

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: P452978

Luminaire Tested: **GALN-SA4A-727-U-AFL**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P452978  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4A-727-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15278 lumens  
Efficiency: N/A  
Efficacy: 126.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

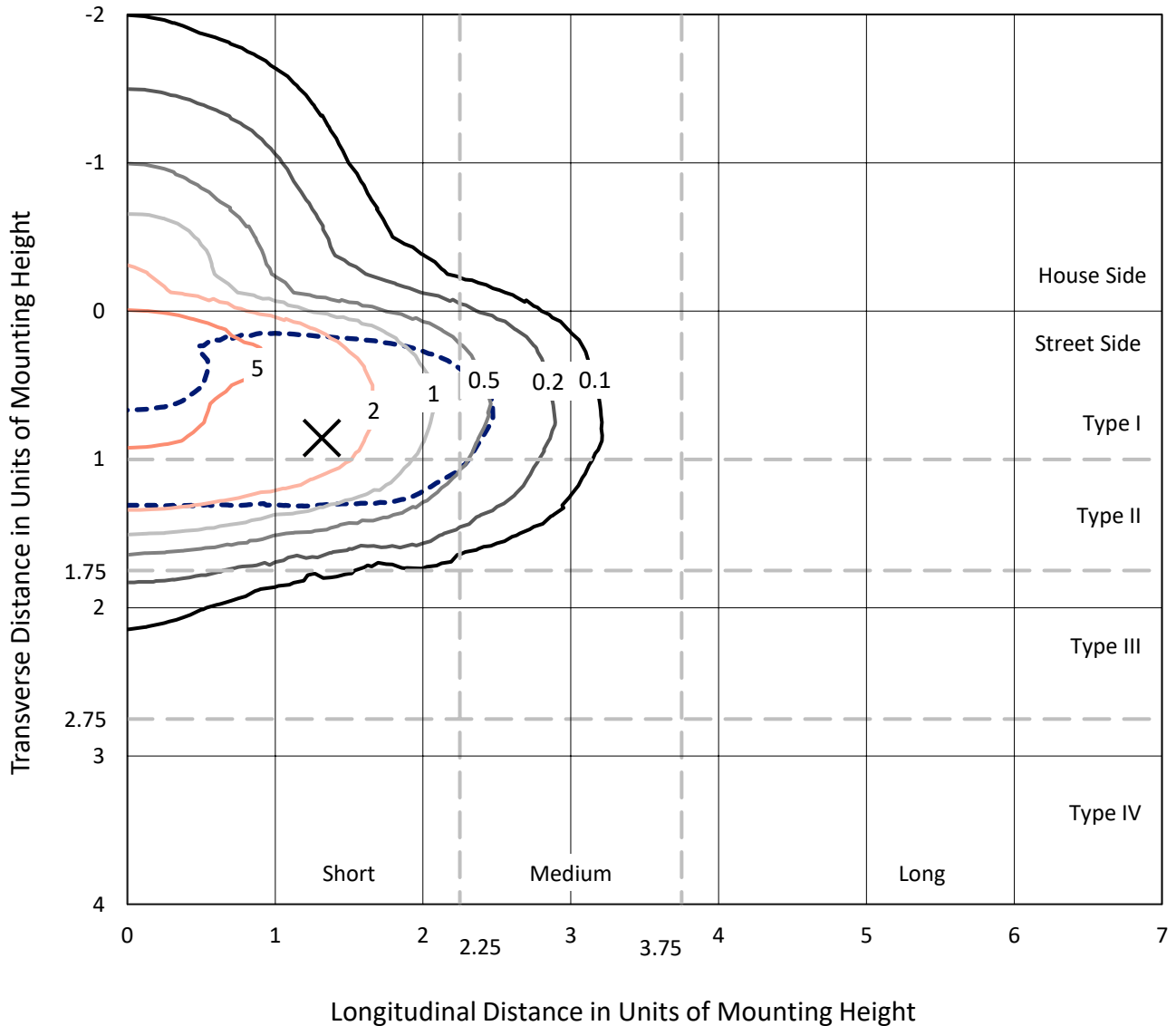
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

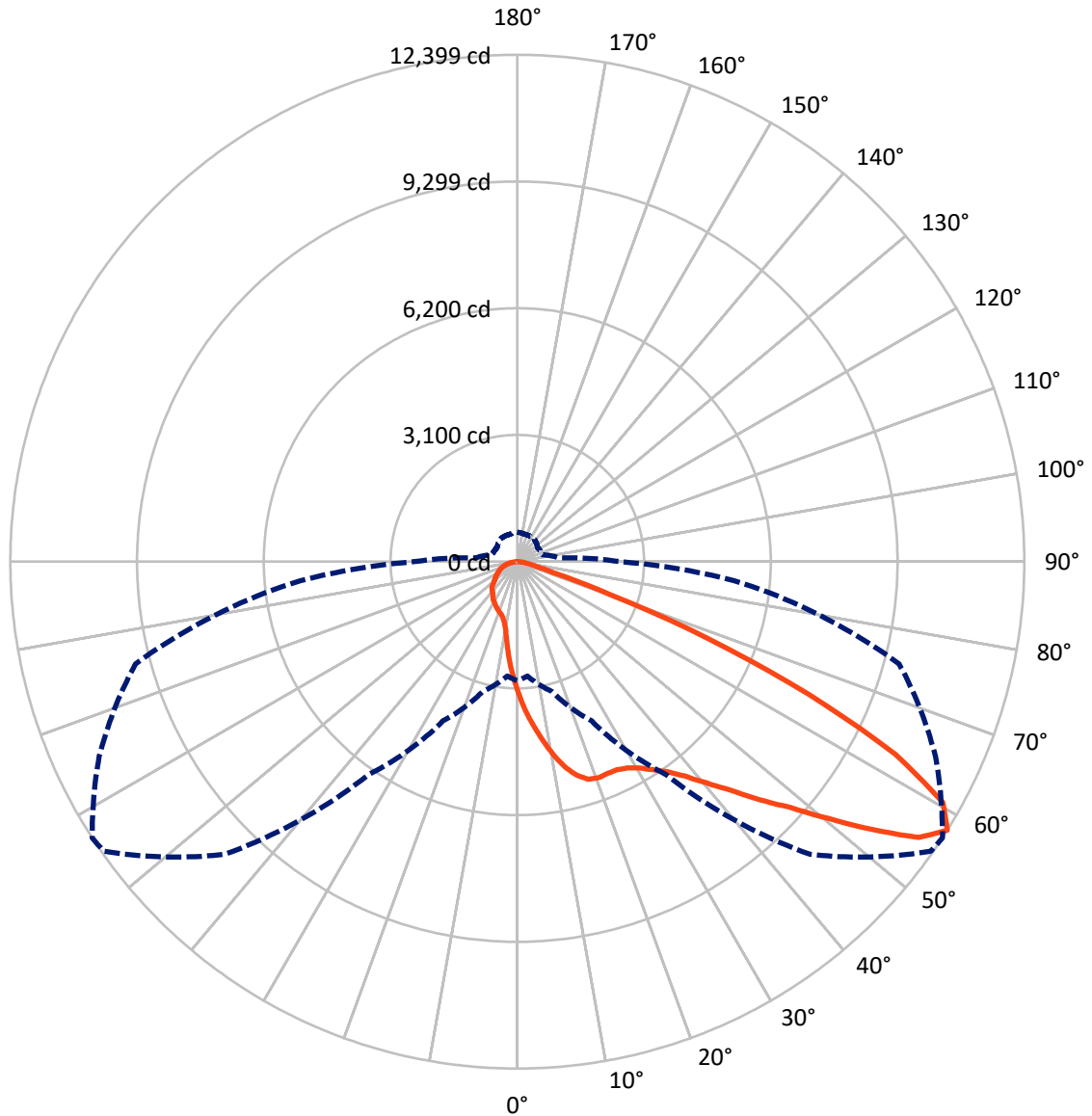
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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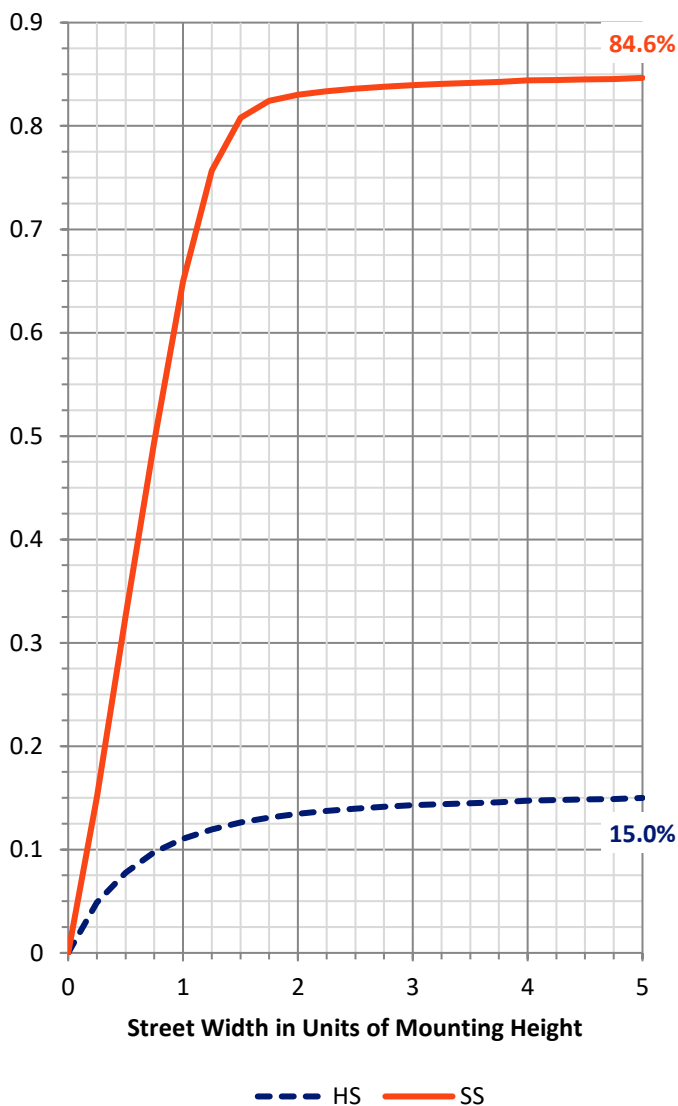
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2323.4	0.0	2323.4
	% Fixture	15.2	0.0	15.2
<b>Street Side</b>	Lumens	12954.6	0.0	12954.6
	% Fixture	84.8	0.0	84.8
<b>Total</b>	Lumens	15278.0	0.0	15278.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	308.5	2.0
10°-20°	909.1	6.0
20°-30°	1509.6	9.9
30°-40°	2273.9	14.9
40°-50°	3414.1	22.3
50°-60°	3826.8	25.0
60°-70°	2239.6	14.7
70°-80°	662.5	4.3
80°-90°	133.9	0.9
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°	15278.0	100.0
0°-180°	15278.0	100.0

