

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: P298999

Luminaire Tested: **GLNA-AF-05-LED-E1-T2-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298999
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-T2-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16652.6 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 162
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

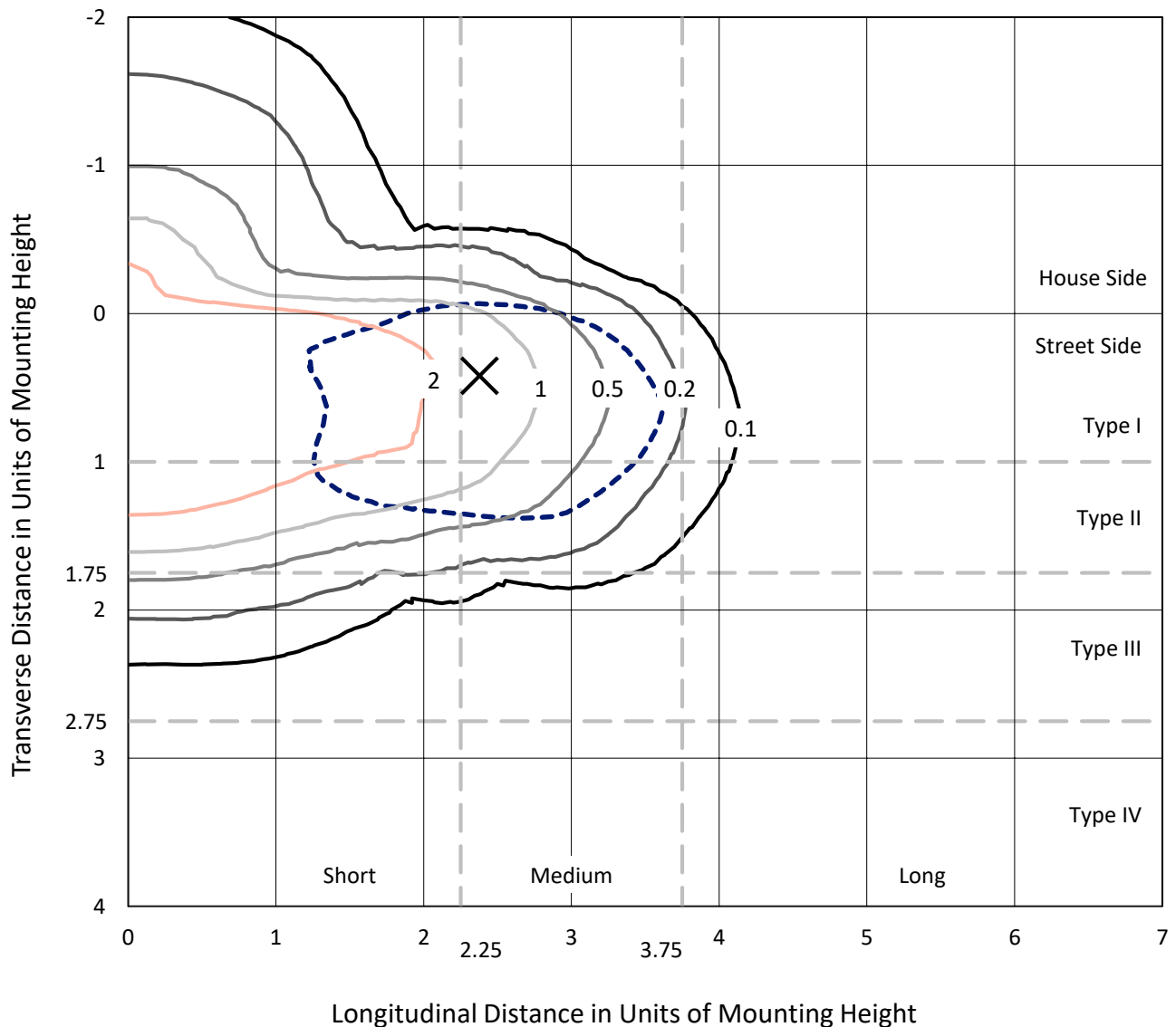


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

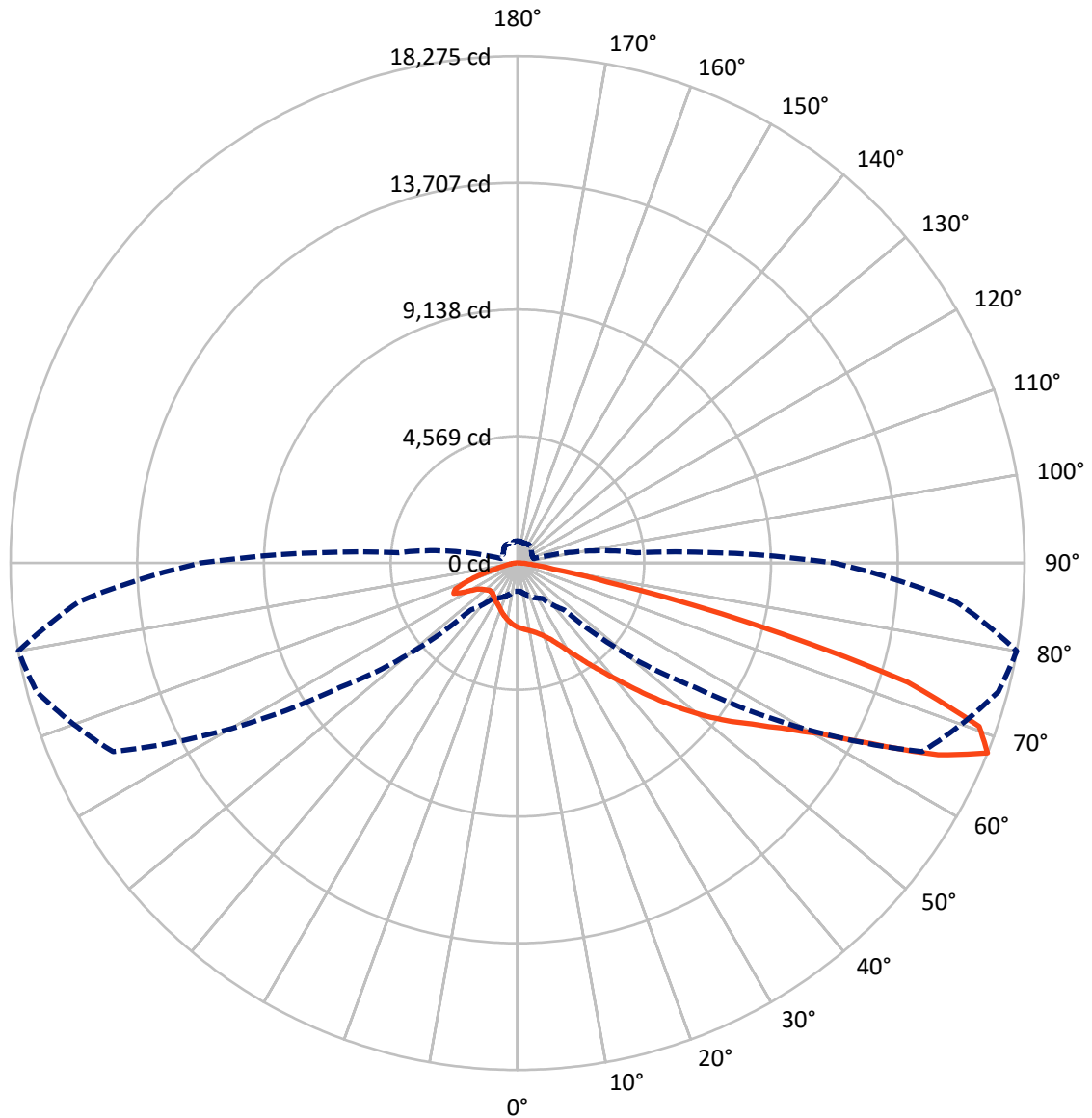


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3066.8	0.0	3066.8
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	13585.8	0.0	13585.8
	% Fixture	81.6	0.0	81.6
Total	Lumens	16652.6	0.0	16652.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.4	1.3
10°-20°	614.8	3.7
20°-30°	1017.6	6.1
30°-40°	1664.5	10.0
40°-50°	2687.5	16.1
50°-60°	3880.0	23.3
60°-70°	4281.8	25.7
70°-80°	1973.7	11.9
80°-90°	319.2	1.9
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°	16652.6	100.0
0°-180°	16652.6	100.0



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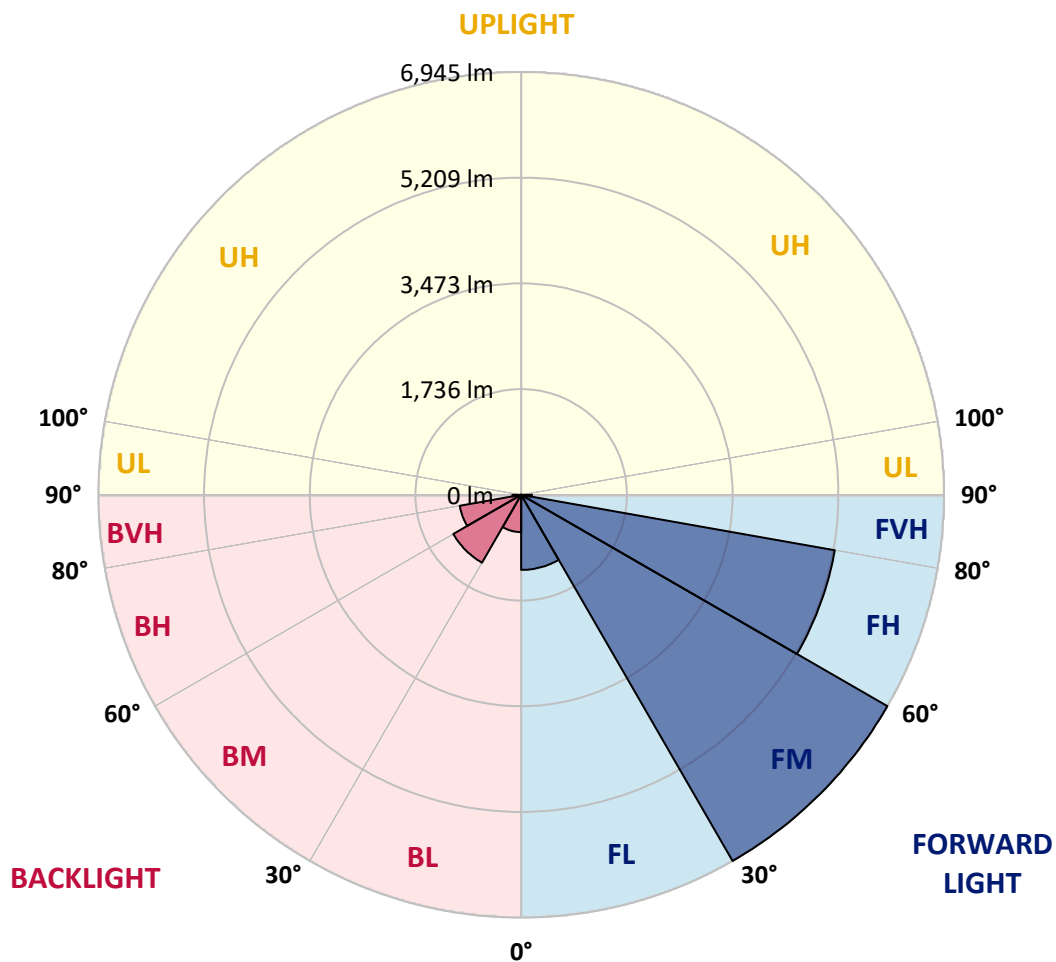
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1233.9	7.4			
FM (30°-60°)	6945.4	41.7			
FH (60°-80°)	5231.0	31.4			G3/7500
FVH (80°-90°)	175.5	1.1			G2/225
BL (0°-30°)	611.9	3.7	B2/1000		
BM (30°-60°)	1286.7	7.7	B2/2500		
BH (60°-80°)	1024.5	6.2	B3/2500		G3/2500
