

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: P638683

Luminaire Tested: GWS-SA4F-735-U-AFL-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P638683  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-47)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4F-735-U-AFL-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (64) 3500K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

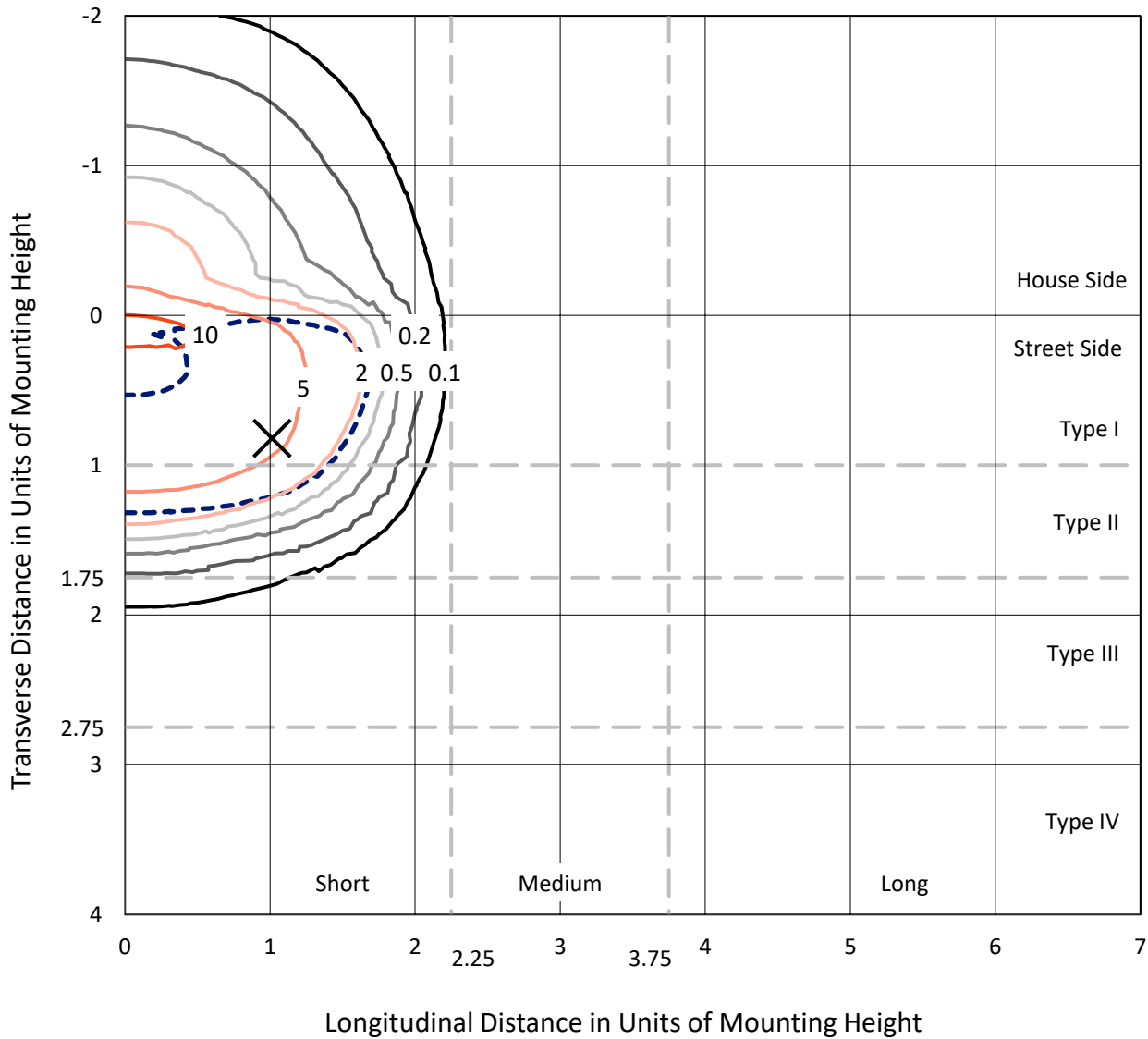
Lumens per Lamp: N/A  
Luminaire Lumens: 30444.1 lumens  
Efficiency: N/A  
Efficacy: 135.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G2  
  
Input Watts (W): 225.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

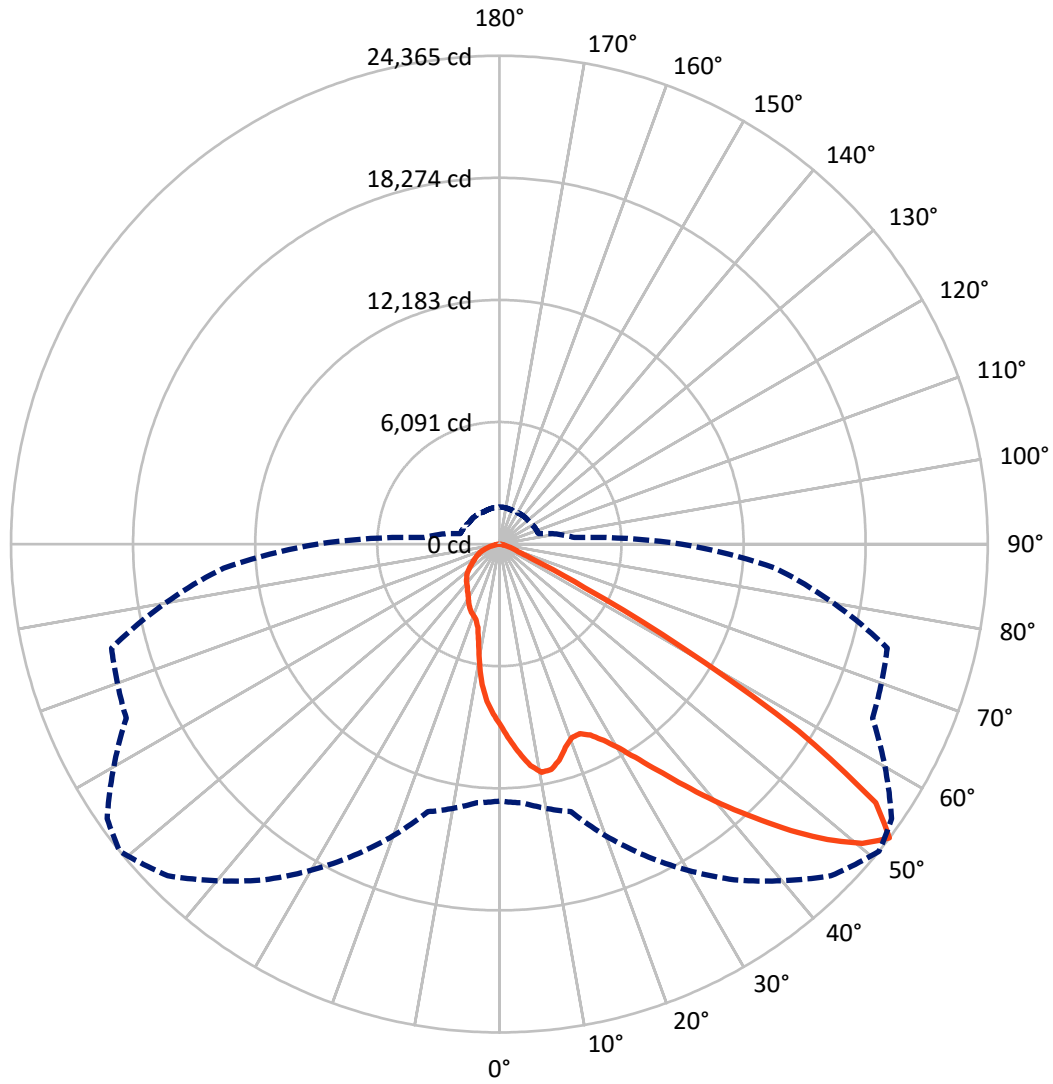
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.3 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 51-Deg Lateral    - - - Horizontal Cone Through 52.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5931.8	0.0	5931.8
	% Fixture	19.5	0.0	19.5
<b>Street Side</b>	Lumens	24512.3	0.0	24512.3
	% Fixture	80.5	0.0	80.5
<b>Total</b>	Lumens	30444.1	0.0	30444.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	845.9	2.8
10°-20°	2197.9	7.2
20°-30°	3573.6	11.7
30°-40°	5663.3	18.6
40°-50°	8541.6	28.1
50°-60°	7389.1	24.3
60°-70°	1675.2	5.5
70°-80°	493.9	1.6
80°-90°	63.6	0.2
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°	30444.1	100.0
0°-180°	30444.1	100.0

**Coefficient of Utilization**



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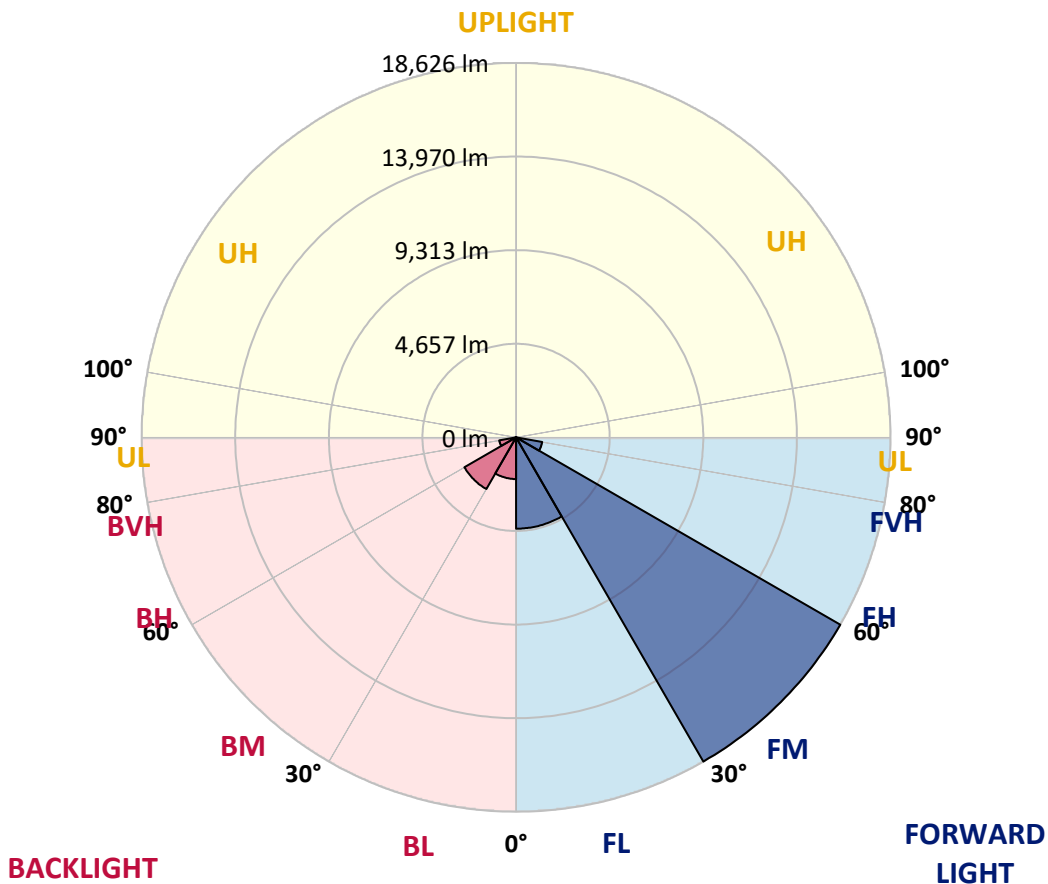
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4543.9	14.9			
