

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: P453027

Luminaire Tested: **GALN-SA4A-730-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453027
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-730-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K, 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: 16860 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

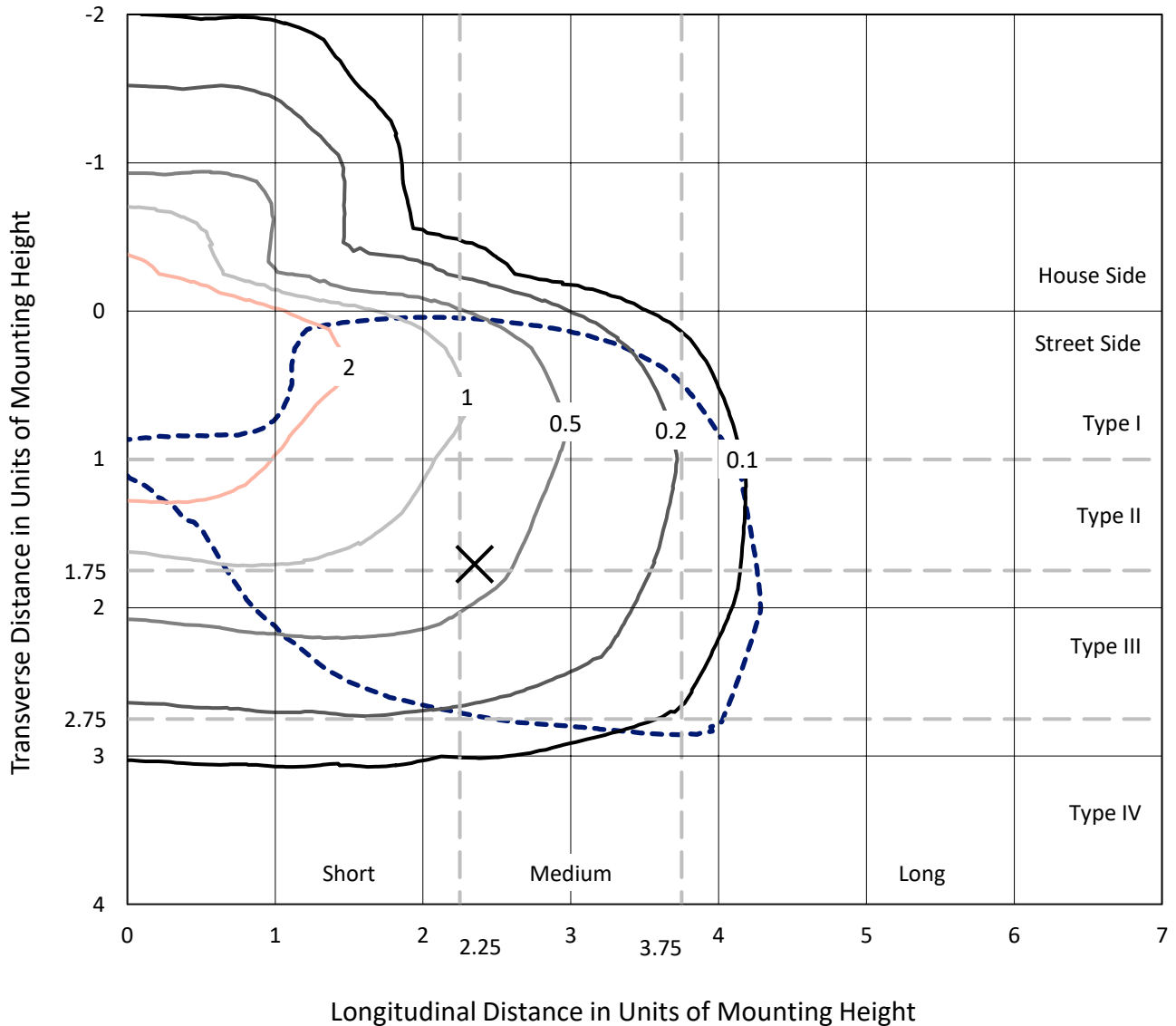
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

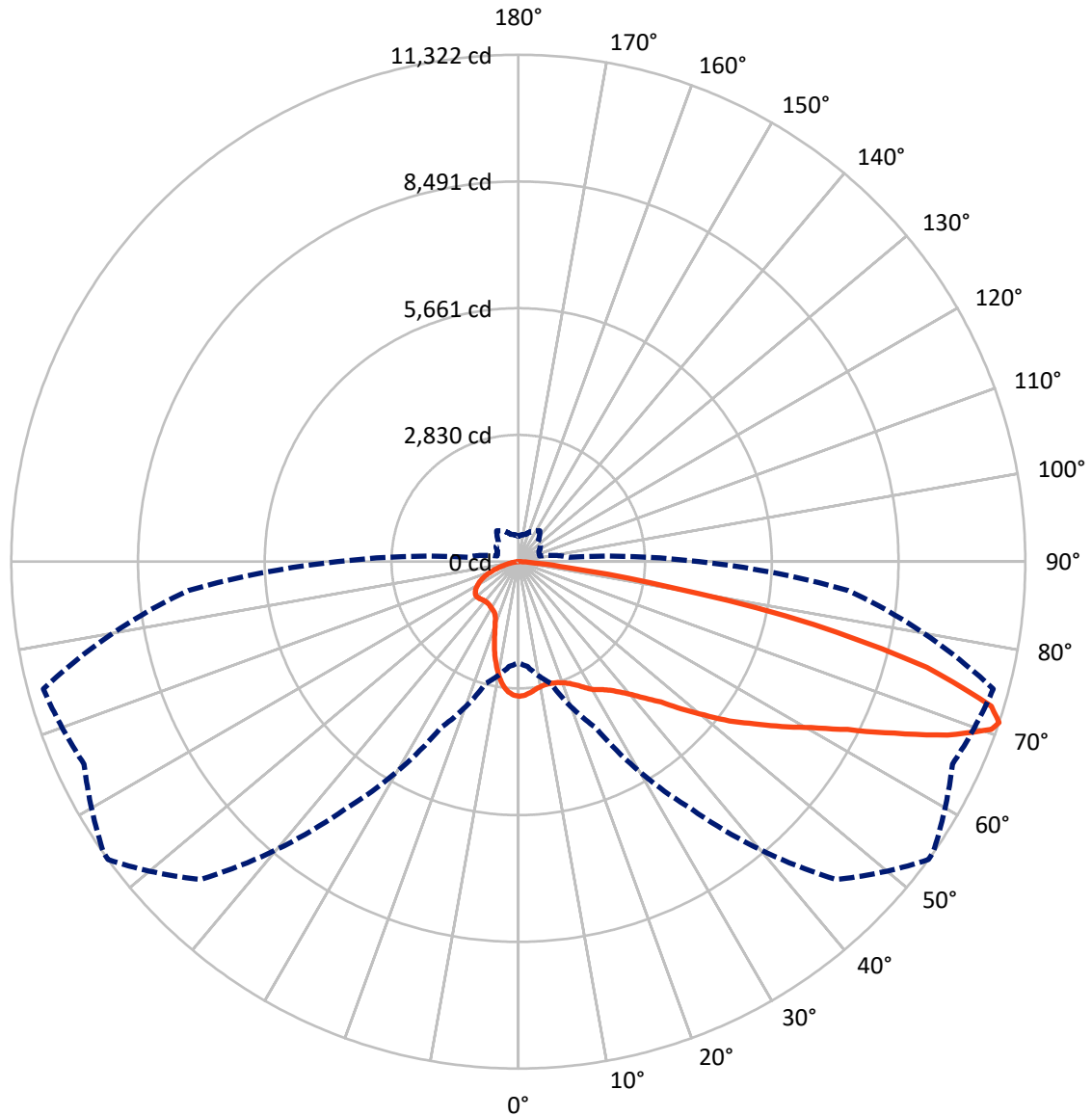
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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
House Side	Lumens	3044.0	0.0	3044.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	13816.0	0.0	13816.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	16860.0	0.0	16860.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.1	1.6
10°-20°	707.8	4.2
20°-30°	1178.6	7.0
30°-40°	1742.7	10.3
40°-50°	2454.7	14.6
50°-60°	3286.9	19.5
60°-70°	4142.9	24.6
70°-80°	2829.6	16.8
80°-90°	248.8	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°	16860.0	100.0
0°-180°	16860.0	100.0

Coefficient of Utilization



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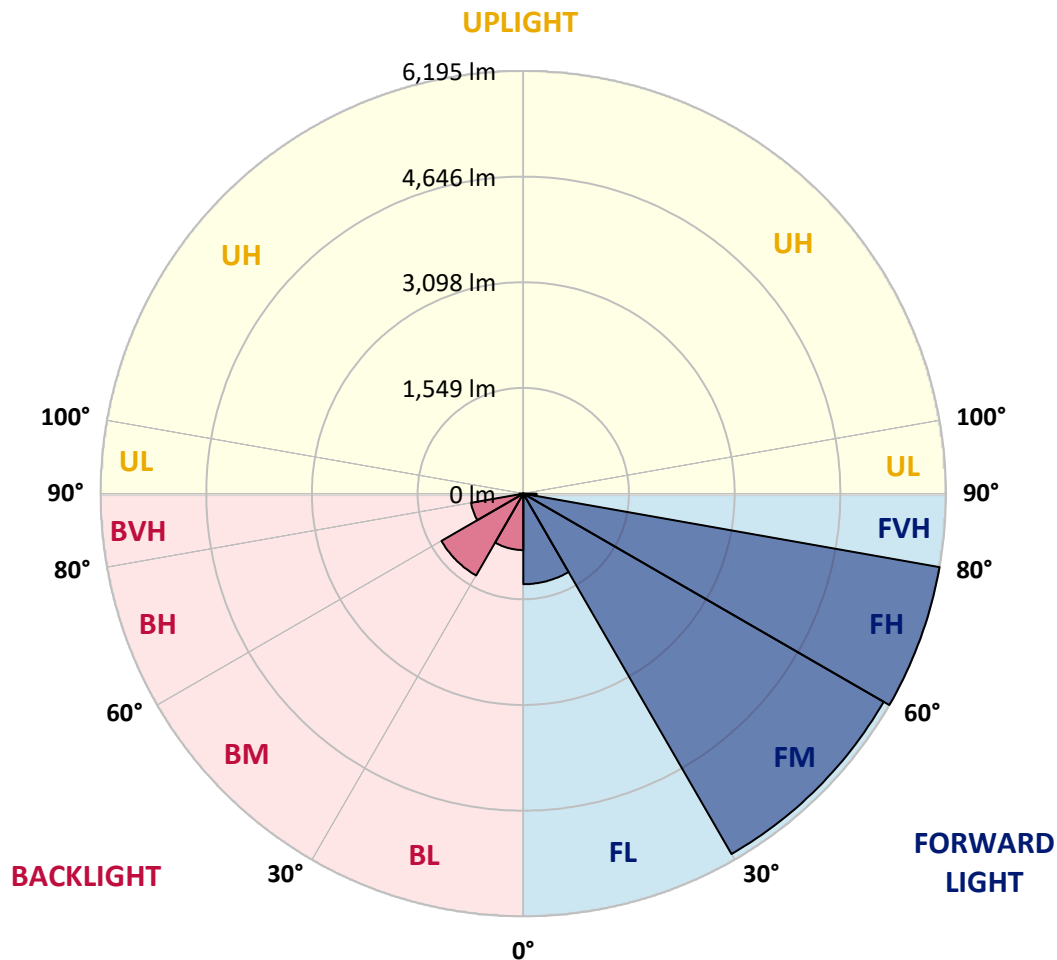
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1327.2	7.9			
FM	(30°-60°)	6099.3	36.2			
FH	(60°-80°)	6195.0	36.7			G3/7500
FVH	(80°-90°)	194.5	1.2			G2/225
BL	(0°-30°)	827.3	4.9	B2/1000		
BM	(30°-60°)	1384.9	8.2	B2/2500		
BH	(60°-80°)	777.4	4.6	B2/1000		G2/1000
