

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: P451283

Luminaire Tested: **GALN-SA2A-827-U-T2R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P451283  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA2A-827-U-T2R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6890 lumens  
Efficiency: N/A  
Efficacy: 109.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

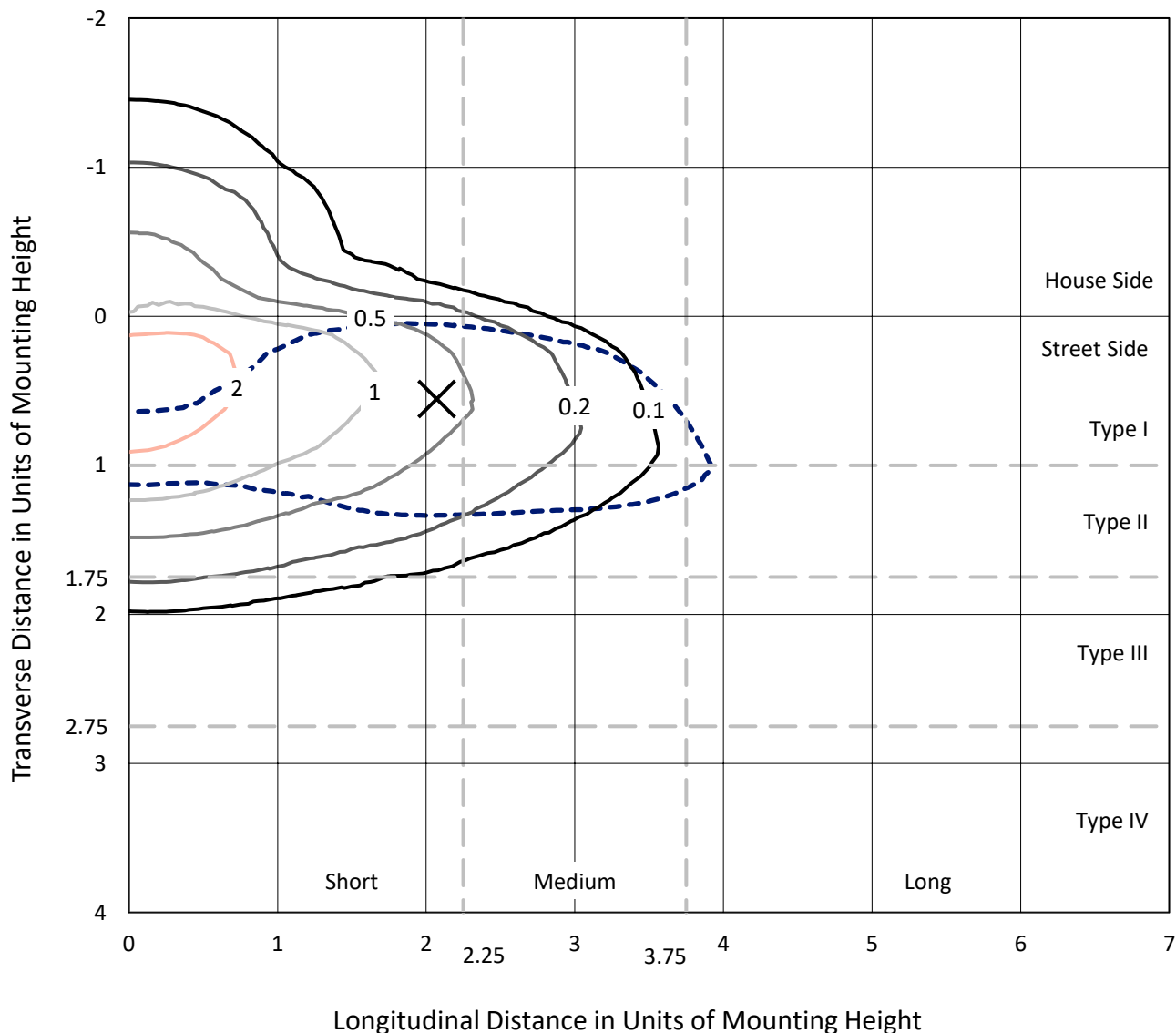
Input Watts (W): 63  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

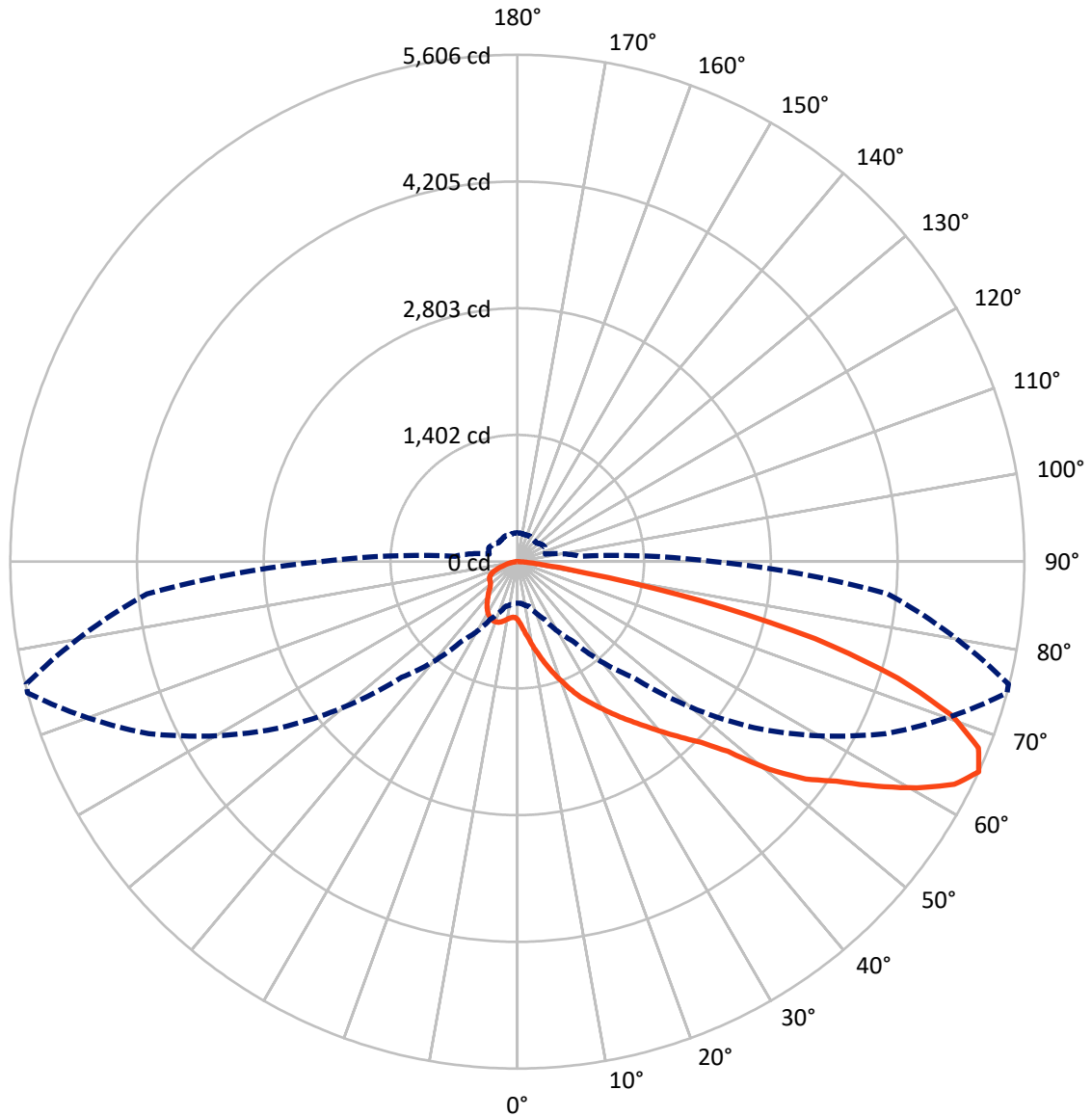
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1158.3	0.0	1158.3
	% Fixture	16.8	0.0	16.8
<b>Street Side</b>	Lumens	5731.7	0.0	5731.7
	% Fixture	83.2	0.0	83.2
<b>Total</b>	Lumens	6890.0	0.0	6890.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.8	1.1
10°-20°	304.6	4.4
20°-30°	588.5	8.5
30°-40°	955.9	13.9
40°-50°	1314.9	19.1
50°-60°	1552.4	22.5
60°-70°	1360.2	19.7
70°-80°	649.4	9.4
80°-90°	86.4	1.3
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°	6890.0	100.0
0°-180°	6890.0	100.0

**Coefficient of Utilization**



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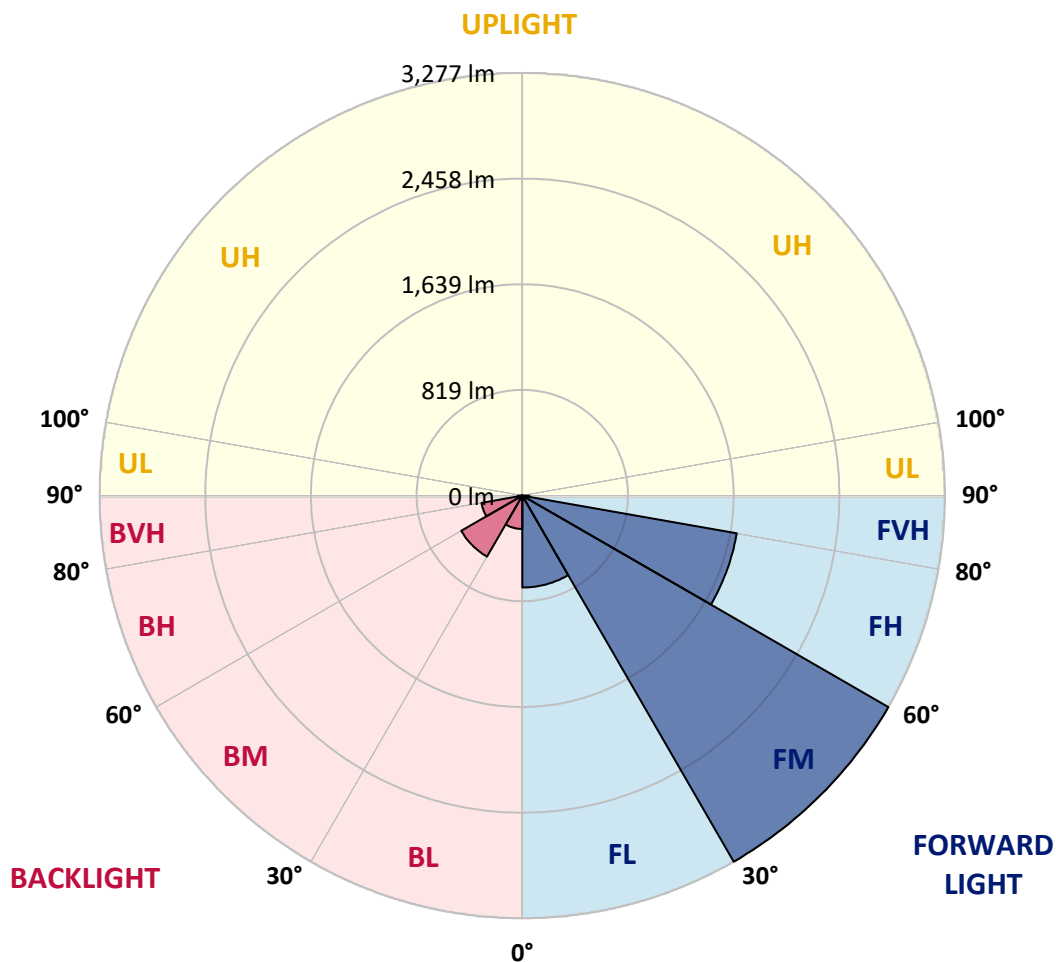
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	712.3	10.3			
FM (30°-60°)	3277.0	47.6			
FH (60°-80°)	1688.4	24.5			G1/1800
FVH (80°-90°)	54.0	0.8			G1/100
BL (0°-30°)	258.6	3.8	B1/500		
