

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: P457784

Luminaire Tested: **GALN-SA9A-827-U-T4FT-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P457784  
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-827-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 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: 21946 lumens  
Efficiency: N/A  
Efficacy: 80.1 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

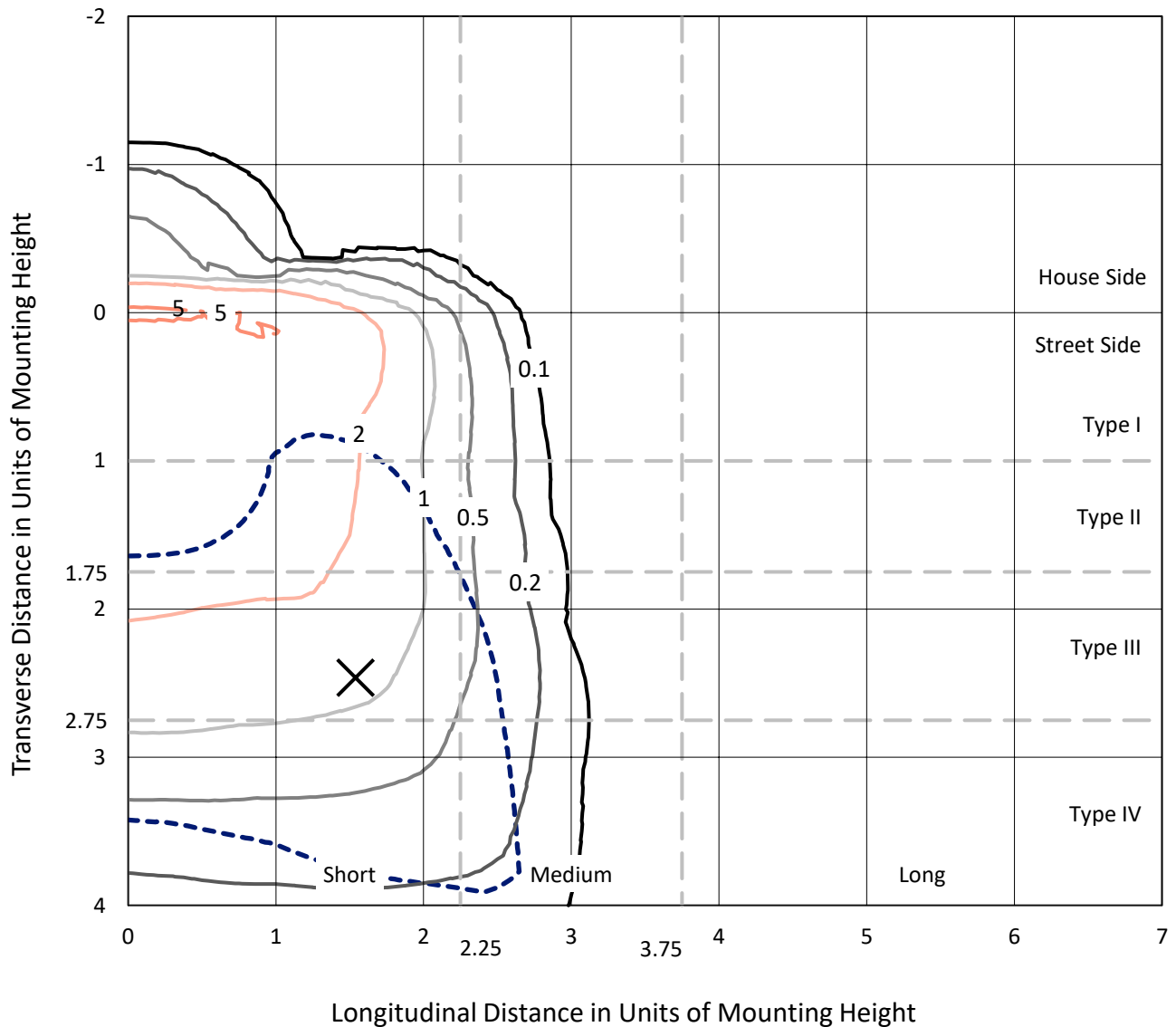
Input Watts (W): 274  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

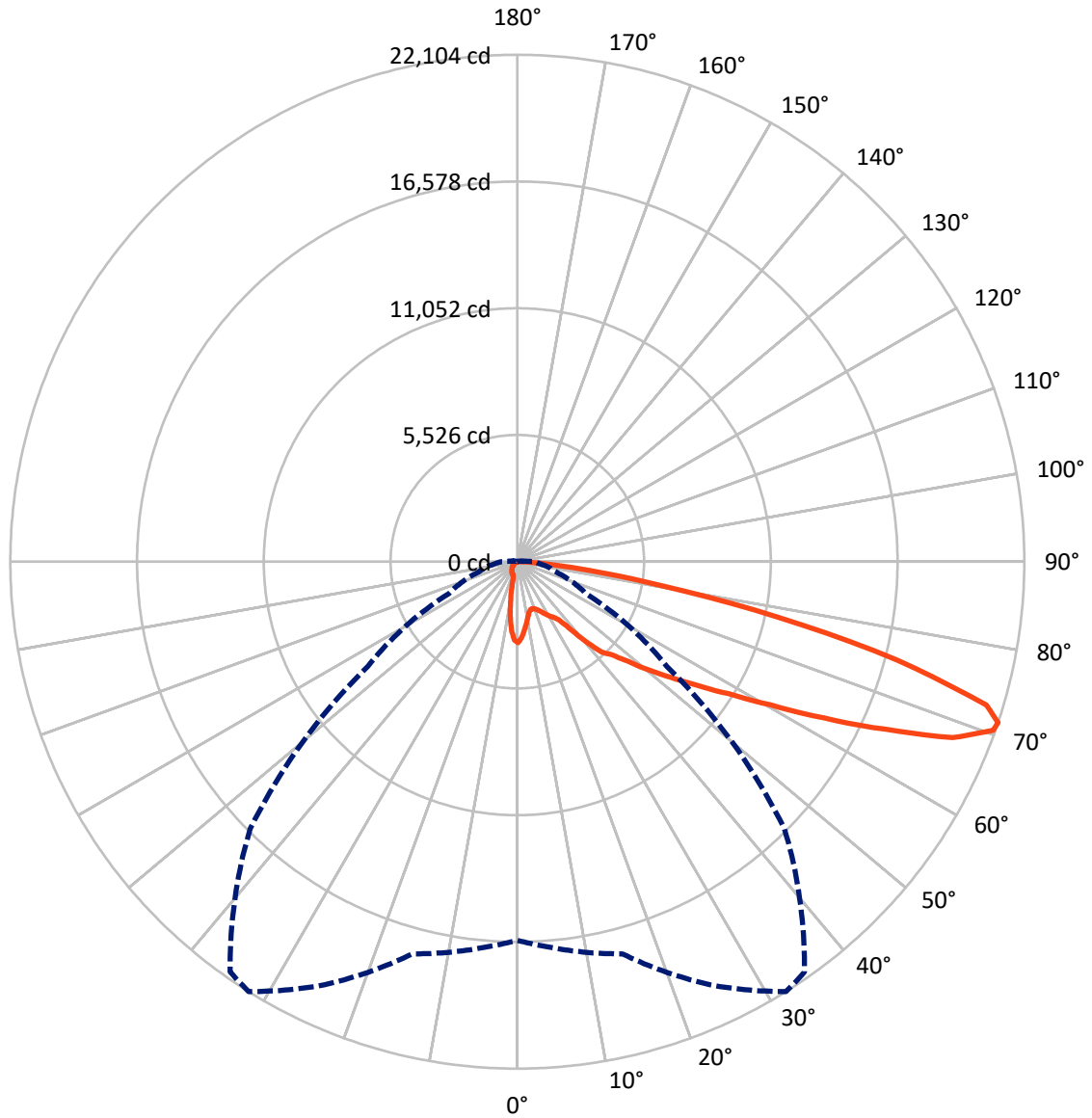
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc  
 Type IV - Short - N/A

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### 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	1838.2	0.0	1838.2
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	20107.8	0.0	20107.8
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	21946.0	0.0	21946.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	287.0	1.3
10°-20°	622.8	2.8
20°-30°	968.9	4.4
30°-40°	1614.2	7.4
40°-50°	3002.8	13.7
50°-60°	4821.0	22.0
60°-70°	6484.5	29.5
70°-80°	3847.4	17.5
80°-90°	297.4	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°	21946.0	100.0
0°-180°	21946.0	100.0



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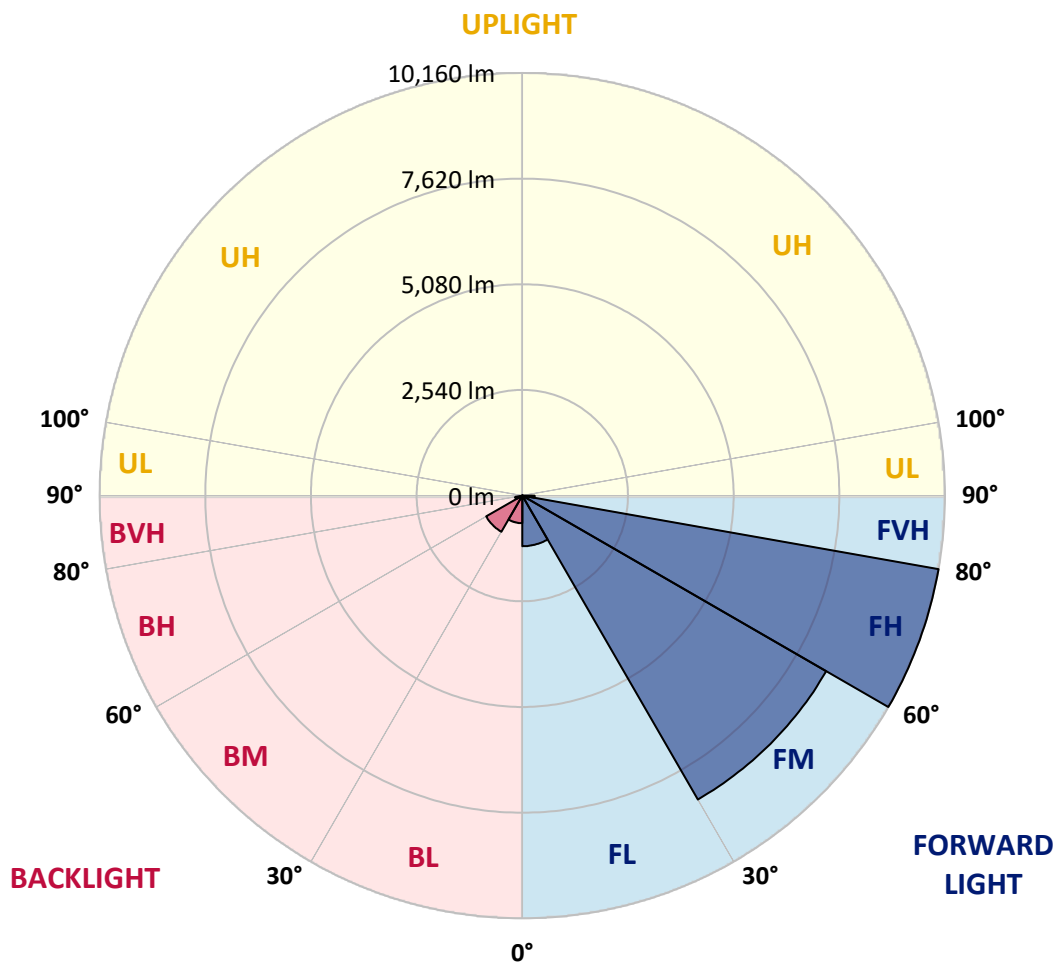
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1216.4	5.5			
FM	(30°-60°)	8435.2	38.4			
