

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: P214878

Luminaire Tested: **ARCH-AF16-40-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214878
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-40-D-U-T4W-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4746 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 42
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

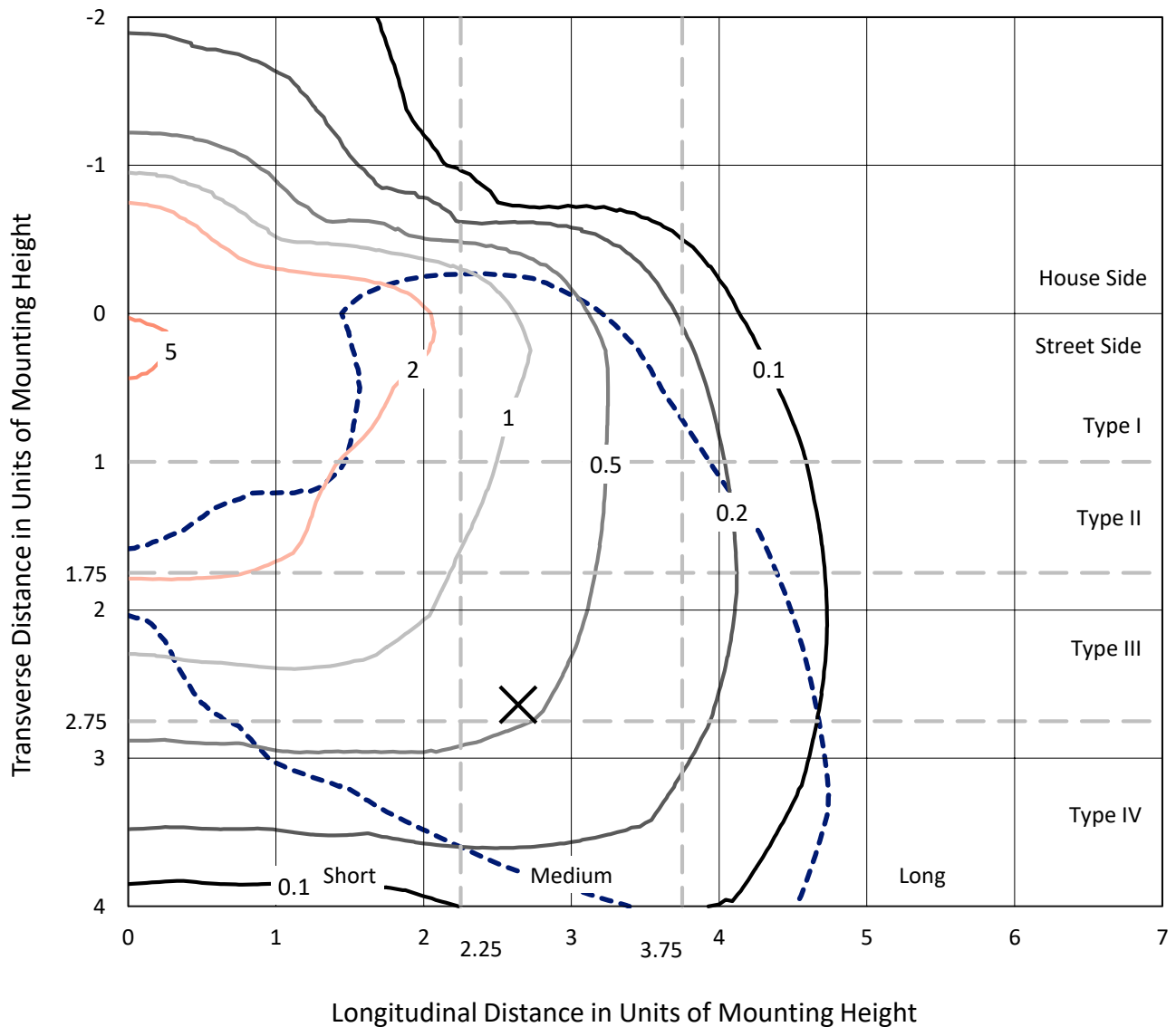


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

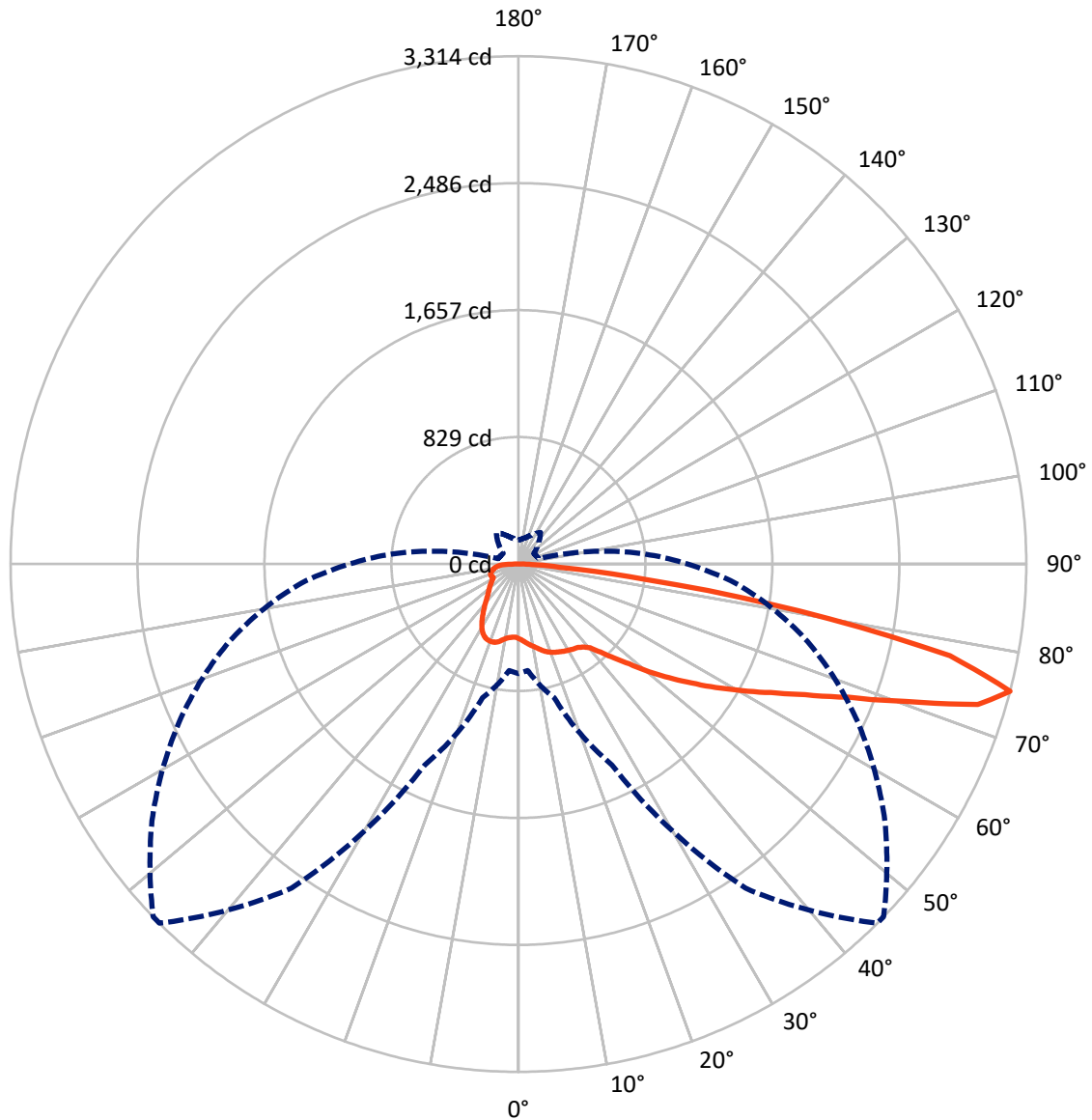


Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1099.5	0.0	1099.5
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	3646.5	0.0	3646.5
	% Fixture	76.8	0.0	76.8
Total	Lumens	4746.0	0.0	4746.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	1.0
10°-20°	156.2	3.3
20°-30°	268.1	5.6
30°-40°	375.0	7.9
40°-50°	550.1	11.6
50°-60°	856.9	18.1
60°-70°	1233.0	26.0
70°-80°	1074.1	22.6
80°-90°	184.5	3.9
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°	4746.0	100.0
0°-180°	4746.0	100.0

Coefficient of Utilization



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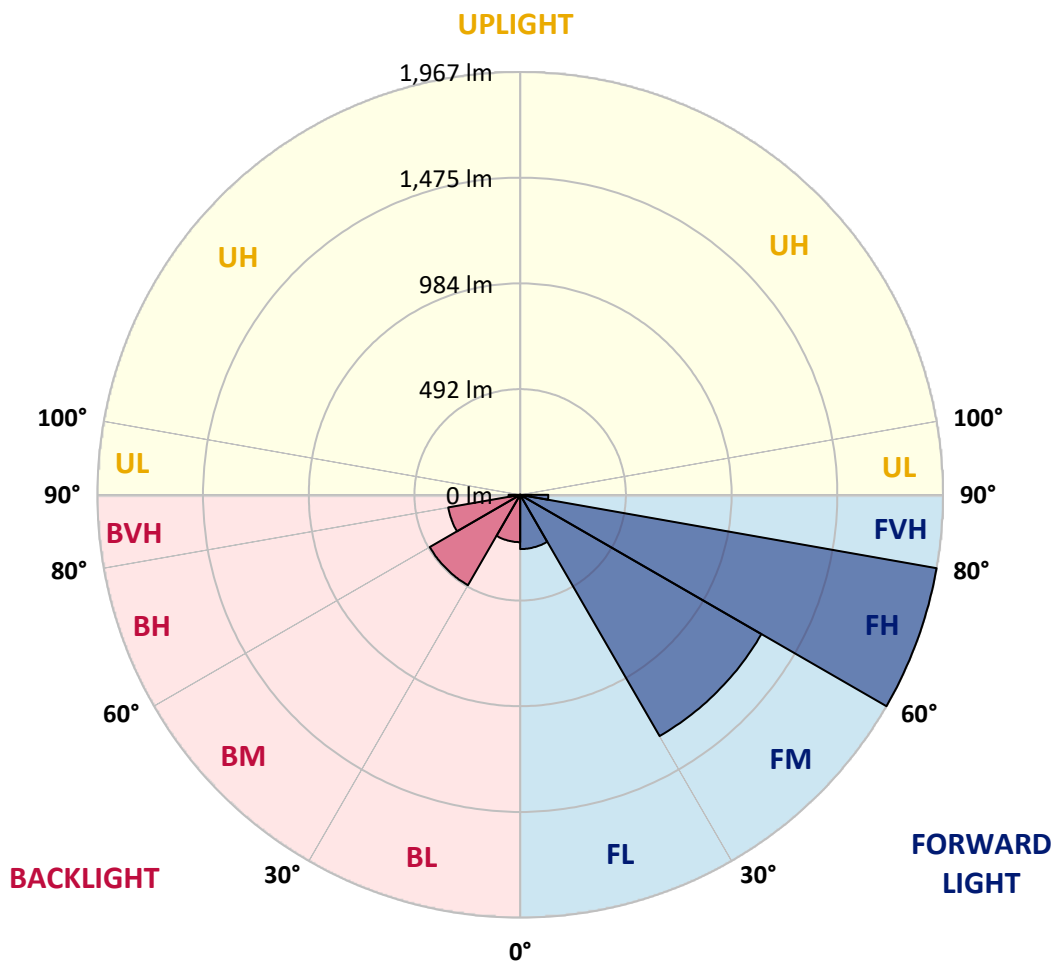
