

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: P299002

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299002  
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-T2-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19166.5 lumens  
Efficiency: N/A  
Efficacy: 118.3 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

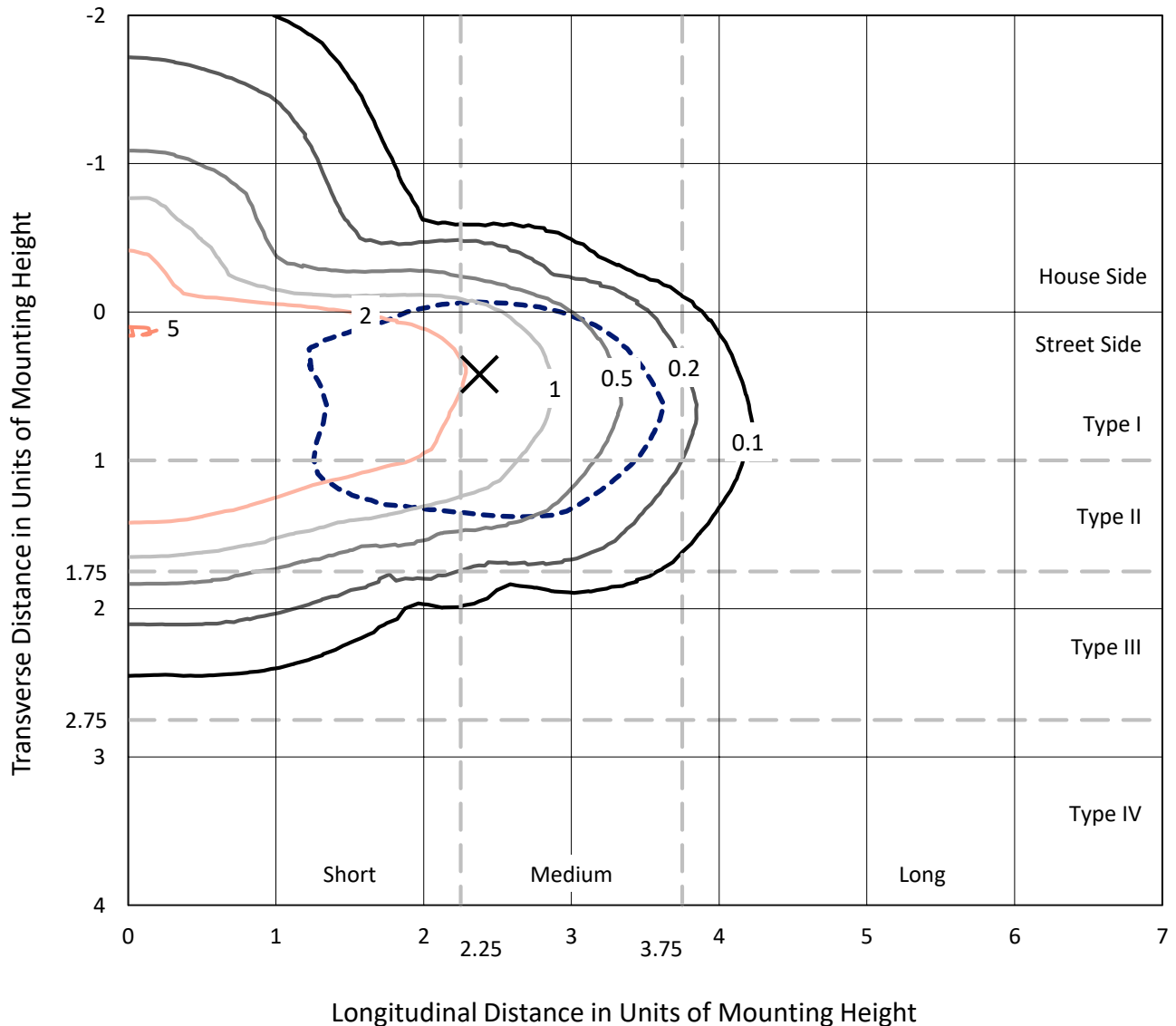


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### Iso-Footcandle Lines of Horizontal Illumination

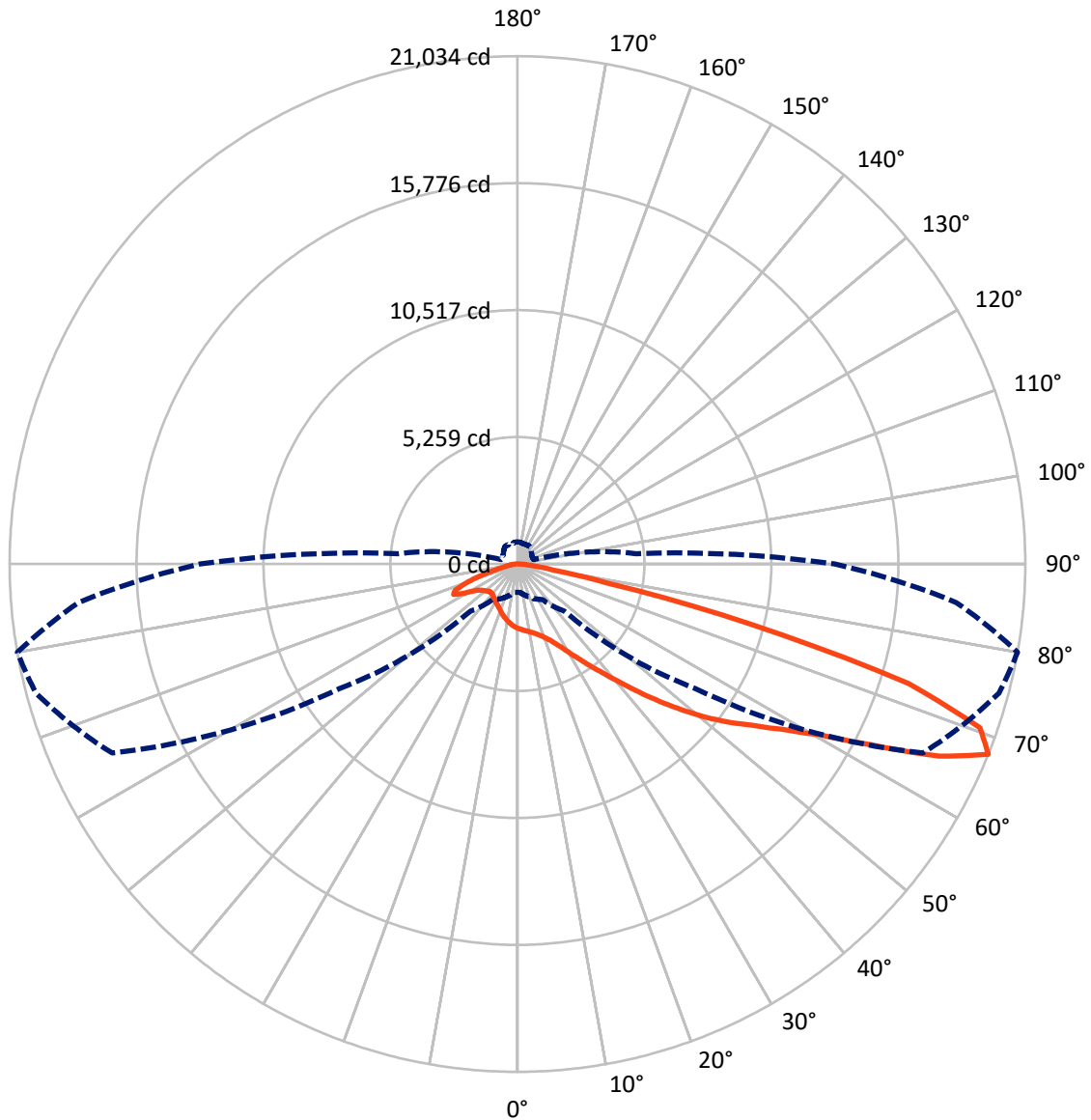
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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
<b>House Side</b>	Lumens	3529.7	0.0	3529.7
	% Fixture	18.4	0.0	18.4
<b>Street Side</b>	Lumens	15636.8	0.0	15636.8
	% Fixture	81.6	0.0	81.6
<b>Total</b>	Lumens	19166.5	0.0	19166.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.6	1.3
10°-20°	707.6	3.7
20°-30°	1171.2	6.1
30°-40°	1915.8	10.0
40°-50°	3093.3	16.1
50°-60°	4465.8	23.3
60°-70°	4928.2	25.7
70°-80°	2271.6	11.9
80°-90°	367.4	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°	19166.5	100.0
0°-180°	19166.5	100.0



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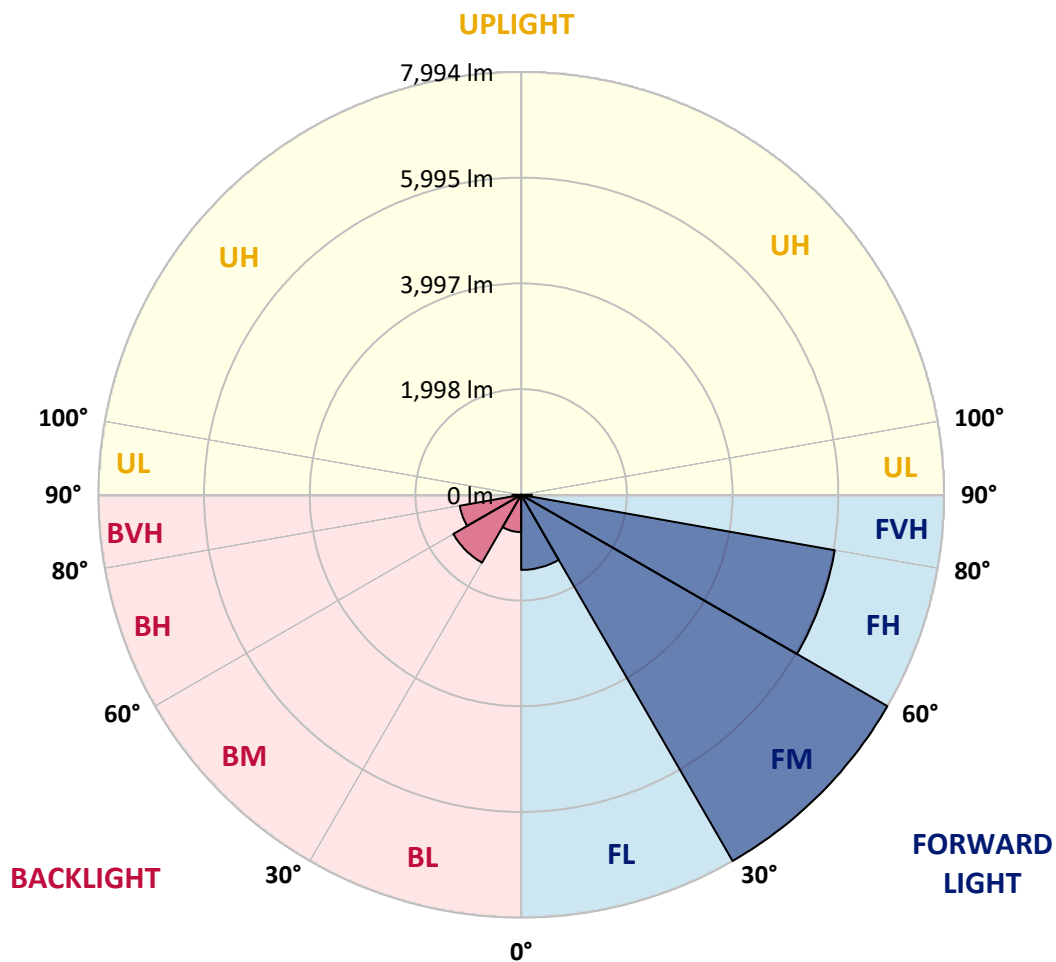
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1420.2	7.4			
FM	(30°-60°)	7993.9	41.7			
FH	(60°-80°)	6020.7	31.4			G3/7500
FVH	(80°-90°)	202.0	1.1			G2/225
BL	(0°-30°)	704.2	3.7	B2/1000		
BM	(30°-60°)	1480.9	7.7	B2/2500		
BH	(60°-80°)	1179.1	6.2	B3/2500		G3/2500
