

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: STREETWORKS

Report Number: P299023

Luminaire Tested: **GAA-AF-09-LED-U-T2-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299023
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: STREETWORKS
Catalog Number: GAA-AF-09-LED-U-T2-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 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: 29786.4 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G4

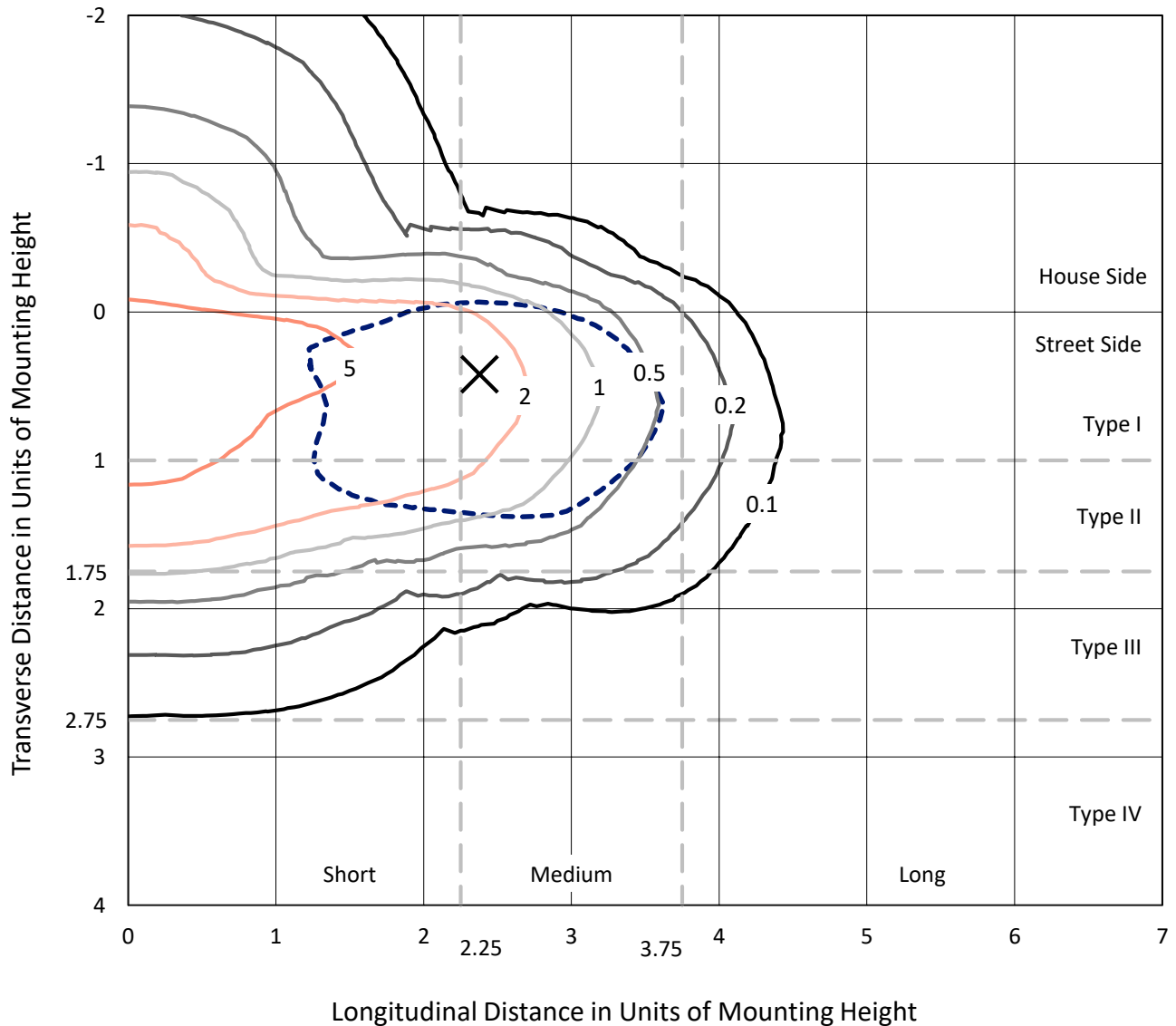
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

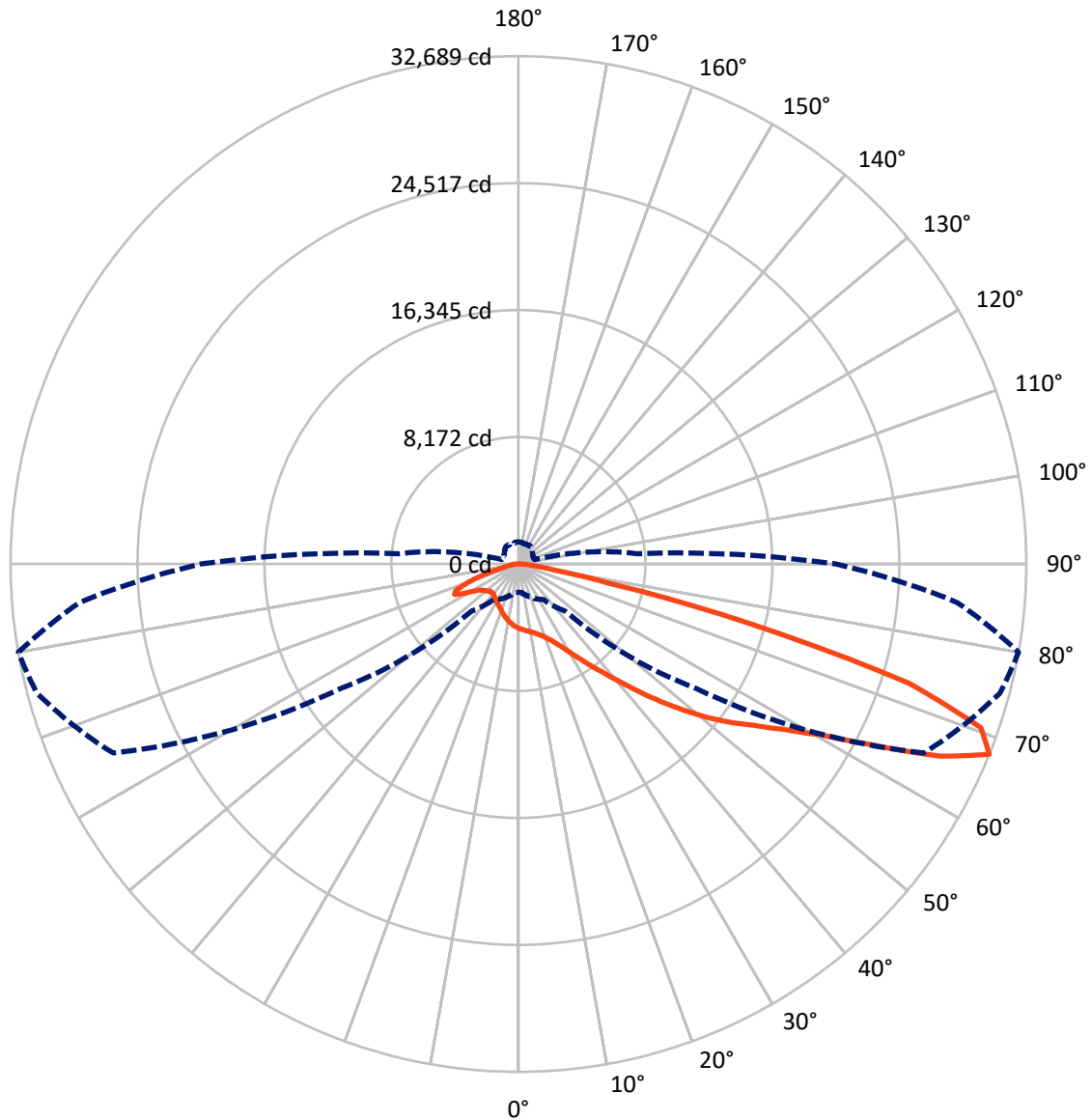
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 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	5485.5	0.0	5485.5
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	24300.9	0.0	24300.9
	% Fixture	81.6	0.0	81.6
Total	Lumens	29786.4	0.0	29786.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	381.7	1.3
10°-20°	1099.7	3.7
20°-30°	1820.2	6.1
30°-40°	2977.3	10.0
40°-50°	4807.2	16.1
50°-60°	6940.2	23.3
60°-70°	7658.9	25.7
70°-80°	3530.3	11.9
80°-90°	571.0	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°	29786.4	100.0
0°-180°	29786.4	100.0



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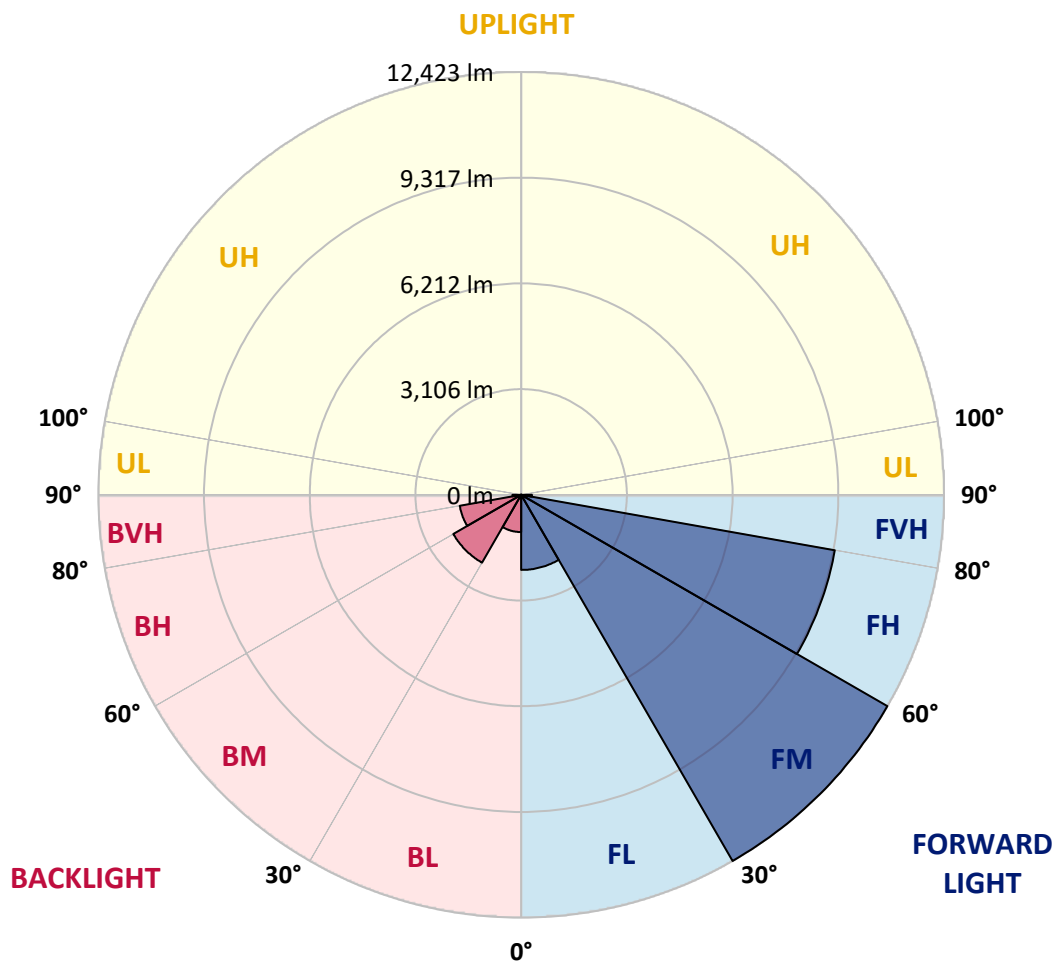
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2207.1	7.4			
FM	(30°-60°)	12423.2	41.7			
FH	(60°-80°)	9356.7	31.4			G4/12000
FVH	(80°-90°)	313.9	1.1			G3/500
BL	(0°-30°)	1094.4	3.7	B3/2500		
BM	(30°-60°)	2301.5	7.7	B2/2500		
