

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: P638462

Luminaire Tested: GWS-SA4E-830-U-AFL-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P638462  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-46)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4E-830-U-AFL-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (64) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

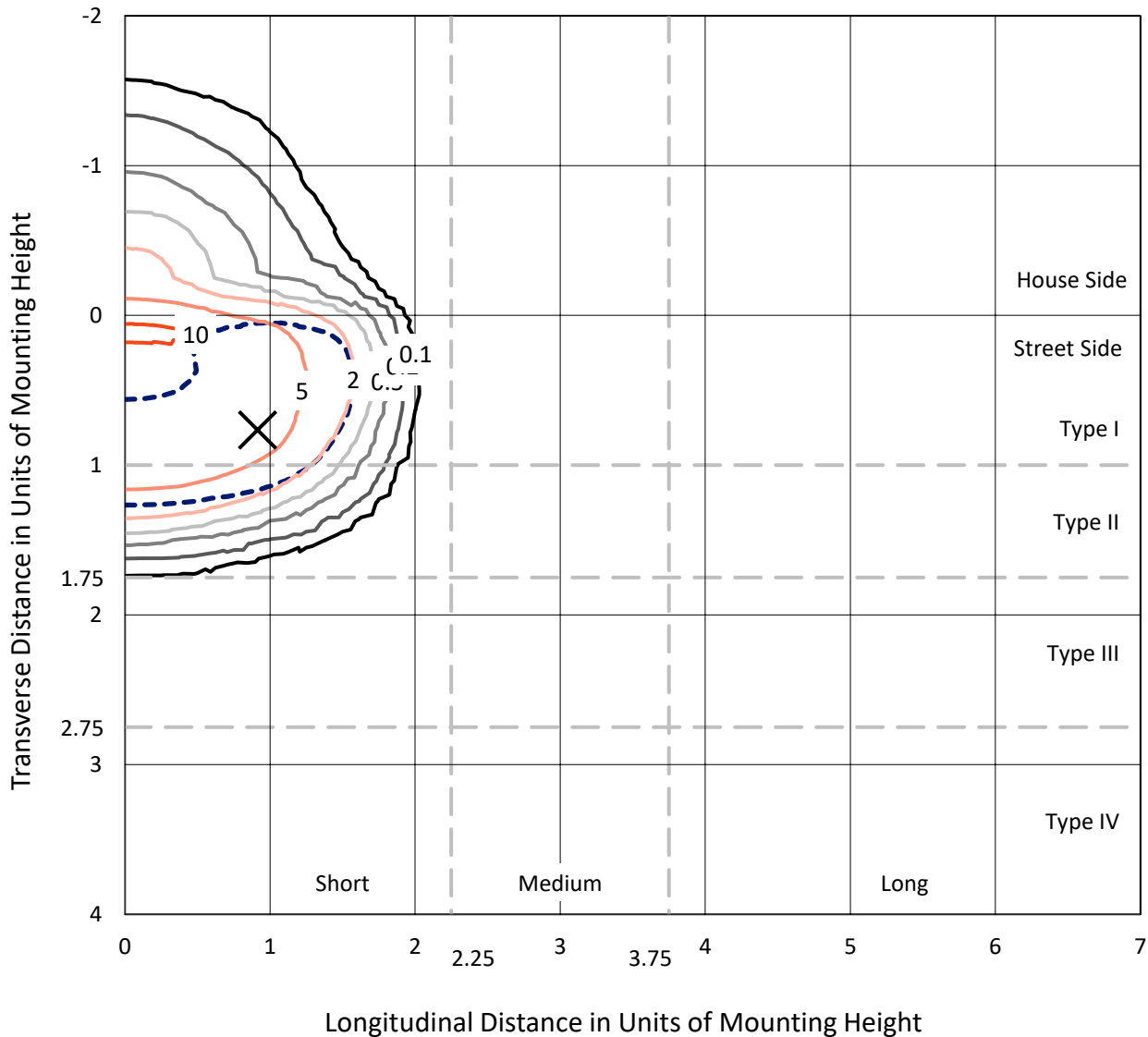
Lumens per Lamp: N/A  
Luminaire Lumens: 18309.2 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G1  
  
Input Watts (W): 202.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

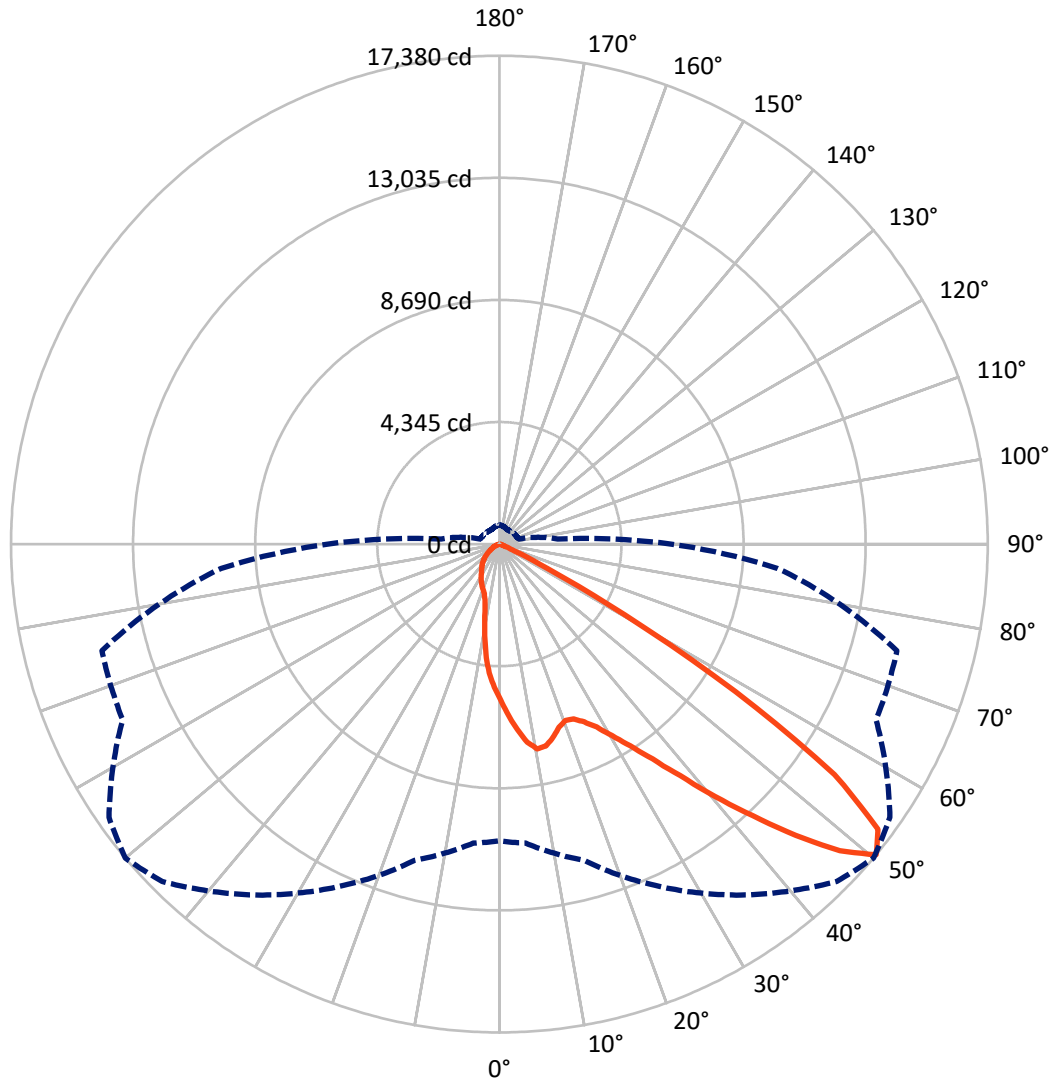
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 50-Deg Lateral    - - - Horizontal Cone Through 50-Deg Vertical

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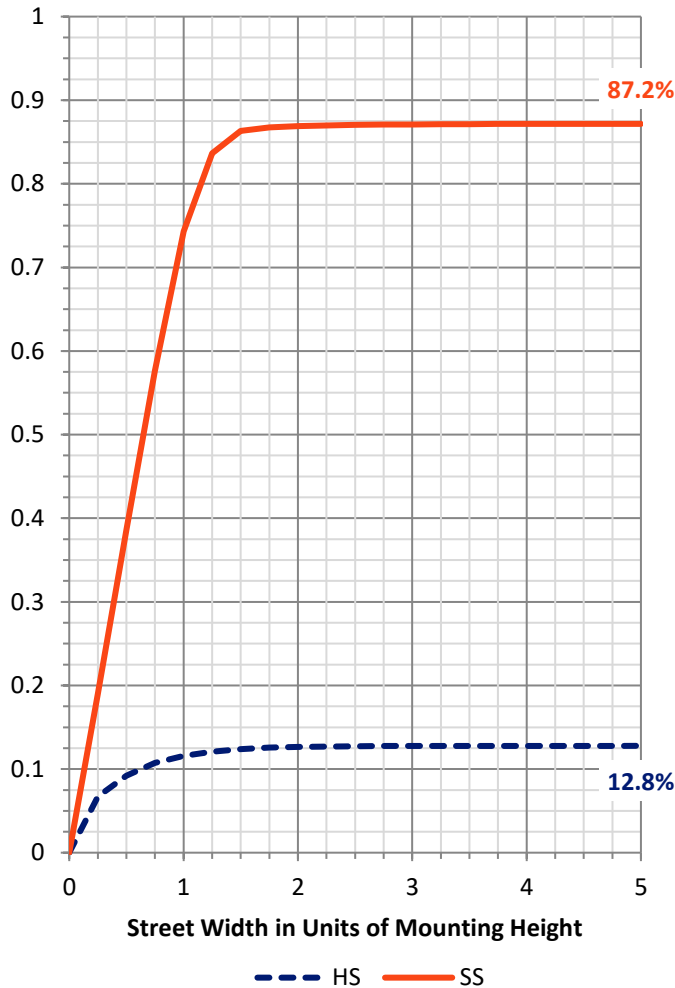
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2352.4	0.0	2352.4
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	15956.8	0.0	15956.8
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	18309.2	0.0	18309.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	514.6	2.8
10°-20°	1327.6	7.3
20°-30°	2191.0	12.0
30°-40°	3615.7	19.7