**Coefficient of Utilization**



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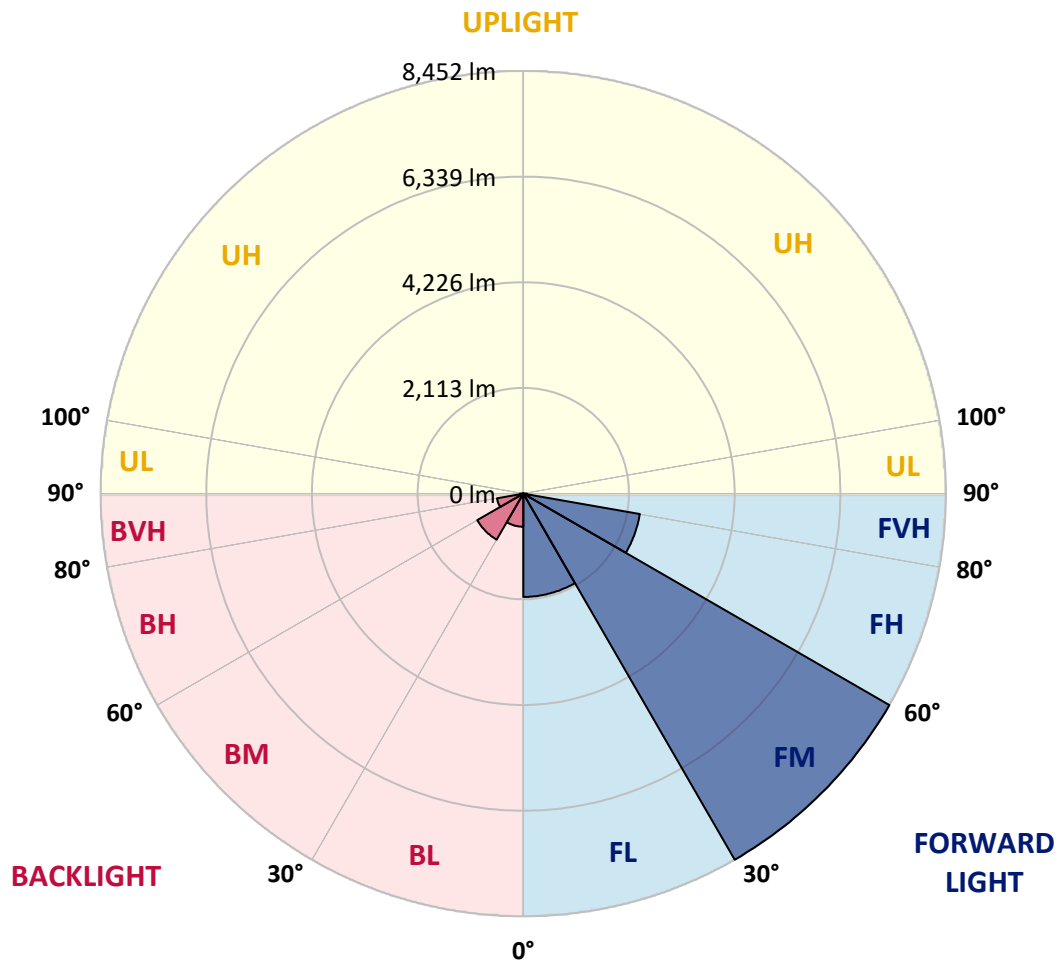
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2065.2	13.5			
FM (30°-60°)	8452.5	55.3			
FH (60°-80°)	2367.5	15.5			G2/5000
FVH (80°-90°)	69.5	0.5			G1/100
BL (0°-30°)	662.0	4.3	B2/1000		
BM (30°-60°)	1062.3	7.0	B2/2500		
BH (60°-80°)	534.6	3.5	B2/1000		G2/1000
BVH (80°-90°)	64.4	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7
2.5°	3988.3	3944.8	3910.6	3880.4	3841.1	3734.9	3628.7	3627.0	3542.6	3412.1	3278.3
5°	4638.1	4579.6	4587.1	4493.5	4399.8	4245.9	4020.9	4009.2	3829.4	3585.2	3336.9
7.5°	5061.3	5062.1	5038.7	4985.2	4884.0	4709.2	4454.2	4396.4	4146.4	3775.9	3403.8
10°	5039.6	5062.1	5101.5	5147.4	5178.4	5092.3	4859.8	4789.5	4464.2	4006.7	3478.2
12.5°	4750.2	4785.3	4841.4	4956.8	5143.3	5285.4	5206.0	5149.1	4832.2	4236.7	3560.1
15°	4569.6	4590.5	4621.4	4699.2	4899.9	5240.3	5446.0	5415.9	5179.2	4496.8	3652.1
17.5°	4514.4	4535.3	4545.3	4593.0	4736.0	5084.7	5540.5	5594.0	5487.0	4736.0	3745.0
20°	4569.6	4579.6	4579.6	4608.0	4720.1	4993.6	5536.3	5644.2	5739.6	5022.8	3831.9
22.5°	4714.2	4718.4	4712.6	4722.6	4806.2	5018.7	5497.0	5630.8	5943.6	5266.2	3899.7
