

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: McGRAW-EDISON

Report Number: P299264

Luminaire Tested: **GLNA-AF-09-LED-E1-T3-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299264  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-09-LED-E1-T3-7030-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33799.1 lumens  
Efficiency: N/A  
Efficacy: 116.5 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 290  
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: 25 FT

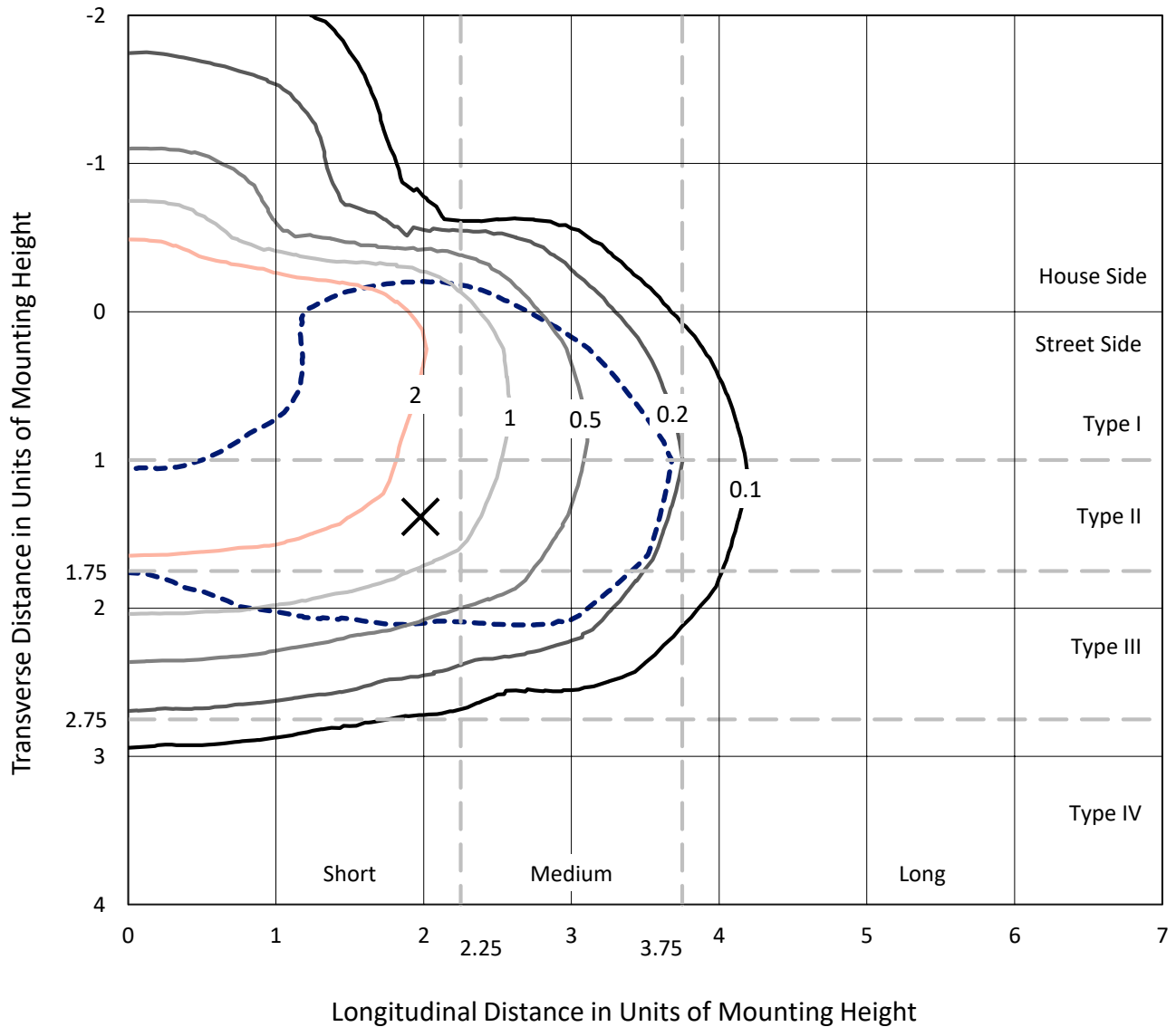


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

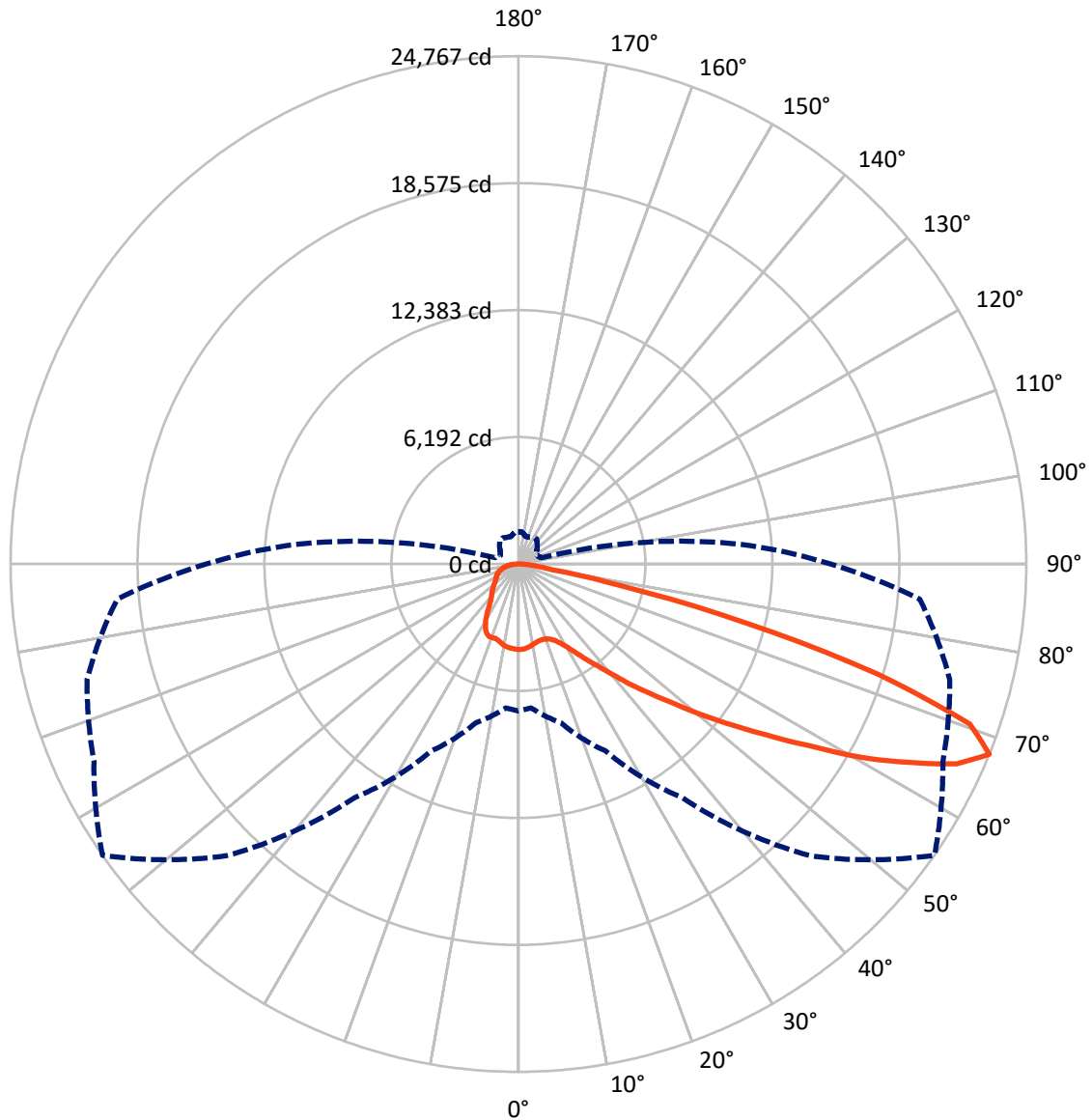


Based on 30 foot mounting height. Maximum calculated value = 4.8 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7301.3	0.0	7301.3
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	26497.8	0.0	26497.8
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	33799.1	0.0	33799.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	389.0	1.2
10°-20°	1101.8	3.3
20°-30°	1845.6	5.5
30°-40°	3034.9	9.0
40°-50°	5108.8	15.1
50°-60°	8040.8	23.8
60°-70°	9595.8	28.4
70°-80°	4120.6	12.2
80°-90°	561.8	1.7
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°	33799.1	100.0
0°-180°	33799.1	100.0



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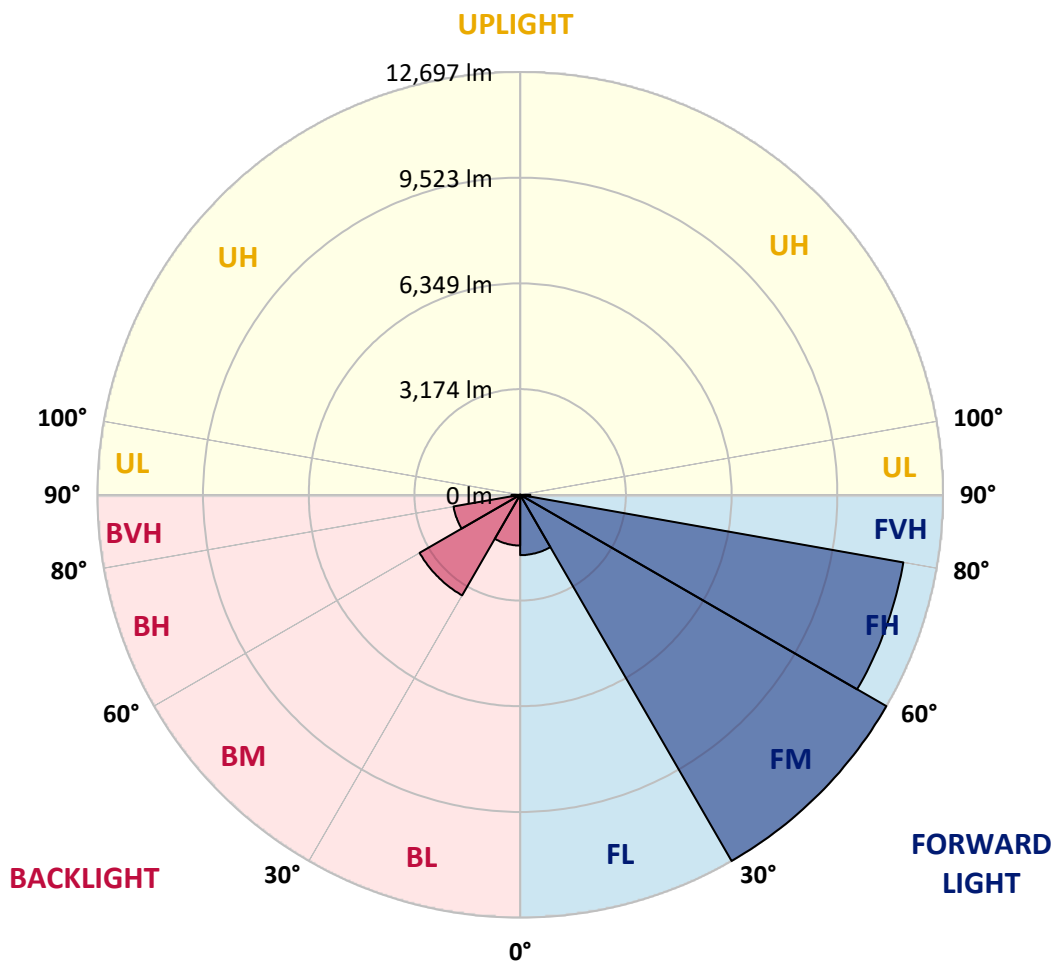
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1811.7	5.4			
FM	(30°-60°)	12697.4	37.6			
FH	(60°-80°)	11684.5	34.6			G4/12000