FM (30°-60°)	18626.1	61.2			
FH (60°-80°)	1318.3	4.3			G1/1800
FVH (80°-90°)	24.0	0.1			G1/100
BL (0°-30°)	2073.5	6.8	B3/2500		
BM (30°-60°)	2967.9	9.7	B3/5000		
BH (60°-80°)	850.8	2.8	B2/1000		G2/1000
BVH (80°-90°)	39.6	0.1			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°	51°	55°	65°	75°	85°
0°	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7
2.5°	10101.6	10159.3	10070.3	10036.6	9981.3	9885.1	9774.4	9743.1	9505.0	9348.6	9173.0
5°	11116.8	11148.1	11075.9	11003.7	10866.6	10695.8	10481.7	10436.0	10003.0	9644.5	9271.6
7.5°	11342.9	11330.9	11393.5	11434.4	11417.5	11350.2	11160.1	11071.1	10553.9	9986.1	9435.2
10°	10448.0	10380.7	10611.6	10885.9	11215.4	11595.5	11573.9	11566.7	11116.8	10445.6	9644.5
12.5°	9262.0	9228.3	9416.0	9760.0	10383.1	11225.1	11540.2	11785.6	11624.4	10883.4	9877.9
15°	8583.6	8571.6	8699.1	8946.8	9442.4	10505.7	11179.3	11665.3	12059.8	11352.6	10125.6
17.5°	8460.9	8468.1	8511.4	8653.4	9009.4	9885.1	10664.5	11342.9	12399.0	11867.4	10436.0
20°	8819.3	8867.5	8792.9	8814.5	9007.0	9661.3	10313.3	11018.2	12615.6	12384.6	10770.4
22.5°	9615.6	9598.8	9435.2	9339.0	9341.4	9798.5	10274.8	10866.6	12757.5	12887.4	11073.5
25°	10517.8	10498.5	10303.7	10089.6	9954.8	10171.4	10551.5	11027.8	12885.0	13346.9	11316.5
27.5°	11583.5	11523.4	11306.9	11032.6	10734.3	10828.1	11085.5	11463.2	13082.3	13799.2	11477.7
30°	12615.6	12685.3	12375.0	12050.2	11735.1	11677.3	11826.5	12168.1	13484.0	14328.4	11670.1
32.5°	13984.4	13960.4	13616.3	13192.9	12743.1	12699.8	12817.6	13130.4	14205.7	15059.8	11963.6