BVH	(80°-90°)	165.4	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°	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8
2.5°	2912.8	2895.8	2898.7	2894.0	2879.8	2855.3	2828.9	2780.7	2730.7	2704.3	2683.5
5°	3156.3	3151.6	3145.0	3129.9	3094.0	3043.0	2979.8	2894.9	2803.4	2755.3	2709.0
7.5°	3338.4	3335.6	3327.1	3317.6	3282.7	3221.4	3126.1	3005.3	2872.3	2806.2	2734.5
10°	3353.5	3358.2	3364.8	3390.3	3395.0	3362.0	3264.8	3118.5	2944.0	2859.0	2767.5
12.5°	3225.2	3235.5	3261.0	3326.1	3395.0	3435.6	3385.6	3237.4	3027.9	2925.1	2809.0
15°	3055.3	3061.0	3092.1	3181.8	3305.4	3430.9	3478.0	3368.6	3136.5	3010.0	2871.3
17.5°	2982.7	2985.5	3007.2	3066.6	3181.8	3361.0	3529.9	3511.1	3269.5	3115.7	2947.7
20°	2945.9	2952.5	2983.6	3042.1	3114.8	3271.4	3537.5	3664.9	3428.0	3247.8	3044.0
22.5°	3050.6	3047.8	3059.1	3088.3	3149.7	3244.0	3531.8	3823.4	3630.0	3417.6	3169.5
25°	3295.0	3305.4	3285.5	3252.5	3272.3	3338.4	3562.0	3995.1	3882.8	3635.6	3333.7
27.5°	3643.2	3632.8	3603.5	3526.2	3485.6	3513.9	3662.0	4180.1	4197.0	3922.5	3550.7
30°	3990.4	3981.9	3953.6	3859.2	3776.2	3752.6	3856.4	4392.4	4571.6	4266.9	3816.8
32.5°	4350.8	4341.4	4315.0	4220.6	4120.6	4065.9	4132.9	4637.7	5013.2	4678.3	4130.1
35°	4795.3	4777.3	4721.7	4590.5	4492.4	4449.9	4481.1	4946.2	5522.8	5165.2	4510.3
37.5°	5213.3	5240.6	5184.0	5002.9	4875.5	4860.4	4895.3	5322.7	6071.9	5709.6	4947.2
40°	5633.2	5637.9	5586.9	5438.8	5307.6	5283.1	5370.9	5779.4	6720.2	6360.7	5478.4