FVH	(80°-90°)	304.1	0.9			G3/500
BL	(0°-30°)	1524.7	4.5	B3/2500		
BM	(30°-60°)	3487.0	10.3	B3/5000		
BH	(60°-80°)	2031.9	6.0	B3/2500		G3/2500
BVH	(80°-90°)	257.7	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8
2.5°	4131.9	4133.5	4136.8	4149.8	4161.3	4158.0	4159.6	4153.1	4151.5	4141.7	4151.5
5°	4079.6	4084.5	4086.2	4107.4	4120.5	4123.7	4118.8	4110.7	4100.9	4091.1	4096.0
7.5°	3960.5	3973.5	3975.2	4004.5	4025.8	4053.5	4055.2	4056.8	4051.9	4045.4	4055.2
10°	3885.4	3888.6	3887.0	3908.2	3924.6	3955.6	3973.5	4004.5	4017.6	4020.9	4027.4
12.5°	3880.5	3877.2	3872.3	3872.3	3867.4	3880.5	3913.1	3957.2	3988.2	3998.0	4006.2
15°	3932.7	3931.1	3914.8	3890.3	3859.3	3849.5	3877.2	3926.2	3967.0	3988.2	3996.4
17.5°	4050.3	4040.5	4014.3	3958.8	3891.9	3865.8	3869.0	3909.9	3957.2	3985.0	3993.1
20°	4265.7	4265.7	4210.2	4105.8	3986.6	3924.6	3895.2	3919.7	3965.4	4002.9	4014.3
22.5°	4638.0	4641.2	4548.2	4376.8	4176.0	4043.7	3970.3	3965.4	4019.2	4061.7	4074.7
25°	5165.3	5152.2	5021.6	4776.7	4471.4	4252.7	4125.4	4096.0	4141.7	4189.0	4205.3
27.5°	5779.1	5731.7	5576.7	5281.2	4886.1	4566.1	4370.2	4322.9	4367.0	4420.8	4437.2
30°	6386.4	6337.4	6152.9	5829.7	5390.5	4985.7	4704.9	4628.2	4690.2	4766.9	4776.7
32.5°	6993.7	6993.7	6788.0	6410.9	5932.5	5486.9	5150.6	5059.1	5162.0	5255.0	5276.3
35°	7720.1	7723.4	7524.2	7070.4	6556.2	6084.4	5713.8	5646.8	5801.9	5867.2	5917.8
37.5°	8613.1	8631.1	8374.8	7826.2	7263.0	6766.8	6326.0	6234.6	6389.6	6567.6	6730.8