25°	4949.2	4955.9	4917.5	4894.0	4955.1	5129.0	5518.8	5641.7	6103.3	5498.7	3944.8
27.5°	5216.0	5224.4	5177.6	5123.2	5151.6	5265.4	5604.1	5714.5	6222.9	5727.8	3973.3
30°	5543.0	5546.4	5467.8	5402.5	5384.1	5468.6	5749.6	5852.5	6371.8	5998.0	4015.9
32.5°	5877.5	5902.6	5801.4	5709.4	5678.5	5704.4	5964.5	6064.0	6549.1	6288.2	4084.5
35°	6332.5	6336.7	6215.4	6103.3	6001.3	6034.8	6239.7	6311.6	6794.1	6623.5	4181.5
37.5°	6900.3	6938.8	6771.5	6562.5	6437.0	6388.5	6572.5	6651.1	7137.9	7035.0	4327.9
40°	7530.9	7545.1	7402.1	7271.7	7042.5	6902.0	7029.1	7114.4	7561.9	7525.9	4497.6
42.5°	7927.3	7958.3	7969.1	7955.8	7783.5	7547.6	7596.1	7636.3	8063.6	7986.7	4671.6
45°	8061.1	8107.1	8262.7	8592.2	8610.6	8378.1	8265.2	8303.7	8610.6	8451.7	4838.0
47.5°	7839.5	7918.1	8205.0	8880.7	9386.7	9404.2	9063.9	8979.4	9109.0	8837.2	4958.4
50°	7266.6	7283.4	7722.4	8700.9	9750.5	10385.2	10033.1	9875.9	9582.4	9122.4	5041.2
52.5°	6380.2	6399.4	6767.4	7865.4	9526.3	11071.0	11167.2	10886.2	10063.2	9344.0	5095.6
55°	4736.0	4847.2	5252.0	6313.3	8464.2	11006.6	12068.7	11909.0	10644.5	9519.6	5180.9
57.5°	2912.0	2810.0	3290.0	4295.3	6365.9	10121.8	12347.2	12399.0	11284.2	9666.8	5323.9
60°	1339.8	1359.8	1558.0	2215.4	3880.4	7918.1	11629.6	11957.5	11638.0	9661.8	5359.9