FH	(60°-80°)	10159.9	46.3			G4/12000
FVH	(80°-90°)	296.2	1.3			G3/500
BL	(0°-30°)	662.3	3.0	B2/1000		
BM	(30°-60°)	1002.8	4.6	B2/2500		
BH	(60°-80°)	171.9	0.8	B1/500		G1/500
BVH	(80°-90°)	1.2	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3
2.5°	3273.2	3306.9	3301.8	3313.6	3342.3	3354.1	3386.1	3421.4	3470.3	3504.0	3525.9
5°	2931.2	2956.5	2959.9	3018.8	3047.5	3079.5	3173.8	3276.6	3391.1	3482.1	3542.7
7.5°	2565.7	2579.1	2606.1	2683.6	2756.0	2788.0	2931.2	3109.8	3290.0	3460.2	3569.7
10°	2264.1	2279.3	2328.1	2410.7	2478.1	2520.2	2719.0	2943.0	3195.7	3448.4	3608.4
12.5°	2092.3	2100.7	2119.2	2193.4	2279.3	2324.8	2538.7	2794.8	3119.9	3453.5	3674.1
15°	2080.5	2077.1	2055.2	2085.5	2163.0	2210.2	2419.1	2693.7	3052.5	3470.3	3751.6
17.5°	2142.8	2134.4	2082.2	2082.2	2146.2	2184.9	2368.6	2639.8	3018.8	3509.0	3861.1
20°	2238.8	2225.4	2139.5	2132.7	2195.0	2235.5	2398.9	2643.2	3025.6	3581.5	4007.7
22.5°	2360.1	2345.0	2215.3	2218.6	2286.0	2326.4	2486.5	2703.8	3067.7	3670.8	4164.4
25°	2518.5	2501.6	2348.3	2341.6	2412.4	2447.7	2616.2	2811.6	3126.6	3782.0	4369.9
27.5°	2729.1	2693.7	2510.1	2500.0	2575.8	2621.3	2772.9	2956.5	3231.1	3935.3	4646.2
30°	2902.6	2863.8	2688.6	2661.7	2742.5	2777.9	2934.6	3151.9	3436.6	4203.1	5028.6
32.5°	3130.0	3072.7	2867.2	2796.5	2882.4	2927.9	3168.8	3515.8	3741.5	4486.1	5483.4
35°	3642.1	3606.8	3355.7	3108.1	3103.1	3160.3	3514.1	3883.0	4054.9	4927.5	6103.3
37.5°	4374.9	4349.7	4083.5	3751.6	3655.6	3628.7	3933.6	4287.3	4555.2	5533.9	6824.4
