

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: P637970

Luminaire Tested: GWS-SA4D-830-U-AFL-W

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P637970  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-45)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4D-830-U-AFL-W  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: (64) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

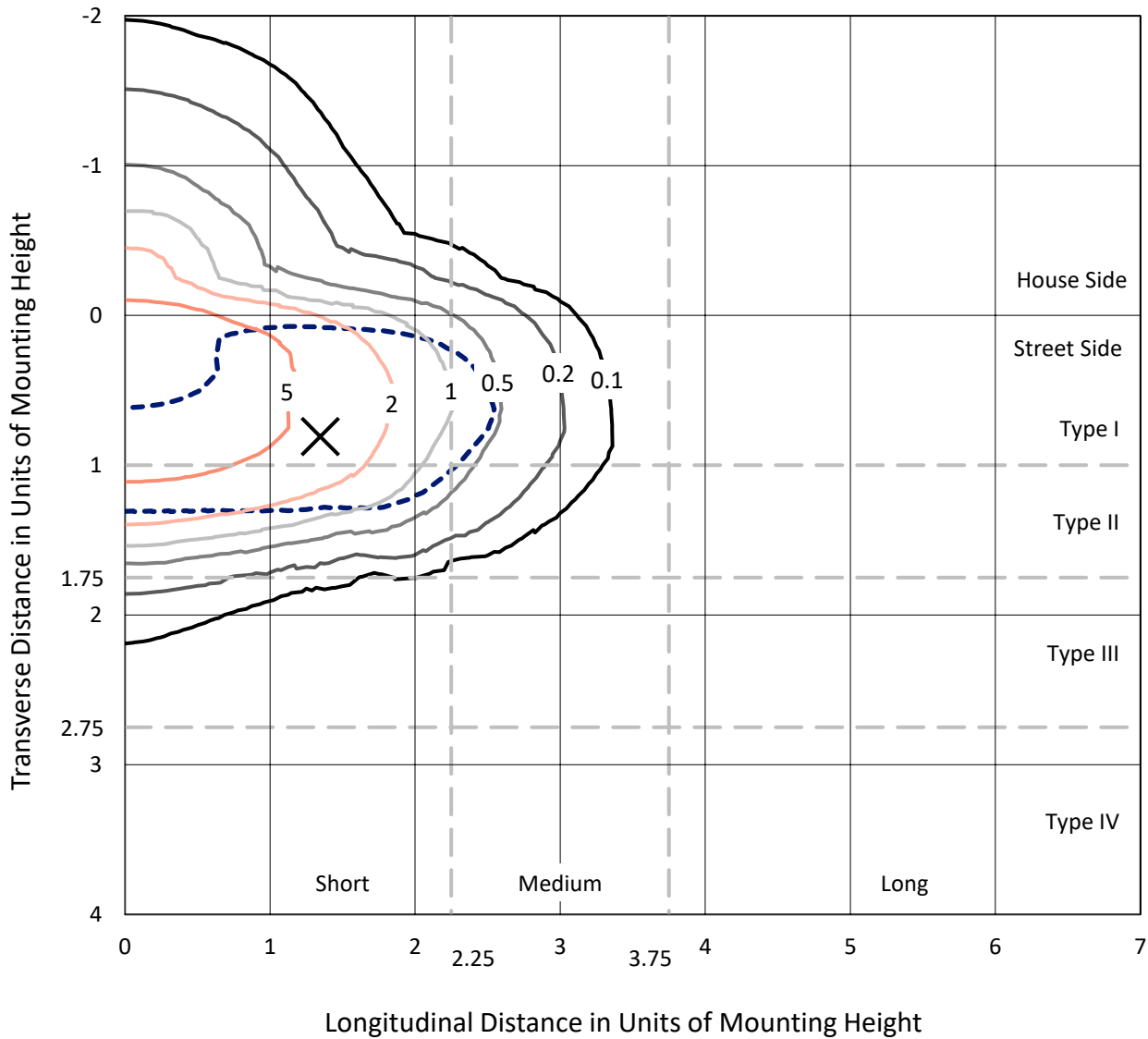
Lumens per Lamp: N/A  
Luminaire Lumens: 19810.1 lumens  
Efficiency: N/A  
Efficacy: 122.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G2  
  
Input Watts (W): 162.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

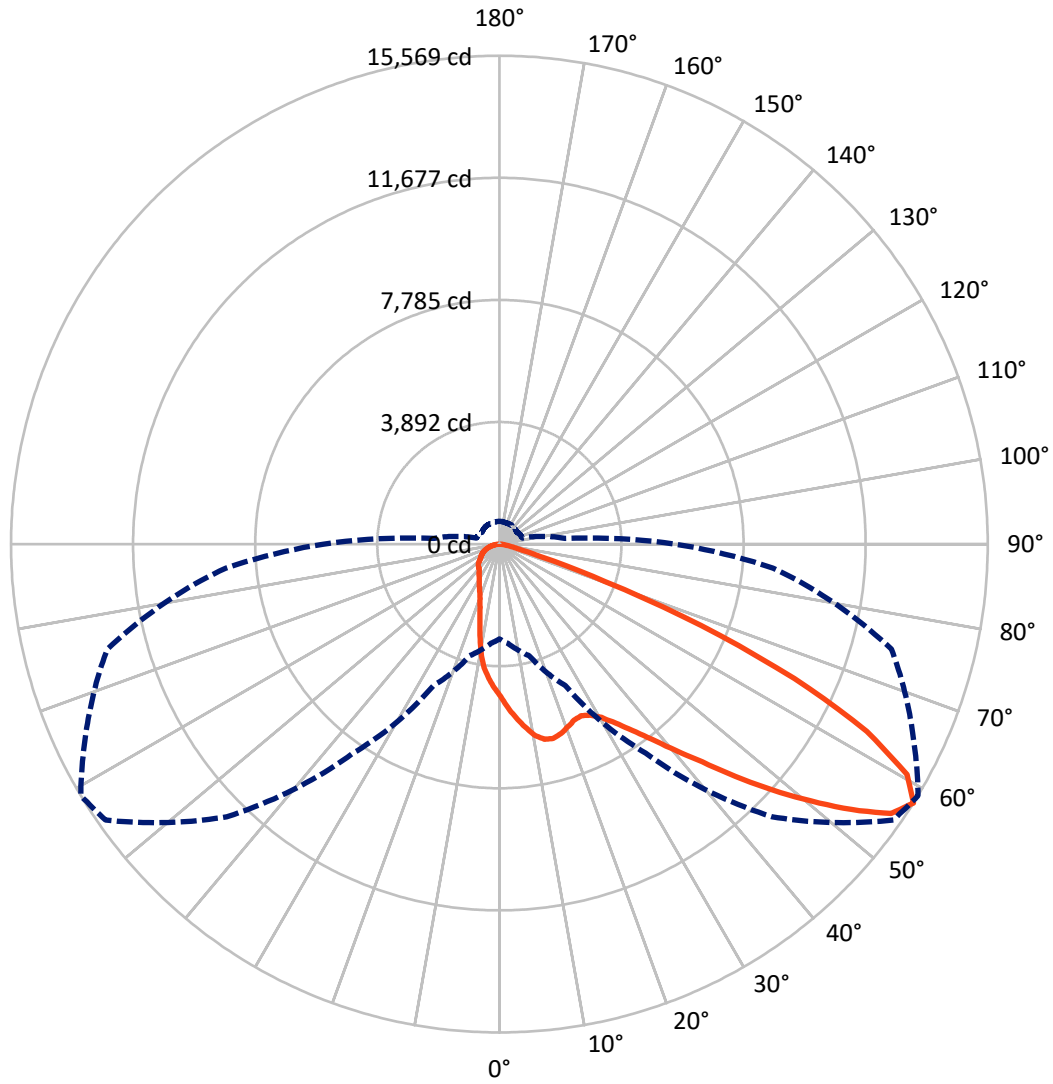
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.5 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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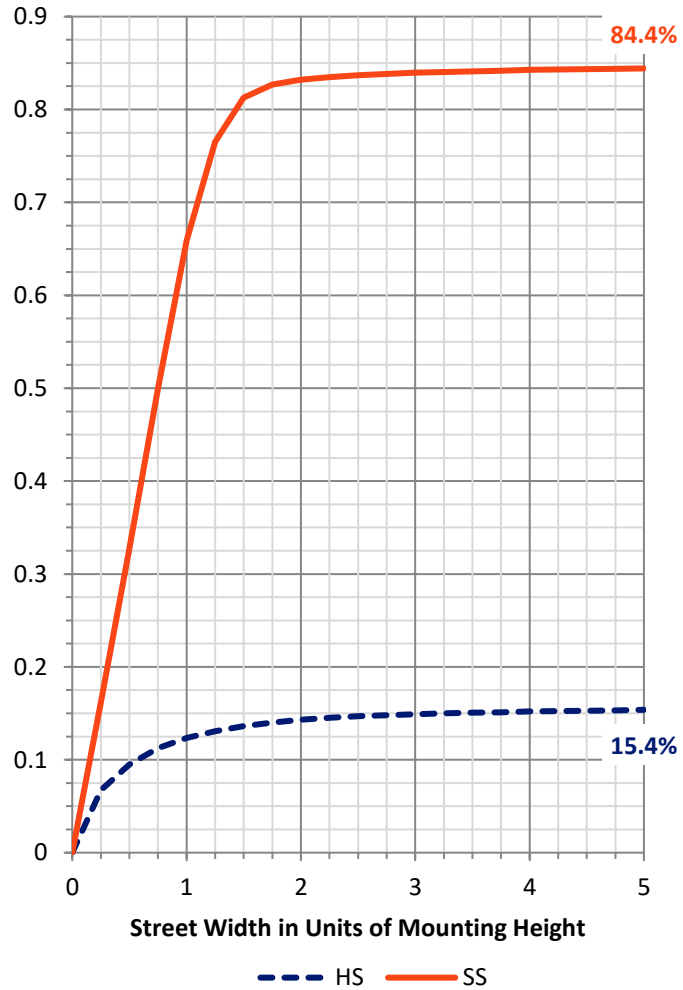
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3074.4	0.0	3074.4
	% Fixture	15.5	0.0	15.5
<b>Street Side</b>	Lumens	16735.7	0.0	16735.7
	% Fixture	84.5	0.0	84.5
<b>Total</b>	Lumens	19810.1	0.0	19810.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	451.5	2.3
10°-20°	1144.2	5.8
20°-30°	1854.7	9.4
30°-40°	2983.6	15.1
