

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: P301236

Luminaire Tested: **GLNA-AF-07-LED-E1-T3R-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-T3R-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24552.4 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

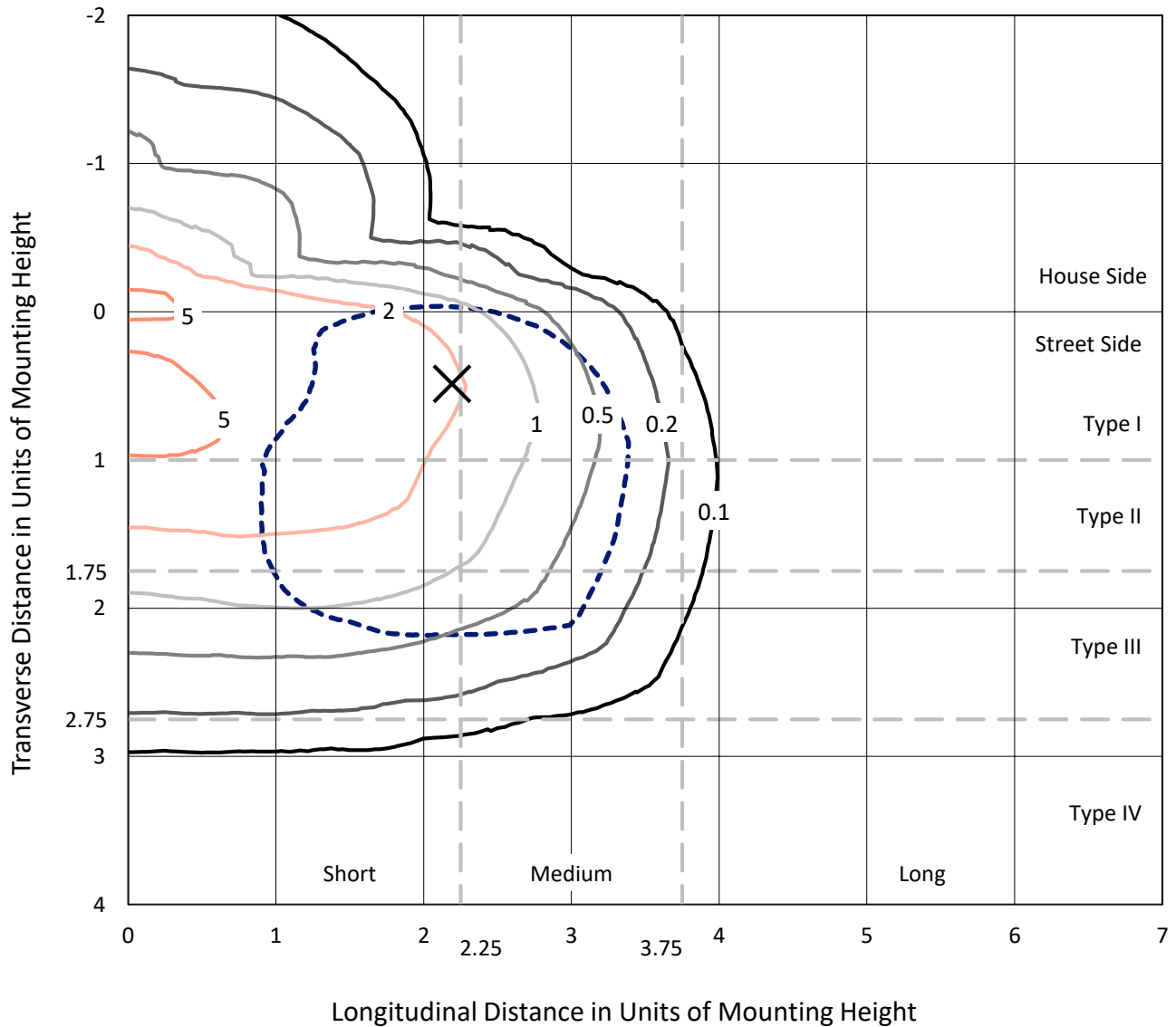
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P301236
 CATALOG NUMBER: GLNA-AF-07-LED-E1-T3R-7027-600