42.5°	6067.2	6076.7	5990.8	5854.0	5757.7	5762.4	5862.5	6314.4	7463.7	7127.8	6089.9
45°	6581.5	6595.6	6501.3	6322.0	6234.2	6410.7	6369.2	6914.6	8279.0	7999.7	6791.9
47.5°	7119.3	7141.0	7069.3	6901.3	6791.9	7034.4	6875.9	7579.8	9156.5	8934.8	7562.8
50°	7412.8	7443.9	7513.7	7501.5	7477.9	7437.3	7441.1	8293.1	10061.4	9908.5	8355.4
52.5°	7255.2	7254.2	7509.0	7818.5	8148.8	8173.3	8129.9	9045.2	10906.8	10860.6	9101.8
55°	6534.3	6583.4	6969.3	7568.5	8470.5	9033.8	9162.2	9906.6	11737.2	11791.0	9859.5
57.5°	5334.1	5374.6	5895.5	6730.6	8036.5	9545.3	10630.4	11158.8	12665.7	12916.7	10868.2
60°	3617.7	3666.8	4218.7	5221.8	6868.3	9260.3	12027.8	13393.2	13777.2	14348.1	12283.5
62.5°	2125.9	2170.2	2620.3	3294.0	4835.8	7936.5	12641.1	16572.1	15542.7	16507.9	14442.4
65°	1463.5	1493.7	1712.6	2050.4	2778.8	5345.4	11880.6	18766.9	18259.2	19183.9	16945.8
67.5°	1177.6	1173.8	1347.4	1577.7	1789.0	2756.2	8983.8	18518.7	20648.4	21034.3	18245.1
70°	970.0	966.2	1084.2	1274.8	1429.5	1552.2	4893.4	15627.6	20161.5	20318.1	17048.6
72.5°	811.5	815.3	890.7	1032.3	1172.9	1169.1	2150.4	10993.7	15860.6	16943.9	13590.4
75°	685.0	686.9	736.9	837.0	952.1	941.7	1166.3	5955.9	9219.7	9973.6	7533.5
77.5°	583.1	585.0	617.1	672.8	754.9	751.1	851.1	2573.1	3846.0	3798.9	2576.9
80°	519.9	519.9	535.0	545.4	590.7	573.7	631.3	1236.1	1625.8	1501.2	1028.5
82.5°	407.6	409.5	502.0	498.2	465.2	443.5	443.5	728.4	861.5	796.4	602.0
85°	229.3	228.3	323.6	390.6	409.5	312.3	309.5	407.6	469.0	413.3	291.6