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	252.4	5.3			
FM (30°-60°)	1296.0	27.3			
FH (60°-80°)	1967.3	41.5			G2/5000
FVH (80°-90°)	130.9	2.8			G2/225
BL (0°-30°)	220.2	4.6	B1/500		
BM (30°-60°)	485.9	10.2	B1/1000		
BH (60°-80°)	339.8	7.2	B1/500		G1/500
BVH (80°-90°)	53.6	1.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5
2.5°	510.5	506.8	506.8	504.1	504.1	499.5	497.6	496.7	492.1	489.3	486.5
5°	540.1	535.5	534.5	528.1	525.3	515.2	514.2	507.8	499.5	491.1	484.7
7.5°	566.9	564.1	559.5	553.0	544.7	531.8	530.8	520.7	506.8	495.8	486.5
10°	586.2	584.4	577.9	569.6	560.4	547.5	546.5	535.5	518.8	505.9	493.0
12.5°	609.3	606.5	598.2	587.2	577.0	565.0	564.1	554.8	536.4	519.8	503.2
15°	631.5	627.8	617.6	606.5	595.5	585.3	585.3	575.2	555.8	536.4	517.0
17.5°	642.6	640.7	630.6	618.6	609.3	601.9	601.0	591.8	572.4	552.1	530.8
20°	646.2	647.2	637.9	625.0	618.6	614.9	613.9	607.5	586.2	566.9	546.5
22.5°	645.3	648.1	640.7	626.9	625.0	625.0	625.0	617.6	601.0	581.6	561.3
25°	649.0	652.7	647.2	630.6	630.6	634.2	634.2	630.6	615.8	599.2	578.9
27.5°	661.9	664.7	660.1	637.0	637.9	643.5	642.6	643.5	634.2	618.6	598.2