BH	(60°-80°)	1832.5	6.2	B3/2500		G3/2500
BVH	(80°-90°)	257.1	0.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2
2.5°	4526.8	4500.4	4504.8	4497.5	4475.5	4437.3	4396.3	4321.5	4243.8	4202.7	4170.5
5°	4905.1	4897.8	4887.5	4864.1	4808.4	4729.2	4630.9	4498.9	4356.7	4281.9	4210.1
7.5°	5188.1	5183.8	5170.6	5155.9	5101.6	5006.3	4858.2	4670.5	4463.7	4361.1	4249.6
10°	5211.6	5218.9	5229.2	5268.8	5276.1	5224.8	5073.8	4846.5	4575.2	4443.2	4301.0
12.5°	5012.2	5028.3	5067.9	5169.1	5276.1	5339.2	5261.5	5031.2	4705.7	4545.9	4365.5
15°	4748.2	4757.0	4805.4	4944.7	5136.8	5331.9	5405.2	5235.1	4874.3	4677.8	4462.3
17.5°	4635.3	4639.7	4673.4	4765.8	4944.7	5223.3	5485.8	5456.5	5081.1	4842.1	4581.1
20°	4578.1	4588.4	4636.8	4727.7	4840.6	5084.0	5497.6	5695.5	5327.5	5047.4	4730.6
22.5°	4740.9	4736.5	4754.1	4799.6	4894.9	5041.5	5488.8	5941.9	5641.3	5311.3	4925.7
25°	5120.7	5136.8	5106.0	5054.7	5085.5	5188.1	5535.7	6208.8	6034.3	5650.1	5180.8
27.5°	5661.8	5645.7	5600.2	5480.0	5416.9	5460.9	5691.1	6496.2	6522.6	6095.9	5518.1
30°	6201.4	6188.2	6144.2	5997.6	5868.6	5831.9	5993.2	6826.1	7104.7	6631.1	5931.6
32.5°	6761.6	6746.9	6705.9	6559.2	6403.8	6318.7	6422.9	7207.4	7791.0	7270.4	6418.5
35°	7452.3	7424.4	7337.9	7134.1	6981.6	6915.6	6964.0	7686.9	8582.9	8027.1	7009.4
37.5°	8101.9	8144.4	8056.4	7774.9	7576.9	7553.5	7607.7	8272.0	9436.3	8873.2	7688.4
40°	8754.5	8761.8	8682.6	8452.4	8248.5	8210.4	8346.8	8981.7	10443.8	9885.1	8514.0
42.5°	9429.0	9443.7	9310.2	9097.6	8948.0	8955.4	9110.8	9813.2	11599.3	11077.2	9464.2
