5	2664.6	2801.0	3050.8	4120.4	5834.5	11330.3	20093.6	20953.5	20899.0	19937.1
67.5°	2413.4	2437.8	2567.0	2743.6	3507.3	5264.6	9748.2	19795.0	20261.5	20314.7	19527.9
70°	2142.0	2159.2	2292.8	2420.5	3000.5	4621.4	7749.7	18650.7	19194.8	19193.4	18264.5
72.5°	1849.1	1847.7	1979.8	2114.7	2513.8	3882.0	6067.1	16559.0	17998.9	17891.3	16467.1
75°	1524.7	1546.2	1674.0	1780.2	2091.8	3147.0	4225.2	11995.0	15889.9	16037.8	14211.6
77.5°	974.8	989.2	1061.0	1170.1	1462.9	2404.7	2756.5	6665.8	10609.6	12797.5	11186.7
80°	712.1	719.3	782.4	845.6	973.4	1464.4	1401.2	2897.2	4205.1	6282.5	6862.5
82.5°	485.3	486.7	536.9	551.3	558.5	660.4	664.7	1409.8	2002.8	2358.8	3030.7
85°	321.6	267.0	208.2	275.6	282.8	242.6	236.9	636.0	993.5	1191.6	1122.7
87.5°	71.8	70.3	81.8	83.3	80.4	68.9	57.4	97.6	149.3	147.9	189.5
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°	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0	5734.0
2.5°	5748.4	5741.2	5701.0	5616.3	5558.9	5500.0	5467.0	5446.9	5454.1	5421.1	5406.7
5°	5762.8	5726.9	5613.5	5513.0	5422.5	5320.6	5235.9	5224.4	5241.6	5211.5	5194.2
7.5°	5800.1	5724.0	5579.0	5406.7	5256.0	5159.8	5037.7	4976.0	4971.7	4941.6	4947.3
10°	5821.6	5722.6	5528.7	5320.6	5144.0	4973.1	4842.5	4773.6	4769.3	4726.2	4716.2
12.5°	5880.5	5738.4	5469.9	5215.8	5019.1	4790.8	4653.0	4589.8	4582.6	4522.3	4499.4
15°	5970.9	5774.2	5408.2	5093.7	4839.6	4625.7	4460.6	4375.9	4363.0	4292.6	4268.2
17.5°	6114.5	5876.2	5389.5	4983.2	4683.1	4449.1	4255.3	4163.4	4088.8	4050.0	4017.0
20°	6308.3	6002.5	5411.0	4879.8	4486.5	4216.5	3975.4	3854.8	3803.1	3739.9	3744.2
22.5°	6584.0	6200.6	5448.3	4799.4	4308.4	3968.2	3696.8	3561.9	3468.6	3415.4	3418.3
25°	6971.6	6499.3	5521.6	4723.3	4114.6	3696.8	3376.7	3188.6	3093.9	3059.4	3023.5
27.5°	7461.2	6856.7	5695.3	4630.0	3884.9	3389.6	3035.0	2815.3	2719.1	2667.5	2660.3
30°	8090.0	7326.2	5899.1	4561.1	3643.7	3006.3	2611.5	2437.8	2353.1	2279.8	2245.4
32.5°	8856.6	7989.5	6126.0	4492.2	3345.1	2577.0	2219.5	2086.0	1951.1	1857.8	1862.1
35°	9746.7	8711.6	6463.4	4404.6	2994.8	2176.5	1929.5	1757.3	1630.9	1569.2	1540.5
37.5°	10586.6	9452.4	6859.6	4315.6	2602.9	1916.6	1643.8	1484.5	1386.9	1339.5	1349.5
40°	11436.5	10216.2	7201.3	4097.4	2163.5	1681.2	1361.0	1270.6	1231.8	1194.5	1198.8
42.5°	12197.4	10824.9	7451.1	3854.8	1856.3	1411.3	1160.0	1180.1	1203.1	1181.6	1175.8
45°	12989.9	11537.0	7670.8	3441.3	1599.3	1198.8	1109.8	1165.8	1216.0	1213.1	1206.0
47.5°	13785.3	12197.4	7692.3	2892.9	1365.3	1127.0	1108.3	1150.0	1216.0	1227.5	1218.9
50°	14605.0	12889.4	7566.0	2246.8	1266.3	1135.6	1109.8	1116.9	1190.2	1203.1	1198.8
52.5°	15513.8	13637.4	7254.4	1708.4	1227.5	1150.0	1114.1	1104.0	1145.7	1168.6	1172.9
55°	16349.4	14231.7	6670.1	1508.9	1198.8	1151.4	1145.7	1112.6	1114.1	1102.6	1131.3
57.5°	17051.4	14798.8	6006.8	1399.8	1172.9	1138.5	1160.0	1098.3	1081.1	1033.7	1022.2
60°	17777.8	15259.7	5073.6	1325.1	1142.8	1122.7	1124.1	1073.9	1030.8	961.9	941.8
62.5°	18293.2	15503.7	4167.7	1237.5	1101.2	1098.3	1076.7	1039.4	1000.7	940.4	931.7
65°	18442.6	15374.5	3201.5	1145.7	1046.6	1058.1	1019.3	967.6	806.8	732.2	732.2
67.5°	17948.7	14579.2	2370.3	1039.4	980.6	1003.5	927.4	762.3	679.1	634.6	641.7
70°	16594.9	13294.3	1543.3	884.4	885.8	904.5	765.2	686.2	607.3	580.0	594.4
72.5°	14785.9	11389.1	1017.9	704.9	746.5	715.0	699.2	631.7	561.3	529.8	539.8
75°	12184.5	8993.0	706.3	554.2	483.8	610.2	621.6	531.2	476.6	578.6	601.5
77.5°	9626.1	6250.9	582.9	387.6	357.5	450.8	498.2	492.4	788.2	926.0	916.0
80°	5724.0	3599.2	475.2	268.5	252.7	290.0	391.9	565.7	882.9	663.3	631.7
82.5°	2595.7	1636.7	252.7	140.7	165.1	192.4	292.9	703.5	578.6	425.0	400.6
85°	1013.6	534.1	100.5	61.7	57.4	71.8	133.5	338.8	232.6	188.1	188.1
87.5°	130.6	96.2	28.7	21.5	18.7	23.0	43.1	188.1	109.1	91.9	89.0
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)