62.5°	923.3	904.9	854.7	972.6	1769.6	5007.8	9823.2	10378.5	10928.8	9361.6	5216.9
65°	825.4	807.0	710.0	677.4	812.9	2182.8	7141.2	7842.0	9201.8	8603.9	4860.6
67.5°	771.1	746.0	645.6	582.1	580.4	868.9	4210.8	5054.6	6825.1	7274.2	4211.6
70°	714.2	694.1	594.6	524.4	494.3	546.1	1850.7	2422.8	4431.6	5242.0	3280.8
72.5°	657.3	633.9	544.4	469.2	429.9	409.0	709.2	922.4	2503.9	3142.8	2011.3
75°	574.5	562.8	486.7	424.8	382.2	330.3	449.9	513.5	1197.6	1443.5	1009.4
77.5°	502.6	490.1	432.4	371.3	340.4	268.5	319.5	348.7	505.1	585.4	455.8
80°	368.0	380.5	364.6	327.8	303.6	210.7	214.9	239.2	300.2	332.0	278.5
82.5°	233.3	256.7	281.0	252.6	230.0	166.4	148.9	158.1	204.9	217.4	123.8
85°	97.8	99.5	163.1	153.9	131.3	98.7	89.5	94.5	109.6	114.6	57.7
87.5°	37.6	36.8	57.7	53.5	41.0	28.4	28.4	31.8	43.5	40.1	18.4
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°	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7	3209.7
2.5°	3220.6	3161.2	3043.3	2897.0	2789.9	2669.5	2563.3	2487.2	2458.7	2445.4	2420.3
5°	3218.1	3101.0	2856.8	2600.9	2395.2	2184.4	2006.3	1890.9	1880.8	1803.9	1796.4
7.5°	3218.9	3040.0	2651.1	2274.7	1961.1	1745.4	1598.2	1559.7	1513.7	1502.0	1507.9