40°	9577.9	9600.8	9318.4	8642.5	8079.3	7560.2	7083.5	6918.6	7176.5	7516.1	7726.7
42.5°	10498.7	10616.2	10343.6	9648.1	9042.5	8505.4	8022.2	7782.2	8105.4	8618.0	8800.9
45°	11829.2	11914.1	11439.0	10808.8	10239.1	9638.3	8998.4	8745.4	9197.6	9844.0	9881.6
47.5°	12715.6	12651.9	12410.3	12018.5	11657.7	11096.2	10133.0	9855.5	10456.2	11217.0	11006.4
50°	13187.4	13207.0	13174.3	13197.2	13210.3	12857.6	11523.9	11143.5	11860.2	12779.3	12294.4
52.5°	13628.2	13497.6	13605.3	14140.8	14787.3	14656.7	13037.2	12640.5	13365.4	14513.0	13655.9
55°	13618.4	13419.2	13770.2	14715.4	16117.8	16268.0	14736.7	14279.6	14957.1	16372.4	15099.1
57.5°	13136.8	13146.6	13687.0	14924.4	17045.0	17782.9	16708.7	16023.1	16645.1	18256.4	16416.5
60°	12474.0	12563.8	13342.5	14890.1	17787.8	19025.3	19128.1	17902.1	18298.8	19968.9	17507.0
62.5°	11404.7	11499.4	12573.6	14534.2	17675.2	20221.9	21315.7	20034.2	20027.6	21007.1	17827.0
65°	9718.3	9690.6	10818.6	13203.7	16730.0	21106.7	23488.5	21877.3	21330.4	21023.5	17183.8
67.5°	7166.7	7042.6	8010.7	10056.3	13905.7	20115.8	24766.8	22837.2	21774.4	19640.7	15218.3
70°	3718.9	3594.8	4378.4	5872.1	9145.3	15699.8	23351.4	22340.9	20793.3	16463.9	11922.2
72.5°	1590.1	1568.8	1887.2	2576.1	4424.1	9055.5	18310.2	19337.1	17841.7	12266.7	8196.8
75°	1069.3	1062.8	1181.9	1404.0	1990.0	3674.8	11458.6	13726.1	13053.5	7605.9	4610.2
77.5°	839.1	830.9	901.1	1008.9	1289.7	1449.7	5085.3	7369.1	6820.6	3310.7	2017.8
80°	656.3	649.7	693.8	752.6	927.3	914.2	1673.3	2932.0	2269.2	1268.5	981.1
