

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: P457639

Luminaire Tested: **GALN-SA9A-727-U-T4FT-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P457639  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA9A-727-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24967 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

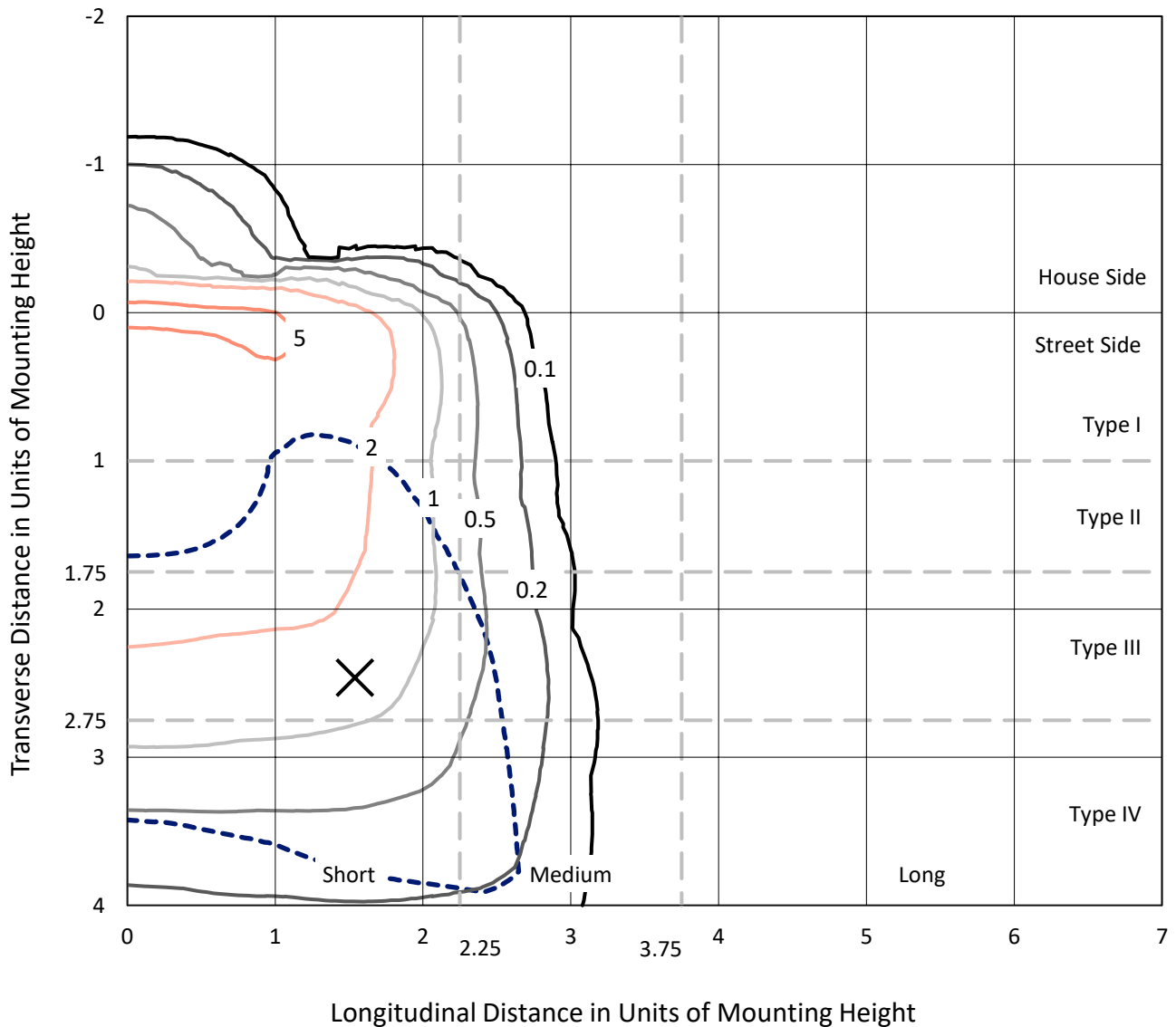
Input Watts (W): 274  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P457639  
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### Iso-Footcandle Lines of Horizontal Illumination

