

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: P299150

Luminaire Tested: **GLNA-AF-10-LED-E1-T3-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299150  
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-10-LED-E1-T3-7030  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 56804.9 lumens  
Efficiency: N/A  
Efficacy: 101.8 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B4 - U0 - G5

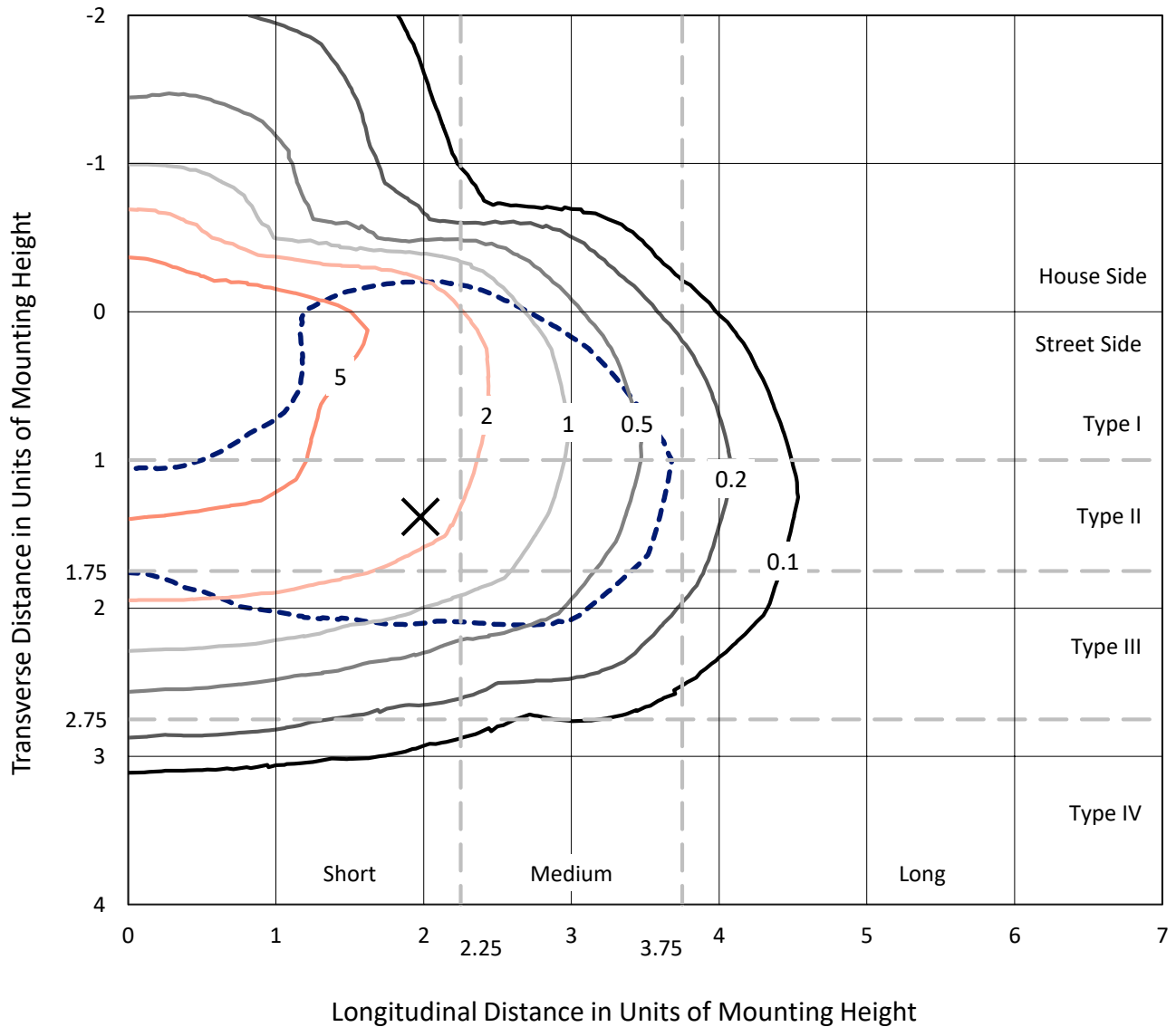
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

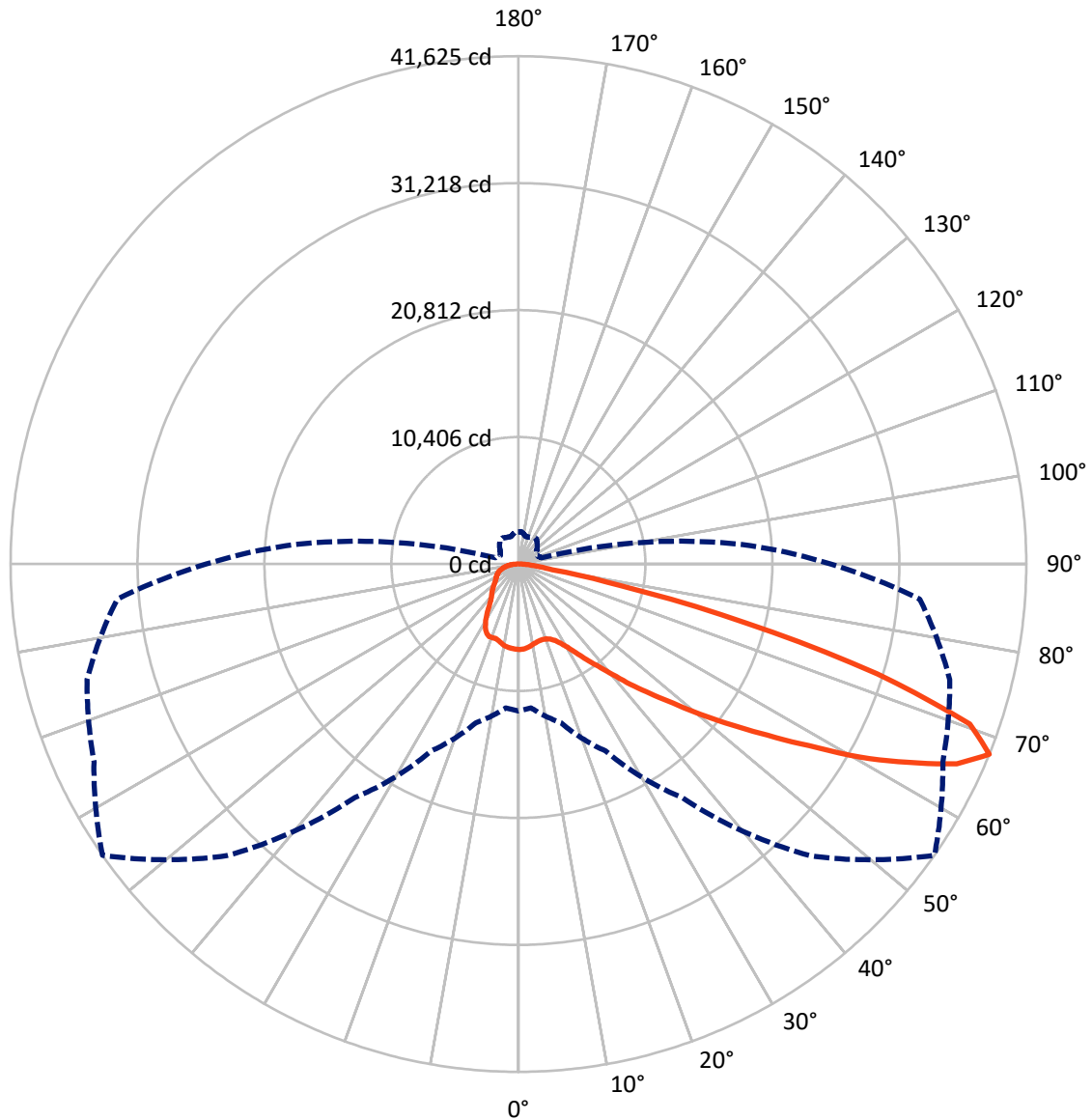
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 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	12271.1	0.0	12271.1
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	44533.8	0.0	44533.8
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	56804.9	0.0	56804.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	653.8	1.2
10°-20°	1851.7	3.3
20°-30°	3101.8	5.5
30°-40°	5100.7	9.0
40°-50°	8586.1	15.1
50°-60°	13513.8	23.8
60°-70°	16127.3	28.4
70°-80°	6925.4	12.2
80°-90°	944.2	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°	56804.9	100.0
0°-180°	56804.9	100.0



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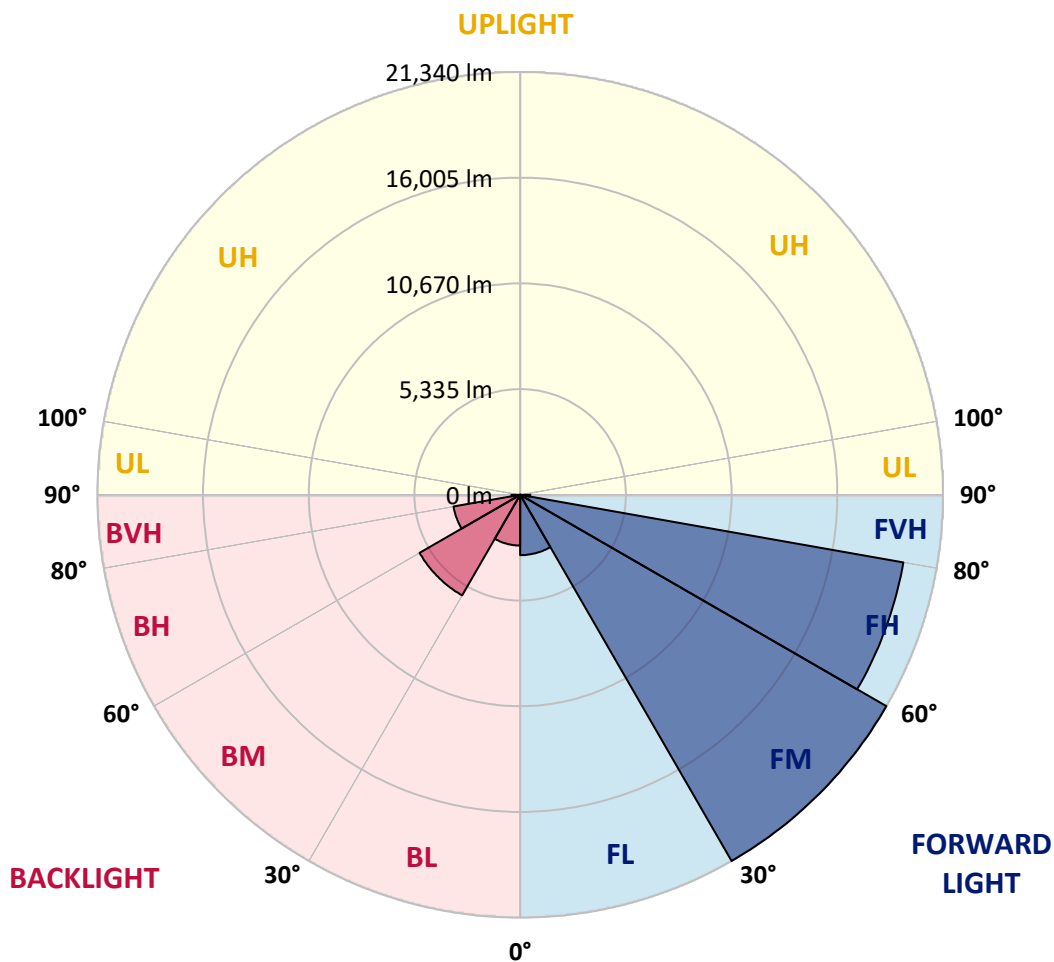
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3044.9	5.4			
FM	(30°-60°)	21340.1	37.6			
FH	(60°-80°)	19637.7	34.6			G5
FVH	(80°-90°)	511.1	0.9			G4/750
BL	(0°-30°)	2562.4	4.5	B4/5000		
BM	(30°-60°)	5860.5	10.3	B4/8500		
