

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: P510221

Luminaire Tested: **VERD-M-CA4-230-730-U-T2**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510221  
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-CA4-230-730-U-T2  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 3000K, 1050mA LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31819 lumens  
Efficiency: N/A  
Efficacy: 136.4 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

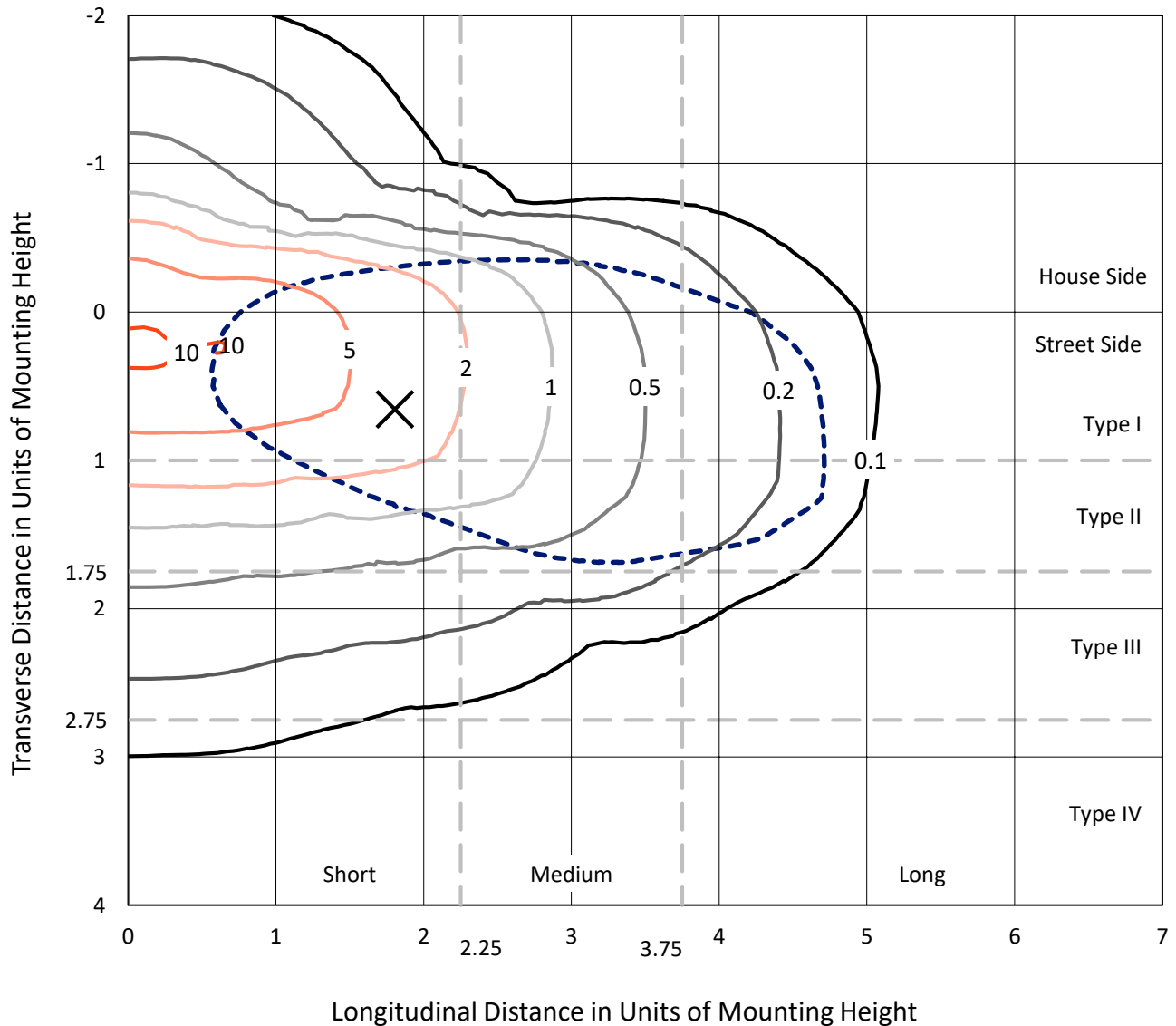
Input Watts (W): 233.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P510221  
 CATALOG NUMBER: VERD-M-CA4-230-730-U-T2