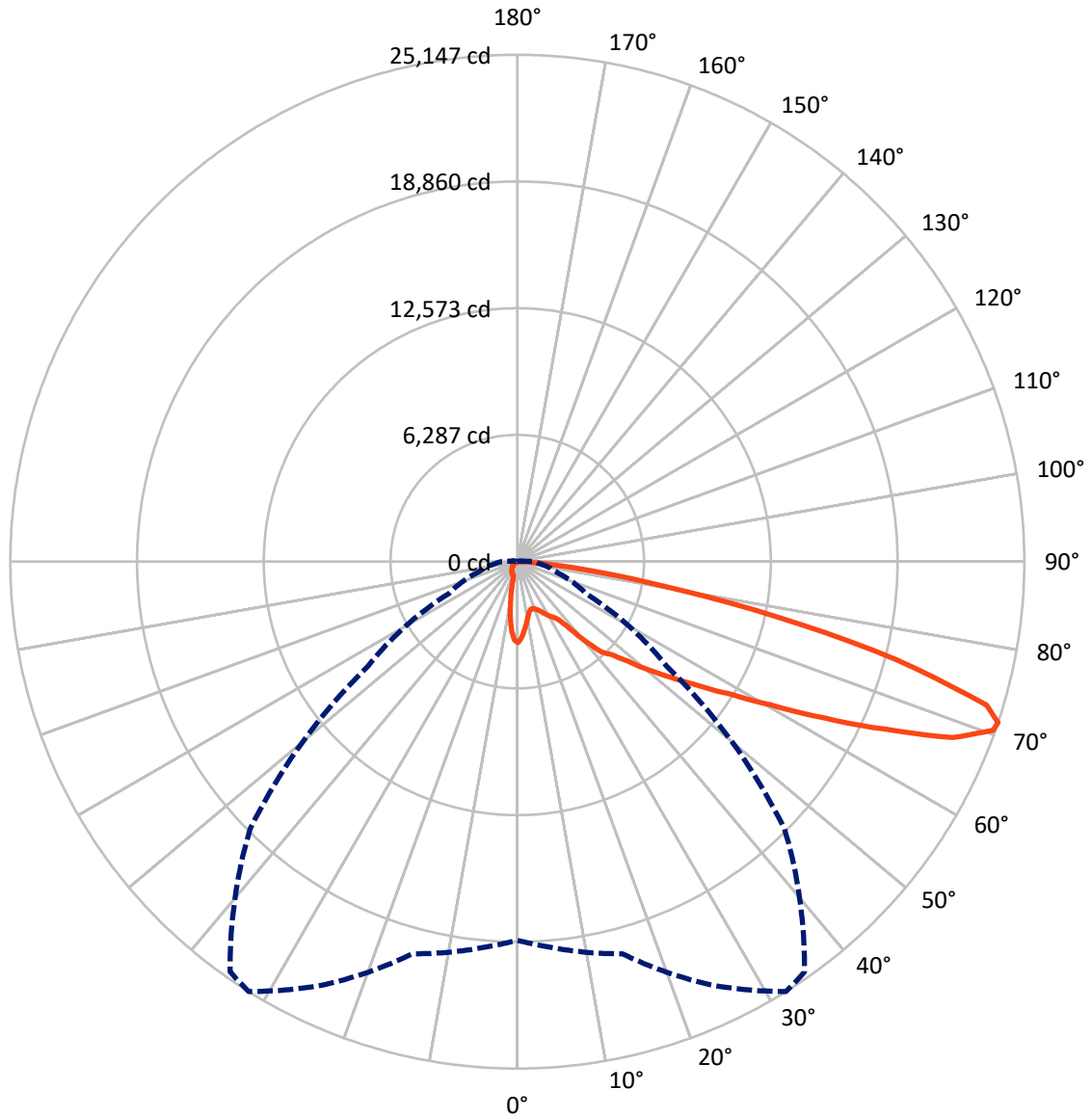
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc  
 Type IV - Short - N/A

REPORT NUMBER: P457639  
CATALOG NUMBER: GALN-SA9A-727-U-T4FT-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2091.2	0.0	2091.2
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	22875.8	0.0	22875.8
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	24967.0	0.0	24967.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	326.5	1.3
10°-20°	708.6	2.8
20°-30°	1102.3	4.4
30°-40°	1836.4	7.4
40°-50°	3416.1	13.7
50°-60°	5484.7	22.0
60°-70°	7377.1	29.5
70°-80°	4377.0	17.5
80°-90°	338.3	1.4
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°	24967.0	100.0
0°-180°	24967.0	100.0