87.5°	98.1	100.0	150.0	173.6	232.1	194.4	191.5	210.4	238.7	206.6	134.9
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°	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8	2662.8
2.5°	2663.7	2639.2	2585.4	2518.4	2458.0	2418.4	2382.5	2330.6	2333.5	2297.6	2271.2
5°	2661.8	2610.9	2486.3	2338.2	2195.7	2092.9	2015.5	1945.7	1928.7	1895.7	1875.8
7.5°	2663.7	2580.7	2371.2	2134.4	1957.9	1827.7	1761.7	1724.9	1716.4	1705.0	1706.0
10°	2670.3	2553.3	2244.8	1943.8	1758.8	1673.0	1656.9	1668.2	1681.5	1685.2	1686.2
12.5°	2685.4	2528.8	2106.1	1773.9	1634.3	1607.9	1635.2	1673.9	1699.4	1711.7	1710.7
15°	2719.4	2509.9	1973.0	1640.9	1565.4	1579.6	1630.5	1685.2	1722.0	1739.0	1740.0
17.5°	2756.2	2482.6	1836.2	1539.0	1514.4	1550.3	1613.5	1677.7	1723.0	1741.8	1745.6
20°	2804.3	2448.6	1692.8	1462.5	1466.3	1506.9	1566.3	1630.5	1680.5	1696.6	1704.1
22.5°	2867.5	2411.8	1567.3	1400.3	1411.6	1442.7	1489.0	1544.6	1588.0	1595.6	1602.2
25°	2952.5	2372.2	1467.3	1343.7	1348.4	1366.3	1397.4	1430.5	1460.7	1452.2	1458.8
27.5°	3066.6	2338.2	1392.7	1291.8	1283.3	1287.0	1303.1	1313.5	1329.5	1305.9	1308.7
30°	3200.6	2301.4	1335.2	1246.5	1222.9	1216.3	1220.0	1225.7	1238.0	1205.9	1201.2
32.5°	3356.3	2257.0	1281.4	1206.8	1173.8	1160.6	1162.5	1177.6	1224.8	1205.0	1194.6
35°	3537.5	2207.0	1224.8	1163.4	1140.8	1121.9	1120.0	1167.2	1307.8	1295.5	1286.1
37.5°	3749.8	2157.0	1168.2	1114.4	1116.3	1095.5	1088.9	1142.7	1323.8	1275.7	1269.1
40°	4019.7	2130.6	1120.0	1062.5	1086.1	1083.2	1070.0	1097.4	1218.2	1130.4	1119.1
