

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: P299881

Luminaire Tested: **GLNA-AF-02-LED-E1-5WQ-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299881  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-02-LED-E1-5WQ-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8972.5 lumens  
Efficiency: N/A  
Efficacy: 105.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2

Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): 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: 25 FT

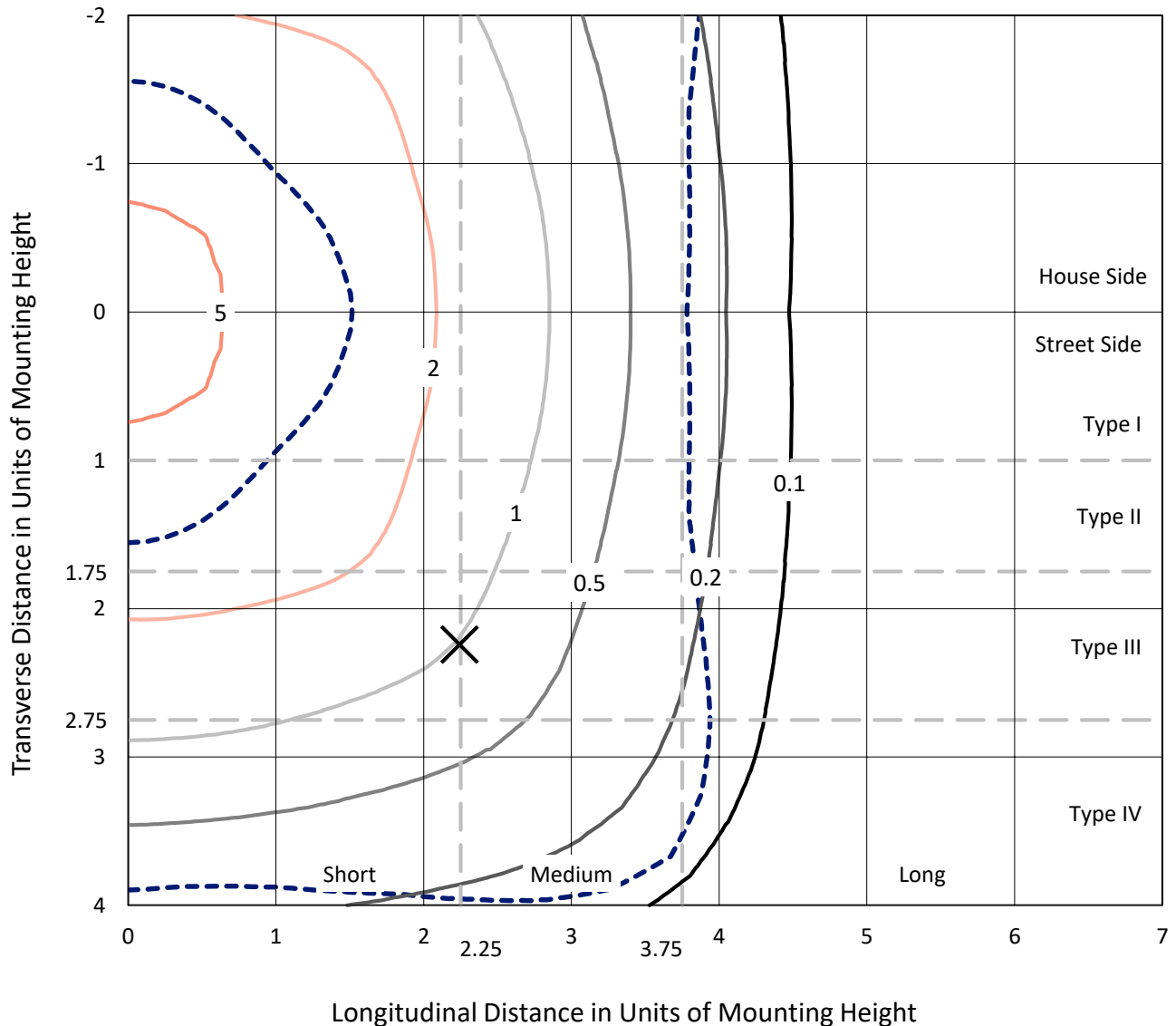


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

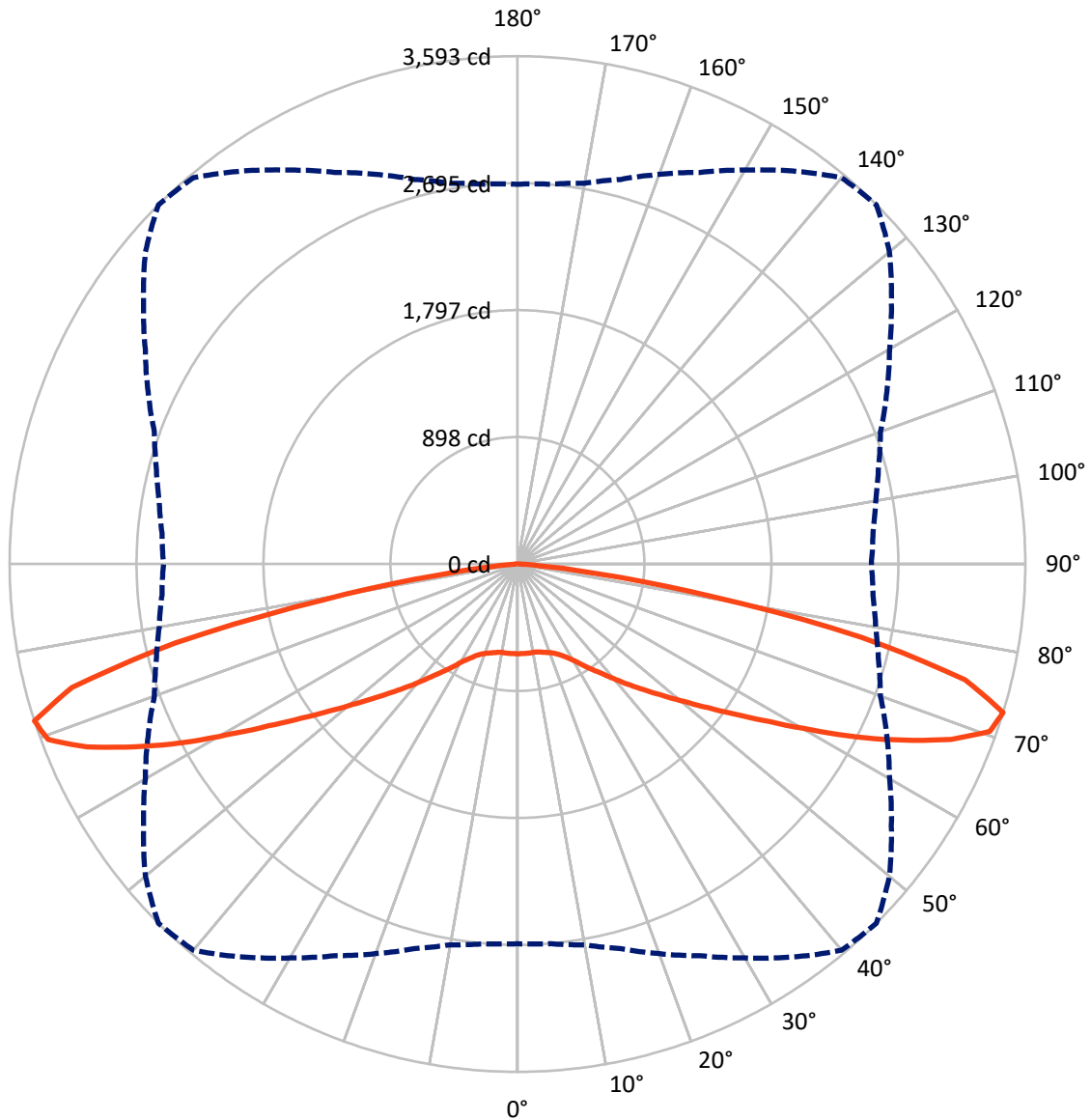


Based on 10 foot mounting height. Maximum calculated value = 6.4 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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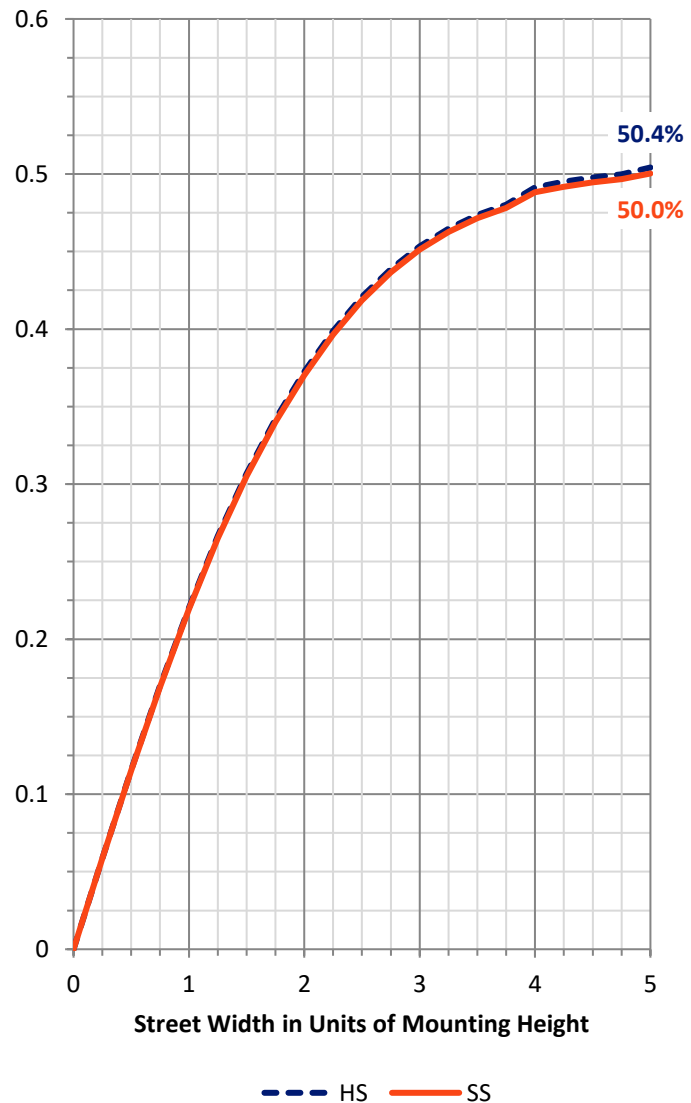
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4486.2	0.0	4486.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4486.2	0.0	4486.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	8972.5	0.0	8972.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.7	0.7