BM (30°-60°)	546.1	7.9	B1/1000		
BH (60°-80°)	321.2	4.7	B1/500		G1/500
BVH (80°-90°)	32.4	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2
2.5°	850.6	845.0	839.0	822.5	805.0	785.2	756.8	729.5	693.2	692.1	665.2
5°	1086.4	1082.6	1056.1	1040.8	1000.1	945.9	899.9	828.5	762.4	754.5	702.2
7.5°	1303.1	1288.6	1278.5	1250.8	1210.5	1140.9	1052.0	955.6	845.0	834.5	747.8
10°	1466.4	1464.9	1459.7	1435.8	1405.5	1336.4	1237.7	1099.5	949.6	929.0	803.1
12.5°	1588.6	1589.8	1589.0	1588.6	1567.0	1508.3	1401.4	1255.7	1055.4	1040.8	867.0
15°	1669.0	1680.2	1684.7	1703.4	1705.2	1666.0	1574.1	1406.7	1174.6	1152.9	935.8
17.5°	1722.1	1727.7	1748.6	1780.4	1806.1	1799.0	1717.2	1546.4	1296.4	1260.2	1007.2
20°	1772.9	1782.6	1798.7	1842.0	1887.6	1908.5	1851.0	1689.6	1417.1	1393.9	1086.0
22.5°	1878.6	1892.5	1898.1	1920.1	1959.0	1996.0	1969.8	1826.7	1549.4	1518.0	1169.7
25°	2057.7	2072.2	2056.5	2051.3	2064.0	2082.3	2076.7	1956.0	1674.2	1629.4	1248.9
27.5°	2290.9	2292.7	2262.1	2232.9	2201.5	2192.2	2175.0	2070.7	1782.6	1745.2	1328.5
30°	2541.2	2532.3	2481.4	2428.8	2375.7	2323.4	2274.0	2181.4	1903.3	1860.3	1406.7
32.5°	2773.7	2768.8	2712.4	2630.6	2540.9	2491.5	2391.8	2293.1	2032.6	1991.1	1487.0
35°	2947.8	2954.9	2892.9	2803.6	2705.7	2661.9	2536.0	2410.4	2166.4	2121.2	1574.4
37.5°	3071.5	3067.8	3012.9	2935.5	2849.6	2811.4	2704.6	2538.6	2310.3	2266.9	1670.1
