

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P638983

Luminaire Tested: GWS-SA4F-830-U-T2-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P638983  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-20)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4F-830-U-T2-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (64) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

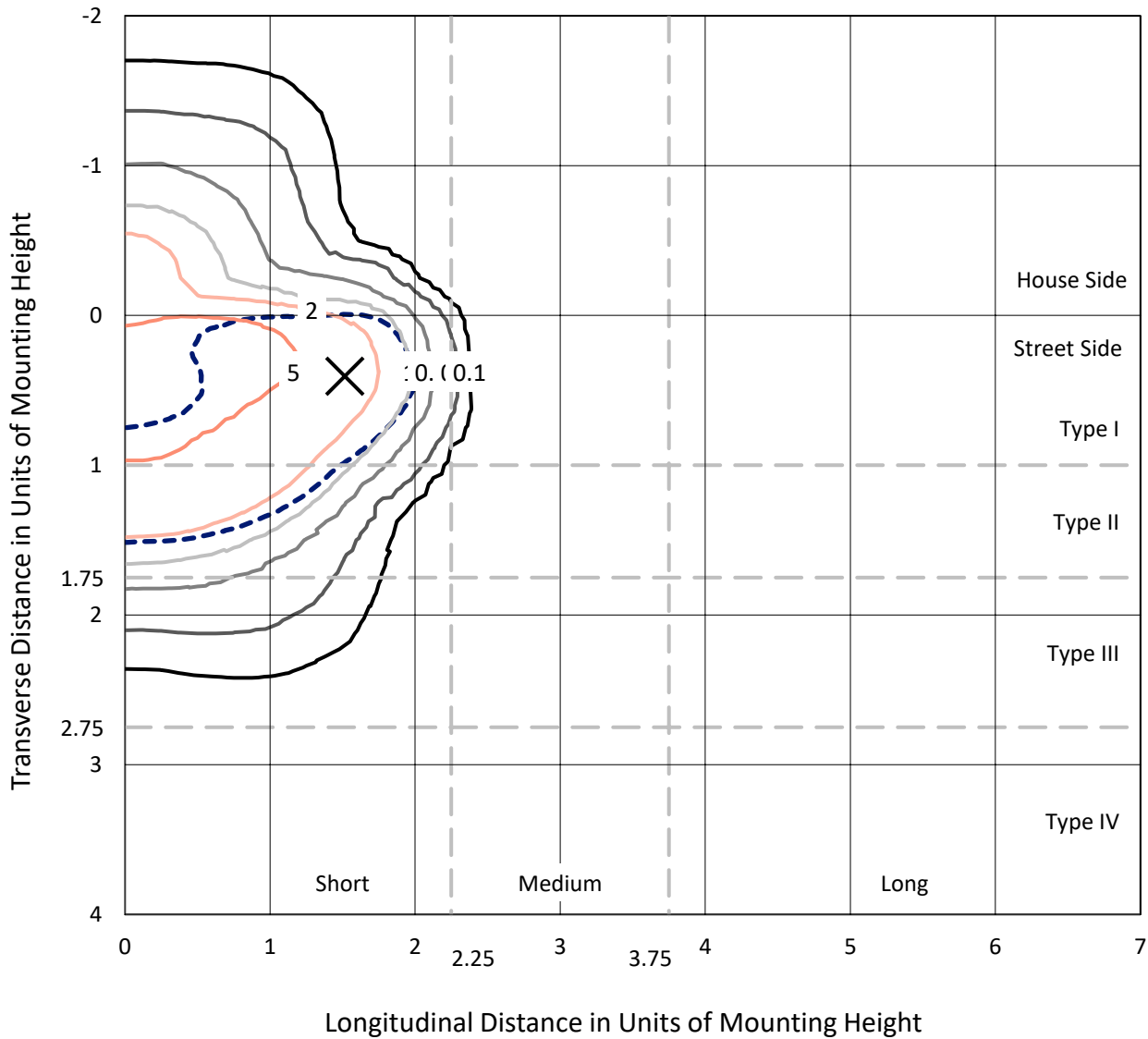
Lumens per Lamp: N/A  
Luminaire Lumens: 16055.1 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G1  
  
Input Watts (W): 225.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 0  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

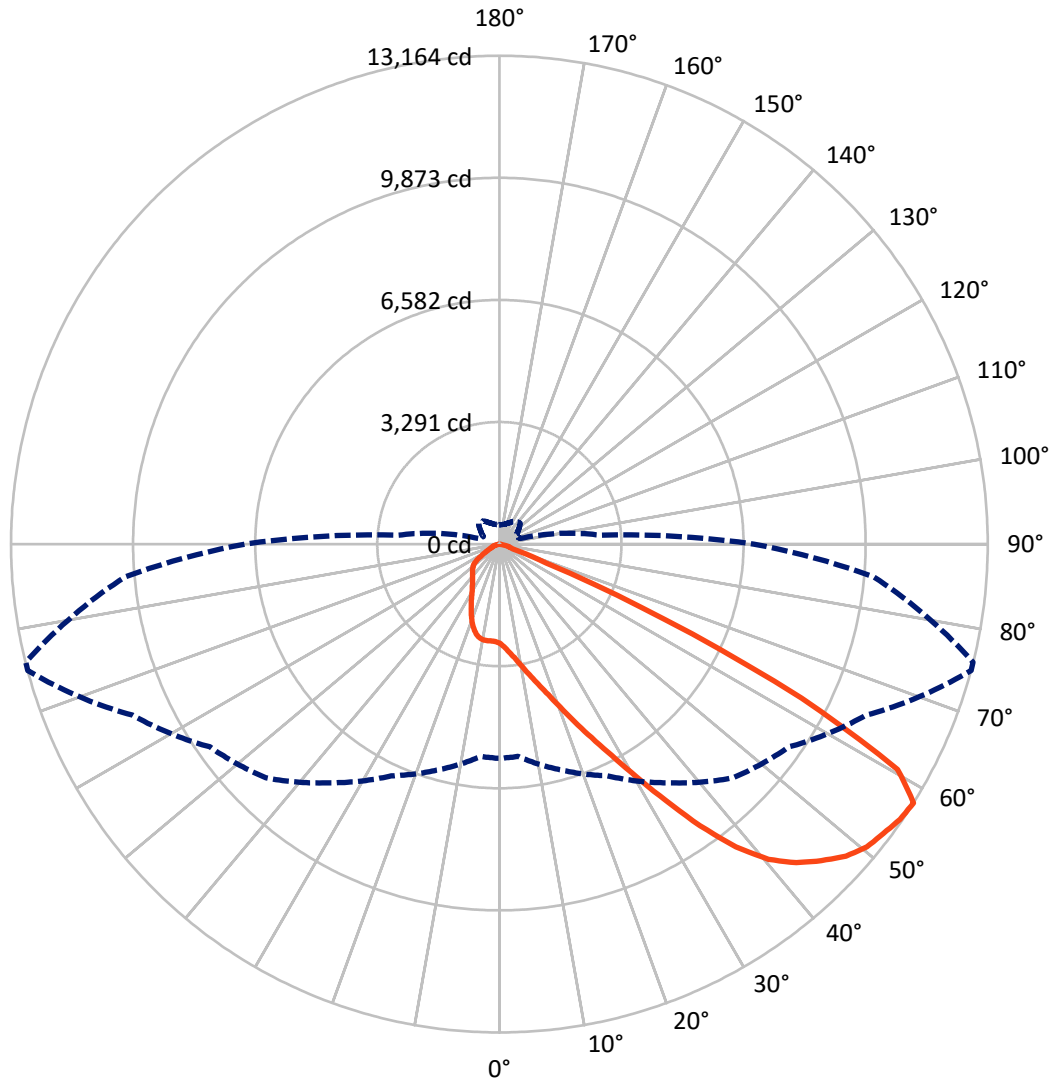
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2622.6	0.0	2622.6
	% Fixture	16.3	0.0	16.3
<b>Street Side</b>	Lumens	13432.5	0.0	13432.5
	% Fixture	83.7	0.0	83.7
<b>Total</b>	Lumens	16055.1	0.0	16055.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	272.5	1.7
10°-20°	885.2	5.5
20°-30°	1620.9	10.1
30°-40°	2689.2	16.8
40°-50°	4107.1	25.6
50°-60°	4615.1	28.7
60°-70°	1702.2	10.6
70°-80°	162.7	1.0
80°-90°	0.1	0.0
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°	16055.1	100.0
0°-180°	16055.1	100.0

**Coefficient of Utilization**



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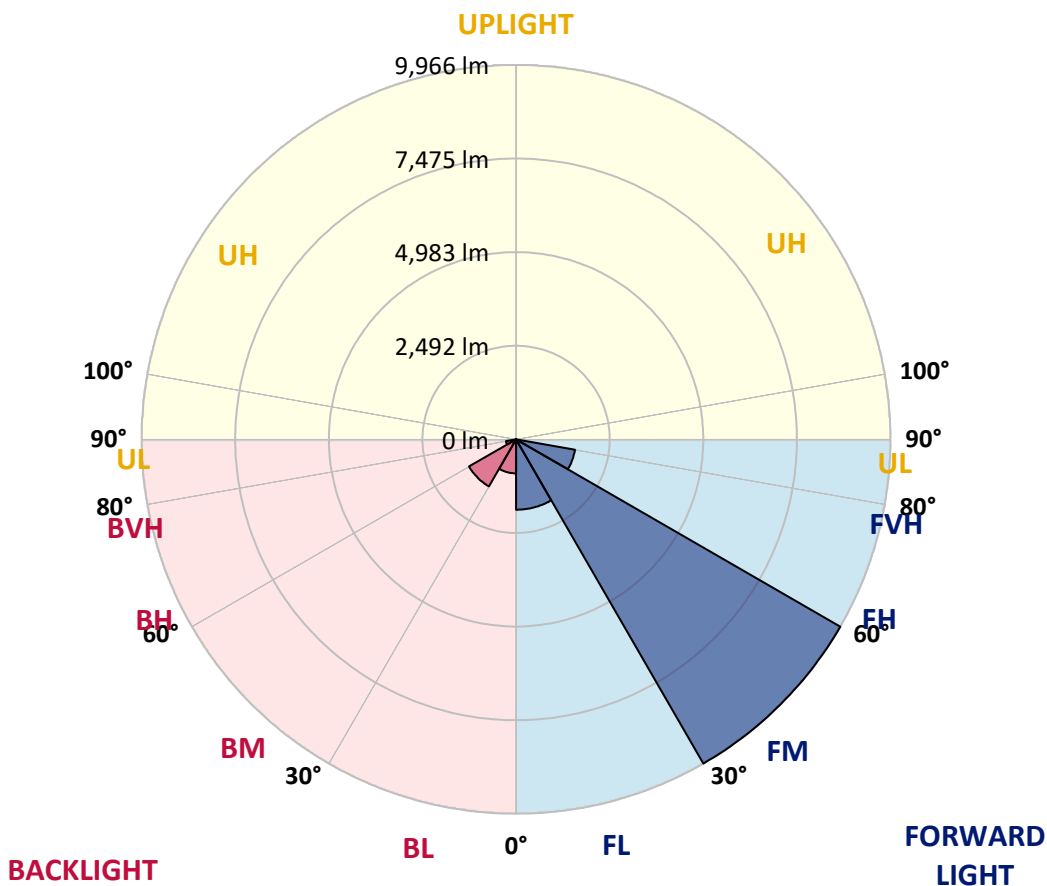