10°-20°	184.3	2.1
20°-30°	336.7	3.8
30°-40°	580.6	6.5
40°-50°	992.5	11.1
50°-60°	1608.7	17.9
60°-70°	2668.8	29.7
70°-80°	2350.6	26.2
80°-90°	189.5	2.1
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°	8972.5	100.0
0°-180°	8972.5	100.0



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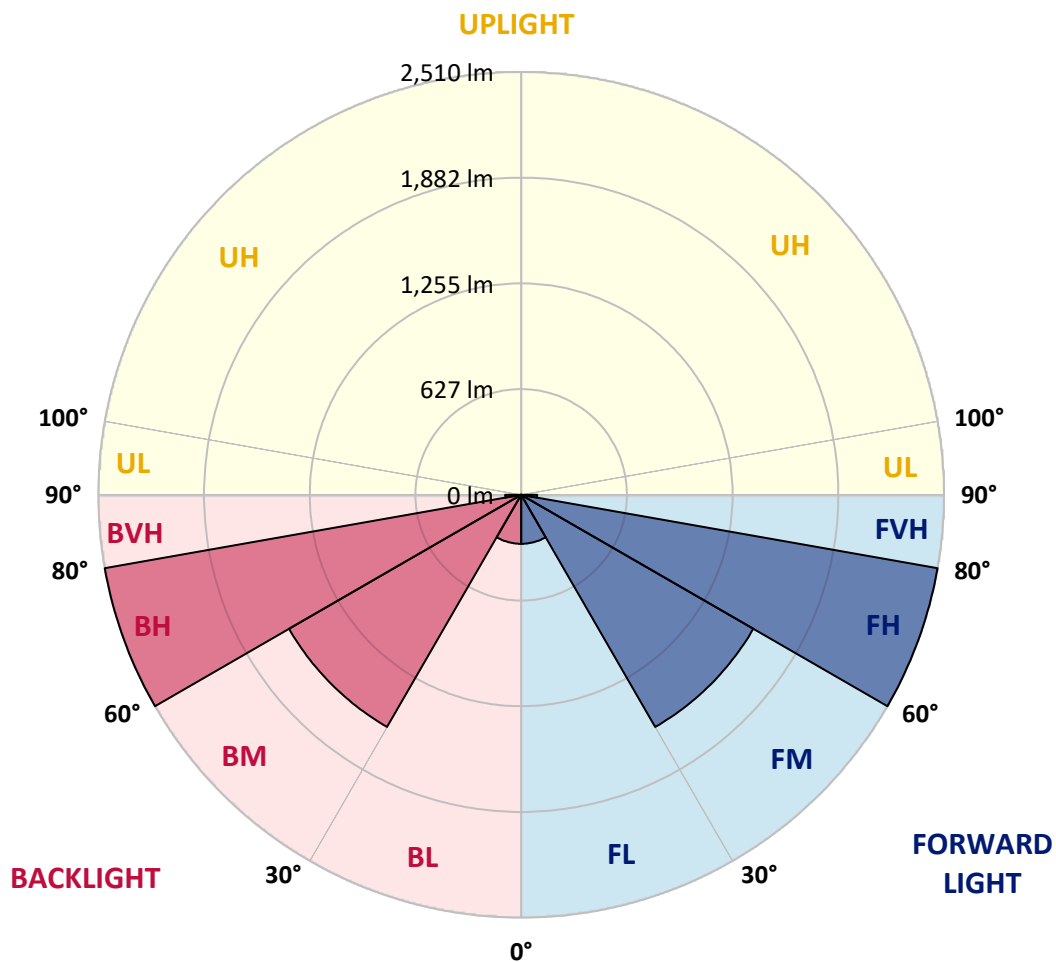
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	290.8	3.2			
FM (30°-60°)	1590.9	17.7			
FH (60°-80°)	2509.7	28.0			G2/5000
FVH (80°-90°)	94.8	1.1			G1/100
BL (0°-30°)	290.8	3.2	B1/500		
BM (30°-60°)	1590.9	17.7	B2/2500		
BH (60°-80°)	2509.7	28.0	B4/5000		G2/5000
BVH (80°-90°)	94.8	1.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	635.4	635.4	635.4	635.4	635.4	635.4	635.4	635.4	635.4	635.4	635.4
2.5°	635.4	635.8	636.2	635.8	635.8	635.4	635.0	635.4	635.0	634.2	634.6
5°	637.4	638.3	638.3	637.4	637.9	637.4	636.6	637.0	636.2	635.0	635.0
7.5°	639.9	640.3	640.3	639.5	639.9	639.1	638.3	637.9	637.0	635.4	634.2
10°	643.6	644.0	643.6	642.8	642.8	641.6	639.5	638.7	637.0	634.6	633.3
12.5°	647.7	648.1	647.7	646.9	646.5	644.4	642.8	641.6	640.3	638.3	636.2