40°-50°	5720.8	31.2
50°-60°	4331.3	23.7
60°-70°	542.1	3.0
70°-80°	61.3	0.3
80°-90°	4.7	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°	18309.2	100.0
0°-180°	18309.2	100.0

**Coefficient of Utilization**



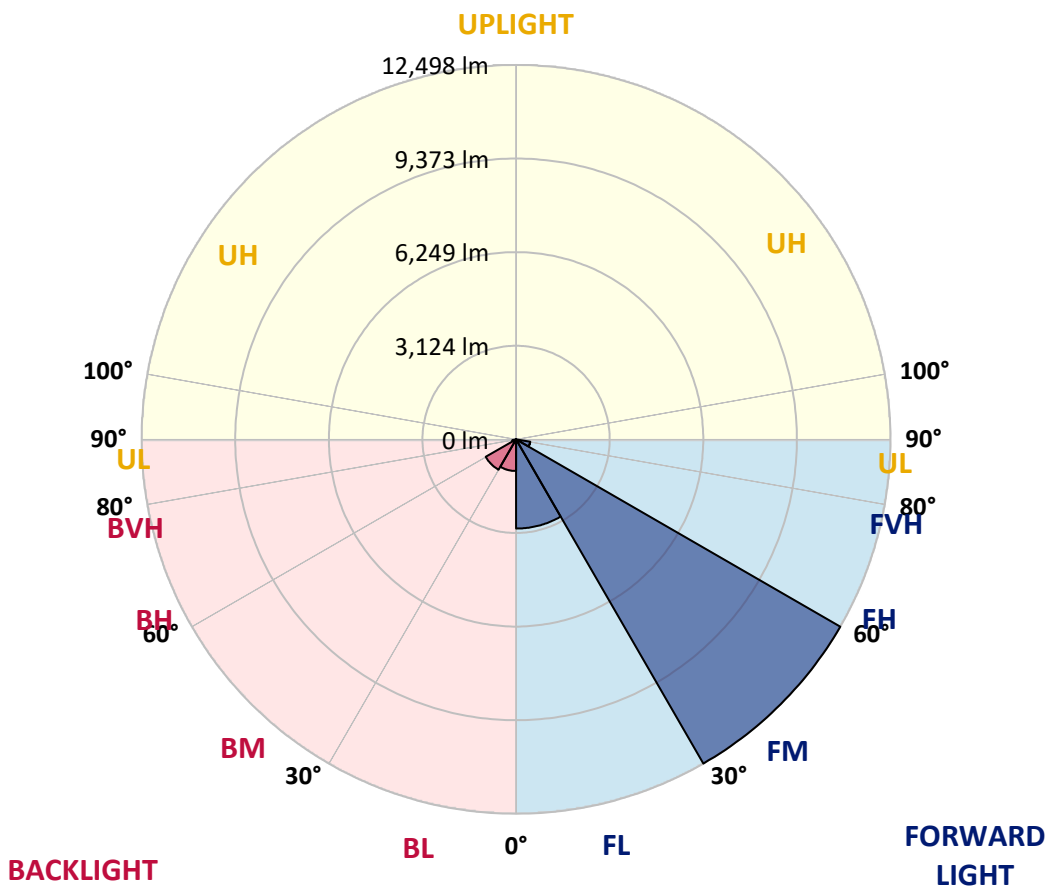
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2977.3	16.3			
FM (30°-60°)	12498.0	68.3			
FH (60°-80°)	479.3	2.6			G0/660
FVH (80°-90°)	2.2	0.0			G0/10
BL (0°-30°)	1055.9	5.8	B3/2500		
BM (30°-60°)	1169.9	6.4	B2/2500		
BH (60°-80°)	124.1	0.7	B1/500		G1/500
BVH (80°-90°)	2.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G1**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	50°	55°	65°	75°	85°
0°	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0
2.5°	6320.7	6371.2	6357.3	6291.1	6219.6	6169.1	6090.7	6066.3	5888.5	5764.8	5634.1
5°	7084.0	7099.7	7082.3	7002.1	6876.6	6756.4	6627.4	6552.5	6254.5	5986.1	5712.5
7.5°	7267.0	7247.8	7280.9	7321.0	7303.6	7251.3	7115.4	7033.5	6678.0	6240.5	5825.8
10°	6695.4	6651.8	6775.6	6982.9	7200.8	7446.5	7411.6	7418.6	7091.0	6561.2	5973.9
12.5°	5937.3	5919.9	6012.3	6252.7	6679.7	7237.4	7371.5	7596.4	7469.1	6908.0	6143.0
15°	5604.5	5613.2	5668.9	5820.6	6127.3	6820.9	7143.3	7549.3	7807.2	7244.3	6329.4