40°	5225.7	5166.7	4922.4	4641.1	4516.4	4437.3	4428.8	4888.7	5208.8	6357.7	7575.7
42.5°	5835.5	5727.7	5431.2	5411.0	5384.0	5301.5	5062.3	5768.1	6052.8	7243.8	8379.3
45°	6475.6	6312.2	5870.9	5795.1	5785.0	5779.9	6019.1	6809.2	6972.6	8204.1	9204.7
47.5°	6972.6	6842.9	6480.7	6447.0	6489.1	6603.7	7284.3	7914.3	7880.6	9059.8	9897.1
50°	7634.7	7536.9	7134.3	7198.3	7415.7	7602.6	8711.1	9118.8	8626.9	9733.7	10400.8
52.5°	8416.3	8236.1	7862.1	8035.6	8369.1	8680.8	10225.6	10173.4	9150.8	10240.7	10776.5
55°	9093.5	8965.5	8837.5	9017.7	9516.4	9905.5	11593.5	10963.4	9531.5	10648.4	10941.5
57.5°	10239.1	10208.7	10077.3	10261.0	10865.7	11270.0	12818.2	11576.6	9775.8	10860.7	10747.8
60°	11933.8	11884.9	11640.7	11874.8	12663.2	13298.3	13946.9	12127.5	9831.4	10778.1	10190.2
62.5°	13972.2	13805.4	13596.5	13941.8	15023.4	15303.0	15009.9	12454.3	9624.2	10121.1	8845.9
65°	15875.8	15703.9	15709.0	16436.7	17614.3	17804.7	16249.8	12405.5	9017.7	8475.3	6524.5
67.5°	17333.0	17304.3	17509.8	18930.0	20469.7	20338.3	17358.2	11674.4	7220.2	5493.5	3466.9
70°	17407.1	17462.7	18052.3	20449.5	22012.8	21803.9	17263.9	9489.4	4501.3	2526.9	1366.2
71°	16510.9	16884.9	17700.2	20402.3	22103.8	21832.6	16468.8	7948.0	3301.8	1762.1	985.5
72.5°	14069.9	14267.0	16029.1	19201.2	21384.4	20804.9	14452.3	5571.0	2114.2	1078.2	566.0
75°	7749.2	8234.4	10734.3	15063.8	17103.9	16595.1	9418.7	2646.5	1054.6	589.6	234.2
77.5°	3689.3	3595.0	5237.5	8958.8	11596.9	11569.9	4745.5	1175.9	614.9	399.3	117.9