BVH	(80°-90°)	54.3	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°	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1
2.5°	2906.1	2919.7	2923.4	2932.5	2951.6	2967.1	2982.6	2980.8	3002.6	3011.7	3019.9
5°	2776.8	2780.4	2794.1	2812.3	2846.0	2888.8	2930.7	2931.6	2985.3	3028.1	3049.1
7.5°	2682.0	2693.9	2703.0	2722.1	2757.6	2804.1	2870.6	2876.0	2971.6	3056.3	3101.0
10°	2620.1	2633.8	2643.8	2667.5	2703.0	2754.9	2826.8	2836.9	2961.6	3101.0	3179.3
12.5°	2563.6	2577.3	2586.4	2617.4	2663.8	2727.6	2808.6	2820.5	2965.3	3152.9	3264.9
15°	2598.3	2609.2	2605.5	2614.6	2645.6	2718.5	2815.9	2827.8	2978.9	3203.0	3349.6
17.5°	2752.2	2761.3	2731.2	2696.6	2682.0	2735.8	2838.7	2851.4	3006.3	3254.9	3436.1
20°	2978.9	3003.5	2937.9	2860.5	2790.4	2797.7	2886.0	2899.7	3044.5	3306.8	3524.4
22.5°	3274.0	3292.2	3212.1	3084.6	2955.3	2888.8	2957.1	2965.3	3101.9	3374.2	3621.0
25°	3621.0	3631.9	3520.8	3356.9	3170.2	3044.5	3054.5	3069.1	3196.6	3450.7	3706.6
27.5°	3957.9	3992.6	3864.1	3663.8	3417.9	3208.4	3188.4	3197.5	3299.5	3493.5	3765.8
30°	4357.7	4355.0	4219.3	3987.1	3672.0	3386.9	3315.0	3313.2	3355.1	3514.4	3808.6
32.5°	4676.5	4713.8	4580.9	4327.7	3962.5	3571.8	3402.4	3398.8	3397.9	3550.9	3872.3
35°	5039.0	5044.4	4922.4	4667.4	4276.7	3804.0	3524.4	3506.2	3485.3	3629.2	3958.9
37.5°	5363.2	5388.7	5276.7	4990.7	4585.4	4045.4	3692.0	3680.2	3616.4	3764.9	4097.3
40°	5616.3	5635.5	5568.1	5295.8	4889.6	4305.8	3905.1	3883.3	3805.9	3987.1	4282.2