45°	10228.2	10250.2	10103.5	9824.9	9688.6	9962.8	9898.3	10745.8	12866.3	12432.2	10555.2
47.5°	11064.0	11097.8	10986.3	10725.3	10555.2	10932.1	10685.7	11779.7	14230.0	13885.4	11753.3
50°	11520.1	11568.5	11677.0	11657.9	11621.3	11558.2	11564.1	12888.3	15636.3	15398.7	12985.0
52.5°	11275.2	11273.7	11669.7	12150.7	12663.9	12702.0	12634.6	14057.0	16950.2	16878.3	14145.0
55°	10154.9	10231.1	10830.9	11762.1	13163.9	14039.4	14238.8	15395.8	18240.6	18324.2	15322.5
57.5°	8289.6	8352.7	9162.1	10459.9	12489.4	14834.2	16520.5	17341.7	19683.6	20073.7	16890.1
60°	5622.2	5698.5	6556.3	8115.1	10674.0	14391.3	18692.3	20814.2	21411.0	22298.2	19089.7
62.5°	3303.8	3372.7	4072.2	5119.2	7515.3	12334.0	19645.5	25754.5	24154.7	25654.8	22444.8
65°	2274.4	2321.3	2661.5	3186.5	4318.6	8307.2	18463.5	29165.4	28376.5	29813.5	26335.2
67.5°	1830.1	1824.2	2094.0	2451.8	2780.3	4283.4	13961.7	28779.7	32089.4	32689.2	28354.5
70°	1507.5	1501.6	1684.9	1981.1	2221.6	2412.2	7604.8	24286.6	31332.7	31576.2	26495.0
72.5°	1261.1	1267.0	1384.3	1604.2	1822.7	1816.9	3341.9	17085.1	24648.8	26332.3	21120.7
75°	1064.6	1067.5	1145.3	1300.7	1479.6	1463.5	1812.5	9256.0	14328.3	15499.9	11707.8
77.5°	906.2	909.2	959.0	1045.5	1173.1	1167.3	1322.7	3998.9	5977.1	5903.8	4004.8
80°	808.0	808.0	831.5	847.6	918.0	891.6	981.0	1921.0	2526.6	2333.1	1598.4
82.5°	633.5	636.4	780.1	774.3	722.9	689.2	689.2	1132.1	1338.8	1237.6	935.6
85°	356.3	354.9	503.0	607.1	636.4	485.4	481.0	633.5	728.8	642.3	453.1
87.5°	152.5	155.4	233.2	269.8	360.7	302.1	297.7	327.0	371.0	321.1	209.7