10°	3221.4	2962.2	2430.3	1951.9	1648.4	1507.0	1451.8	1436.8	1438.4	1443.5	1444.3
12.5°	3224.8	2886.9	2201.2	1706.9	1472.7	1414.2	1408.3	1421.7	1435.9	1446.8	1449.3
15°	3229.0	2800.8	1977.9	1509.5	1384.9	1379.9	1399.1	1421.7	1441.8	1457.7	1460.2
17.5°	3224.0	2700.4	1790.5	1388.3	1336.4	1360.7	1392.4	1420.9	1439.3	1454.3	1456.0
20°	3212.2	2588.4	1609.9	1303.0	1306.3	1345.6	1379.9	1406.7	1426.7	1434.3	1440.1
22.5°	3167.1	2454.6	1452.7	1236.9	1270.3	1324.7	1365.7	1381.6	1359.0	1343.1	1347.3
25°	3090.1	2280.6	1306.3	1183.4	1237.7	1295.4	1337.2	1298.8	1280.4	1273.7	1277.0
27.5°	2994.0	2089.9	1195.9	1127.3	1195.9	1262.8	1251.1	1244.4	1236.1	1225.2	1227.7
30°	2890.3	1903.4	1102.2	1083.8	1150.8	1189.2	1194.2	1205.1	1195.9	1179.2	1185.9
32.5°	2794.1	1727.8	1031.2	1047.1	1119.0	1113.1	1150.8	1163.3	1120.6	1064.6	1067.1
35°	2712.1	1564.7	977.6	1011.1	1064.6	1067.1	1104.8	1061.3	1015.3	988.5	990.2
37.5°	2650.2	1437.6	942.5	980.1	995.2	1027.0	1006.9	984.3	978.5	960.1	960.9
40°	2613.4	1326.4	919.9	955.9	953.4	975.1	910.7	933.3	941.7	935.8	936.7
42.5°	2576.7	1247.8	896.5	922.4	921.6	879.0	864.7	884.0	905.7	908.2	906.6
45°	2547.4	1186.7	872.3	871.4	888.2	821.3	817.1	828.8	859.7	874.8	873.9
47.5°	2514.8	1135.7	835.5	812.1	817.1	785.3	778.6	783.6	821.3	845.5	852.2
