

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: P452998

Luminaire Tested: **GALN-SA4A-727-U-T3R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P452998  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4A-727-U-T3R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15483 lumens  
Efficiency: N/A  
Efficacy: 128.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G3

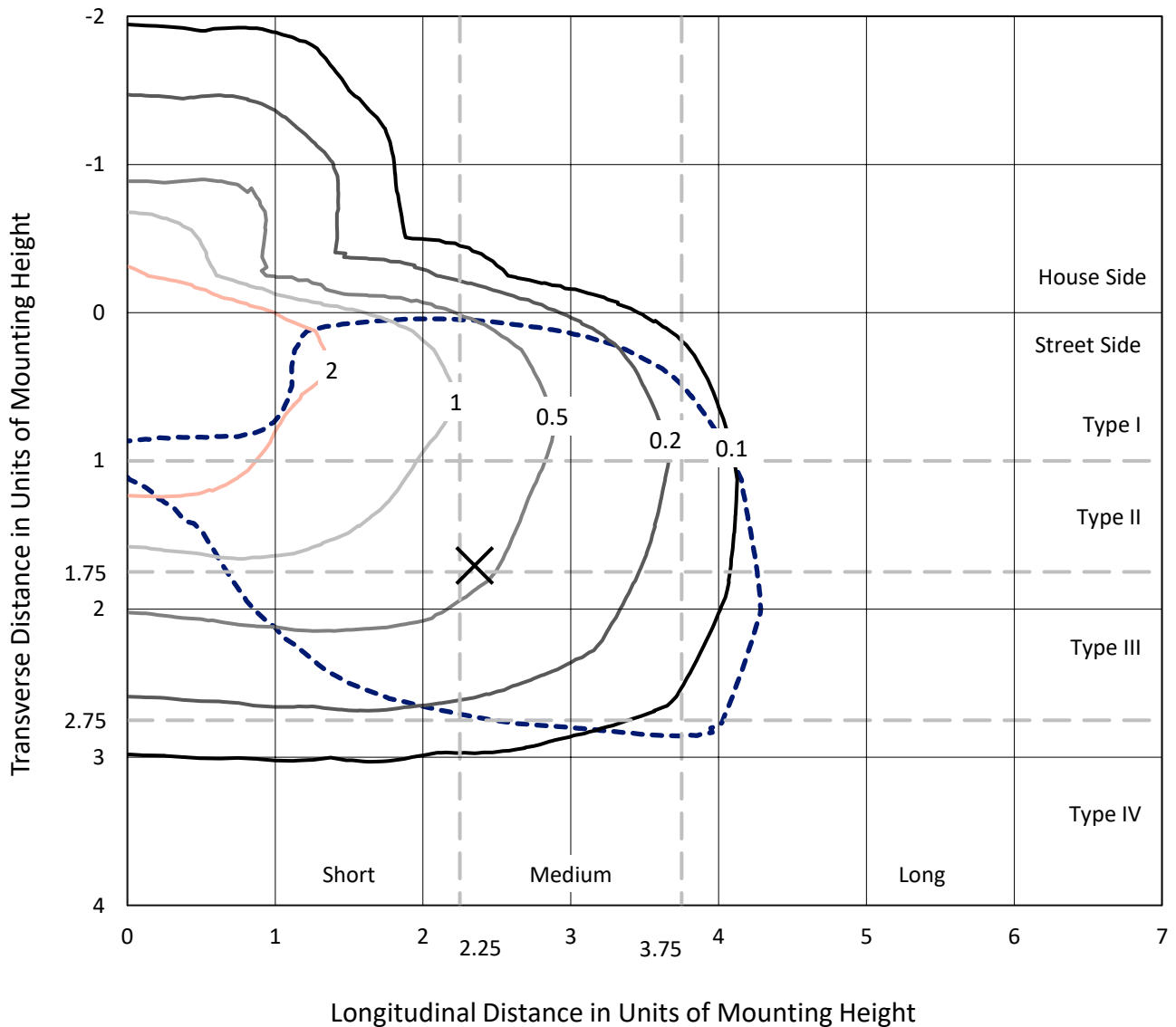
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

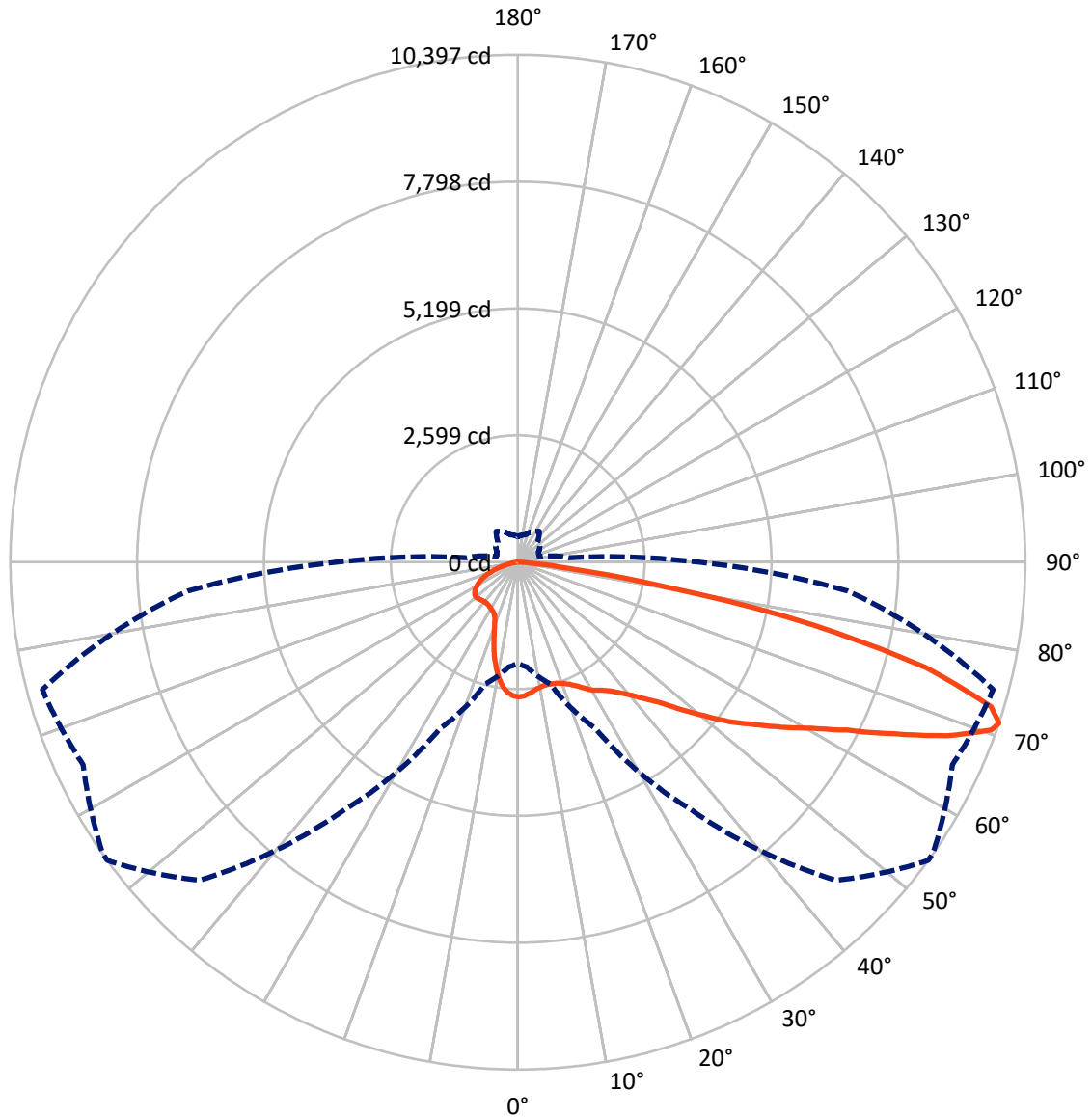
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2795.4	0.0	2795.4
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	12687.6	0.0	12687.6
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	15483.0	0.0	15483.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	246.2	1.6
10°-20°	650.0	4.2
20°-30°	1082.3	7.0
30°-40°	1600.4	10.3
40°-50°	2254.2	14.6
50°-60°	3018.4	19.5
60°-70°	3804.5	24.6
70°-80°	2598.5	16.8
80°-90°	228.5	1.5
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°	15483.0	100.0
0°-180°	15483.0	100.0



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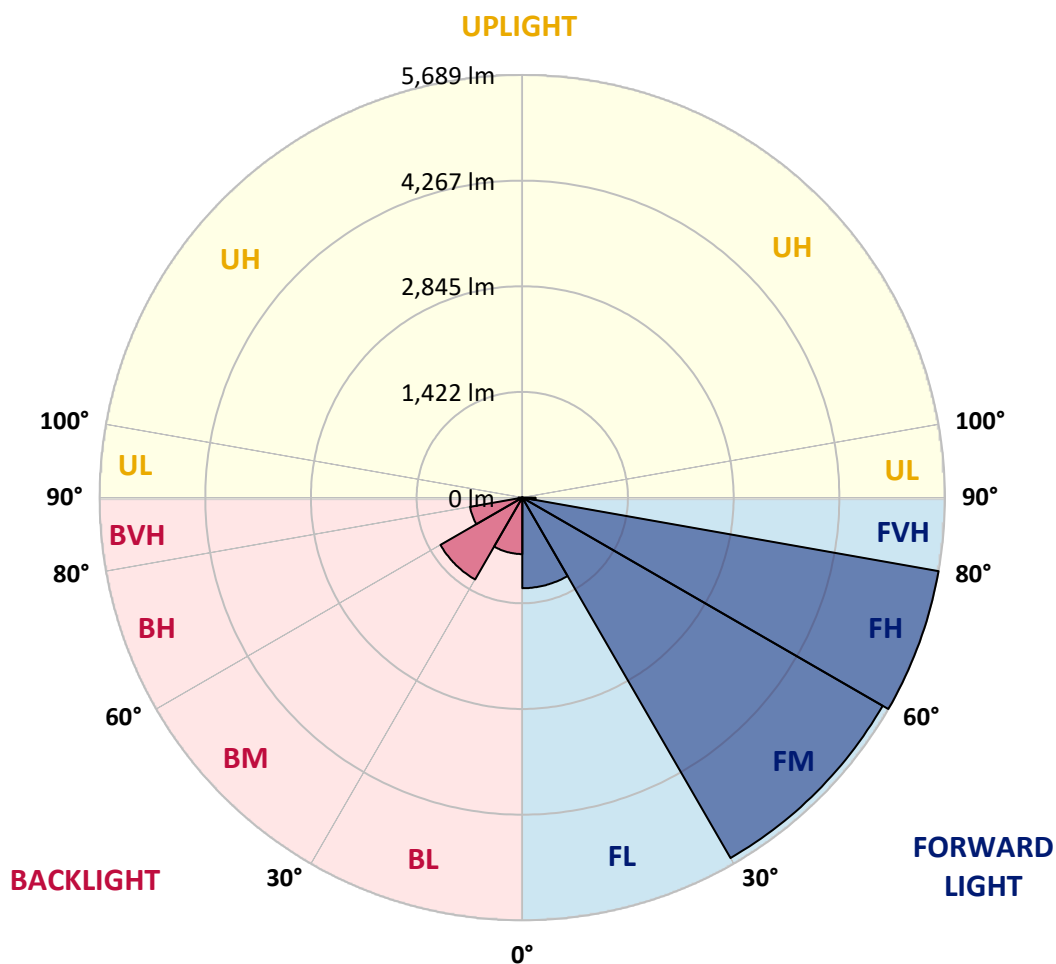
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1218.8	7.9			
FM	(30°-60°)	5601.2	36.2			
FH	(60°-80°)	5689.1	36.7			G3/7500
FVH	(80°-90°)	178.6	1.2			G2/225
BL	(0°-30°)	759.7	4.9	B2/1000		
BM	(30°-60°)	1271.8	8.2	B2/2500		
BH	(60°-80°)	713.9	4.6	B2/1000		G2/1000
BVH	(80°-90°)	49.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4