35°	15641.9	15646.8	15158.4	14585.8	13945.9	13830.4	14027.7	14330.8	15281.1	16050.9	12427.9
37.5°	17364.4	17357.2	16931.4	16281.9	15408.6	15245.0	15471.1	15697.3	16625.9	17400.5	13149.6
40°	18572.1	18620.2	18420.5	18078.9	17251.4	16852.0	17051.7	17208.1	18088.6	18988.3	14099.9
42.5°	19257.7	19329.9	19373.2	19577.7	19142.3	18716.4	18644.3	18726.1	19394.9	20463.0	14992.4
45°	19404.5	19500.7	19815.9	20573.7	20742.1	20621.8	20386.0	20188.7	20369.2	21509.5	15577.0
47.5°	18757.3	18925.7	19599.3	20924.9	21908.8	22286.5	22024.3	21723.6	20932.1	21778.9	15516.9
50°	16192.9	16390.1	17908.1	20208.0	22074.8	23450.9	23474.9	23029.9	20864.8	21001.9	14761.5
52.5°	12820.0	12954.8	13823.2	17131.1	20446.2	23402.8	24365.1	23888.7	20540.0	20030.0	13816.0
55°	7662.2	7878.7	8689.4	11302.0	15928.2	20742.1	22791.7	23022.7	20381.2	19214.4	13171.3
57.5°	2586.1	2692.0	3466.6	4991.9	9387.1	15187.3	17609.8	18548.0	18502.3	17968.3	11913.1
60°	1231.7	1255.8	1412.2	1893.3	3757.7	7936.4	10424.0	11506.5	12492.9	12591.5	7412.0
62.5°	938.2	952.7	1032.1	1135.5	1510.8	3343.9	4777.7	5605.3	5987.8	5138.6	2699.2
65°	784.3	796.3	856.4	921.4	1027.2	1448.2	1833.2	2114.6	1905.3	1484.3	1287.1
67.5°	654.4	664.0	709.7	779.5	851.6	969.5	1017.6	1046.5	1097.0	1231.7	1183.6
70°	512.4	522.0	570.2	630.3	700.1	728.9	774.6	803.5	904.5	1077.8	1072.9
72.5°	394.5	406.6	433.0	471.5	529.3	558.1	608.6	642.3	700.1	839.6	897.3
75°	288.7	295.9	320.0	332.0	339.2	332.0	382.5	421.0	498.0	550.9	565.3
77.5°	117.9	132.3	127.5	127.5	151.6	182.8	209.3	233.4	286.3	317.6	320.0
80°	48.1	52.9	62.5	69.8	84.2	108.3	125.1	134.7	158.8	178.0	192.5