40°	3115.6	3113.4	3072.7	3016.2	2961.7	2948.2	2880.9	2676.9	2475.1	2424.3	1785.2
42.5°	3087.6	3092.5	3065.6	3050.2	3040.1	3049.9	3056.2	2858.1	2654.8	2608.1	1910.0
45°	3001.7	2999.0	2995.3	3020.3	3077.1	3141.0	3229.6	3029.3	2850.3	2812.9	2077.5
47.5°	2848.1	2866.7	2876.1	2945.2	3069.3	3220.6	3429.2	3258.8	3133.9	3101.4	2332.7
50°	2633.2	2648.1	2703.4	2826.4	3011.4	3250.5	3624.3	3634.0	3607.1	3546.1	2610.0
52.5°	2297.6	2320.7	2434.7	2660.1	2892.5	3238.2	3742.3	3955.7	3991.2	3945.6	2883.2
55°	1922.0	1954.5	2074.8	2370.5	2728.8	3170.9	3823.8	4142.2	4283.9	4241.6	3146.3
57.5°	1554.3	1588.6	1712.3	1998.6	2443.3	3022.2	3877.3	4350.0	4682.2	4627.3	3473.6
60°	1164.9	1200.7	1306.9	1601.7	2036.7	2731.5	3841.0	4530.1	5080.2	5056.7	3801.4
62.5°	751.5	791.1	883.5	1127.5	1565.5	2334.2	3647.1	4629.5	5424.8	5396.4	4040.6
65°	457.8	462.3	513.1	700.0	1071.4	1807.3	3203.5	4497.6	5606.4	5597.8	4113.4
67.5°	296.0	303.1	326.3	419.3	642.4	1255.3	2561.4	4062.2	5500.3	5497.3	3962.8
70°	250.0	252.3	262.7	282.9	373.3	761.3	1798.7	3368.3	5097.1	5097.1	3600.7
72.5°	223.5	226.5	230.2	236.6	266.5	431.3	1073.3	2622.0	4400.8	4430.0	3064.8
75°	202.9	202.2	204.4	205.5	227.2	281.8	555.0	1939.2	3404.5	3346.2	2219.5
77.5°	173.8	174.9	173.8	178.6	200.7	214.5	281.8	1301.3	2063.3	1987.8	1114.0
80°	142.8	144.6	146.5	149.5	171.5	162.9	169.3	593.1	763.1	747.0	344.2
82.5°	107.3	109.9	112.9	120.0	134.9	107.6	106.9	253.4	275.4	252.3	126.7