2.5°	2668.7	2681.3	2684.6	2693.0	2710.5	2724.8	2739.0	2737.3	2757.4	2765.7	2773.3
5°	2550.0	2553.3	2565.9	2582.6	2613.5	2652.8	2691.3	2692.1	2741.5	2780.8	2800.0
7.5°	2463.0	2473.9	2482.2	2499.8	2532.4	2575.1	2636.1	2641.1	2728.9	2806.7	2847.7
10°	2406.1	2418.7	2427.9	2449.6	2482.2	2529.9	2596.0	2605.2	2719.7	2847.7	2919.6
12.5°	2354.3	2366.8	2375.2	2403.6	2446.3	2504.8	2579.2	2590.1	2723.1	2895.4	2998.2
15°	2386.0	2396.1	2392.7	2401.1	2429.5	2496.4	2585.9	2596.8	2735.6	2941.4	3076.0
17.5°	2527.4	2535.8	2508.2	2476.4	2463.0	2512.3	2606.8	2618.5	2760.7	2989.0	3155.5
20°	2735.6	2758.2	2698.0	2626.9	2562.5	2569.2	2650.3	2662.9	2795.8	3036.7	3236.6
22.5°	3006.6	3023.3	2949.7	2832.6	2713.9	2652.8	2715.6	2723.1	2848.5	3098.6	3325.2
25°	3325.2	3335.3	3233.2	3082.7	2911.3	2795.8	2805.0	2818.4	2935.5	3168.9	3403.9
27.5°	3634.7	3666.5	3548.5	3364.6	3138.7	2946.4	2928.0	2936.4	3030.0	3208.2	3458.2
30°	4001.8	3999.3	3874.7	3661.5	3372.1	3110.3	3044.2	3042.6	3081.0	3227.4	3497.5
32.5°	4294.6	4328.8	4206.7	3974.2	3638.9	3280.1	3124.5	3121.2	3120.3	3260.8	3556.1
35°	4627.4	4632.4	4520.4	4286.2	3927.4	3493.3	3236.6	3219.9	3200.6	3332.8	3635.5
37.5°	4925.1	4948.6	4845.7	4583.1	4210.9	3715.0	3390.5	3379.6	3321.1	3457.4	3762.6
40°	5157.6	5175.2	5113.3	4863.3	4490.3	3954.2	3586.2	3566.1	3495.0	3661.5	3932.4
42.5°	5233.8	5269.7	5294.0	5171.0	4811.4	4237.7	3827.0	3802.0	3747.6	3970.9	4128.1