### Iso-Footcandle Lines of Horizontal Illumination

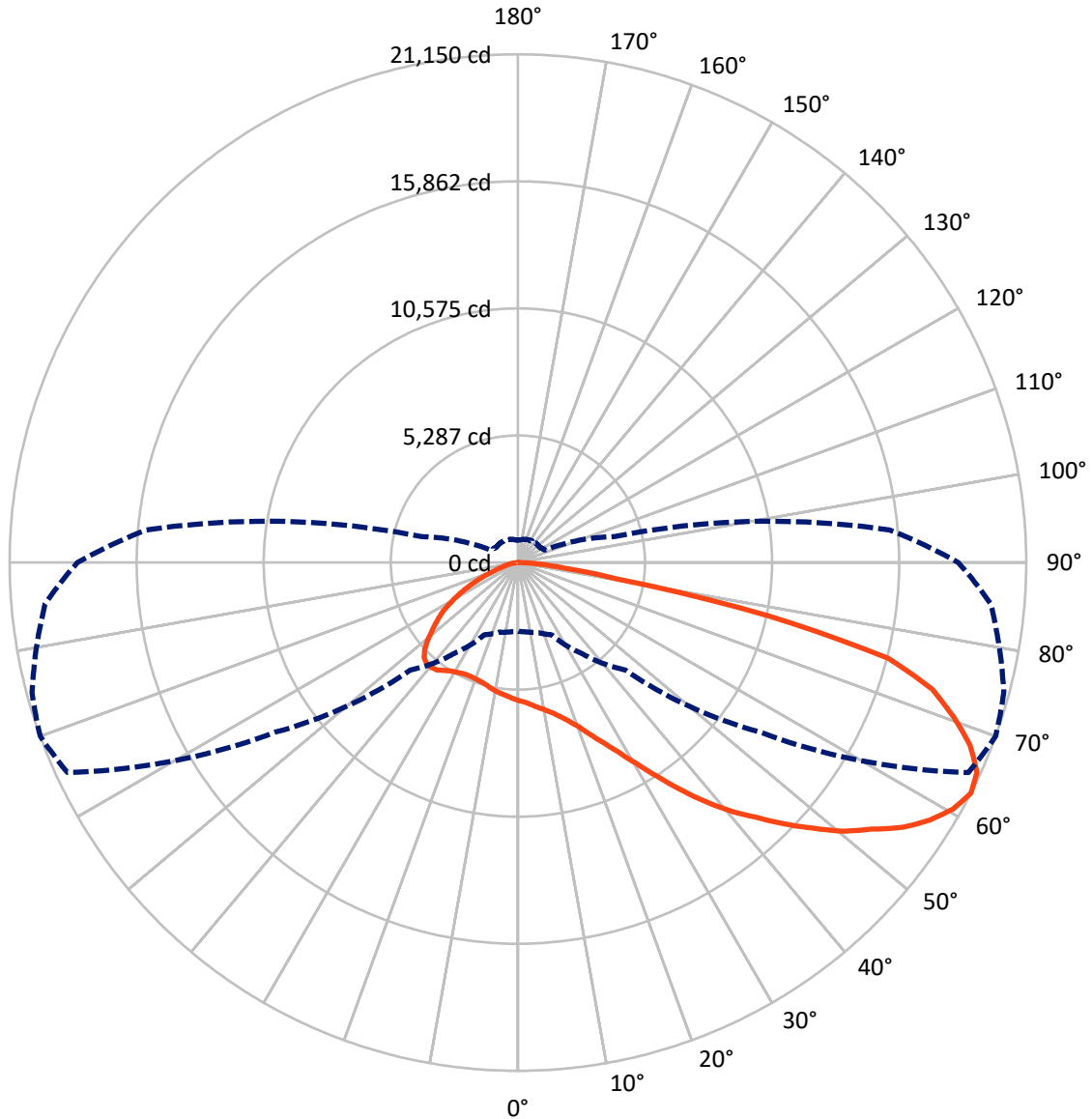
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc  
 Type II - Short - N/A