Iso-Footcandle Lines of Horizontal Illumination

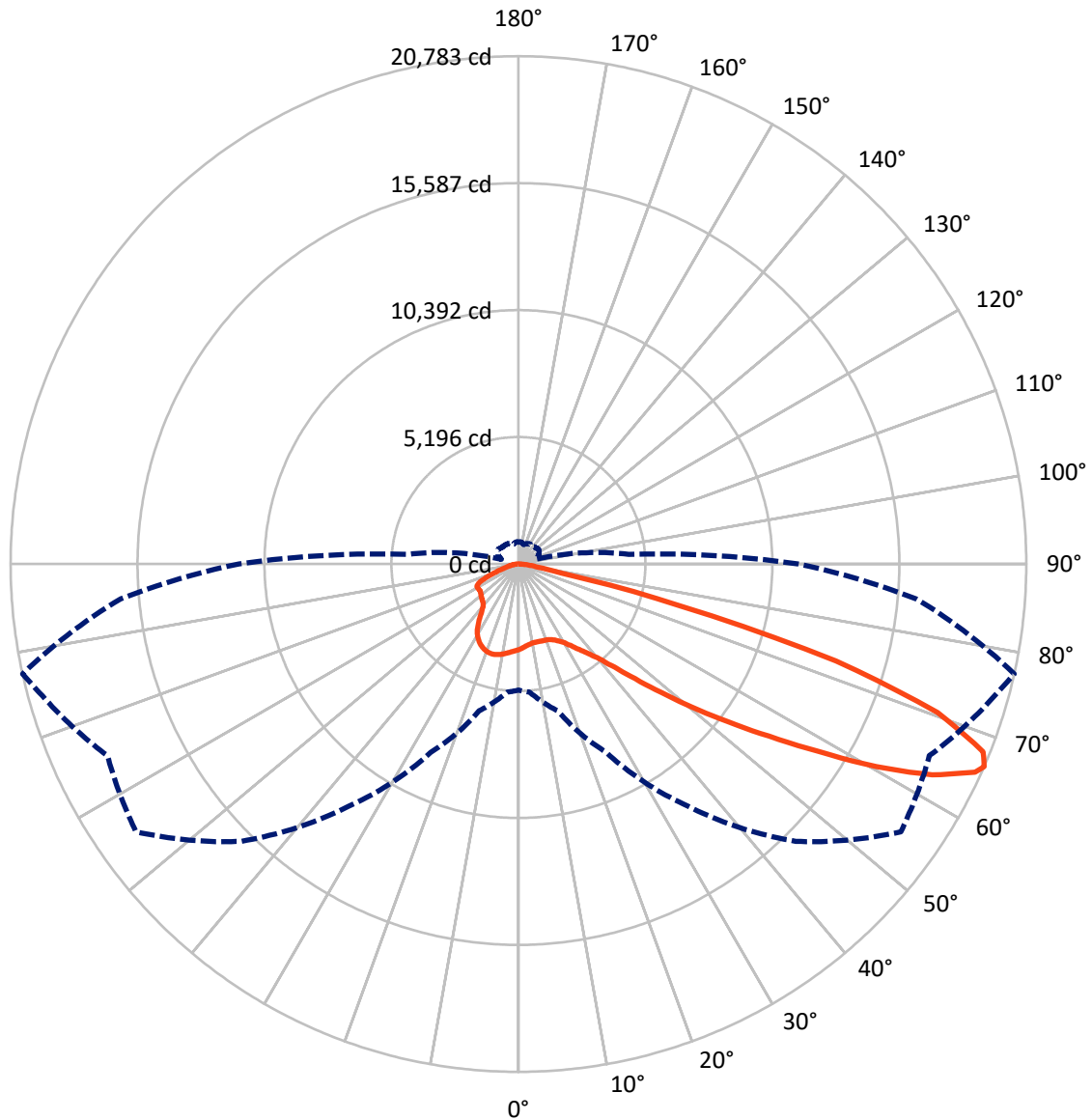
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P301236
CATALOG NUMBER: GLNA-AF-07-LED-E1-T3R-7027-600

Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

REPORT NUMBER: P301236

CATALOG NUMBER: GLNA-AF-07-LED-E1-T3R-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4194.6	0.0	4194.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	20357.8	0.0	20357.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	24552.4	0.0	24552.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	312.6	1.3
10°-20°	881.9	3.6
20°-30°	1505.0	6.1
30°-40°	2409.3	9.8
40°-50°	3722.2	15.2
50°-60°	5279.3	21.5
60°-70°	7062.3	28.8
70°-80°	3067.0	12.5
80°-90°	312.7	1.3
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°	24552.4	100.0
0°-180°	24552.4	100.0

Coefficient of Utilization



REPORT NUMBER: P301236

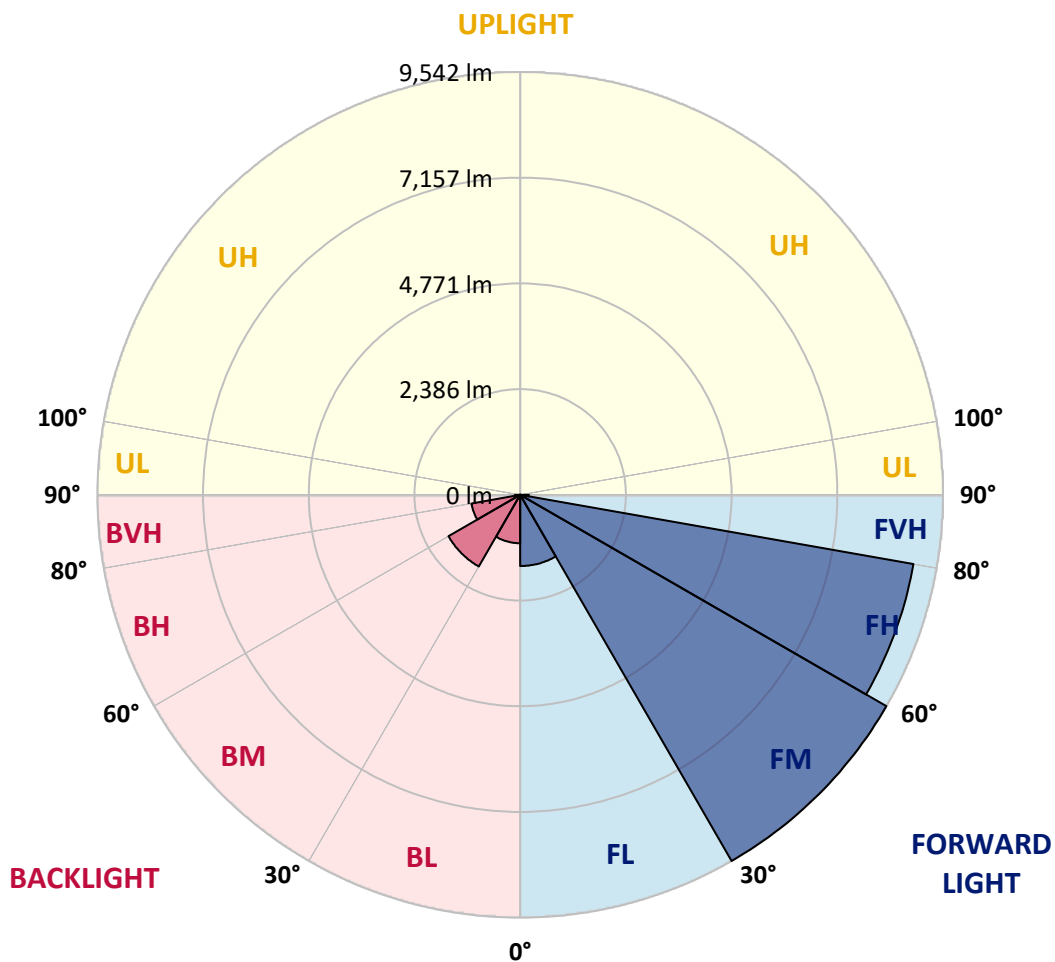
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1607.1	6.5			
FM	(30°-60°)	9542.3	38.9			
FH	(60°-80°)	9012.2	36.7			G4/12000
FVH	(80°-90°)	196.1	0.8			G2/225
BL	(0°-30°)	1092.4	4.4	B3/2500		
BM	(30°-60°)	1868.5	7.6	B2/2500		
BH	(60°-80°)	1117.1	4.5	B3/2500		G3/2500
BVH	(80°-90°)	116.6	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 III Short