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°	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2	4138.2
2.5°	4139.7	4101.5	4018.0	3913.8	3820.0	3758.4	3702.7	3622.0	3626.4	3570.7	3529.6
5°	4136.7	4057.5	3864.0	3633.8	3412.3	3252.5	3132.2	3023.7	2997.3	2946.0	2915.2
7.5°	4139.7	4010.6	3685.1	3317.0	3042.8	2840.4	2737.8	2680.6	2667.4	2649.8	2651.3
10°	4149.9	3968.1	3488.6	3020.8	2733.4	2599.9	2575.0	2592.6	2613.1	2619.0	2620.5
12.5°	4173.4	3930.0	3273.0	2756.8	2539.8	2498.8	2541.3	2601.4	2641.0	2660.1	2658.6
15°	4226.2	3900.6	3066.3	2550.1	2432.8	2454.8	2534.0	2619.0	2676.2	2702.6	2704.1
17.5°	4283.4	3858.1	2853.6	2391.7	2353.6	2409.3	2507.6	2607.3	2677.7	2707.0	2712.9
20°	4358.2	3805.3	2630.7	2272.9	2278.8	2341.9	2434.2	2534.0	2611.7	2636.6	2648.3
22.5°	4456.4	3748.1	2435.7	2176.1	2193.7	2242.1	2314.0	2400.5	2468.0	2479.7	2490.0
25°	4588.4	3686.5	2280.3	2088.2	2095.5	2123.4	2171.7	2223.1	2270.0	2256.8	2267.1
27.5°	4765.8	3633.8	2164.4	2007.5	1994.3	2000.2	2025.1	2041.2	2066.2	2029.5	2033.9
30°	4974.1	3576.6	2075.0	1937.1	1900.5	1890.2	1896.1	1904.9	1923.9	1874.1	1866.7
32.5°	5216.0	3507.6	1991.4	1875.5	1824.2	1803.7	1806.6	1830.1	1903.4	1872.6	1856.5
35°	5497.6	3429.9	1903.4	1808.1	1772.9	1743.6	1740.6	1813.9	2032.4	2013.4	1998.7
37.5°	5827.5	3352.2	1815.4	1731.8	1734.8	1702.5	1692.2	1775.8	2057.4	1982.6	1972.3
40°	6246.9	3311.1	1740.6	1651.2	1687.8	1683.4	1662.9	1705.4	1893.1	1756.8	1739.2
42.5°	6766.0	3317.0	1684.9	1564.7	1632.1	1679.0	1646.8	1648.2	1715.7	1613.0	1596.9