30°	677.6	681.3	675.8	647.2	646.2	651.8	651.8	656.4	649.9	633.3	616.7
32.5°	720.1	719.2	701.6	658.2	655.5	661.0	661.0	665.6	661.9	649.0	633.3
35°	846.6	832.7	794.0	694.3	666.6	669.3	669.3	677.6	679.5	669.3	655.5
37.5°	975.8	971.2	941.7	790.3	707.2	686.9	685.9	697.9	706.3	697.9	688.7
40°	1106.0	1102.3	1095.9	918.6	792.1	718.3	715.5	725.6	740.4	734.9	729.3
42.5°	1226.9	1225.1	1231.6	1045.1	900.1	785.7	777.3	765.3	786.6	784.7	784.7
45°	1322.0	1326.7	1330.3	1163.2	1017.4	872.4	862.3	821.7	850.3	857.7	863.2
47.5°	1375.6	1379.3	1392.2	1278.6	1134.6	973.1	965.7	899.2	937.1	959.2	974.9
50°	1452.2	1442.1	1453.1	1391.3	1275.9	1104.2	1083.9	1003.5	1051.5	1090.3	1127.2
52.5°	1526.1	1509.5	1518.7	1521.5	1436.5	1232.5	1211.3	1126.3	1186.3	1247.3	1312.8
55°	1592.5	1591.6	1600.8	1647.9	1591.6	1370.0	1346.0	1262.0	1348.8	1414.4	1525.1
57.5°	1646.1	1655.3	1695.9	1794.7	1770.7	1519.6	1492.8	1419.9	1522.4	1587.9	1771.6
60°	1708.9	1723.6	1791.0	1919.4	1934.1	1676.6	1648.9	1596.2	1700.6	1767.0	2056.9
62.5°	1730.1	1751.3	1889.8	2050.5	2104.9	1848.3	1823.3	1788.3	1888.0	1948.0	2341.3
65°	1588.8	1629.5	1944.3	2117.8	2288.6	2055.1	2033.8	2003.4	2074.5	2114.2	2534.2