17.5°	5655.0	5686.4	5684.6	5735.2	5921.6	6477.6	6854.0	7401.2	8068.6	7631.2	6543.8
20°	5998.3	6029.7	5982.6	5944.3	6007.0	6390.4	6702.4	7251.3	8244.6	8021.6	6770.3
22.5°	6512.4	6549.0	6437.5	6327.7	6287.6	6533.3	6759.9	7190.3	8378.8	8378.8	6972.5
25°	7134.5	7185.1	7012.6	6817.4	6705.8	6834.8	7005.6	7328.0	8516.5	8699.5	7110.1
27.5°	7829.9	7831.6	7683.5	7463.9	7254.8	7270.5	7373.3	7638.2	8668.1	9044.5	7218.2
30°	8612.3	8617.6	8420.6	8157.5	7894.4	7822.9	7910.0	8110.4	8983.5	9478.5	7368.1
32.5°	9623.1	9647.5	9365.2	8978.3	8636.7	8502.5	8553.1	8764.0	9485.4	10022.2	7592.9
35°	10989.4	11015.5	10599.0	10088.4	9544.7	9342.5	9393.1	9605.7	10212.1	10794.2	7951.9
37.5°	12338.2	12373.0	11951.3	11475.6	10729.7	10395.1	10447.4	10649.5	11303.0	11860.7	8526.9
40°	13270.5	13317.6	13186.9	12866.2	12174.4	11735.2	11798.0	11871.2	12503.7	13136.3	9272.8
42.5°	13762.0	13828.2	13884.0	14047.8	13683.5	13315.8	13209.5	13214.8	13725.4	14436.4	10048.3
45°	13791.6	13856.1	14141.9	14774.5	15051.6	14974.9	14781.4	14650.7	14657.7	15302.5	10532.8
47.5°	12833.1	12953.4	13488.4	14727.4	15769.5	16405.6	16308.0	15997.8	15049.8	15360.0	10480.5
50°	10562.4	10680.9	11653.3	13436.1	15246.7	16977.2	17379.8	16963.3	14793.6	14643.8	9942.0