40°-50°	4633.3	23.4
50°-60°	4990.6	25.2
60°-70°	2896.4	14.6
70°-80°	756.1	3.8
80°-90°	99.6	0.5
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°	19810.1	100.0
0°-180°	19810.1	100.0

**Coefficient of Utilization**



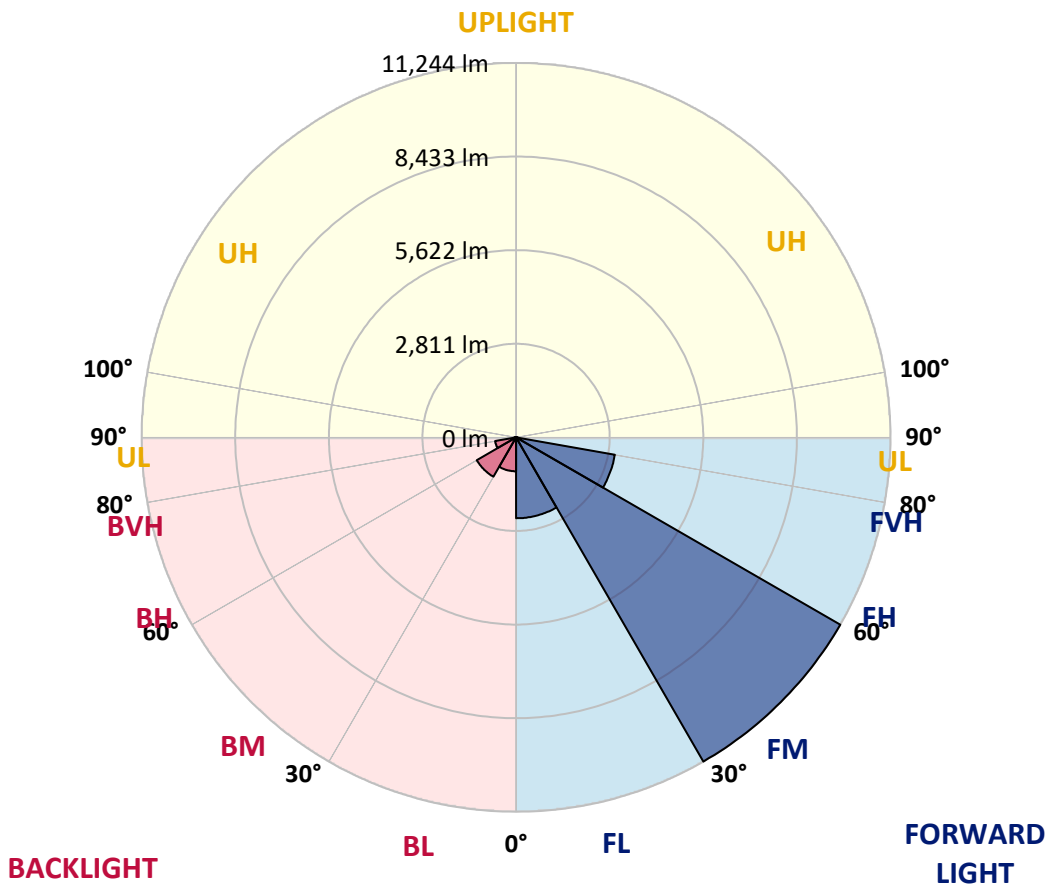
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2430.5	12.3			
FM (30°-60°)	11244.4	56.8			
FH (60°-80°)	3013.0	15.2			G2/5000
FVH (80°-90°)	47.7	0.2			G1/100
BL (0°-30°)	1020.0	5.1	B3/2500		
BM (30°-60°)	1363.1	6.9	B2/2500		
BH (60°-80°)	639.5	3.2	B2/1000		G2/1000
BVH (80°-90°)	51.9	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0
2.5°	5515.7	5469.6	5501.7	5444.5	5420.8	5358.1	5277.2	5222.8	5139.1	5030.3	4935.5
5°	6063.7	6031.7	6038.6	5977.3	5922.9	5818.3	5652.3	5560.3	5418.0	5199.1	4995.5
7.5°	6047.0	6084.7	6105.6	6158.6	6173.9	6164.1	6014.9	5886.6	5730.4	5401.3	5094.5
10°	5420.8	5491.9	5556.1	5737.4	5957.7	6236.7	6271.5	6194.8	6037.2	5659.3	5213.0
12.5°	4738.9	4793.3	4850.4	5068.0	5405.5	5963.3	6341.3	6388.7	6325.9	5914.5	5346.9
15°	4404.2	4429.3	4483.7	4627.3	4896.5	5515.7	6219.9	6427.7	6540.7	6185.1	5497.5
17.5°	4390.2	4401.4	4427.9	4504.6	4691.4	5169.8	6001.0	6349.6	6709.4	6471.0	5673.2
20°	4678.9	4649.6	4632.9	4631.5	4723.5	5054.0	5789.0	6224.1	6788.9	6763.8	5861.5