67.5°	1550.1	1568.5	1838.1	2214.8	2461.3	2321.0	2299.7	2247.1	2248.9	2232.3	2597.0
70°	1495.6	1515.9	1729.2	2287.7	2708.7	2684.7	2658.8	2503.7	2408.7	2308.0	2473.3
72.5°	1274.0	1267.6	1490.1	2091.1	2827.8	3135.2	3104.8	2779.8	2526.8	2242.5	2087.4
75°	715.5	697.0	903.8	1446.7	2582.2	3314.3	3313.4	2919.2	2443.7	1953.5	1420.8
77.5°	207.7	202.2	298.2	606.5	1738.4	2879.5	2914.6	2633.0	2039.4	1403.3	780.1
80°	97.9	99.7	128.3	200.3	742.3	1858.4	1959.1	1733.8	1218.6	647.2	322.2
82.5°	61.9	62.8	87.7	129.2	313.9	843.8	926.9	780.1	482.8	279.7	142.2
85°	38.8	38.8	58.2	84.9	187.4	269.6	292.7	265.9	206.8	152.3	77.5
87.5°	21.2	21.2	35.1	48.9	102.5	86.8	89.6	106.2	129.2	93.2	38.8
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°	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5
2.5°	485.6	483.8	481.0	480.1	479.1	478.2	479.1	481.0	479.1	479.1	480.1
5°	482.8	481.0	477.3	477.3	478.2	479.1	483.8	486.5	487.5	487.5	487.5
7.5°	482.8	480.1	477.3	478.2	480.1	483.8	491.1	495.8	499.5	500.4	500.4
10°	487.5	483.8	481.9	483.8	489.3	492.1	499.5	506.8	511.5	513.3	513.3
12.5°	495.8	492.1	492.1	495.8	503.2	506.8	513.3	518.8	524.4	527.2	527.2