REPORT NUMBER: P510221  
CATALOG NUMBER: VERD-M-CA4-230-730-U-T2

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P510221

CATALOG NUMBER: VERD-M-CA4-230-730-U-T2

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8238.1	0.0	8238.1
	% Fixture	25.9	0.0	25.9
<b>Street Side</b>	Lumens	23580.9	0.0	23580.9
	% Fixture	74.1	0.0	74.1
<b>Total</b>	Lumens	31819.0	0.0	31819.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	551.6	1.7
10°-20°	1675.1	5.3
20°-30°	2843.0	8.9
30°-40°	4113.6	12.9
40°-50°	5398.1	17.0
50°-60°	6307.5	19.8
60°-70°	6329.8	19.9
70°-80°	4033.4	12.7
80°-90°	566.8	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°	31819.0	100.0
0°-180°	31819.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P510221

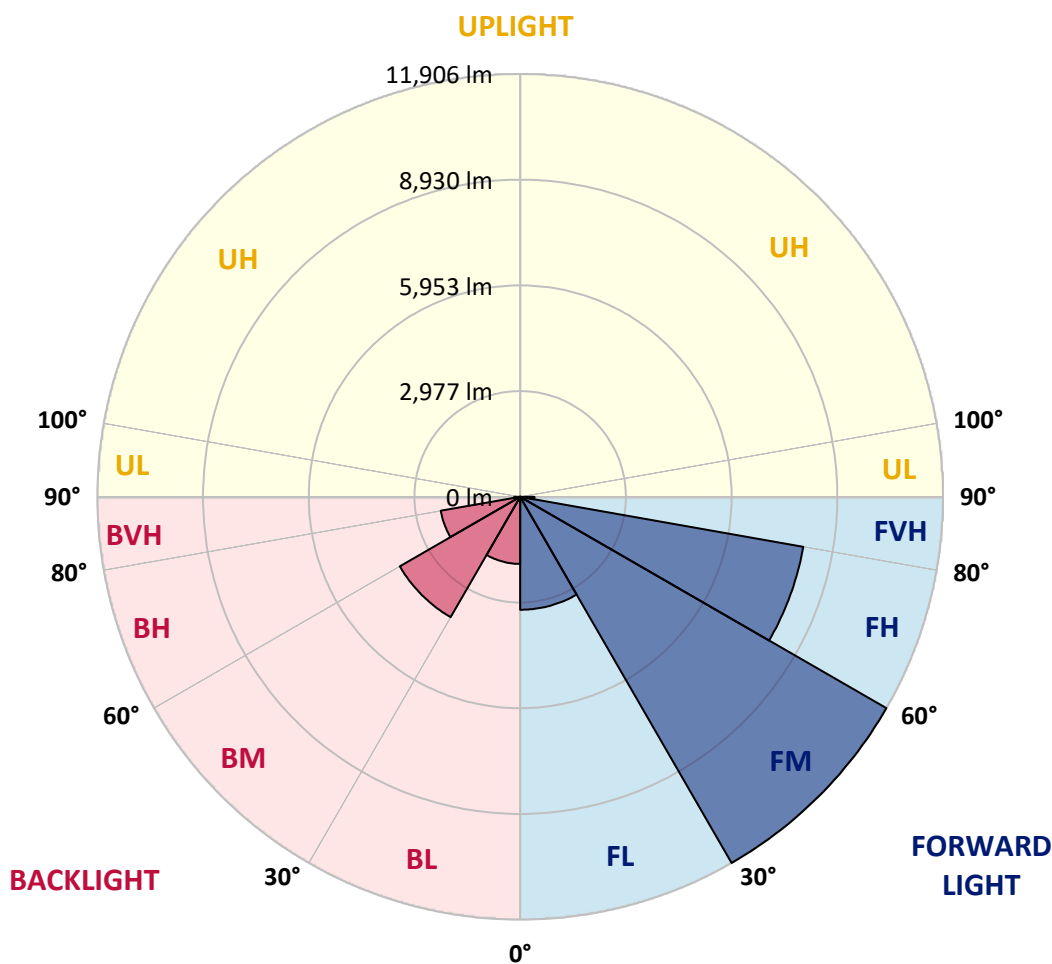
CATALOG NUMBER: VERD-M-CA4-230-730-U-T2

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3180.3	10.0			
FM (30°-60°)	11906.3	37.4			
FH (60°-80°)	8094.4	25.4			G4/12000
FVH (80°-90°)	399.8	1.3			G3/500
BL (0°-30°)	1889.4	5.9	B3/2500		
BM (30°-60°)	3912.9	12.3	B3/5000		
BH (60°-80°)	2268.9	7.1	B3/2500		G3/2500
BVH (80°-90°)	167.0	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