45°	5239.6	5296.5	5424.4	5430.3	5134.2	4577.2	4108.1	4090.5	4086.3	4367.3	4403.3
47.5°	5195.3	5253.0	5467.9	5584.2	5421.9	4920.1	4513.7	4486.1	4488.6	4857.4	4711.9
50°	5088.2	5156.8	5417.7	5682.9	5646.9	5276.4	4941.9	4932.7	4984.5	5416.9	5032.2
52.5°	4886.7	4969.5	5365.9	5744.7	5814.2	5583.3	5428.6	5402.7	5534.0	6024.1	5382.6
55°	4328.8	4453.5	5176.0	5779.0	5973.1	5876.9	5866.9	5913.7	6087.6	6686.5	5768.2
57.5°	4037.8	4131.5	4763.7	5784.9	6173.8	6218.1	6378.7	6390.4	6694.8	7389.8	6203.9
60°	3878.9	3961.7	4537.9	5746.4	6454.0	6640.5	6902.2	6944.0	7287.8	8151.7	6655.5
62.5°	3740.1	3811.2	4402.4	5613.4	6770.1	7266.9	7580.5	7600.6	7961.0	8993.1	7101.3
65°	3413.1	3494.2	4129.8	5480.5	7042.7	8049.7	8480.4	8457.0	8677.8	9719.0	7380.6
67.5°	2972.3	3075.2	3620.5	5021.3	7177.4	8905.2	9494.0	9464.7	9385.3	10194.9	7460.9
70°	2409.5	2464.7	2969.0	4227.6	6639.6	9354.3	10294.4	10263.4	9823.5	10257.6	7081.2
71°	2073.3	2159.4	2585.1	3755.1	6192.2	9217.2	10397.2	10388.9	9824.4	10084.5	6795.2
72.5°	1618.3	1671.0	2047.3	2909.6	5263.0	8437.7	10143.0	10174.8	9611.1	9603.6	6205.6
75°	1023.7	1047.1	1284.6	1712.8	2887.8	5975.6	8658.5	8744.7	8533.9	7860.7	4614.9
77.5°	594.6	624.7	769.4	1009.4	1247.8	3243.3	6195.5	6289.2	5929.6	4328.0	1889.3
80°	346.2	379.7	506.8	586.3	572.9	1203.5	3154.6	3314.4	2567.5	1093.1	530.2
82.5°	192.4	214.9	356.3	357.1	305.3	393.1	992.7	1038.7	732.6	440.7	216.6
85°	139.7	158.1	230.0	208.2	146.4	168.9	345.4	362.1	296.1	185.7	70.3
87.5°	49.3	70.3	126.3	100.4	40.1	35.1	99.5	81.1	75.3	51.9	15.9