45°	7406.8	3385.9	1645.3	1495.7	1569.1	1674.6	1640.9	1617.4	1623.3	1569.1	1560.3
47.5°	8154.7	3528.2	1617.4	1438.5	1508.9	1658.5	1639.4	1608.6	1595.5	1566.1	1558.8
50°	8986.1	3734.9	1596.9	1384.3	1454.7	1632.1	1640.9	1599.9	1585.2	1573.5	1569.1
52.5°	9802.9	3971.0	1566.1	1337.4	1412.2	1599.9	1645.3	1591.1	1574.9	1566.1	1561.7
55°	10713.6	4265.8	1519.2	1297.8	1377.0	1558.8	1645.3	1577.9	1560.3	1561.7	1560.3
57.5°	11943.9	4742.4	1463.5	1264.0	1334.4	1508.9	1617.4	1563.2	1541.2	1542.7	1544.1
60°	13866.3	5582.6	1396.0	1230.3	1281.6	1450.3	1579.3	1530.9	1508.9	1514.8	1516.3
62.5°	16693.6	6815.9	1308.0	1180.5	1225.9	1387.2	1526.5	1489.9	1467.9	1482.5	1482.5
65°	19632.3	7903.9	1199.5	1117.4	1167.3	1318.3	1460.5	1438.5	1416.5	1450.3	1448.8
67.5°	20422.7	7660.5	1091.0	1048.5	1108.6	1242.0	1381.4	1369.6	1357.9	1416.5	1413.6
70°	18142.4	6150.1	991.3	978.1	1044.1	1159.9	1296.3	1296.3	1289.0	1333.0	1322.7
72.5°	13822.4	4361.1	896.0	903.3	970.8	1070.5	1203.9	1214.2	1202.5	1224.5	1215.7
75°	7399.5	2495.8	800.7	821.2	879.8	979.6	1101.3	1111.5	1104.2	1102.7	1107.1
77.5°	2459.2	1220.1	700.9	733.2	784.5	885.7	994.2	1010.4	992.8	989.8	988.4
80°	1095.4	766.9	591.0	633.5	678.9	778.7	881.3	894.5	875.4	901.8	868.1
82.5°	703.9	504.4	473.6	520.6	564.6	671.6	768.4	771.3	753.7	875.4	746.4
85°	341.7	312.3	356.3	398.9	437.0	527.9	636.4	637.9	593.9	541.1	522.0
87.5°	170.1	181.8	237.6	275.7	294.7	362.2	463.4	454.6	435.5	395.9	365.1
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)