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1873.6	11.7			
FM (30°-60°)	9966.3	62.1			
FH (60°-80°)	1592.6	9.9			G1/1800
FVH (80°-90°)	0.1	0.0			G0/10
BL (0°-30°)	905.0	5.6	B2/1000		
BM (30°-60°)	1445.2	9.0	B2/2500		
BH (60°-80°)	272.3	1.7	B1/500		G1/500
BVH (80°-90°)	0.1	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-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8
2.5°	2991.7	3022.7	3013.0	2993.6	2982.0	2941.3	2916.1	2842.5	2790.1	2784.3	2735.9
5°	3369.5	3363.7	3355.9	3332.7	3313.3	3249.4	3173.8	3049.8	2939.3	2925.8	2823.1
7.5°	3576.8	3580.7	3584.6	3580.7	3567.1	3518.7	3435.4	3290.0	3121.5	3109.9	2947.1
10°	3662.1	3669.8	3689.2	3726.0	3758.9	3755.1	3706.6	3557.4	3350.1	3330.7	3111.8
12.5°	3702.8	3712.4	3743.4	3813.2	3902.3	3972.1	3979.8	3846.1	3617.5	3586.5	3307.5
15°	3758.9	3768.6	3807.4	3898.5	4028.3	4165.8	4255.0	4169.7	3914.0	3881.0	3522.6
17.5°	3784.1	3797.7	3853.9	3974.0	4142.6	4353.8	4555.3	4547.6	4264.7	4239.5	3772.5
20°	3832.6	3842.3	3892.6	4022.5	4225.9	4530.1	4869.2	4991.3	4692.9	4656.1	4074.8
22.5°	3985.6	3989.5	4012.8	4094.2	4284.0	4658.0	5188.9	5508.6	5198.6	5150.1	4413.9
25°	4235.6	4233.7	4243.4	4256.9	4396.4	4787.8	5497.0	6091.8	5777.9	5725.6	4797.5
27.5°	4553.4	4553.4	4576.6	4537.9	4594.1	4948.6	5801.2	6762.2	6452.2	6378.6	5218.0
30°	4927.3	4925.4	4979.6	4917.6	4935.1	5202.5	6128.6	7492.7	7266.0	7174.9	5702.4
