

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: P454071

Luminaire Tested: **GALN-SA5A-827-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454071
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-SA5A-827-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 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: 17228 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

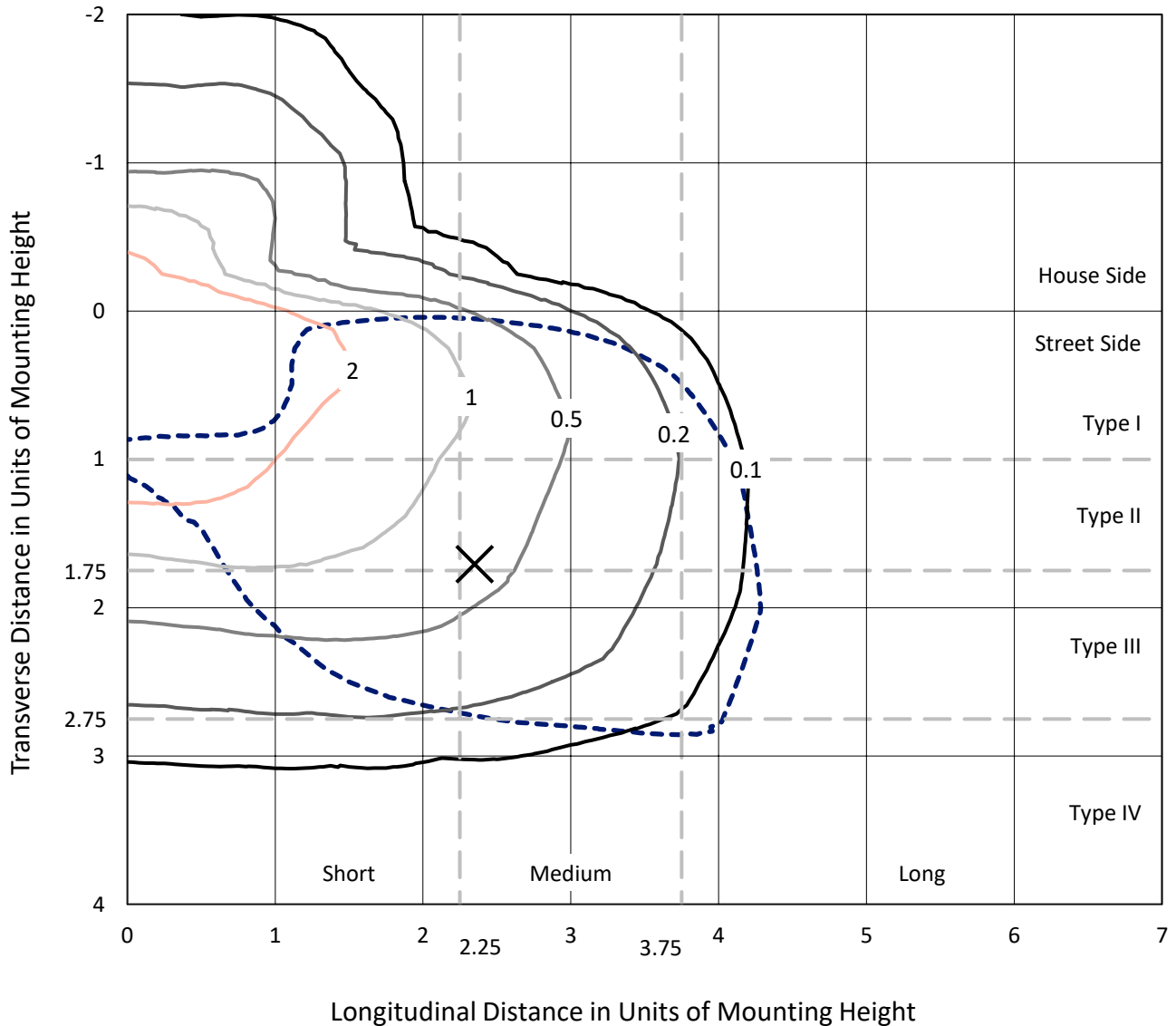
Input Watts (W): 154
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P454071
 CATALOG NUMBER: GALN-SA5A-827-U-T3R