42.5°	5699.2	5738.4	5764.8	5630.9	5239.3	4614.6	4167.4	4140.1	4080.9	4324.0	4495.3
45°	5705.6	5767.5	5906.9	5913.2	5590.8	4984.3	4473.4	4454.3	4449.7	4755.7	4794.9
47.5°	5657.3	5720.2	5954.2	6080.8	5904.1	5357.7	4915.1	4885.0	4887.8	5289.4	5130.9
50°	5540.8	5615.4	5899.6	6188.3	6149.1	5745.7	5381.4	5371.4	5427.8	5898.7	5479.7
52.5°	5321.3	5411.4	5843.1	6255.7	6331.3	6079.9	5911.4	5883.2	6026.2	6559.8	5861.3
55°	4713.8	4849.5	5636.4	6293.0	6504.3	6399.6	6388.6	6439.6	6629.1	7281.1	6281.2
57.5°	4396.9	4498.9	5187.4	6299.4	6722.9	6771.1	6946.0	6958.7	7290.2	8047.0	6755.6
60°	4223.9	4314.0	4941.5	6257.5	7027.9	7231.0	7516.1	7561.6	7935.9	8876.7	7247.4
62.5°	4072.7	4150.1	4794.0	6112.7	7372.2	7913.2	8254.7	8276.5	8669.0	9792.9	7732.8
65°	3716.6	3804.9	4497.1	5967.9	7669.1	8765.6	9234.6	9209.1	9449.5	10583.4	8037.0
67.5°	3236.7	3348.7	3942.5	5467.9	7815.7	9697.2	10338.4	10306.5	10220.0	11101.5	8124.4
70°	2623.8	2683.9	3233.0	4603.6	7230.1	10186.3	11209.9	11176.2	10697.2	11169.9	7711.0
71°	2257.6	2351.5	2815.0	4089.1	6742.9	10036.9	11321.9	11312.8	10698.1	10981.3	7399.5
72.5°	1762.2	1819.6	2229.4	3168.4	5731.1	9188.1	11045.1	11079.7	10465.9	10457.7	6757.5
75°	1114.7	1140.2	1398.8	1865.1	3144.7	6507.0	9428.6	9522.4	9292.9	8559.8	5025.3
77.5°	647.5	680.3	837.9	1099.2	1358.8	3531.7	6746.5	6848.5	6456.9	4712.9	2057.3
80°	377.0	413.5	551.9	638.4	623.8	1310.5	3435.2	3609.1	2795.9	1190.3	577.4
82.5°	209.5	234.1	388.0	388.9	332.4	428.0	1081.0	1131.1	797.8	479.9	235.9
85°	152.1	172.1	250.4	226.8	159.4	184.0	376.1	394.3	322.4	202.2	76.5