BVH (80°-90°)	143.7	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5
2.5°	2530.8	2516.0	2518.5	2514.4	2502.1	2480.8	2457.8	2416.0	2372.6	2349.6	2331.6
5°	2742.3	2738.2	2732.5	2719.3	2688.2	2643.9	2589.0	2515.2	2435.7	2393.9	2353.7
7.5°	2900.5	2898.1	2890.7	2882.5	2852.2	2798.9	2716.1	2611.1	2495.5	2438.1	2375.8
10°	2913.6	2917.7	2923.5	2945.6	2949.7	2921.0	2836.6	2709.5	2557.8	2484.1	2404.5
12.5°	2802.1	2811.2	2833.3	2889.9	2949.7	2985.0	2941.5	2812.8	2630.8	2541.4	2440.6
15°	2654.6	2659.5	2686.5	2764.4	2871.8	2980.9	3021.9	2926.8	2725.1	2615.2	2494.7
17.5°	2591.4	2593.9	2612.8	2664.4	2764.4	2920.2	3066.9	3050.5	2840.7	2707.0	2561.1
20°	2559.5	2565.2	2592.3	2643.1	2706.2	2842.3	3073.5	3184.2	2978.4	2821.8	2644.7
22.5°	2650.5	2648.0	2657.9	2683.3	2736.6	2818.5	3068.6	3321.9	3153.8	2969.4	2753.8
25°	2862.8	2871.8	2854.6	2825.9	2843.1	2900.5	3094.8	3471.1	3373.6	3158.8	2896.4
27.5°	3165.3	3156.3	3130.9	3063.7	3028.4	3053.0	3181.7	3631.8	3646.6	3408.0	3085.0
30°	3467.0	3459.6	3435.0	3353.1	3280.9	3260.4	3350.6	3816.3	3972.0	3707.2	3316.2
32.5°	3780.2	3772.0	3749.0	3667.1	3580.1	3532.6	3590.8	4029.4	4355.7	4064.7	3588.3
35°	4166.3	4150.7	4102.4	3988.4	3903.2	3866.3	3893.3	4297.5	4798.4	4487.7	3918.7
37.5°	4529.5	4553.3	4504.1	4346.7	4236.0	4222.9	4253.2	4624.6	5275.5	4960.7	4298.3
40°	4894.3	4898.4	4854.1	4725.4	4611.5	4590.2	4666.4	5021.4	5838.8	5526.4	4759.9
42.5°	5271.4	5279.6	5205.0	5086.2	5002.5	5006.6	5093.5	5486.2	6484.8	6192.9	5291.1