32.5°	5435.0	5423.4	5485.4	5400.1	5342.0	5586.1	6527.8	8256.1	8240.6	8101.1	6310.8
35°	6076.3	6056.9	6076.3	5993.0	5888.4	6122.8	7050.9	9017.6	9321.8	9174.5	7035.4
37.5°	6713.8	6775.8	6797.1	6653.7	6568.5	6802.9	7680.7	9699.6	10354.5	10201.5	7789.2
40°	7465.6	7446.2	7519.8	7359.0	7304.8	7564.4	8296.8	10207.3	11172.2	11026.9	8459.6
42.5°	8019.7	8054.6	8145.7	8056.6	8013.9	8258.1	8814.2	10503.7	11739.9	11596.6	8938.2
45°	8684.3	8709.5	8744.4	8670.8	8626.2	8866.5	9188.1	10633.6	12172.0	12017.0	9259.8
47.5°	9403.2	9422.6	9422.6	9271.4	9128.0	9226.9	9438.1	10707.2	12569.2	12420.0	9498.1
50°	9918.6	9928.3	10013.5	9907.0	9595.0	9441.9	9552.4	10778.9	12832.7	12693.2	9575.6
52.5°	9461.3	9449.7	9730.6	9951.5	10034.8	9730.6	9750.0	10883.5	12960.6	12840.5	9637.6
55°	7967.4	7948.0	8343.3	8880.0	9614.4	10003.8	9988.3	10945.5	13102.1	13028.4	9862.4
57.5°	5776.0	5743.1	6293.3	6890.1	7853.1	8909.1	9529.1	10910.6	13164.1	13158.3	10124.0
60°	3472.2	3445.1	3964.3	4592.1	5336.2	6398.0	7426.8	9773.3	12334.8	12346.4	9443.9
62.5°	2137.2	2162.4	2631.3	2951.0	3228.0	3547.8	4142.6	6574.3	9137.7	9213.3	6636.3
65°	1437.7	1457.1	1891.1	2294.1	2294.1	1875.6	1610.1	3142.8	4875.0	4747.1	3138.9
67.5°	964.9	986.2	1329.2	1800.0	1867.8	1307.9	653.0	937.8	1358.3	1317.6	777.0
70°	567.7	591.0	885.5	1234.3	1360.2	910.7	436.0	397.2	385.6	374.0	302.3