REPORT NUMBER: P510221

CATALOG NUMBER: VERD-M-CA4-230-730-U-T2

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9
2.5°	5962.9	6026.2	6017.5	5978.7	6006.0	5931.3	5903.9	5862.2	5819.1	5804.7	5780.3
5°	6244.7	6328.1	6312.3	6260.5	6259.1	6152.7	6092.3	6013.2	5947.1	5895.3	5819.1
7.5°	6507.8	6604.2	6589.8	6539.5	6536.6	6414.4	6289.3	6165.6	6089.4	6023.3	5883.8
10°	6786.8	6860.1	6847.2	6782.5	6769.5	6650.2	6503.5	6348.2	6236.1	6144.1	5945.6
12.5°	7044.2	7121.8	7127.6	7047.0	7026.9	6898.9	6771.0	6565.4	6420.1	6315.2	6023.3
15°	7284.3	7376.3	7359.1	7278.5	7257.0	7127.6	7002.5	6812.7	6661.7	6515.0	6149.8
17.5°	7477.0	7564.7	7543.1	7507.2	7495.7	7395.0	7291.5	7085.9	6952.1	6763.8	6345.4
20°	7609.3	7691.2	7699.8	7689.8	7755.9	7661.0	7603.5	7458.3	7311.6	7141.9	6612.8
22.5°	7661.0	7758.8	7842.2	7906.9	8043.5	8029.1	8019.1	7935.7	7791.9	7544.6	6966.5
25°	7676.8	7774.6	7904.0	8063.6	8308.1	8395.8	8459.0	8479.2	8322.4	8126.9	7406.5
27.5°	7679.7	7784.7	7917.0	8174.3	8546.8	8811.3	8962.3	9032.8	8945.0	8789.8	8004.7
30°	7619.3	7727.2	7896.8	8240.5	8733.7	9167.9	9418.1	9730.1	9692.7	9561.9	8753.8
32.5°	7445.3	7543.1	7777.5	8229.0	8919.2	9533.1	9922.8	10463.4	10590.0	10505.1	9618.0
35°	7133.3	7252.7	7556.1	8134.1	9019.8	9888.3	10516.6	11357.8	11586.4	11592.2	10677.7
37.5°	6818.4	6909.0	7265.6	7955.8	9075.9	10203.2	11080.3	12253.6	12585.8	12592.9	11559.1
40°	6483.4	6566.8	6959.3	7717.1	9018.4	10450.5	11605.1	13114.9	13590.8	13546.3	12424.7
42.5°	6049.2	6141.2	6530.8	7392.1	8874.6	10641.7	12138.6	14019.3	14476.6	14526.9	13327.7