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°	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4	2762.4
2.5°	2777.5	2779.1	2770.8	2755.7	2740.7	2721.4	2699.7	2682.9	2675.4	2674.6	2673.7
5°	2807.6	2811.7	2780.0	2733.1	2681.3	2617.7	2563.4	2501.5	2485.6	2460.5	2468.0
7.5°	2856.1	2853.6	2790.8	2691.3	2570.0	2435.4	2321.7	2255.6	2187.0	2167.8	2168.6
10°	2925.5	2909.6	2790.8	2606.0	2403.6	2203.7	2044.8	1944.5	1890.1	1844.9	1828.2
12.5°	2999.1	2958.9	2764.1	2486.4	2189.5	1944.5	1773.9	1638.4	1603.2	1566.4	1567.3
15°	3069.3	3002.4	2711.4	2318.3	1958.7	1667.6	1502.0	1420.9	1410.1	1414.2	1413.4
17.5°	3132.9	3033.4	2631.1	2131.0	1689.4	1430.1	1342.3	1348.2	1377.4	1398.3	1400.9
20°	3197.3	3051.8	2511.5	1880.1	1435.1	1286.3	1289.6	1335.6	1379.9	1408.4	1412.6
22.5°	3258.3	3060.1	2371.0	1637.5	1251.1	1225.2	1274.6	1323.9	1367.4	1395.0	1399.2
25°	3298.5	3040.9	2171.9	1384.1	1160.8	1203.5	1255.3	1297.1	1333.9	1362.4	1369.1
27.5°	3309.4	2979.0	1925.2	1179.2	1119.0	1182.6	1230.2	1261.2	1289.6	1316.4	1321.4
30°	3303.5	2887.8	1654.3	1058.8	1094.8	1158.3	1195.1	1217.7	1252.0	1272.9	1277.1
32.5°	3294.3	2781.6	1371.6	994.4	1074.7	1135.7	1157.5	1177.6	1176.7	1168.4	1174.2
35°	3297.6	2654.5	1142.4	955.9	1057.1	1119.0	1137.4	1112.3	1040.4	1037.0	1033.7
37.5°	3315.2	2529.1	976.0	929.2	1047.9	1116.5	1126.5	1011.1	947.6	918.3	910.8
40°	3360.4	2382.7	866.4	909.1	1047.1	1135.7	1077.2	960.1	838.0	781.1	777.0