REPORT NUMBER: P301236

CATALOG NUMBER: GLNA-AF-07-LED-E1-T3R-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8
2.5°	3095.2	3115.9	3133.5	3149.7	3182.0	3235.4	3296.8	3346.7	3418.7	3432.8	3471.1
5°	2811.1	2811.1	2824.8	2849.3	2893.2	2973.3	3056.9	3168.3	3324.9	3361.8	3464.0
7.5°	2673.0	2674.1	2682.1	2702.9	2741.2	2814.2	2905.9	3037.3	3249.4	3310.9	3484.7
10°	2723.9	2712.4	2694.8	2684.6	2690.2	2733.1	2820.2	2966.3	3203.0	3281.7	3531.5
12.5°	3009.2	2987.4	2927.0	2846.9	2770.3	2739.0	2790.0	2932.6	3183.4	3275.1	3592.9
15°	3475.6	3466.5	3353.7	3187.9	3002.5	2846.9	2812.1	2919.9	3185.5	3283.1	3666.0
17.5°	4060.4	4047.5	3899.2	3657.9	3355.1	3052.4	2889.7	2930.5	3193.6	3296.8	3736.6
20°	4650.9	4611.2	4451.4	4163.7	3774.9	3331.6	3018.6	2957.2	3204.1	3311.9	3811.1
22.5°	5091.7	5059.1	4915.4	4635.8	4188.0	3655.5	3191.5	3003.5	3237.8	3356.2	3902.4
25°	5479.1	5481.3	5338.6	5068.5	4605.6	3999.0	3414.1	3127.5	3323.5	3446.5	4027.8
27.5°	5958.3	5930.5	5797.0	5529.0	5018.7	4345.7	3683.2	3298.2	3451.4	3575.4	4192.5
30°	6531.1	6511.5	6357.3	6053.4	5476.7	4718.0	3990.5	3496.3	3616.1	3744.7	4408.2
32.5°	7205.2	7196.1	7035.9	6644.9	6005.7	5156.7	4351.6	3758.7	3862.0	3995.5	4718.0
35°	7996.6	7997.6	7808.6	7338.7	6584.5	5667.1	4760.8	4096.3	4161.3	4300.4	5087.2
37.5°	8483.7	8542.7	8472.1	7993.0	7240.0	6237.8	5292.3	4544.1	4502.3	4642.8	5482.7
40°	8588.1	8660.1	8883.8	8640.4	7973.4	6866.6	5763.3	4974.4	4922.4	5093.8	5992.0
42.5°	8441.9	8541.7	9015.2	9186.6	8751.7	7641.4	6396.6	5613.7	5547.6	5778.4	6625.3
45°	8354.8	8429.3	8976.9	9471.1	9426.8	8517.5	7203.1	6416.3	6392.0	6694.8	7356.2