52.5°	7671.3	7683.5	8314.3	10396.8	13127.6	15922.9	16870.9	16830.8	14403.3	13775.9	9206.6
55°	3643.9	3600.4	4309.7	5867.6	9079.4	12878.4	14476.5	14929.6	13849.1	13148.5	8636.7
57.5°	1061.3	1082.2	1397.6	2289.9	4541.4	8230.7	9914.1	10757.6	11367.5	10809.9	6698.9
60°	475.8	477.5	531.5	697.1	1512.6	3828.7	5125.2	6169.1	6796.5	6298.1	3323.3
62.5°	345.1	346.8	367.7	393.8	514.1	1296.6	1922.2	2561.7	2608.8	1707.8	841.7
65°	287.5	287.5	291.0	291.0	308.5	463.6	583.8	752.8	634.3	470.5	329.4
67.5°	231.8	233.5	237.0	237.0	231.8	231.8	250.9	275.3	294.5	364.2	303.2
70°	181.2	179.5	179.5	181.2	176.0	149.9	162.1	184.7	202.2	284.1	263.1
72.5°	141.2	142.9	141.2	134.2	122.0	88.9	95.8	120.2	129.0	177.8	177.8
75°	106.3	108.0	101.1	76.7	50.5	27.9	36.6	59.3	74.9	87.1	64.5
77.5°	13.9	13.9	10.5	10.5	8.7	10.5	10.5	13.9	20.9	20.9	15.7
80°	1.7	1.7	1.7	3.5	5.2	7.0	7.0	7.0	7.0	8.7	8.7
82.5°	1.7	1.7	1.7	1.7	5.2	5.2	7.0	7.0	7.0	7.0	7.0
85°	0.0	0.0	0.0	1.7	3.5	5.2	5.2	7.0	7.0	7.0	7.0
87.5°	0.0	0.0	0.0	1.7	3.5	5.2	5.2	5.2	7.0	7.0	7.0
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°	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0	5547.0
2.5°	5555.7	5454.6	5332.6	5249.0	5130.5	5052.0	4940.5	4865.6	4801.1	4750.6	4778.4