45°	5718.2	5730.5	5648.6	5492.8	5416.5	5569.8	5533.8	6007.6	7193.1	6950.4	5901.1
47.5°	6185.5	6204.4	6142.1	5996.2	5901.1	6111.8	5974.0	6585.6	7955.5	7762.9	6570.8
50°	6440.5	6467.6	6528.2	6517.6	6497.1	6461.8	6465.1	7205.4	8741.7	8608.9	7259.5
52.5°	6303.6	6302.8	6524.1	6793.0	7080.0	7101.3	7063.6	7858.8	9476.3	9436.1	7908.0
55°	5677.2	5719.9	6055.2	6575.8	7359.5	7848.9	7960.4	8607.3	10197.7	10244.5	8566.3
57.5°	4634.4	4669.7	5122.2	5847.8	6982.4	8293.3	9236.1	9695.2	11004.4	11222.5	9442.7
60°	3143.2	3185.8	3665.4	4536.9	5967.5	8045.7	10450.2	11636.5	11970.2	12466.2	10672.4
62.5°	1847.1	1885.6	2276.6	2862.0	4201.6	6895.5	10983.1	14398.5	13504.1	14342.7	12548.1
65°	1271.5	1297.8	1488.0	1781.5	2414.4	4644.3	10322.3	16305.4	15864.3	16667.7	14723.1
67.5°	1023.1	1019.9	1170.7	1370.7	1554.4	2394.7	7805.5	16089.8	17940.1	18275.4	15852.0
70°	842.8	839.5	942.0	1107.6	1242.0	1348.6	4251.6	13577.8	17517.1	17653.2	14812.5
72.5°	705.0	708.3	773.9	896.9	1019.0	1015.8	1868.4	9551.7	13780.3	14721.5	11807.9
75°	595.2	596.8	640.3	727.2	827.2	818.2	1013.3	5174.7	8010.5	8665.5	6545.4
77.5°	506.6	508.3	536.2	584.5	655.9	652.6	739.5	2235.6	3341.6	3300.6	2238.9
80°	451.7	451.7	464.8	473.9	513.2	498.4	548.5	1074.0	1412.5	1304.3	893.6
82.5°	354.2	355.8	436.1	432.9	404.2	385.3	385.3	632.9	748.5	691.9	523.0
85°	199.2	198.4	281.2	339.4	355.8	271.4	268.9	354.2	407.5	359.1	253.3
87.5°	85.3	86.9	130.4	150.8	201.7	168.9	166.4	182.8	207.4	179.5	117.2