BH	(60°-80°)	3415.0	6.0	B4/5000		G4/5000
BVH	(80°-90°)	433.1	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7
2.5°	6944.3	6947.0	6952.5	6974.5	6993.7	6988.2	6990.9	6980.0	6977.2	6960.8	6977.2
5°	6856.5	6864.7	6867.5	6903.1	6925.1	6930.6	6922.3	6908.6	6892.2	6875.7	6883.9
7.5°	6656.2	6678.2	6680.9	6730.3	6766.0	6812.6	6815.3	6818.1	6809.9	6798.9	6815.3
10°	6530.0	6535.5	6532.7	6568.4	6595.8	6648.0	6678.2	6730.3	6752.2	6757.7	6768.7
12.5°	6521.8	6516.3	6508.1	6508.1	6499.8	6521.8	6576.6	6650.7	6702.9	6719.3	6733.0
15°	6609.6	6606.8	6579.4	6538.2	6486.1	6469.6	6516.3	6598.6	6667.2	6702.9	6716.6
17.5°	6807.1	6790.7	6746.8	6653.5	6541.0	6497.1	6502.6	6571.2	6650.7	6697.4	6711.1
20°	7169.3	7169.3	7076.0	6900.4	6700.1	6595.8	6546.5	6587.6	6664.4	6727.5	6746.8
22.5°	7794.8	7800.3	7643.9	7355.9	7018.4	6796.1	6672.7	6664.4	6755.0	6826.3	6848.3
25°	8681.1	8659.1	8439.6	8028.1	7515.0	7147.3	6933.3	6883.9	6960.8	7040.3	7067.8
27.5°	9712.7	9633.1	9372.5	8875.9	8211.9	7674.1	7344.9	7265.3	7339.4	7429.9	7457.4
30°	10733.3	10651.0	10341.0	9797.7	9059.7	8379.3	7907.3	7778.4	7882.6	8011.6	8028.1
32.5°	11754.0	11754.0	11408.3	10774.5	9970.6	9221.6	8656.4	8502.7	8675.6	8832.0	8867.6
35°	12974.9	12980.4	12645.7	11883.0	11018.7	10225.8	9602.9	9490.4	9751.1	9860.8	9945.9
37.5°	14475.7	14505.9	14075.2	13153.3	12206.7	11372.6	10631.8	10478.2	10738.8	11037.9	11312.3
40°	16097.3	16135.7	15661.0	14525.1	13578.6	12706.1	11904.9	11627.8	12061.3	12632.0	12985.9