87.5°	53.7	76.5	137.5	109.3	43.7	38.2	108.4	88.3	82.0	56.5	17.3
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°	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1	3008.1
2.5°	3024.5	3026.3	3017.2	3000.8	2984.4	2963.4	2939.8	2921.6	2913.4	2912.4	2911.5
5°	3057.3	3061.8	3027.2	2976.2	2919.7	2850.5	2791.3	2723.9	2706.6	2679.3	2687.5
7.5°	3110.1	3107.3	3039.0	2930.7	2798.6	2652.0	2528.1	2456.2	2381.5	2360.6	2361.5
10°	3185.7	3168.4	3039.0	2837.8	2617.4	2399.7	2226.7	2117.4	2058.2	2009.0	1990.8
12.5°	3265.8	3222.1	3009.9	2707.5	2384.2	2117.4	1931.6	1784.1	1745.8	1705.8	1706.7
15°	3342.3	3269.4	2952.5	2524.5	2132.9	1816.0	1635.6	1547.3	1535.5	1540.0	1539.1
17.5°	3411.5	3303.1	2865.1	2320.5	1839.6	1557.3	1461.7	1468.1	1499.9	1522.7	1525.4
20°	3481.6	3323.2	2734.9	2047.3	1562.8	1400.7	1404.3	1454.4	1502.7	1533.6	1538.2
22.5°	3548.1	3332.3	2581.9	1783.2	1362.4	1334.2	1387.9	1441.7	1489.0	1519.1	1523.6
25°	3591.8	3311.3	2365.1	1507.2	1264.1	1310.5	1367.0	1412.5	1452.6	1483.5	1490.8
27.5°	3603.7	3243.9	2096.5	1284.1	1218.5	1287.7	1339.7	1373.4	1404.3	1433.5	1438.9
30°	3597.3	3144.7	1801.4	1153.0	1192.1	1261.3	1301.4	1326.0	1363.3	1386.1	1390.7
32.5°	3587.3	3029.0	1493.6	1082.8	1170.3	1236.7	1260.4	1282.3	1281.4	1272.3	1278.6
35°	3590.9	2890.6	1244.0	1040.9	1151.1	1218.5	1238.6	1211.2	1132.9	1129.3	1125.6
37.5°	3610.1	2754.0	1062.8	1011.8	1141.1	1215.8	1226.7	1101.0	1031.8	1000.0	991.8
40°	3659.2	2594.6	943.5	989.9	1140.2	1236.7	1173.0	1045.5	912.5	850.6	846.0