50°	2473.8	1084.7	789.5	757.7	736.8	751.8	753.5	754.3	792.0	819.6	825.4
52.5°	2441.2	1046.2	736.8	713.4	688.3	721.7	734.3	735.9	758.5	781.1	785.3
55°	2460.4	1024.5	684.9	668.2	645.6	690.8	715.0	718.4	723.4	740.1	742.6
57.5°	2518.1	1029.5	643.1	621.4	604.6	654.0	695.0	697.5	694.1	714.2	717.5
60°	2535.7	1027.0	612.2	569.5	559.5	614.7	665.7	670.7	669.9	699.1	705.0
62.5°	2462.1	995.2	581.2	526.0	519.3	574.5	624.7	644.8	649.0	690.8	698.3
65°	2289.0	930.0	540.3	480.0	480.0	531.9	585.4	613.0	624.7	680.8	689.1
67.5°	2060.7	853.0	498.4	440.7	439.1	490.9	543.6	572.0	590.4	666.5	671.6
70°	1710.2	749.3	446.6	398.1	398.1	444.9	492.6	526.9	553.6	639.8	639.8
72.5°	1171.7	623.0	383.9	349.6	350.4	393.9	442.4	480.9	512.7	586.2	587.9
75°	741.0	486.7	315.3	297.7	301.1	342.0	392.2	432.4	495.9	579.6	582.1
77.5°	393.9	342.0	250.9	246.7	250.9	288.5	344.6	399.8	497.6	502.6	494.3
80°	255.1	242.5	198.2	189.8	191.5	232.5	306.9	379.7	399.8	404.8	386.4
82.5°	138.8	153.9	140.5	132.1	132.1	181.5	261.8	301.9	286.9	238.3	227.5
85°	59.4	71.9	72.8	63.6	61.1	112.1	175.6	164.8	153.0	146.4	144.7
87.5°	16.7	23.4	23.4	17.6	13.4	30.9	35.1	10.0	0.0	0.8	1.7
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)