42.5°	17644.7	17842.3	17384.1	16215.3	15197.3	14294.7	13482.5	13079.2	13622.5	14484.0	14791.3
45°	19880.8	20023.5	19225.1	18166.0	17208.5	16198.8	15123.3	14698.0	15458.0	16544.5	16607.6
47.5°	21370.7	21263.7	20857.6	20199.1	19592.7	18648.9	17030.1	16563.7	17573.4	18851.9	18498.0
50°	22163.6	22196.5	22141.6	22180.1	22202.0	21609.4	19367.8	18728.5	19933.0	21477.7	20662.8
52.5°	22904.4	22684.9	22866.0	23765.9	24852.4	24632.9	21911.2	21244.5	22462.7	24391.5	22951.0
55°	22887.9	22553.2	23143.1	24731.7	27088.5	27340.9	24767.4	23999.1	25137.8	27516.5	25376.5
57.5°	22078.5	22095.0	23003.2	25082.9	28646.9	29887.1	28081.7	26929.4	27974.7	30682.8	27590.6
60°	20964.6	21115.5	22424.2	25025.3	29895.3	31975.1	32147.9	30087.4	30754.1	33560.9	29423.4
62.5°	19167.5	19326.6	21132.0	24427.1	29706.0	33986.2	35824.5	33670.7	33659.7	35305.9	29961.2
65°	16333.2	16286.6	18182.5	22191.0	28117.4	35473.3	39476.3	36768.3	35849.2	35333.3	28880.2
67.5°	12044.8	11836.3	13463.3	16901.2	23370.8	33807.8	41624.6	38381.6	36595.4	33009.4	25576.7
70°	6250.1	6041.6	7358.6	9869.1	15370.2	26386.1	39245.8	37547.5	34946.5	27670.2	20037.2
72.5°	2672.4	2636.7	3171.7	4329.6	7435.4	15219.3	30773.3	32499.1	29985.9	20616.1	13776.1
75°	1797.1	1786.1	1986.4	2359.6	3344.6	6176.1	19258.0	23069.0	21938.6	12782.9	7748.2
77.5°	1410.3	1396.5	1514.5	1695.6	2167.5	2436.4	8546.6	12385.1	11463.2	5564.2	3391.2
80°	1103.0	1092.0	1166.1	1264.8	1558.4	1536.5	2812.3	4927.7	3813.7	2131.9	1649.0