REPORT NUMBER: P457639

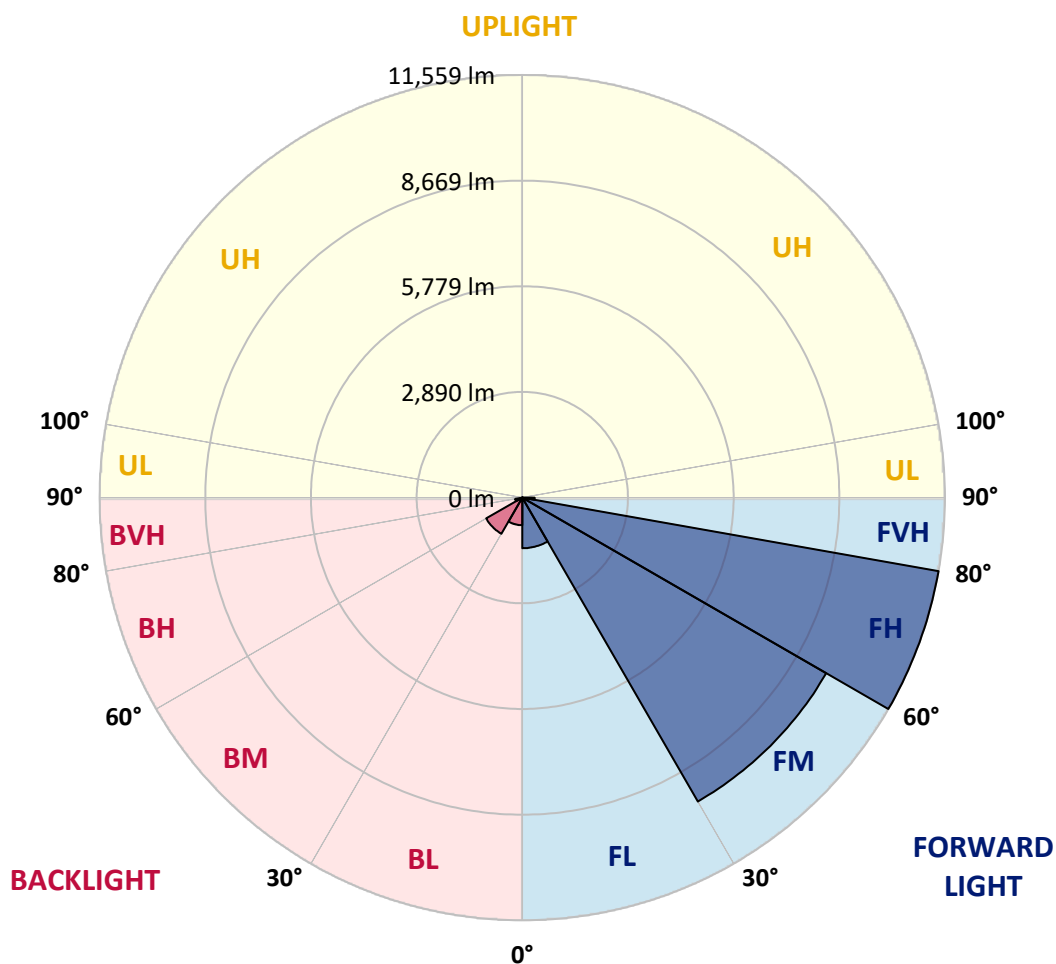
CATALOG NUMBER: GALN-SA9A-727-U-T4FT-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1383.8	5.5			
FM	(30°-60°)	9596.4	38.4			
FH	(60°-80°)	11558.5	46.3			G4/12000
FVH	(80°-90°)	337.0	1.3			G3/500
BL	(0°-30°)	753.5	3.0	B2/1000		
BM	(30°-60°)	1140.8	4.6	B2/2500		
BH	(60°-80°)	195.6	0.8	B1/500		G1/500
BVH	(80°-90°)	1.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type IV Short