15°	653.5	654.3	653.5	651.9	650.6	649.0	648.1	648.6	649.0	647.3	645.3
17.5°	664.2	664.6	663.4	659.7	658.0	656.4	656.4	657.2	658.4	657.6	655.6
20°	684.0	682.7	679.8	675.3	673.3	670.4	670.0	670.4	670.4	670.0	668.3
22.5°	708.6	707.8	704.1	698.4	695.5	693.8	691.4	689.3	688.9	687.7	686.0
25°	738.3	737.9	733.3	728.4	726.3	724.3	722.2	719.3	716.9	714.0	712.3
27.5°	776.1	774.5	767.9	765.4	762.6	761.3	758.4	755.1	753.1	749.4	747.3
30°	817.7	817.7	812.3	811.5	811.5	808.6	805.4	799.6	795.9	792.2	790.9
32.5°	859.3	859.7	854.3	856.0	857.2	859.3	860.1	858.0	855.6	855.1	852.7
35°	919.3	917.7	912.3	913.6	913.2	912.8	912.8	917.3	918.1	918.9	914.0
37.5°	993.8	993.8	988.5	988.5	986.0	983.5	980.2	983.1	987.7	988.9	985.6
40°	1079.0	1081.9	1075.3	1074.9	1075.7	1067.9	1064.2	1068.7	1071.6	1076.5	1072.8
42.5°	1179.4	1177.4	1170.8	1170.0	1165.4	1163.0	1159.7	1163.4	1167.9	1171.2	1172.4
45°	1275.7	1274.1	1266.7	1266.7	1262.1	1260.1	1261.7	1267.9	1270.0	1274.5	1279.0
47.5°	1370.8	1368.7	1363.8	1365.8	1366.3	1370.0	1375.3	1381.1	1386.8	1393.0	1395.1
50°	1467.9	1468.3	1463.0	1467.9	1474.1	1484.4	1498.8	1508.2	1520.2	1528.0	1530.5