22.5°	5079.1	5088.9	5052.6	4963.4	4952.2	5136.3	5683.0	6097.2	6812.6	7023.2	6035.8
25°	5646.8	5695.6	5588.2	5418.0	5334.4	5374.8	5748.6	6058.2	6809.9	7239.4	6144.6
27.5°	6309.2	6346.8	6238.1	6014.9	5842.0	5744.4	5943.8	6173.9	6833.6	7426.3	6210.2
30°	7063.7	7076.2	6927.0	6692.7	6440.3	6231.1	6268.7	6412.4	6954.9	7671.7	6286.9
32.5°	7985.5	8038.5	7812.6	7441.6	7088.8	6821.0	6705.3	6797.3	7217.1	7961.8	6405.4
35°	9155.6	9173.7	8886.4	8355.1	7855.8	7484.8	7242.2	7291.0	7615.9	8367.6	6583.9
37.5°	10258.7	10276.8	9971.4	9477.7	8763.7	8256.1	7904.6	7882.3	8126.4	8940.8	6875.4
40°	10958.8	11010.4	10873.7	10564.1	9882.2	9197.4	8720.5	8643.8	8795.8	9642.3	7281.2
42.5°	11335.3	11357.7	11354.9	11395.3	10989.5	10308.9	9640.9	9487.5	9589.3	10399.6	7691.2
45°	11338.1	11393.9	11543.1	11932.2	11950.4	11526.4	10804.0	10564.1	10470.7	11162.4	8119.4
47.5°	10830.5	10890.5	11300.5	12066.1	12630.9	12727.2	12197.2	11716.1	11322.8	11819.3	8470.8
50°	9293.6	9444.3	10225.2	11579.4	12764.8	13689.4	13526.3	12873.6	12080.1	12326.9	8691.2
52.5°	7959.0	7953.4	8434.6	10204.3	12205.6	14113.4	14812.1	14064.6	12829.0	12649.1	8747.0
55°	5828.0	5860.1	6352.4	7804.2	10713.3	13703.4	15519.2	15160.7	13688.0	12820.6	8724.6