85°	43.4	51.2	77.4	84.5	84.8	59.0	65.8	105.8	112.5	109.9	49.7
87.5°	10.1	12.0	25.0	37.7	34.8	22.0	24.3	34.4	39.2	36.3	16.8
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°	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2
2.5°	652.9	639.8	617.4	600.2	587.8	577.0	570.3	566.2	564.7	564.3	564.7
5°	674.9	651.8	616.3	593.8	581.5	574.4	570.3	569.9	570.3	570.7	569.5
7.5°	705.2	671.9	625.6	604.7	595.3	590.1	588.2	587.5	587.8	587.5	587.5
10°	745.6	700.0	643.9	622.2	614.4	608.4	605.4	603.5	602.0	600.6	599.8
12.5°	790.0	731.0	663.7	642.8	631.6	622.2	615.5	610.6	607.3	603.9	603.2
15°	839.7	763.9	685.8	656.6	640.5	626.7	615.1	607.3	601.3	596.4	596.1
17.5°	887.2	794.9	700.7	663.0	639.4	620.0	604.7	593.8	586.4	580.0	579.3
20°	938.0	824.4	707.4	658.9	628.2	604.7	584.5	571.4	562.8	555.7	554.6
22.5°	989.2	849.4	706.7	645.8	608.8	581.1	559.8	546.0	535.9	528.8	526.2
25°	1038.2	869.6	697.3	624.8	581.9	553.1	531.4	518.7	509.7	501.1	501.1
27.5°	1082.3	881.6	679.8	599.4	554.2	523.9	506.8	495.2	486.9	481.3	478.0
30°	1125.6	887.2	655.9	567.3	525.1	499.3	485.5	478.7	471.3	464.9	464.1
32.5°	1164.5	886.1	626.0	535.9	497.4	479.1	473.5	468.3	460.4	451.4	449.2
35°	1202.2	878.6	590.5	501.5	474.2	467.1	468.6	461.2	447.0	435.7	433.9
37.5°	1243.3	865.1	551.6	473.5	454.8	461.5	465.3	448.8	425.7	408.1	404.0
40°	1290.8	849.8	511.2	445.5	439.5	456.3	456.3	426.0	394.3	383.4	380.4