82.5°	869.8	869.8	930.1	932.9	1105.7	1048.1	1467.9	2170.3	1904.1	1242.9	1009.7
85°	795.7	795.7	858.8	696.9	721.6	661.2	910.9	1286.8	1207.2	510.3	439.0
87.5°	400.6	389.6	721.6	617.3	392.3	351.2	444.5	622.8	669.5	282.6	219.5
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7	7004.7
2.5°	6971.7	6969.0	6974.5	6977.2	6999.2	7029.4	7043.1	7062.3	7073.3	7067.8
5°	6889.4	6894.9	6916.9	6933.3	6971.7	7021.1	7048.6	7070.5	7089.7	7081.5
7.5°	6820.8	6834.6	6867.5	6881.2	6903.1	6916.9	6914.1	6922.3	6938.8	6919.6
10°	6782.4	6798.9	6823.6	6804.4	6752.2	6678.2	6609.6	6573.9	6584.9	6571.2
12.5°	6744.0	6766.0	6746.8	6656.2	6510.8	6414.8	6362.6	6368.1	6392.8	6398.3
15°	6722.1	6730.3	6648.0	6477.9	6329.7	6316.0	6343.4	6337.9	6340.7	6340.7
17.5°	6722.1	6700.1	6546.5	6376.4	6313.2	6288.6	6203.5	6096.5	6049.9	6033.4
20°	6757.7	6700.1	6513.5	6401.0	6263.9	6052.6	5827.6	5630.1	5542.3	5517.6
22.5°	6864.7	6766.0	6606.8	6412.0	6022.4	5668.5	5311.8	5075.8	4916.7	4889.3
25°	7081.5	6971.7	6790.7	6266.6	5638.3	5133.5	4727.4	4464.0	4304.9	4282.9
27.5°	7460.1	7388.8	6889.4	5945.6	5128.0	4587.5	4211.6	4008.5	3890.6	3882.3
30°	8030.8	7995.1	6840.0	5470.9	4499.7	4057.9	3876.8	3758.9	3671.1	3668.3
32.5°	8941.7	8653.6	6678.2	4892.0	3926.2	3682.0	3608.0	3536.6	3468.0	3468.0
35°	10113.3	9185.9	6370.9	4271.9	3577.8	3473.5	3380.2	3267.7	3177.2	3171.7
37.5°	11490.6	9515.1	5819.4	3772.6	3413.2	3333.6	3196.4	3029.0	2869.9	2842.5
40°	12881.7	9613.9	5042.9	3465.3	3308.9	3193.7	3026.3	2828.8	2675.1	2666.9