5°	5557.4	5397.1	5147.9	4935.3	4703.5	4490.9	4262.6	4083.1	3921.0	3847.8	3887.9
7.5°	5592.3	5362.2	4980.6	4602.4	4158.0	3718.9	3307.6	2973.0	2807.5	2729.0	2753.4
10°	5660.2	5346.6	4794.1	4166.8	3445.3	2845.8	2446.7	2220.2	2127.8	2079.0	2087.7
12.5°	5723.0	5336.1	4551.9	3593.4	2718.6	2208.0	2000.6	1969.2	1988.4	1990.1	1988.4
15°	5808.4	5316.9	4252.1	3004.4	2174.9	1908.2	1913.5	1958.8	2004.1	2018.0	2014.5
17.5°	5899.0	5287.3	3865.3	2439.8	1845.5	1821.1	1882.1	1943.1	1988.4	1995.4	1997.1
20°	5993.1	5226.3	3424.4	1991.9	1692.1	1754.9	1822.8	1868.2	1901.3	1911.7	1915.2
22.5°	6036.7	5097.3	2915.5	1671.2	1589.3	1673.0	1723.5	1782.8	1793.2	1754.9	1761.9
25°	6014.0	4879.5	2418.8	1455.1	1486.5	1570.2	1645.1	1615.5	1571.9	1544.0	1552.7
27.5°	5942.5	4590.2	1932.6	1296.6	1376.7	1483.0	1491.7	1458.6	1451.7	1429.0	1436.0
30°	5865.9	4257.4	1554.5	1169.3	1265.2	1376.7	1350.6	1362.8	1364.5	1338.4	1347.1
32.5°	5818.8	3908.8	1237.3	1083.9	1193.7	1214.6	1266.9	1291.3	1293.1	1232.1	1242.5
35°	5834.5	3565.5	1047.4	1014.2	1127.5	1122.3	1195.5	1209.4	1108.3	1024.7	1033.4
37.5°	5961.7	3248.4	939.3	960.2	1012.5	1052.6	1108.3	1016.0	993.3	955.0	960.2
40°	6198.7	2978.2	874.8	927.1	934.1	998.6	913.2	925.4	927.1	902.7	907.9
42.5°	6475.8	2753.4	836.5	907.9	890.5	901.0	815.6	840.0	866.1	855.7	857.4