Iso-Footcandle Lines of Horizontal Illumination

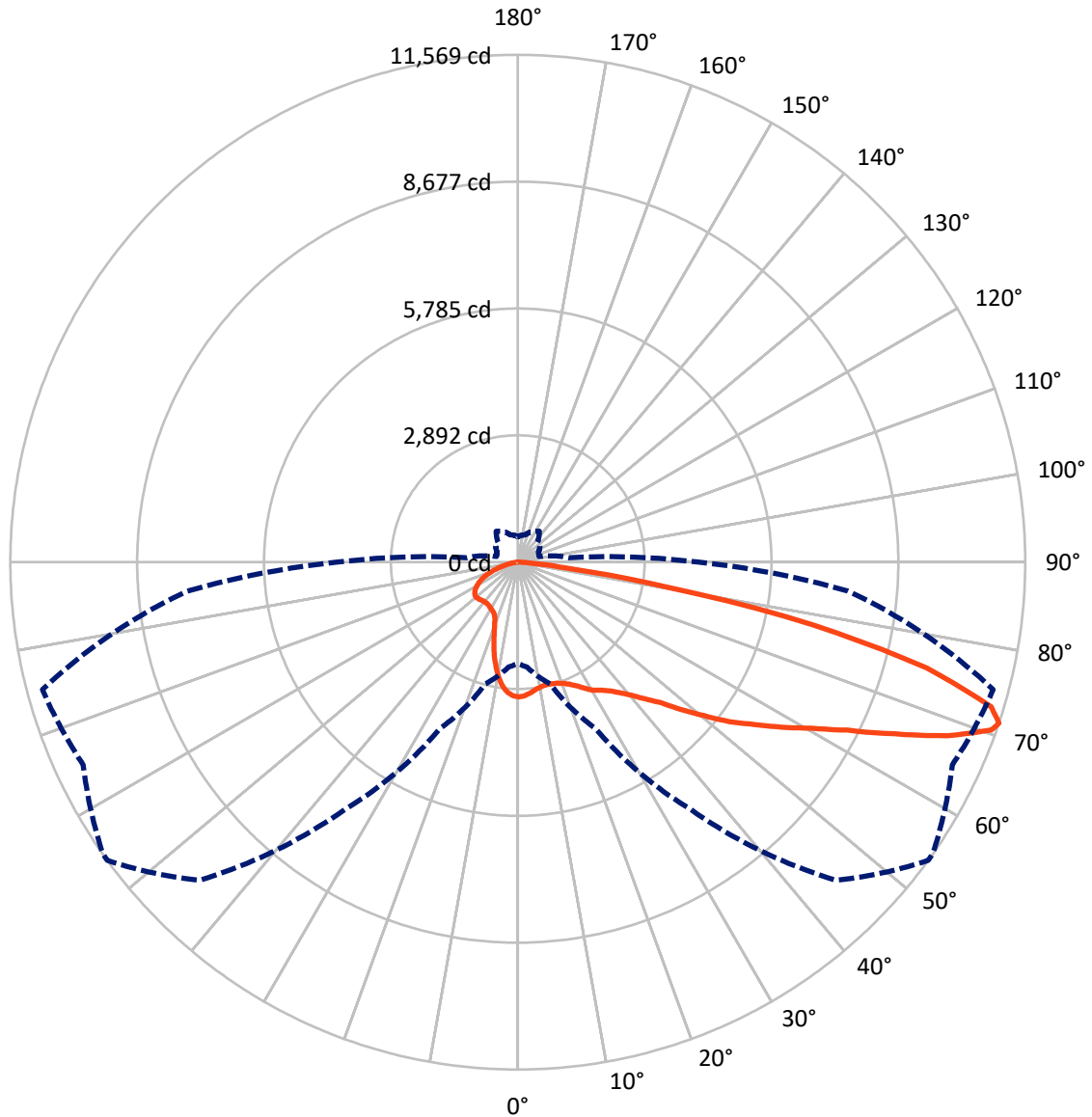
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type IV - Medium - N/A

REPORT NUMBER: P454071
CATALOG NUMBER: GALN-SA5A-827-U-T3R

Luminous Intensity Polar Plot



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

REPORT NUMBER: P454071

CATALOG NUMBER: GALN-SA5A-827-U-T3R

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3110.4	0.0	3110.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14117.6	0.0	14117.6
	% Fixture	81.9	0.0	81.9
Total	Lumens	17228.0	0.0	17228.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.9	1.6
10°-20°	723.3	4.2
20°-30°	1204.3	7.0
30°-40°	1780.7	10.3
40°-50°	2508.2	14.6
50°-60°	3358.6	19.5
60°-70°	4233.3	24.6
70°-80°	2891.3	16.8
80°-90°	254.3	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°	17228.0	100.0
0°-180°	17228.0	100.0