45°	5678.2	5751.5	6092.3	6884.6	8611.5	10745.3	12639.0	14984.1	15507.5	15454.3	14291.1
47.5°	5220.9	5330.2	5694.0	6471.9	8138.4	10719.4	13117.8	15938.9	16521.2	16472.3	15126.5
50°	4027.5	4154.0	4999.5	6039.1	7534.5	10516.6	13552.0	16851.9	17575.2	17447.2	16010.8
52.5°	3658.0	3693.9	4030.4	5541.6	6939.2	10056.5	13871.2	18005.1	18433.6	18383.3	16906.6
55°	3432.2	3501.2	3655.1	4565.3	6404.3	9308.8	14092.7	18968.5	19451.6	19215.8	17717.5
57.5°	3233.8	3282.7	3465.3	3908.2	5788.9	8279.3	14028.0	19780.9	20212.3	19883.0	18509.8
60°	3022.4	3054.1	3236.7	3567.4	5124.6	7141.9	13370.8	20619.2	20810.4	20508.5	19179.9
62.5°	2858.5	2888.7	2998.0	3315.7	4607.0	6328.1	12295.3	20678.1	21149.8	20929.8	19749.3
65°	2648.6	2668.7	2805.3	3055.5	4126.7	5843.5	11347.7	20124.6	20985.8	20931.2	19967.8
67.5°	2417.1	2441.5	2570.9	2747.8	3512.7	5272.7	9763.2	19825.5	20292.8	20346.0	19558.0
70°	2145.3	2162.6	2296.3	2424.3	3005.2	4628.5	7761.7	18679.5	19224.4	19223.0	18292.7
72.5°	1852.0	1850.6	1982.8	2118.0	2517.7	3888.0	6076.5	16584.5	18026.7	17918.9	16492.5
75°	1527.0	1548.6	1676.6	1783.0	2095.0	3151.8	4231.7	12013.5	15914.4	16062.6	14233.6
77.5°	976.3	990.7	1062.6	1171.9	1465.2	2408.4	2760.7	6676.1	10625.9	12817.3	11204.0
80°	713.2	720.4	783.6	846.9	974.9	1466.6	1403.4	2901.6	4211.5	6292.2	6873.1
82.5°	486.0	487.4	537.8	552.1	559.3	661.4	665.7	1412.0	2005.8	2362.4	3035.4
85°	322.1	267.4	208.5	276.1	283.3	243.0	237.3	637.0	995.0	1193.4	1124.4
87.5°	71.9	70.5	82.0	83.4	80.5	69.0	57.5	97.8	149.5	148.1	189.8
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: P510221