82.5°	28.9	31.3	36.1	38.5	48.1	62.5	72.2	79.4	98.6	117.9	125.1
85°	14.4	14.4	16.8	19.2	24.1	28.9	33.7	38.5	50.5	62.5	69.8
87.5°	2.4	2.4	2.4	4.8	7.2	9.6	12.0	14.4	16.8	19.2	24.1
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°	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7	9064.7
2.5°	9069.5	8939.6	8788.1	8667.8	8528.3	8424.8	8278.1	8186.6	8100.0	8027.9	7974.9
5°	9079.2	8860.2	8545.1	8266.0	7977.3	7703.1	7421.6	7193.1	6988.6	6817.8	6803.4
7.5°	9134.5	8819.3	8326.2	7837.8	7274.9	6731.2	6187.5	5744.8	5408.0	5232.4	5196.3
10°	9228.3	8814.5	8102.4	7323.0	6363.1	5487.4	4842.7	4505.9	4311.0	4241.3	4217.2
12.5°	9327.0	8802.5	7816.2	6596.5	5263.7	4496.3	4142.6	4101.7	4137.8	4142.6	4140.2
15°	9447.2	8795.3	7455.3	5744.8	4460.2	4036.8	4060.8	4147.4	4231.6	4250.9	4250.9
17.5°	9594.0	8778.4	6964.5	4912.5	3957.4	3947.8	4075.3	4190.8	4270.1	4284.6	4284.6
20°	9748.0	8735.1	6360.7	4234.1	3752.9	3892.4	4029.6	4118.6	4173.9	4193.2	4195.6
22.5°	9853.8	8619.7	5665.5	3731.3	3625.4	3786.6	3885.2	3976.6	3976.6	3928.5	3914.1
25°	9875.5	8371.9	4912.5	3387.2	3473.8	3623.0	3724.0	3671.1	3572.5	3534.0	3531.6
27.5°	9796.1	8011.0	4169.1	3141.9	3291.0	3440.2	3423.3	3346.3	3303.0	3264.6	3279.0
30°	9699.8	7578.0	3524.4	2939.8	3079.3	3226.1	3168.3	3141.9	3110.6	3067.3	3076.9
32.5°	9634.9	7094.4	3028.8	2783.4	2937.4	2961.4	3002.3	2999.9	2971.1	2889.3	2884.5
35°	9654.1	6606.1	2696.8	2655.9	2819.5	2809.9	2886.9	2872.4	2672.7	2559.7	2552.5
37.5°	9808.1	6137.0	2501.9	2554.9	2631.9	2692.0	2759.4	2586.1	2516.4	2444.2	2449.0