Coefficient of Utilization



REPORT NUMBER: P454071

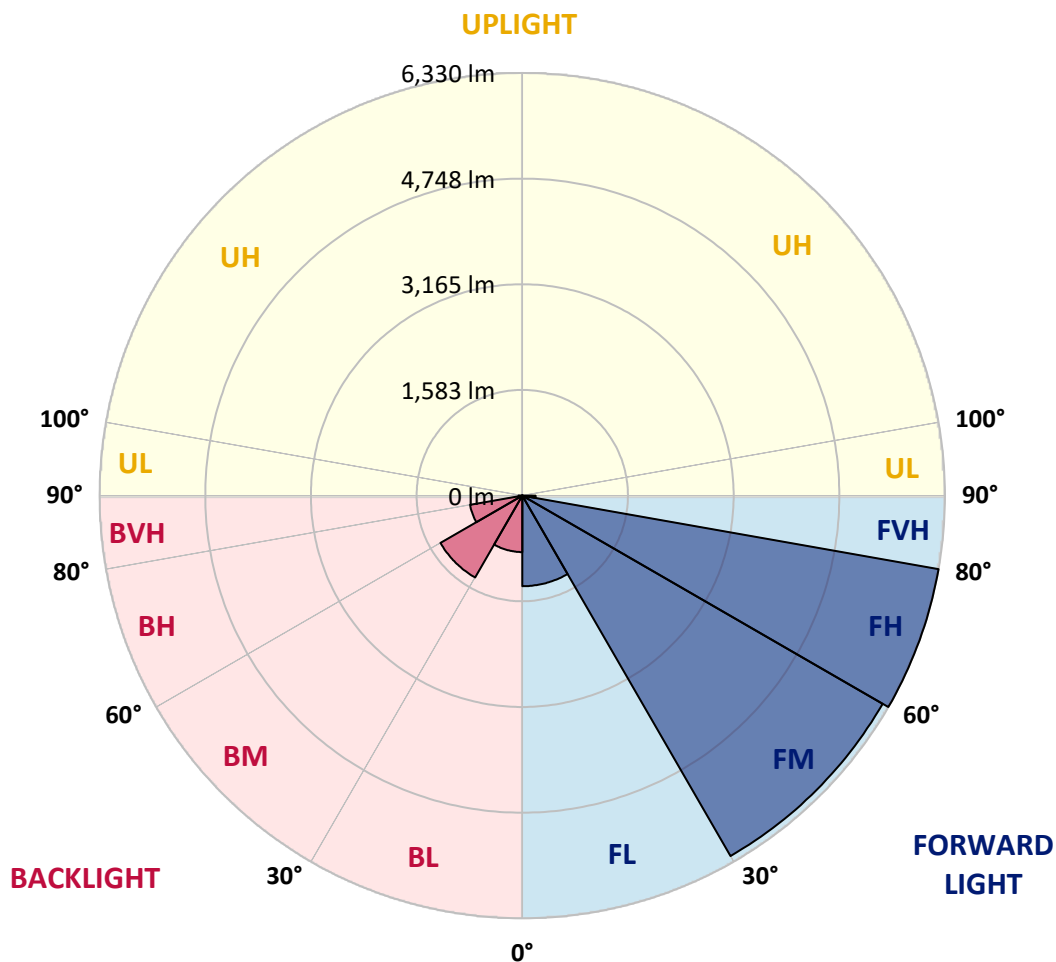
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1356.1	7.9			
FM	(30°-60°)	6232.5	36.2			
FH	(60°-80°)	6330.2	36.7			G3/7500
FVH	(80°-90°)	198.8	1.2			G2/225
BL	(0°-30°)	845.3	4.9	B2/1000		
BM	(30°-60°)	1415.1	8.2	B2/2500		
BH	(60°-80°)	794.4	4.6	B2/1000		G2/1000
BVH	(80°-90°)	55.5	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