52.5°	1556.4	1558.0	1563.8	1575.3	1587.7	1607.8	1632.5	1655.6	1675.3	1688.5	1687.7
55°	1662.6	1665.0	1679.0	1698.8	1718.9	1749.4	1786.0	1826.8	1859.7	1878.6	1866.7
57.5°	1798.4	1803.7	1819.3	1846.1	1876.1	1915.6	1965.8	2027.2	2078.2	2103.7	2084.4
60°	1984.8	1988.1	2007.0	2036.6	2072.8	2121.8	2188.9	2271.2	2343.2	2377.0	2354.7
62.5°	2230.5	2236.6	2251.9	2281.9	2318.9	2374.5	2456.4	2559.3	2649.0	2695.9	2645.7
65°	2523.9	2543.6	2556.4	2586.8	2621.4	2680.2	2765.8	2876.1	2972.4	3003.3	2945.3
67.5°	2814.4	2831.7	2853.9	2888.9	2923.9	2990.1	3069.5	3176.5	3282.3	3310.3	3220.2
70°	2941.6	2951.4	2986.0	3033.7	3100.8	3179.0	3270.8	3390.9	3521.8	3544.9	3430.5
72.5°	2686.8	2696.7	2735.4	2816.5	2933.3	3057.6	3217.7	3394.2	3567.1	3593.0	3435.4
75°	2032.1	2016.1	2073.3	2180.7	2338.3	2511.5	2735.4	2988.5	3238.3	3270.8	3082.7
77.5°	1050.2	1048.1	1091.4	1224.7	1412.8	1609.9	1856.4	2142.4	2386.8	2485.6	2332.5
80°	295.9	299.2	319.8	386.0	495.9	638.3	830.9	1098.8	1298.8	1400.8	1315.2
82.5°	116.0	125.1	132.9	145.3	159.7	180.7	241.2	358.8	481.5	575.3	471.2