47.5°	8204.1	8271.6	8798.1	9537.1	9823.8	9320.1	8171.8	7398.0	7445.4	7842.4	8181.0
50°	8285.3	8313.0	8598.6	9368.9	9938.6	9908.4	9254.0	8534.7	8697.3	9192.6	9114.9
52.5°	8273.7	8345.7	8575.4	9092.8	9953.7	10271.6	10320.1	9802.7	10145.1	10713.5	10150.8
55°	6689.2	6821.3	8302.8	9023.3	10006.8	10627.4	11269.1	11139.2	11777.1	12439.5	11320.1
57.5°	6387.5	6471.1	7292.3	9169.4	10289.9	11307.4	12324.7	12610.2	13677.3	14446.6	12744.7
60°	6328.1	6431.4	7281.8	9348.2	10864.2	12415.3	13889.8	14391.1	15989.6	16831.9	14396.7
62.5°	6143.7	6255.1	7213.3	9324.6	11679.8	13947.8	15893.4	16284.3	18182.1	19001.2	15778.5
65°	5559.2	5663.6	6655.5	8950.2	12229.8	15583.6	18264.3	18019.8	19913.1	20528.8	16467.3
66°	5158.8	5261.0	6215.7	8509.4	12102.0	16047.6	19104.5	18556.9	20300.5	20783.1	16332.8
67.5°	4426.8	4506.9	5361.8	7522.0	11423.3	16177.5	19810.8	18960.5	20340.9	20511.6	15563.9
70°	2797.0	2820.2	3484.7	5192.5	8647.4	14030.0	18735.3	17958.4	18663.7	18201.8	13047.5
72.5°	1213.6	1205.5	1673.0	2641.4	4895.7	9414.2	15155.4	14817.8	14640.4	13587.0	9133.5
75°	675.1	684.6	869.0	1226.2	1989.5	4624.2	9914.0	9487.3	8010.3	6835.3	4141.6
77.5°	541.6	554.6	720.4	870.0	893.2	1612.6	4639.3	3774.9	2272.6	1823.7	1150.7
80°	428.2	451.4	628.7	677.6	602.0	664.6	1498.8	1198.5	899.2	824.7	596.4
82.5°	338.6	355.1	539.5	512.8	421.1	447.8	718.0	699.7	584.8	532.5	344.6
85°	243.8	273.6	443.3	386.4	276.1	301.7	476.6	457.0	335.1	273.6	152.1
87.5°	99.8	130.0	313.3	256.4	154.2	140.5	237.8	223.7	158.8	115.9	75.5
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: P301236