57.5°	3022.1	3181.1	3685.9	4980.1	8140.3	12292.0	15330.9	15569.4	14561.1	12941.9	8753.9
60°	1527.1	1496.4	1677.7	2377.8	4716.6	9600.5	14170.6	14930.6	14718.6	13036.8	8772.1
62.5°	1019.5	1011.1	960.9	1101.7	1927.3	5685.8	12080.1	13145.5	13623.9	12813.6	8540.6
65°	882.8	866.0	774.0	768.4	935.8	2358.3	8854.3	10334.0	11260.0	11822.1	7986.9
67.5°	794.9	769.8	676.4	630.4	672.2	1036.2	4989.9	6931.2	8314.6	9997.9	6773.6
70°	709.9	697.3	603.9	536.9	532.7	631.8	1838.1	3577.2	5087.5	6821.0	4952.2
72.5°	635.9	613.6	534.1	470.0	437.9	447.7	797.7	1377.9	2633.0	4254.9	2962.1
75°	550.9	534.1	464.4	400.3	361.2	327.7	486.7	637.3	1200.8	2022.2	1398.8
77.5°	425.4	414.2	366.8	318.0	295.7	244.1	295.7	401.6	555.1	852.1	728.0
80°	246.8	253.8	273.3	248.2	217.6	174.3	192.5	231.5	333.3	461.6	412.8
82.5°	124.1	132.5	177.1	143.6	129.7	101.8	114.4	136.7	174.3	255.2	161.8
85°	9.8	9.8	32.1	36.3	44.6	36.3	46.0	55.8	79.5	101.8	54.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.2	7.0	12.6	23.7	15.3
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°	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0	4863.0
2.5°	4871.4	4800.2	4715.2	4645.4	4538.0	4480.9	4408.3	4319.1	4282.8	4266.1	4256.3
5°	4881.1	4755.6	4574.3	4406.9	4221.5	4075.0	3911.9	3741.7	3644.1	3620.4	3603.7