85°	41.6	44.4	63.0	74.5	75.7	79.8	90.9	106.2	128.0	152.7	125.5
87.5°	15.6	17.3	20.2	33.3	32.9	30.0	36.6	38.3	28.8	26.3	32.5
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	635.4	635.4	635.4	635.4	635.4	635.4	635.4	635.4
2.5°	633.7	634.2	634.2	634.6	635.0	635.0	635.8	635.8
5°	634.2	634.2	633.3	633.7	633.3	633.3	633.7	633.7
7.5°	633.3	632.9	632.1	631.7	630.9	630.9	630.9	630.9
10°	632.1	631.7	630.9	630.5	630.0	630.0	630.0	630.0
12.5°	635.4	634.2	633.3	632.9	632.9	632.9	632.9	632.9
15°	644.0	641.2	639.1	639.1	639.5	640.3	640.3	641.2
17.5°	654.7	651.4	649.4	647.7	648.6	649.8	650.6	651.4
20°	667.5	665.8	663.0	661.3	661.3	663.0	663.8	664.2
22.5°	685.2	684.0	682.7	680.7	680.7	681.5	683.1	683.1
25°	711.5	710.7	709.9	708.2	707.8	707.8	708.6	709.5
27.5°	744.4	744.9	744.0	743.6	742.4	742.0	743.2	742.8
30°	788.5	790.5	792.6	790.9	788.9	787.7	786.4	784.8
32.5°	848.1	845.7	844.0	841.2	837.4	834.2	831.7	828.8
35°	904.5	900.4	898.8	901.2	900.8	898.8	895.9	893.4
37.5°	973.7	972.8	973.7	978.2	977.4	979.4	973.7	973.3
40°	1060.9	1061.7	1067.5	1072.8	1075.7	1078.6	1075.3	1072.0
42.5°	1162.1	1161.7	1163.8	1171.2	1176.1	1179.4	1172.4	1171.6