82.5°	517.5	517.5	553.4	555.1	657.9	623.6	873.4	1291.3	1133.0	739.5	600.8
85°	473.4	473.4	511.0	414.7	429.3	393.4	542.0	765.6	718.3	303.6	261.2
87.5°	238.3	231.8	429.3	367.3	233.4	209.0	264.5	370.6	398.3	168.1	130.6
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8	4167.8
2.5°	4148.2	4146.6	4149.8	4151.5	4164.5	4182.5	4190.7	4202.1	4208.6	4205.3
5°	4099.2	4102.5	4115.6	4125.4	4148.2	4177.6	4193.9	4207.0	4218.4	4213.5
7.5°	4058.4	4066.6	4086.2	4094.3	4107.4	4115.6	4113.9	4118.8	4128.6	4117.2
10°	4035.6	4045.4	4060.1	4048.6	4017.6	3973.5	3932.7	3911.5	3918.0	3909.9
12.5°	4012.7	4025.8	4014.3	3960.5	3873.9	3816.8	3785.8	3789.1	3803.7	3807.0
15°	3999.6	4004.5	3955.6	3854.4	3766.2	3758.0	3774.4	3771.1	3772.7	3772.7
17.5°	3999.6	3986.6	3895.2	3794.0	3756.4	3741.7	3691.1	3627.4	3599.7	3589.9
20°	4020.9	3986.6	3875.6	3808.6	3727.0	3601.3	3467.4	3349.9	3297.7	3283.0
22.5°	4084.5	4025.8	3931.1	3815.2	3583.4	3372.8	3160.5	3020.1	2925.5	2909.1
25°	4213.5	4148.2	4040.5	3728.7	3354.8	3054.4	2812.8	2656.1	2561.4	2548.3
27.5°	4438.8	4396.3	4099.2	3537.6	3051.2	2729.6	2505.9	2385.1	2314.9	2310.0
30°	4778.4	4757.1	4069.8	3255.2	2677.3	2414.5	2306.7	2236.5	2184.3	2182.7
32.5°	5320.3	5148.9	3973.5	2910.8	2336.1	2190.8	2146.7	2104.3	2063.5	2063.5
35°	6017.4	5465.6	3790.7	2541.8	2128.8	2066.8	2011.3	1944.3	1890.4	1887.2
37.5°	6836.9	5661.5	3462.6	2244.7	2030.8	1983.5	1901.9	1802.3	1707.6	1691.3
40°	7664.6	5720.3	3000.6	2061.9	1968.8	1900.2	1800.7	1683.1	1591.7	1586.8