42.5°	3724.8	2438.0	870.6	976.3	1151.1	1268.6	1151.1	967.2	822.4	785.9	780.5
45°	3822.2	2258.6	830.6	969.9	1167.5	1280.5	1143.9	909.8	785.9	756.8	756.8
47.5°	3932.4	2087.3	808.7	965.4	1188.5	1272.3	1079.2	891.6	768.6	772.3	789.6
50°	4041.7	1938.9	792.3	955.3	1206.7	1267.7	1052.8	890.7	773.2	819.6	850.6
52.5°	4168.3	1834.2	772.3	938.9	1206.7	1238.6	1044.6	908.9	785.9	799.6	813.3
55°	4321.3	1801.4	746.8	903.4	1184.8	1165.7	1040.0	935.3	795.0	763.2	768.6
57.5°	4523.5	1854.2	722.2	858.8	1134.7	1090.1	1038.2	942.6	774.1	747.7	742.2
60°	4758.5	1958.9	714.9	813.3	1066.4	1025.5	1027.3	921.6	745.0	717.6	722.2
62.5°	4923.3	2021.8	710.4	778.7	991.8	954.4	1000.9	896.1	732.2	708.5	713.1
65°	4923.3	1945.3	668.5	725.8	895.2	868.8	969.0	864.3	715.8	688.5	683.9
67.5°	4736.6	1722.2	604.7	646.6	788.7	771.4	924.4	826.0	691.2	670.3	659.4
70°	4250.3	1306.0	524.6	553.7	653.9	669.4	867.0	774.1	650.2	624.7	608.4
71°	4036.3	1137.5	490.9	506.4	602.0	624.7	839.7	752.2	632.0	595.6	566.5
72.5°	3623.7	958.1	439.9	446.2	514.6	555.5	782.3	710.4	597.4	545.5	512.7
75°	2753.1	699.4	354.3	350.6	380.7	440.8	662.1	632.9	523.7	453.5	434.4
77.5°	1189.4	380.7	265.0	267.7	258.6	334.2	520.9	543.7	449.0	368.8	351.5
80°	360.6	219.5	181.2	184.9	173.0	224.0	367.0	426.2	360.6	286.9	263.2
82.5°	184.9	131.1	123.9	122.0	110.2	126.6	222.2	291.4	257.7	179.4	158.5
85°	80.1	70.1	61.0	59.2	51.9	45.5	79.2	145.7	136.6	100.2	95.6
87.5°	20.0	18.2	11.8	10.9	6.4	0.9	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)