72.5°	253.8	263.5	451.5	627.8	573.5	383.6	308.1	317.8	300.3	294.5	246.1
75°	77.5	81.4	116.3	135.6	137.6	137.6	186.0	250.0	236.4	238.3	189.9
77.5°	19.4	19.4	31.0	29.1	15.5	13.6	34.9	56.2	58.1	52.3	38.8
80°	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8
2.5°	2714.6	2664.2	2631.3	2584.8	2551.8	2516.9	2485.9	2460.8	2447.2	2443.3	2445.3
5°	2776.6	2697.1	2619.6	2530.5	2468.5	2410.4	2363.9	2327.1	2309.6	2303.8	2303.8
7.5°	2871.5	2761.1	2623.5	2484.0	2379.4	2288.3	2234.1	2193.4	2177.9	2174.0	2162.4
10°	2995.5	2844.4	2617.7	2400.7	2253.4	2158.5	2119.7	2108.1	2113.9	2115.9	2113.9
12.5°	3144.7	2931.6	2580.9	2278.6	2119.7	2061.6	2065.5	2096.5	2131.4	2148.8	2152.7
15°	3303.6	3011.0	2497.6	2133.3	2005.4	2003.5	2059.7	2131.4	2199.2	2228.2	2236.0
17.5°	3481.9	3075.0	2369.7	1978.3	1906.6	1962.8	2063.5	2174.0	2265.1	2313.5	2323.2
20°	3677.6	3127.3	2206.9	1833.0	1819.4	1920.2	2059.7	2195.3	2307.7	2361.9	2371.6
22.5°	3881.0	3164.1	2019.0	1699.3	1740.0	1871.7	2022.9	2154.6	2261.2	2323.2	2330.9
25°	4113.5	3168.0	1827.2	1586.9	1666.3	1805.8	1933.7	2042.2	2131.4	2185.6	2191.4
27.5°	4317.0	3121.5	1656.7	1495.8	1598.5	1724.5	1809.7	1869.8	1931.8	1962.8	1964.7
30°	4551.4	3040.1	1495.8	1422.2	1528.8	1623.7	1666.3	1679.9	1685.7	1691.5	1683.8
32.5°	4830.4	2941.3	1375.7	1350.5	1449.3	1513.3	1524.9	1497.8	1464.8	1418.3	1406.7
35°	5173.4	2852.2	1276.9	1280.8	1362.1	1400.9	1391.2	1333.1	1269.1	1212.9	1203.3