7.5°	4917.4	4741.7	4453.0	4176.8	3832.4	3513.0	3202.0	2893.8	2736.2	2676.2	2670.7
10°	4967.6	4736.1	4330.2	3871.4	3289.9	2785.0	2421.0	2179.8	2078.0	2044.5	2033.3
12.5°	5030.3	4731.9	4168.5	3447.5	2663.7	2186.7	1978.9	1939.9	1953.8	1951.1	1951.1
15°	5109.8	4737.5	3973.2	2967.7	2154.7	1898.1	1902.2	1948.3	1991.5	1998.5	1998.5
17.5°	5196.3	4731.9	3690.1	2486.6	1849.2	1829.7	1893.9	1958.0	1997.1	2002.7	2002.7
20°	5289.7	4705.4	3333.1	2033.3	1715.4	1786.5	1856.2	1906.4	1930.1	1935.7	1935.7
22.5°	5345.5	4630.1	2945.4	1720.9	1630.3	1718.2	1764.2	1815.8	1818.6	1773.9	1772.5
25°	5337.1	4489.2	2503.3	1520.1	1539.6	1616.3	1674.9	1638.7	1594.0	1568.9	1564.7
27.5°	5284.2	4277.2	2052.9	1368.1	1432.3	1518.7	1500.6	1469.9	1458.8	1430.9	1428.1
30°	5217.2	4016.5	1648.4	1249.6	1320.7	1400.2	1372.3	1369.5	1358.3	1327.7	1327.7
32.5°	5153.1	3747.3	1343.0	1161.7	1249.6	1255.1	1294.2	1297.0	1291.4	1238.4	1232.8
35°	5134.9	3478.1	1136.6	1092.0	1179.8	1177.0	1232.8	1231.4	1135.2	1061.3	1059.9
37.5°	5189.3	3204.8	1013.9	1034.8	1083.6	1119.9	1164.5	1083.6	1051.5	1006.9	1004.1
40°	5305.1	2952.4	951.1	1001.3	1022.2	1075.2	1005.5	1011.1	1002.7	969.2	965.1
42.5°	5458.5	2737.6	916.3	990.2	987.4	1001.3	924.6	946.9	959.5	934.4	930.2
45°	5606.3	2550.7	898.1	948.3	962.3	881.4	866.0	887.0	906.5	896.7	892.5