REPORT NUMBER: P454071

CATALOG NUMBER: GALN-SA5A-827-U-T3R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7
2.5°	2969.5	2983.5	2987.2	2996.5	3016.0	3031.9	3047.7	3045.8	3068.1	3077.5	3085.8
5°	2837.4	2841.1	2855.0	2873.7	2908.1	2951.8	2994.6	2995.6	3050.5	3094.2	3115.6
7.5°	2740.6	2752.7	2762.0	2781.5	2817.8	2865.3	2933.2	2938.8	3036.5	3123.1	3168.7
10°	2677.3	2691.3	2701.5	2725.7	2762.0	2815.0	2888.5	2898.8	3026.3	3168.7	3248.7
12.5°	2619.6	2633.6	2642.9	2674.5	2722.0	2787.1	2869.9	2882.0	3030.0	3221.7	3336.2
15°	2655.0	2666.1	2662.4	2671.7	2703.4	2777.8	2877.4	2889.5	3044.0	3272.9	3422.7
17.5°	2812.2	2821.5	2790.8	2755.5	2740.6	2795.5	2900.6	2913.7	3071.9	3325.9	3511.1
20°	3044.0	3069.1	3002.1	2923.0	2851.3	2858.8	2949.0	2963.0	3111.0	3379.0	3601.4
22.5°	3345.5	3364.1	3282.2	3151.9	3019.8	2951.8	3021.6	3030.0	3169.6	3447.8	3700.0
25°	3700.0	3711.2	3597.7	3430.1	3239.4	3111.0	3121.2	3136.1	3266.4	3526.0	3787.5
27.5°	4044.3	4079.7	3948.5	3743.8	3492.5	3278.5	3258.0	3267.3	3371.5	3569.7	3848.0
30°	4452.9	4450.1	4311.4	4074.1	3752.1	3460.9	3387.3	3385.5	3428.3	3591.1	3891.7
32.5°	4778.6	4816.7	4680.9	4422.2	4049.0	3649.8	3476.7	3473.0	3472.0	3628.4	3956.9
35°	5148.9	5154.5	5029.8	4769.3	4370.0	3887.1	3601.4	3582.8	3561.4	3708.4	4045.3
37.5°	5480.2	5506.3	5391.8	5099.6	4685.5	4133.7	3772.6	3760.5	3695.4	3847.0	4186.7
40°	5738.9	5758.5	5689.6	5411.4	4996.3	4399.8	3990.4	3968.0	3888.9	4074.1	4375.6
42.5°	5823.6	5863.6	5890.6	5753.8	5353.7	4715.3	4258.4	4230.5	4170.0	4418.4	4593.4
45°	5830.1	5893.4	6035.8	6042.3	5712.9	5093.1	4571.0	4551.5	4546.9	4859.5	4899.5
47.5°	5780.8	5845.0	6084.2	6213.5	6033.0	5474.6	5022.4	4991.7	4994.5	5404.9	5242.9
50°	5661.7	5738.0	6028.3	6323.3	6283.3	5871.1	5498.8	5488.6	5546.3	6027.4	5599.3
52.5°	5437.4	5529.6	5970.6	6392.2	6469.4	6212.6	6040.4	6011.6	6157.7	6703.0	5989.3
55°	4816.7	4955.4	5759.4	6430.4	6646.3	6539.2	6528.1	6580.2	6773.7	7440.0	6418.3
57.5°	4492.9	4597.1	5300.6	6436.9	6869.6	6918.9	7097.6	7110.6	7449.4	8222.7	6903.1
60°	4316.1	4408.2	5049.4	6394.1	7181.3	7388.9	7680.1	7726.7	8109.1	9070.4	7405.6
62.5°	4161.6	4240.7	4898.6	6246.1	7533.1	8085.9	8434.8	8457.2	8858.3	10006.6	7901.6
65°	3797.7	3888.0	4595.2	6098.1	7836.5	8956.9	9436.2	9410.1	9655.8	10814.4	8212.4
67.5°	3307.3	3421.8	4028.5	5587.2	7986.3	9908.9	10564.0	10531.5	10443.1	11343.9	8301.8
70°	2681.0	2742.4	3303.6	4704.1	7387.9	10408.6	11454.6	11420.2	10930.7	11413.7	7879.3
71°	2306.9	2402.8	2876.4	4178.3	6890.1	10256.0	11569.1	11559.8	10931.6	11221.0	7561.0
72.5°	1800.7	1859.3	2278.1	3237.5	5856.2	9388.7	11286.2	11321.5	10694.3	10685.9	6905.0
75°	1139.0	1165.1	1429.4	1905.8	3213.3	6649.0	9634.4	9730.2	9495.7	8746.6	5135.0
77.5°	661.6	695.1	856.1	1123.2	1388.4	3608.8	6893.8	6998.0	6597.9	4815.8	2102.2
80°	385.3	422.5	563.9	652.3	637.5	1339.1	3510.2	3687.9	2856.9	1216.3	590.0
82.5°	214.0	239.2	396.4	397.4	339.7	437.4	1104.6	1155.8	815.2	490.4	241.0
85°	155.4	175.9	255.9	231.7	162.9	188.0	384.3	402.9	329.4	206.6	78.2
87.5°	54.9	78.2	140.5	111.7	44.7	39.1	110.7	90.3	83.8	57.7	17.7