80°	1054.6	1186.0	2004.7	4258.7	6438.6	6509.3	1822.7	567.7	426.2	311.7	60.6
82.5°	318.4	325.1	736.2	1883.4	3202.4	3018.8	684.0	289.8	306.6	247.6	35.4
85°	55.6	69.1	217.3	663.7	1221.3	926.5	171.8	138.1	202.2	163.4	20.2
87.5°	3.4	5.1	72.4	75.8	107.8	62.3	30.3	20.2	43.8	43.8	11.8
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°	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3	3529.3
2.5°	3541.1	3551.2	3544.4	3529.3	3504.0	3473.7	3433.2	3399.5	3370.9	3355.7	3374.3
5°	3563.0	3576.4	3542.7	3466.9	3352.4	3227.7	3086.2	2976.7	2890.8	2863.8	2853.7
7.5°	3596.6	3605.1	3514.1	3345.6	3103.1	2808.2	2550.5	2333.2	2164.7	2114.2	2040.1
10°	3640.4	3635.4	3463.6	3150.2	2724.0	2281.0	1881.7	1585.2	1361.2	1280.3	1273.6
12.5°	3707.8	3680.9	3399.5	2884.1	2272.5	1693.0	1199.4	938.3	796.8	749.7	739.5
15°	3792.1	3728.0	3298.5	2572.4	1740.2	1093.3	739.5	660.4	641.8	638.5	635.1
17.5°	3891.5	3790.4	3165.4	2190.0	1223.0	709.2	618.3	616.6	618.3	614.9	613.2
20°	4026.2	3856.1	3007.0	1736.8	808.6	598.0	589.6	589.6	591.3	589.6	589.6
22.5°	4169.4	3933.6	2811.6	1325.8	609.8	567.7	566.0	569.4	572.8	571.1	571.1
25°	4346.3	4034.6	2553.9	908.0	545.8	542.4	544.1	550.9	557.6	559.3	557.6
27.5°	4602.4	4159.3	2277.6	625.0	500.3	503.7	520.5	537.4	547.5	549.2	549.2
30°	4890.4	4297.4	1917.1	507.1	463.3	463.3	483.5	515.5	537.4	540.8	542.4
32.5°	5261.0	4457.5	1517.8	456.5	427.9	424.5	443.1	481.8	522.2	534.0	534.0
35°	5719.3	4646.2	1128.7	424.5	402.6	394.2	404.3	436.3	488.5	522.2	525.6