REPORT NUMBER: P457639

CATALOG NUMBER: GALN-SA9A-727-U-T4FT-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1
2.5°	3723.8	3762.1	3756.4	3769.8	3802.4	3815.8	3852.2	3892.4	3948.0	3986.3	4011.3
5°	3334.7	3363.5	3367.3	3434.4	3467.0	3503.4	3610.7	3727.6	3857.9	3961.4	4030.4
7.5°	2918.8	2934.2	2964.8	3053.0	3135.4	3171.8	3334.7	3537.9	3742.9	3936.5	4061.1
10°	2575.8	2593.0	2648.6	2742.5	2819.2	2867.1	3093.2	3348.1	3635.6	3923.1	4105.2
12.5°	2380.3	2389.9	2411.0	2495.3	2593.0	2644.8	2888.2	3179.5	3549.4	3928.8	4179.9
15°	2366.9	2363.1	2338.1	2372.6	2460.8	2514.5	2752.1	3064.5	3472.7	3948.0	4268.1
17.5°	2437.8	2428.2	2368.8	2368.8	2441.6	2485.7	2694.6	3003.2	3434.4	3992.1	4392.6
20°	2547.0	2531.7	2434.0	2426.3	2497.2	2543.2	2729.1	3007.0	3442.0	4074.5	4559.4
22.5°	2685.0	2667.8	2520.2	2524.0	2600.7	2646.7	2828.8	3076.0	3490.0	4176.1	4737.6
25°	2865.2	2846.0	2671.6	2663.9	2744.4	2784.7	2976.3	3198.7	3557.0	4302.6	4971.4
27.5°	3104.7	3064.5	2855.6	2844.1	2930.3	2982.1	3154.6	3363.5	3675.9	4477.0	5285.7
30°	3302.1	3258.1	3058.7	3028.1	3120.1	3160.3	3338.6	3585.8	3909.7	4781.7	5720.8
32.5°	3560.9	3495.7	3261.9	3181.4	3279.1	3330.9	3605.0	3999.8	4256.6	5103.7	6238.2
35°	4143.5	4103.2	3817.7	3536.0	3530.2	3595.4	3997.8	4417.6	4613.0	5605.8	6943.5
37.5°	4977.2	4948.4	4645.6	4268.1	4158.8	4128.2	4475.0	4877.5	5182.2	6295.7	7763.8
40°	5945.0	5877.9	5600.0	5280.0	5138.2	5048.1	5038.5	5561.7	5925.8	7232.9	8618.5
42.5°	6638.8	6516.1	6178.8	6155.8	6125.2	6031.2	5759.1	6562.1	6886.0	8241.0	9532.7
45°	7367.1	7181.2	6679.0	6592.8	6581.3	6575.5	6847.7	7746.5	7932.4	9333.4	10471.8
47.5°	7932.4	7784.9	7372.8	7334.5	7382.4	7512.7	8287.0	9003.8	8965.4	10307.0	11259.5
50°	8685.6	8574.5	8116.4	8189.2	8436.5	8649.2	9910.3	10374.1	9814.4	11073.6	11832.5
52.5°	9574.9	9369.8	8944.3	9141.7	9521.2	9875.8	11633.2	11573.8	10410.5	11650.5	12259.9
55°	10345.3	10199.7	10054.0	10259.1	10826.4	11269.1	13189.4	12472.6	10843.6	12114.2	12447.7
57.5°	11648.5	11614.0	11464.5	11673.4	12361.5	12821.4	14582.7	13170.2	11121.5	12355.7	12227.3
60°	13576.5	13521.0	13243.1	13509.5	14406.4	15128.9	15866.8	13796.9	11184.7	12261.8	11593.0
62.5°	15895.5	15705.8	15468.1	15861.0	17091.4	17409.6	17076.1	14168.7	10949.0	11514.4	10063.6
65°	18061.2	17865.7	17871.4	18699.4	20039.0	20255.6	18486.6	14113.2	10259.1	9642.0	7422.6
67.5°	19718.9	19686.4	19920.2	21535.8	23287.5	23138.0	19747.7	13281.4	8214.2	6249.7	3944.2
70°	19803.3	19866.5	20537.3	23264.5	25043.0	24805.4	19640.4	10795.7	5120.9	2874.8	1554.3
71°	18783.7	19209.2	20136.7	23210.8	25146.5	24837.9	18735.8	9042.1	3756.4	2004.7	1121.2
72.5°	16006.7	16230.9	18235.6	21844.4	24328.1	23668.9	16441.7	6337.9	2405.2	1226.6	643.9
75°	8815.9	9367.9	12212.0	17137.4	19458.3	18879.5	10715.2	3010.8	1199.7	670.8	266.4
77.5°	4197.2	4089.8	5958.4	10192.0	13193.2	13162.6	5398.8	1337.7	699.5	454.2	134.2
80°	1199.7	1349.2	2280.6	4844.9	7324.9	7405.4	2073.7	645.9	484.9	354.6	69.0
82.5°	362.2	369.9	837.5	2142.7	3643.3	3434.4	778.1	329.6	348.8	281.7	40.2
85°	63.2	78.6	247.2	755.1	1389.5	1054.1	195.5	157.2	230.0	185.9	23.0
87.5°	3.8	5.7	82.4	86.2	122.7	70.9	34.5	23.0	49.8	49.8	13.4
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: P457639