42.5°	3420.6	2238.9	799.5	896.5	1057.1	1165.0	1057.1	888.2	755.2	721.8	716.7
45°	3510.1	2074.1	762.7	890.7	1072.2	1175.9	1050.4	835.5	721.8	695.0	695.0
47.5°	3611.3	1916.9	742.7	886.5	1091.4	1168.4	991.1	818.8	705.9	709.2	725.1
50°	3711.6	1780.5	727.6	877.3	1108.1	1164.2	966.8	817.9	710.0	752.7	781.1
52.5°	3827.9	1684.4	709.2	862.3	1108.1	1137.4	959.3	834.7	721.8	734.3	746.8
55°	3968.4	1654.3	685.8	829.6	1088.1	1070.5	955.1	858.9	730.1	700.8	705.9
57.5°	4154.0	1702.8	663.2	788.7	1042.1	1001.1	953.4	865.6	710.9	686.6	681.6
60°	4369.8	1798.9	656.5	746.8	979.3	941.7	943.4	846.4	684.1	659.0	663.2
62.5°	4521.2	1856.7	652.3	715.1	910.8	876.5	919.1	822.9	672.4	650.7	654.8
65°	4521.2	1786.4	613.9	666.6	822.1	797.9	889.9	793.7	657.4	632.3	628.1
67.5°	4349.7	1581.5	555.3	593.8	724.3	708.4	848.9	758.6	634.8	615.5	605.5
70°	3903.1	1199.3	481.7	508.5	600.5	614.7	796.2	710.9	597.1	573.7	558.7
71°	3706.6	1044.6	450.8	465.0	552.8	573.7	771.1	690.8	580.4	547.0	520.2
72.5°	3327.8	879.8	403.9	409.8	472.5	510.2	718.4	652.3	548.6	501.0	470.9
75°	2528.2	642.3	325.3	322.0	349.6	404.8	608.0	581.2	480.9	416.5	398.9
77.5°	1092.2	349.6	243.4	245.9	237.5	306.9	478.4	499.3	412.3	338.7	322.8
80°	331.2	201.6	166.4	169.8	158.9	205.7	337.0	391.4	331.2	263.4	241.7
82.5°	169.8	120.4	113.7	112.1	101.2	116.2	204.1	267.6	236.7	164.8	145.5
85°	73.6	64.4	56.0	54.4	47.7	41.8	72.8	133.8	125.4	92.0	87.8
87.5°	18.4	16.7	10.9	10.0	5.9	0.8	0.0	0.0	0.0	0.0	0.0
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)