45°	6615.2	2533.9	803.4	841.7	846.9	747.6	728.4	754.6	787.7	792.9	794.7
47.5°	6491.5	2324.7	768.5	745.9	780.7	681.4	658.7	667.4	705.8	726.7	730.2
50°	6113.3	2084.2	716.2	660.5	641.3	611.7	590.8	592.5	636.1	672.7	679.6
52.5°	5581.8	1833.3	630.9	559.4	515.8	538.5	543.7	533.3	573.3	609.9	616.9
55°	5066.0	1519.6	500.1	454.8	414.8	463.6	477.5	463.6	475.8	500.1	501.9
57.5°	3567.3	859.1	383.4	376.4	343.3	397.3	420.0	399.1	378.2	393.8	397.3
60°	1653.8	449.6	294.5	294.5	285.8	341.6	379.9	350.3	310.2	317.2	322.4
62.5°	517.6	284.1	216.1	203.9	233.5	291.0	322.4	292.8	245.7	245.7	252.7
65°	292.8	244.0	170.8	156.8	190.0	233.5	252.7	221.3	179.5	176.0	176.0
67.5°	271.9	231.8	151.6	127.2	134.2	149.9	156.8	135.9	123.7	122.0	123.7
70°	224.8	193.4	122.0	87.1	81.9	80.2	83.6	78.4	74.9	76.7	81.9
72.5°	139.4	116.8	76.7	52.3	45.3	43.6	43.6	43.6	41.8	41.8	41.8
75°	50.5	43.6	34.9	26.1	22.7	20.9	20.9	22.7	20.9	19.2	17.4
77.5°	15.7	13.9	13.9	13.9	12.2	10.5	8.7	8.7	7.0	5.2	5.2
80°	8.7	8.7	8.7	8.7	7.0	7.0	5.2	3.5	1.7	1.7	0.0
82.5°	8.7	8.7	8.7	7.0	7.0	7.0	5.2	3.5	1.7	0.0	0.0
85°	7.0	7.0	7.0	7.0	7.0	7.0	5.2	3.5	1.7	0.0	0.0
87.5°	7.0	7.0	7.0	7.0	7.0	7.0	5.2	3.5	1.7	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)