37.5°	6256.6	4824.7	825.5	395.9	379.0	367.2	374.0	399.3	441.4	491.9	505.4
40°	6753.6	4983.1	616.6	372.3	355.5	347.0	352.1	363.9	399.3	446.4	454.8
42.5°	7296.0	5106.1	490.2	347.0	331.9	328.5	328.5	333.6	357.1	384.1	385.8
45°	7836.8	5149.9	411.0	316.7	306.6	310.0	308.3	304.9	315.0	311.7	311.7
47.5°	8222.6	5097.6	340.3	288.1	288.1	293.1	284.7	272.9	267.9	247.6	249.3
50°	8487.1	4907.3	279.6	254.4	267.9	274.6	257.7	239.2	220.7	198.8	193.7
52.5°	8596.6	4568.7	229.1	210.6	237.5	246.0	225.7	203.8	175.2	156.7	151.6
55°	8525.8	4150.9	190.4	171.8	200.5	210.6	190.4	165.1	133.1	112.9	109.5
57.5°	8214.2	3652.2	161.7	136.5	160.0	166.8	153.3	126.3	94.3	74.1	74.1
60°	7675.1	3136.7	131.4	107.8	119.6	129.7	116.2	91.0	64.0	45.5	42.1
62.5°	6581.8	2547.1	106.1	84.2	84.2	92.7	80.9	65.7	40.4	23.6	21.9
65°	4752.3	1746.9	84.2	62.3	60.6	60.6	50.5	43.8	23.6	10.1	6.7
67.5°	2582.5	985.5	67.4	47.2	42.1	40.4	32.0	25.3	10.1	1.7	0.0
70°	1015.8	379.0	52.2	32.0	27.0	25.3	16.8	11.8	6.7	0.0	0.0
71°	689.0	261.1	45.5	27.0	21.9	18.5	13.5	10.1	5.1	0.0	0.0
72.5°	394.2	161.7	35.4	20.2	16.8	13.5	10.1	6.7	5.1	0.0	0.0
75°	171.8	82.5	21.9	15.2	11.8	8.4	6.7	5.1	1.7	0.0	0.0
77.5°	87.6	45.5	15.2	11.8	6.7	5.1	3.4	1.7	0.0	0.0	0.0
80°	48.9	23.6	10.1	6.7	5.1	3.4	1.7	1.7	0.0	0.0	0.0
82.5°	27.0	13.5	5.1	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0
85°	16.8	8.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.4	3.4	0.0	0.0	0.0	0.0	1.7	1.7	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)