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°	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5	2313.5
2.5°	2314.3	2293.0	2246.3	2188.1	2135.6	2101.2	2070.0	2025.0	2027.4	1996.3	1973.3
5°	2312.7	2268.4	2160.2	2031.5	1907.7	1818.4	1751.1	1690.5	1675.7	1647.0	1629.8
7.5°	2314.3	2242.2	2060.2	1854.4	1701.1	1588.0	1530.6	1498.6	1491.3	1481.4	1482.2
10°	2320.1	2218.4	1950.3	1688.8	1528.1	1453.5	1439.6	1449.4	1460.9	1464.2	1465.0
12.5°	2333.2	2197.1	1829.8	1541.3	1419.9	1397.0	1420.7	1454.4	1476.5	1487.2	1486.3
15°	2362.7	2180.7	1714.2	1425.7	1360.1	1372.4	1416.6	1464.2	1496.2	1510.9	1511.7
17.5°	2394.7	2156.9	1595.4	1337.1	1315.8	1347.0	1401.9	1457.6	1497.0	1513.4	1516.7
20°	2436.5	2127.4	1470.8	1270.7	1274.0	1309.3	1360.9	1416.6	1460.1	1474.0	1480.6
22.5°	2491.4	2095.5	1361.7	1216.6	1226.4	1253.5	1293.7	1342.0	1379.8	1386.3	1392.1
25°	2565.2	2061.0	1274.8	1167.4	1171.5	1187.1	1214.2	1242.8	1269.1	1261.7	1267.4
27.5°	2664.4	2031.5	1210.1	1122.3	1115.0	1118.2	1132.2	1141.2	1155.1	1134.6	1137.1
30°	2780.8	1999.5	1160.0	1083.0	1062.5	1056.7	1060.0	1064.9	1075.6	1047.7	1043.6
32.5°	2916.1	1961.0	1113.3	1048.5	1019.9	1008.4	1010.0	1023.1	1064.1	1046.9	1037.9
35°	3073.5	1917.6	1064.1	1010.8	991.2	974.8	973.1	1014.1	1136.3	1125.6	1117.4
37.5°	3258.0	1874.1	1014.9	968.2	969.8	951.8	946.1	992.8	1150.2	1108.4	1102.7
40°	3492.4	1851.2	973.1	923.1	943.6	941.2	929.7	953.4	1058.4	982.1	972.3