37.5°	5545.4	2776.6	1201.3	1212.9	1267.2	1294.3	1265.3	1201.3	1172.2	1123.8	1125.7
40°	5874.8	2714.6	1133.5	1145.1	1170.3	1195.5	1149.0	1106.4	1160.6	1156.7	1160.6
42.5°	6109.3	2662.3	1075.4	1069.6	1087.0	1104.4	1069.6	1048.2	1139.3	1114.1	1127.7
45°	6246.8	2613.8	1026.9	992.1	1019.2	1050.2	1026.9	999.8	1030.8	914.5	904.9
47.5°	6339.8	2586.7	984.3	916.5	964.9	1019.2	970.7	904.9	860.3	759.5	751.8
50°	6349.5	2573.1	933.9	839.0	901.0	959.1	902.9	811.9	747.9	703.3	697.5
52.5°	6399.9	2600.3	864.2	740.2	808.0	901.0	862.2	771.2	684.0	645.2	637.5
55°	6624.7	2714.6	747.9	604.5	703.3	856.4	829.3	687.8	604.5	581.3	575.5
57.5°	6857.2	2737.8	589.0	478.6	612.3	792.5	757.6	633.6	552.2	525.1	519.3
60°	6270.1	2255.4	441.8	395.3	540.6	732.4	701.4	600.7	505.7	472.8	467.0
62.5°	4119.3	1218.8	350.7	335.2	455.3	620.0	639.4	542.5	451.5	416.6	414.6
65°	1898.9	565.8	269.3	265.5	356.5	494.1	550.3	474.7	381.7	350.7	350.7
67.5°	517.3	281.0	211.2	195.7	242.2	331.3	401.1	354.6	271.3	234.4	232.5
70°	257.7	226.7	189.9	168.6	174.4	205.4	236.4	197.6	137.6	112.4	110.4
72.5°	211.2	186.0	160.8	143.4	131.8	125.9	122.1	98.8	63.9	48.4	46.5
75°	156.9	133.7	114.3	93.0	79.4	73.6	65.9	48.4	27.1	15.5	13.6
77.5°	34.9	32.9	31.0	23.3	21.3	17.4	13.6	9.7	3.9	0.0	0.0
80°	1.9	1.9	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	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)