42.5°	8423.7	5607.7	2510.8	1936.2	1906.8	1815.4	1710.9	1606.4	1534.6	1532.9
45°	9060.4	5315.5	2099.4	1817.0	1841.5	1738.6	1645.6	1560.7	1505.2	1493.7
47.5°	9659.6	4902.4	1810.5	1691.3	1776.2	1696.2	1617.8	1537.8	1484.0	1475.8
50°	10355.0	4456.8	1608.0	1568.8	1719.0	1681.5	1640.7	1557.4	1467.6	1457.8
52.5°	11197.4	4071.5	1449.7	1461.1	1675.0	1701.1	1699.4	1612.9	1456.2	1443.1
55°	12137.7	3643.8	1330.5	1372.9	1657.0	1737.0	1714.1	1665.2	1466.0	1446.4
57.5°	13063.3	3144.2	1247.2	1306.0	1630.9	1733.7	1643.9	1573.7	1488.8	1461.1
60°	13757.2	2473.3	1183.6	1247.2	1573.7	1679.9	1567.2	1474.2	1484.0	1462.7
62.5°	13802.9	1911.7	1106.8	1196.6	1487.2	1626.0	1516.6	1430.1	1505.2	1485.6
65°	12991.5	1444.8	1033.4	1136.2	1394.2	1591.7	1467.6	1405.6	1549.3	1528.0
67.5°	10937.8	1162.3	971.3	1074.2	1301.1	1519.9	1423.5	1382.7	1588.4	1550.9
70°	7896.4	990.9	910.9	999.1	1217.9	1438.2	1384.4	1341.9	1482.3	1423.5
72.5°	4861.6	858.7	842.4	899.5	1154.2	1353.4	1325.6	1265.2	1335.4	1288.0
75°	2427.5	744.4	765.6	801.6	1064.4	1257.0	1227.6	1167.2	1177.0	1167.2
77.5°	1162.3	636.7	675.9	703.6	948.5	1147.7	1116.6	1054.6	1043.2	1044.8
80°	736.3	532.2	569.7	589.3	847.3	1020.3	989.3	927.3	1057.9	981.1
82.5°	460.4	432.6	442.4	478.3	737.9	888.1	847.3	791.8	953.4	754.2
85°	254.7	302.0	315.1	346.1	568.1	742.8	702.0	631.8	566.5	556.7
87.5°	151.8	179.6	184.5	207.3	382.0	537.1	475.1	450.6	373.8	372.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)