47.5°	5715.1	2389.0	888.4	891.2	930.2	840.9	815.8	825.6	849.3	853.5	852.1
50°	5748.6	2250.9	877.2	843.7	835.4	800.5	781.0	778.2	806.1	825.6	828.4
52.5°	5684.4	2128.2	847.9	801.9	761.5	767.0	760.1	746.1	774.0	800.5	803.3
55°	5589.6	2058.4	801.9	761.5	714.0	736.4	739.1	726.6	744.7	762.8	762.8
57.5°	5596.5	2098.9	757.3	723.8	672.2	701.5	716.8	711.2	711.2	725.2	726.6
60°	5642.6	2157.5	728.0	676.4	630.4	661.0	695.9	690.3	677.8	695.9	695.9
62.5°	5510.1	2079.4	708.5	630.4	585.7	622.0	663.8	661.0	647.1	676.4	679.2
65°	5119.6	1870.2	686.1	573.2	541.1	582.9	619.2	629.0	616.4	655.5	662.4
67.5°	4291.2	1573.1	642.9	518.8	496.5	535.5	570.4	584.3	574.6	620.6	626.2
70°	3199.2	1273.3	574.6	458.8	442.1	477.0	509.0	514.6	516.0	570.4	576.0
72.5°	2040.3	990.2	483.9	391.9	379.3	405.8	429.5	451.9	461.6	513.2	511.8
75°	1138.0	736.4	389.1	331.9	309.6	330.5	358.4	384.9	412.8	488.1	496.5
77.5°	655.5	517.4	308.2	266.4	239.9	262.2	285.9	323.5	407.2	472.8	464.4
80°	369.6	336.1	232.9	195.2	178.5	195.2	213.4	284.5	320.8	348.7	352.8
82.5°	172.9	188.3	159.0	119.9	119.9	131.1	147.8	220.3	242.7	198.0	172.9
85°	62.8	85.1	78.1	61.4	54.4	53.0	92.0	125.5	78.1	69.7	60.0
87.5°	16.7	23.7	22.3	15.3	8.4	7.0	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)