42.5°	3782.6	1854.4	942.0	874.7	912.5	938.7	920.7	921.5	959.2	901.8	892.8
45°	4140.9	1893.0	919.8	836.2	877.2	936.2	917.4	904.3	907.5	877.2	872.3
47.5°	4559.0	1972.5	904.3	804.2	843.6	927.2	916.6	899.3	892.0	875.6	871.5
50°	5023.9	2088.1	892.8	773.9	813.3	912.5	917.4	894.4	886.2	879.7	877.2
52.5°	5480.5	2220.1	875.6	747.7	789.5	894.4	919.8	889.5	880.5	875.6	873.1
55°	5989.6	2384.9	849.3	725.5	769.8	871.5	919.8	882.1	872.3	873.1	872.3
57.5°	6677.4	2651.3	818.2	706.7	746.0	843.6	904.3	873.9	861.6	862.4	863.3
60°	7752.2	3121.1	780.5	687.8	716.5	810.8	882.9	855.9	843.6	846.9	847.7
62.5°	9332.8	3810.5	731.3	660.0	685.4	775.5	853.4	832.9	820.6	828.8	828.8
65°	10975.7	4418.8	670.6	624.7	652.6	737.0	816.5	804.2	791.9	810.8	810.0
67.5°	11417.6	4282.7	609.9	586.2	619.8	694.4	772.3	765.7	759.2	791.9	790.3
70°	10142.8	3438.3	554.2	546.8	583.7	648.5	724.7	724.7	720.6	745.2	739.5
72.5°	7727.6	2438.1	500.9	505.0	542.7	598.5	673.1	678.8	672.3	684.5	679.6
75°	4136.8	1395.3	447.6	459.1	491.9	547.6	615.7	621.4	617.3	616.5	619.0
77.5°	1374.8	682.1	391.9	409.9	438.6	495.2	555.8	564.9	555.0	553.4	552.6
80°	612.4	428.8	330.4	354.2	379.6	435.3	492.7	500.1	489.4	504.2	485.3
82.5°	393.5	282.0	264.8	291.0	315.6	375.5	429.6	431.2	421.4	489.4	417.3
85°	191.0	174.6	199.2	223.0	244.3	295.1	355.8	356.6	332.0	302.5	291.9
87.5°	95.1	101.7	132.8	154.1	164.8	202.5	259.1	254.1	243.5	221.4	204.1
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)