45°	1269.1	1266.3	1267.9	1274.1	1279.0	1282.7	1274.9	1274.9
47.5°	1386.8	1381.9	1376.5	1383.5	1386.4	1388.9	1382.7	1380.7
50°	1518.1	1507.8	1496.3	1499.2	1499.2	1498.4	1490.5	1490.1
52.5°	1668.7	1649.8	1628.8	1621.0	1616.5	1611.5	1597.9	1591.4
55°	1842.0	1813.6	1780.7	1760.5	1749.8	1736.2	1713.6	1707.4
57.5°	2044.4	2000.0	1943.2	1918.5	1894.7	1872.4	1847.3	1840.3
60°	2284.4	2218.9	2143.6	2097.9	2072.0	2050.6	2024.7	2023.5
62.5°	2551.9	2448.6	2363.4	2322.2	2303.3	2284.4	2259.7	2263.0
65°	2823.9	2716.1	2636.2	2602.9	2585.2	2569.5	2544.9	2548.6
67.5°	3092.2	2993.0	2905.4	2871.2	2851.4	2831.7	2809.5	2813.2
70°	3284.8	3161.7	3063.0	2987.2	2939.9	2886.4	2851.9	2843.2
72.5°	3229.6	3039.9	2883.1	2732.9	2644.9	2573.3	2524.7	2503.7
75°	2795.1	2535.8	2334.2	2149.8	2046.1	1961.7	1900.4	1862.1
77.5°	2075.7	1784.4	1546.1	1333.7	1165.8	1053.1	973.7	922.2
80°	1136.2	864.2	631.7	444.0	326.3	271.2	239.5	224.3
82.5°	353.9	228.4	168.3	145.3	135.0	129.2	119.8	104.5
85°	112.8	98.8	91.8	87.7	83.5	72.8	50.2	45.7
87.5°	43.6	44.9	44.4	42.0	42.8	30.9	24.7	21.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)