CATALOG NUMBER: GLNA-AF-07-LED-E1-T3R-7027-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8	3498.8
2.5°	3495.3	3523.0	3559.2	3581.3	3592.9	3601.0	3613.7	3612.6	3616.1	3617.2	3621.7
5°	3518.5	3564.8	3617.2	3631.2	3631.2	3618.2	3605.6	3584.5	3576.4	3574.3	3576.4
7.5°	3578.9	3629.8	3675.1	3659.0	3624.2	3572.9	3506.9	3448.9	3417.7	3407.1	3405.0
10°	3655.5	3716.9	3735.5	3674.1	3571.9	3448.9	3317.9	3222.7	3168.3	3153.2	3148.6
12.5°	3748.2	3806.1	3780.9	3650.9	3461.6	3263.5	3082.2	2930.5	2816.7	2780.8	2778.4
15°	3850.4	3895.7	3806.1	3578.9	3296.8	3004.6	2682.1	2420.1	2278.6	2233.2	2229.7
17.5°	3945.6	3968.8	3791.0	3453.5	3054.5	2581.3	2153.2	1951.2	1902.7	1914.3	1916.4
20°	4026.7	4026.7	3740.1	3273.6	2673.0	2023.2	1752.7	1749.6	1784.3	1819.1	1826.1
22.5°	4115.9	4062.6	3650.9	3019.7	2132.1	1655.4	1616.1	1648.4	1687.8	1726.0	1732.0
25°	4226.2	4091.7	3526.5	2634.7	1676.2	1503.3	1518.5	1545.1	1564.8	1589.4	1592.9
27.5°	4349.2	4128.6	3363.2	2104.3	1454.9	1408.5	1420.1	1429.2	1426.8	1436.3	1438.4
30°	4496.3	4171.8	3139.1	1644.9	1363.2	1327.0	1306.3	1298.2	1298.2	1313.3	1318.9
32.5°	4693.8	4235.4	2817.7	1409.6	1318.9	1269.1	1202.0	1171.8	1183.4	1234.3	1245.9
35°	4910.8	4303.9	2382.9	1329.5	1309.8	1242.4	1138.0	1082.2	1083.6	1131.0	1146.1
37.5°	5147.2	4391.0	1905.9	1314.4	1330.5	1243.8	1104.3	1027.8	996.5	996.5	1002.5
40°	5450.0	4480.2	1543.0	1324.9	1374.8	1257.5	1087.1	984.9	896.7	899.2	903.8
42.5°	5844.4	4556.8	1348.1	1346.7	1428.2	1276.1	1085.7	928.0	851.4	903.8	951.2
45°	6283.2	4595.1	1262.0	1366.7	1471.0	1287.7	1067.4	918.9	857.4	1012.7	1103.3
47.5°	6787.6	4572.9	1214.6	1373.4	1481.6	1287.7	1046.4	941.0	897.8	1172.8	1278.5
50°	7341.1	4509.3	1168.3	1359.7	1478.1	1285.2	1066.0	962.8	912.9	1200.6	1273.6
52.5°	7992.0	4456.0	1119.4	1329.5	1453.5	1272.6	1089.2	953.6	865.5	1091.7	1142.6
55°	8734.2	4471.1	1065.0	1286.6	1415.2	1248.3	1081.1	916.4	815.6	961.7	993.0
57.5°	9683.3	4650.9	1000.0	1232.2	1363.2	1207.6	1052.3	899.2	800.5	872.5	891.1
60°	10742.3	4963.9	918.9	1177.4	1298.2	1142.6	1030.2	907.3	807.5	865.5	874.6
62.5°	11519.6	5146.2	849.3	1097.3	1210.1	1070.6	1002.5	917.5	826.1	889.7	887.6
65°	11730.7	4846.9	762.2	980.3	1090.6	995.4	967.3	929.1	834.2	909.4	899.2
66°	11434.9	4524.4	723.9	925.9	1030.2	958.2	950.1	928.0	830.7	911.8	894.3
67.5°	10717.0	3863.0	657.9	845.8	934.0	902.7	922.4	917.5	821.2	909.4	885.1
70°	8740.1	2635.8	562.7	704.3	777.3	794.5	869.0	880.6	791.0	869.0	815.6
72.5°	6106.8	1605.6	497.7	546.5	628.7	677.6	795.9	829.3	750.6	758.7	707.8
75°	2951.2	852.8	451.4	423.6	488.2	566.2	707.8	759.8	686.7	634.7	616.1
77.5°	919.9	520.9	382.9	341.1	382.9	457.0	591.5	666.0	611.5	531.4	524.4
80°	494.2	382.9	294.7	273.6	302.8	358.6	465.1	555.7	525.5	476.6	425.7
82.5°	326.0	248.3	218.1	212.2	230.8	273.6	345.6	460.5	460.5	408.5	297.2
85°	168.2	152.1	149.6	149.6	161.2	182.3	235.3	355.1	378.3	215.7	178.8
87.5°	83.6	87.1	81.1	84.7	90.6	89.2	112.4	178.8	213.6	131.0	108.9
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)