42.5°	4353.7	2134.4	1084.2	1006.8	1050.2	1080.4	1059.6	1060.6	1104.0	1037.9	1027.6
45°	4766.0	2178.7	1058.7	962.5	1009.6	1077.6	1055.9	1040.8	1044.5	1009.6	1004.0
47.5°	5247.2	2270.3	1040.8	925.7	970.9	1067.2	1054.9	1035.1	1026.6	1007.7	1003.0
50°	5782.3	2403.3	1027.6	890.7	936.0	1050.2	1055.9	1029.4	1020.0	1012.5	1009.6
52.5°	6307.8	2555.2	1007.7	860.5	908.7	1029.4	1058.7	1023.8	1013.4	1007.7	1004.9
55°	6893.8	2744.9	977.5	835.1	886.0	1003.0	1058.7	1015.3	1004.0	1004.9	1004.0
57.5°	7685.5	3051.5	941.7	813.4	858.7	970.9	1040.8	1005.9	991.7	992.6	993.6
60°	8922.5	3592.2	898.3	791.7	824.7	933.2	1016.2	985.1	970.9	974.7	975.7
62.5°	10741.7	4385.8	841.7	759.6	788.8	892.6	982.3	958.7	944.5	954.0	954.0
65°	12632.7	5085.9	771.8	719.0	751.1	848.3	939.8	925.7	911.5	933.2	932.3
67.5°	13141.2	4929.3	702.0	674.7	713.3	799.2	888.9	881.3	873.8	911.5	909.6
70°	11674.0	3957.4	637.9	629.4	671.8	746.4	834.1	834.1	829.4	857.7	851.1
72.5°	8894.2	2806.2	576.5	581.2	624.7	688.8	774.7	781.3	773.7	787.9	782.2
75°	4761.3	1606.0	515.2	528.4	566.1	630.3	708.6	715.2	710.5	709.6	712.4
77.5°	1582.4	785.1	451.0	471.8	504.8	569.9	639.7	650.1	638.8	636.9	636.0
80°	704.9	493.5	380.3	407.6	436.9	501.0	567.1	575.6	563.3	580.3	558.6
82.5°	452.9	324.6	304.8	335.0	363.3	432.2	494.4	496.3	485.0	563.3	480.3
85°	219.9	201.0	229.3	256.7	281.2	339.7	409.5	410.5	382.1	348.2	335.9
87.5°	109.5	117.0	152.9	177.4	189.7	233.1	298.2	292.5	280.2	254.8	235.0
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)