42.5°	14157.5	9424.6	4219.8	3254.0	3204.6	3051.0	2875.4	2699.8	2579.1	2576.3
45°	15227.5	8933.5	3528.4	3053.7	3094.9	2922.0	2765.6	2623.0	2529.7	2510.5
47.5°	16234.5	8239.3	3042.8	2842.5	2985.1	2850.7	2719.0	2584.6	2494.0	2480.3
50°	17403.3	7490.3	2702.5	2636.7	2889.1	2826.0	2757.4	2617.5	2466.6	2450.1
52.5°	18819.0	6842.8	2436.4	2455.6	2815.0	2858.9	2856.2	2710.8	2447.4	2425.4
55°	20399.4	6123.9	2236.1	2307.4	2784.9	2919.3	2880.9	2798.6	2463.8	2430.9
57.5°	21955.1	5284.4	2096.2	2195.0	2741.0	2913.8	2762.9	2644.9	2502.3	2455.6
60°	23121.1	4156.7	1989.2	2096.2	2644.9	2823.3	2633.9	2477.6	2494.0	2458.4
62.5°	23198.0	3212.9	1860.2	2011.1	2499.5	2732.7	2548.9	2403.5	2529.7	2496.8
65°	21834.3	2428.2	1736.8	1909.6	2343.1	2675.1	2466.6	2362.3	2603.8	2568.1
67.5°	18382.8	1953.5	1632.5	1805.4	2186.7	2554.4	2392.5	2323.9	2669.6	2606.5
70°	13271.3	1665.4	1531.0	1679.1	2046.8	2417.2	2326.7	2255.3	2491.3	2392.5
72.5°	8170.7	1443.2	1415.7	1511.8	1939.8	2274.5	2227.9	2126.4	2244.3	2164.8
75°	4079.9	1251.1	1286.8	1347.2	1788.9	2112.6	2063.3	1961.7	1978.2	1961.7
77.5°	1953.5	1070.0	1135.9	1182.5	1594.1	1928.8	1876.7	1772.4	1753.2	1756.0
80°	1237.4	894.4	957.6	990.5	1424.0	1714.8	1662.7	1558.4	1777.9	1649.0
82.5°	773.7	727.1	743.5	803.9	1240.2	1492.6	1424.0	1330.7	1602.3	1267.6
85°	428.0	507.6	529.5	581.7	954.8	1248.4	1179.8	1061.8	952.1	935.6
87.5°	255.2	301.8	310.0	348.4	642.0	902.7	798.4	757.3	628.3	625.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)