CATALOG NUMBER: GALN-SA9A-727-U-T4FT-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1	4015.1
2.5°	4028.5	4040.0	4032.3	4015.1	3986.3	3951.8	3905.8	3867.5	3834.9	3817.7	3838.8
5°	4053.4	4068.7	4030.4	3944.2	3813.9	3672.0	3511.0	3386.5	3288.7	3258.1	3246.6
7.5°	4091.7	4101.3	3997.8	3806.2	3530.2	3194.8	2901.6	2654.4	2462.7	2405.2	2320.9
10°	4141.6	4135.8	3940.3	3583.9	3099.0	2595.0	2140.7	1803.4	1548.5	1456.5	1448.9
12.5°	4218.2	4187.6	3867.5	3281.1	2585.4	1926.1	1364.6	1067.5	906.5	852.8	841.3
15°	4314.1	4241.2	3752.5	2926.5	1979.8	1243.8	841.3	751.3	730.2	726.4	722.5
17.5°	4427.1	4312.1	3601.1	2491.5	1391.4	806.8	703.4	701.4	703.4	699.5	697.6
20°	4580.5	4386.9	3421.0	1975.9	919.9	680.4	670.8	670.8	672.7	670.8	670.8
22.5°	4743.4	4475.0	3198.7	1508.3	693.8	645.9	643.9	647.8	651.6	649.7	649.7
25°	4944.6	4590.0	2905.4	1033.0	620.9	617.1	619.0	626.7	634.4	636.3	634.4
27.5°	5235.9	4731.9	2591.1	711.0	569.2	573.0	592.2	611.4	622.9	624.8	624.8
30°	5563.6	4889.0	2181.0	576.9	527.0	527.0	550.0	586.5	611.4	615.2	617.1
32.5°	5985.3	5071.1	1726.8	519.4	486.8	483.0	504.0	548.1	594.1	607.5	607.5
35°	6506.5	5285.7	1284.1	483.0	458.0	448.5	460.0	496.4	555.8	594.1	598.0
37.5°	7117.9	5488.9	939.1	450.4	431.2	417.8	425.5	454.2	502.1	559.6	575.0
40°	7683.3	5669.0	701.4	423.5	404.4	394.8	400.6	414.0	454.2	507.9	517.5
42.5°	8300.4	5808.9	557.7	394.8	377.6	373.7	373.7	379.5	406.3	437.0	438.9
45°	8915.6	5858.8	467.6	360.3	348.8	352.6	350.7	346.9	358.4	354.6	354.6
47.5°	9354.5	5799.4	387.1	327.7	327.7	333.5	323.9	310.5	304.7	281.7	283.6
50°	9655.4	5582.8	318.1	289.4	304.7	312.4	293.2	272.1	251.1	226.1	220.4
52.5°	9779.9	5197.6	260.6	239.6	270.2	279.8	256.8	231.9	199.3	178.2	172.5
55°	9699.4	4722.3	216.6	195.5	228.1	239.6	216.6	187.8	151.4	128.4	124.6
57.5°	9344.9	4155.0	184.0	155.2	182.1	189.7	174.4	143.7	107.3	84.3	84.3
60°	8731.6	3568.5	149.5	122.7	136.1	147.6	132.2	103.5	72.8	51.7	47.9
62.5°	7487.8	2897.8	120.7	95.8	95.8	105.4	92.0	74.7	46.0	26.8	24.9
65°	5406.5	1987.4	95.8	70.9	69.0	69.0	57.5	49.8	26.8	11.5	7.7
67.5°	2938.0	1121.2	76.7	53.7	47.9	46.0	36.4	28.7	11.5	1.9	0.0
70°	1155.7	431.2	59.4	36.4	30.7	28.7	19.2	13.4	7.7	0.0	0.0
71°	783.9	297.1	51.7	30.7	24.9	21.1	15.3	11.5	5.7	0.0	0.0
72.5°	448.5	184.0	40.2	23.0	19.2	15.3	11.5	7.7	5.7	0.0	0.0
75°	195.5	93.9	24.9	17.2	13.4	9.6	7.7	5.7	1.9	0.0	0.0
77.5°	99.7	51.7	17.2	13.4	7.7	5.7	3.8	1.9	0.0	0.0	0.0
80°	55.6	26.8	11.5	7.7	5.7	3.8	1.9	1.9	0.0	0.0	0.0
82.5°	30.7	15.3	5.7	3.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0
85°	19.2	9.6	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.6	3.8	0.0	0.0	0.0	0.0	1.9	1.9	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)