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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CATALOG NUMBER: GALN-SA5A-827-U-T3R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7	3073.7
2.5°	3090.5	3092.3	3083.0	3066.3	3049.5	3028.1	3003.9	2985.3	2976.9	2976.0	2975.1
5°	3124.0	3128.6	3093.3	3041.2	2983.5	2912.7	2852.3	2783.4	2765.7	2737.8	2746.2
7.5°	3178.0	3175.2	3105.4	2994.6	2859.7	2709.9	2583.3	2509.8	2433.5	2412.1	2413.0
10°	3255.2	3237.5	3105.4	2899.7	2674.5	2452.1	2275.3	2163.6	2103.1	2052.9	2034.3
12.5°	3337.1	3292.4	3075.6	2766.6	2436.3	2163.6	1973.8	1823.0	1783.9	1743.0	1743.9
15°	3415.3	3340.8	3017.0	2579.6	2179.4	1855.6	1671.3	1581.1	1569.0	1573.6	1572.7
17.5°	3486.0	3375.2	2927.6	2371.1	1879.8	1591.3	1493.6	1500.1	1532.7	1555.9	1558.7
20°	3557.6	3395.7	2794.6	2092.0	1596.9	1431.2	1435.0	1486.1	1535.5	1567.1	1571.8
22.5°	3625.6	3405.0	2638.2	1822.1	1392.2	1363.3	1418.2	1473.1	1521.5	1552.2	1556.9
25°	3670.2	3383.6	2416.7	1540.1	1291.7	1339.1	1396.8	1443.3	1484.3	1515.9	1523.4
27.5°	3682.3	3314.8	2142.2	1312.1	1245.1	1315.9	1368.9	1403.3	1435.0	1464.7	1470.3
30°	3675.8	3213.3	1840.7	1178.1	1218.1	1288.9	1329.8	1354.9	1393.1	1416.4	1421.0
32.5°	3665.6	3095.1	1526.2	1106.5	1195.8	1263.7	1287.9	1310.3	1309.3	1300.0	1306.5
35°	3669.3	2953.7	1271.2	1063.7	1176.3	1245.1	1265.6	1237.7	1157.7	1153.9	1150.2
37.5°	3688.8	2814.1	1086.0	1033.9	1166.0	1242.3	1253.5	1125.1	1054.4	1021.8	1013.4
40°	3739.1	2651.2	964.1	1011.5	1165.1	1263.7	1198.6	1068.3	932.4	869.2	864.5
42.5°	3806.1	2491.2	889.6	997.6	1176.3	1296.3	1176.3	988.3	840.3	803.1	797.5
45°	3905.7	2307.9	848.7	991.1	1193.0	1308.4	1168.8	929.7	803.1	773.3	773.3
47.5°	4018.3	2132.9	826.4	986.4	1214.4	1300.0	1102.7	911.0	785.4	789.1	806.8
50°	4129.9	1981.2	809.6	976.2	1233.0	1295.4	1075.8	910.1	790.1	837.5	869.2
52.5°	4259.3	1874.2	789.1	959.4	1233.0	1265.6	1067.4	928.7	803.1	817.1	831.0
55°	4415.6	1840.7	763.1	923.1	1210.7	1191.2	1062.7	955.7	812.4	779.8	785.4
57.5°	4622.2	1894.7	738.0	877.5	1159.5	1113.9	1060.9	963.2	791.0	764.0	758.4
60°	4862.3	2001.7	730.5	831.0	1089.7	1047.8	1049.7	941.8	761.2	733.3	738.0
62.5°	5030.8	2065.9	725.9	795.7	1013.4	975.3	1022.7	915.7	748.2	724.0	728.6
65°	5030.8	1987.7	683.1	741.7	914.8	887.8	990.1	883.1	731.4	703.5	698.9
67.5°	4840.0	1759.7	617.9	660.7	805.9	788.2	944.5	844.0	706.3	684.9	673.7
70°	4343.1	1334.5	536.0	565.8	668.2	684.0	885.9	791.0	664.4	638.4	621.6
71°	4124.4	1162.3	501.6	517.4	615.1	638.4	858.0	768.7	645.8	608.6	578.8
72.5°	3702.8	979.0	449.5	456.0	525.8	567.7	799.4	725.9	610.5	557.4	523.9
75°	2813.2	714.7	362.0	358.3	389.0	450.4	676.5	646.8	535.1	463.4	443.9
77.5°	1215.3	389.0	270.8	273.6	264.3	341.5	532.3	555.6	458.8	376.9	359.2
80°	368.5	224.3	185.2	188.9	176.8	228.9	375.0	435.5	368.5	293.1	268.9
82.5°	188.9	134.0	126.6	124.7	112.6	129.4	227.1	297.8	263.4	183.3	161.9
85°	81.9	71.7	62.3	60.5	53.0	46.5	81.0	148.9	139.6	102.4	97.7
87.5°	20.5	18.6	12.1	11.2	6.5	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)