42.5°	1346.5	837.1	477.6	421.9	426.8	443.6	441.7	395.8	382.7	377.1	375.6
45°	1434.7	832.6	442.8	401.4	416.3	428.6	413.3	385.3	377.8	373.3	371.8
47.5°	1574.1	837.9	412.2	386.0	404.4	413.7	381.6	378.2	373.0	366.6	365.9
50°	1703.4	833.0	390.5	377.4	393.9	395.8	368.5	369.6	366.6	359.5	358.0
52.5°	1809.1	817.7	376.7	373.0	384.9	364.4	356.1	360.3	359.1	350.2	348.7
55°	1925.4	808.3	370.0	373.0	378.9	337.1	344.6	350.5	349.0	342.7	342.3
57.5°	2066.3	810.2	365.1	374.1	373.0	323.3	333.0	340.1	339.7	337.8	337.8
60°	2210.5	811.0	357.6	373.7	365.9	312.4	321.0	331.1	331.9	333.0	333.0
62.5°	2258.3	778.4	343.1	367.0	350.2	302.0	309.8	323.6	322.9	325.9	326.3
65°	2169.0	688.4	321.4	351.7	330.0	294.5	301.2	313.9	309.8	317.7	319.1
67.5°	1974.3	569.5	287.8	324.0	307.6	286.6	295.6	300.5	293.0	308.3	308.7
70°	1706.4	444.7	245.2	284.8	282.2	278.4	291.1	283.6	273.2	291.9	288.1
72.5°	1426.8	339.7	195.8	232.8	248.1	266.1	283.3	262.0	247.4	253.0	246.3
75°	1071.8	251.1	157.3	182.4	206.7	248.5	276.2	235.8	213.4	208.2	206.7
77.5°	546.4	164.1	117.7	136.4	155.1	224.6	266.5	205.2	176.8	168.5	164.8
80°	195.1	102.0	83.0	94.2	104.6	193.2	232.8	169.7	137.2	135.7	137.2
82.5°	90.4	65.8	55.7	61.7	62.0	128.9	177.5	126.7	104.3	158.5	133.8
85°	38.9	32.9	31.4	30.6	28.4	57.6	99.8	68.0	106.1	47.5	43.7
87.5°	11.6	13.1	11.6	8.6	6.4	6.4	10.1	3.7	2.6	1.9	1.9
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)