CATALOG NUMBER: VERD-M-CA4-230-730-U-T2

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9	5742.9
2.5°	5757.3	5750.1	5709.8	5625.0	5567.5	5508.5	5475.4	5455.3	5462.5	5429.4	5415.1
5°	5771.6	5735.7	5622.1	5521.5	5430.9	5328.8	5243.9	5232.4	5249.7	5219.5	5202.2
7.5°	5809.0	5732.8	5587.6	5415.1	5264.1	5167.7	5045.5	4983.7	4979.4	4949.2	4954.9
10°	5830.6	5731.4	5537.3	5328.8	5151.9	4980.8	4850.0	4780.9	4776.6	4733.5	4723.4
12.5°	5889.6	5747.2	5478.3	5223.8	5026.8	4798.2	4660.2	4596.9	4589.7	4529.3	4506.3
15°	5980.1	5783.2	5416.5	5101.6	4847.1	4632.8	4467.5	4382.7	4369.7	4299.3	4274.8
17.5°	6123.9	5885.2	5397.8	4990.9	4690.4	4456.0	4261.9	4169.9	4095.1	4056.3	4023.2
20°	6318.0	6011.8	5419.4	4887.4	4493.4	4223.1	3981.5	3860.7	3808.9	3745.7	3750.0
22.5°	6594.1	6210.2	5456.8	4806.8	4315.1	3974.3	3702.5	3567.4	3473.9	3420.7	3423.6
25°	6982.3	6509.3	5530.1	4730.6	4121.0	3702.5	3381.9	3193.5	3098.6	3064.1	3028.2
27.5°	7472.7	6867.3	5704.1	4637.2	3890.9	3394.8	3039.7	2819.7	2723.3	2671.6	2664.4
30°	8102.5	7337.5	5908.2	4568.1	3649.3	3010.9	2615.5	2441.5	2356.7	2283.4	2248.8
32.5°	8870.3	8001.8	6135.4	4499.1	3350.3	2581.0	2223.0	2089.2	1954.1	1860.6	1864.9
35°	9761.8	8725.1	6473.3	4411.4	2999.4	2179.8	1932.5	1760.0	1633.4	1571.6	1542.8
37.5°	10602.9	9467.0	6870.2	4322.3	2606.9	1919.6	1646.4	1486.8	1389.0	1341.5	1351.6
40°	11454.1	10231.9	7212.4	4103.7	2166.9	1683.8	1363.1	1272.5	1233.7	1196.3	1200.6
42.5°	12216.2	10841.6	7462.6	3860.7	1859.2	1413.4	1161.8	1181.9	1204.9	1183.4	1177.6
45°	13009.9	11554.8	7682.6	3446.6	1601.8	1200.6	1111.5	1167.6	1217.9	1215.0	1207.8
47.5°	13806.5	12216.2	7704.2	2897.3	1367.4	1128.7	1110.0	1151.7	1217.9	1229.4	1220.8
50°	14627.5	12909.3	7577.6	2250.3	1268.2	1137.4	1111.5	1118.7	1192.0	1204.9	1200.6
52.5°	15537.7	13658.4	7265.6	1711.1	1229.4	1151.7	1115.8	1105.7	1147.4	1170.4	1174.7
55°	16374.6	14253.7	6680.4	1511.2	1200.6	1153.2	1147.4	1114.4	1115.8	1104.3	1133.0
57.5°	17077.7	14821.7	6016.1	1401.9	1174.7	1140.2	1161.8	1100.0	1082.7	1035.3	1023.8
60°	17805.3	15283.2	5081.5	1327.2	1144.6	1124.4	1125.9	1075.5	1032.4	963.4	943.2
62.5°	18321.5	15527.7	4174.2	1239.5	1102.9	1100.0	1078.4	1041.0	1002.2	941.8	933.2
65°	18471.0	15398.3	3206.5	1147.4	1048.2	1059.7	1020.9	969.1	808.1	733.3	733.3
67.5°	17976.4	14601.7	2373.9	1041.0	982.1	1005.1	928.9	763.5	680.1	635.5	642.7
70°	16620.4	13314.8	1545.7	885.7	887.2	905.9	766.4	687.3	608.2	580.9	595.3
72.5°	14808.7	11406.7	1019.5	706.0	747.7	716.1	700.2	632.7	562.2	530.6	540.6
75°	12203.3	9006.9	707.4	555.0	484.6	611.1	622.6	532.0	477.4	579.5	602.5
77.5°	9641.0	6260.5	583.8	388.2	358.0	451.5	498.9	493.2	789.4	927.4	917.4
80°	5732.8	3604.8	475.9	268.9	253.1	290.5	392.5	566.5	884.3	664.3	632.7
82.5°	2599.7	1639.2	253.1	140.9	165.4	192.7	293.3	704.6	579.5	425.6	401.2
85°	1015.1	534.9	100.7	61.8	57.5	71.9	133.7	339.3	232.9	188.4	188.4
87.5°	130.8	96.3	28.8	21.6	18.7	23.0	43.1	188.4	109.3	92.0	89.1
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)