40°	10101.6	5701.5	2396.1	2499.5	2518.8	2607.8	2451.4	2449.0	2417.7	2352.8	2350.4
42.5°	10433.6	5333.5	2323.9	2473.1	2446.6	2463.5	2297.5	2316.7	2314.3	2273.4	2261.4
45°	10635.7	4994.3	2266.2	2374.4	2381.7	2213.3	2162.7	2184.4	2196.4	2174.8	2172.4
47.5°	10426.4	4604.5	2206.0	2222.9	2285.4	2100.2	2037.6	2040.0	2061.7	2064.1	2054.5
50°	9839.4	4169.1	2133.9	2093.0	2052.1	1982.3	1924.6	1912.5	1934.2	1955.8	1963.1
52.5°	9081.6	3752.9	2013.6	1951.0	1854.8	1854.8	1828.3	1789.9	1818.7	1847.6	1857.2
55°	8525.8	3445.0	1842.8	1773.0	1667.2	1703.2	1698.4	1664.8	1703.2	1724.9	1732.1
57.5°	7387.9	2769.0	1621.5	1599.8	1510.8	1554.1	1563.7	1520.4	1501.2	1506.0	1513.2
60°	4385.6	1787.4	1462.7	1460.3	1380.9	1431.4	1460.3	1417.0	1359.2	1366.4	1376.1
62.5°	1967.9	1366.4	1263.0	1253.4	1251.0	1315.9	1347.2	1306.3	1224.5	1231.7	1241.3
65°	1238.9	1181.2	1097.0	1097.0	1135.5	1190.8	1214.9	1181.2	1087.4	1075.4	1085.0
67.5°	1149.9	1099.4	1012.8	996.0	1015.2	1060.9	1063.3	998.4	943.0	933.4	933.4
70°	1032.1	993.6	909.4	875.7	868.5	866.1	858.8	842.0	805.9	796.3	801.1
72.5°	854.0	827.6	774.6	738.6	719.3	716.9	688.0	673.6	642.3	637.5	635.1
75°	565.3	572.6	572.6	567.7	550.9	543.7	512.4	498.0	461.9	447.5	445.1
77.5°	334.4	341.6	351.2	353.6	351.2	351.2	322.4	305.5	269.4	250.2	245.4
80°	204.5	209.3	214.1	221.3	211.7	204.5	178.0	161.2	144.3	132.3	129.9
82.5°	132.3	137.1	139.5	144.3	139.5	129.9	108.3	98.6	86.6	77.0	74.6
85°	74.6	77.0	81.8	81.8	74.6	67.4	55.3	48.1	40.9	36.1	36.1
87.5°	26.5	26.5	26.5	28.9	24.1	21.7	14.4	9.6	7.2	7.2	7.2
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)