15°	509.6	505.0	505.9	512.4	520.7	524.4	529.0	530.8	535.5	539.2	539.2
17.5°	522.5	517.9	519.8	527.2	532.7	534.5	537.3	536.4	538.2	541.0	541.9
20°	537.3	532.7	533.6	538.2	539.2	537.3	537.3	534.5	533.6	538.2	540.1
22.5°	552.1	547.5	546.5	543.8	539.2	534.5	531.8	529.0	527.2	531.8	533.6
25°	569.6	563.2	558.5	546.5	534.5	526.2	522.5	520.7	519.8	524.4	526.2
27.5°	589.0	582.5	568.7	542.8	523.5	509.6	506.8	506.8	508.7	511.5	513.3
30°	607.5	601.0	576.1	534.5	504.1	483.8	481.0	483.8	488.4	491.1	493.9
32.5°	625.9	619.5	580.7	521.6	475.5	449.6	447.8	452.4	459.8	461.6	463.5
35°	650.9	644.4	586.2	503.2	439.4	411.8	409.9	412.7	419.1	421.9	424.7
37.5°	685.9	682.3	594.5	482.8	406.2	375.7	370.2	368.4	372.1	371.1	374.8
40°	732.1	734.9	609.3	456.1	373.9	342.5	330.5	325.0	321.3	313.9	317.6
42.5°	799.5	801.3	625.9	425.6	346.2	311.1	295.4	285.3	277.9	265.9	267.7
45°	898.3	882.6	645.3	393.3	321.3	286.2	267.7	255.7	245.6	235.4	236.3
47.5°	1029.4	981.4	666.6	366.5	296.4	265.9	249.3	235.4	223.4	215.1	216.0
50°	1190.9	1104.2	687.8	341.6	271.4	250.2	235.4	220.6	208.6	200.3	199.4
52.5°	1404.2	1251.9	701.6	313.9	246.5	236.3	223.4	209.6	194.8	184.6	183.7
55°	1625.8	1423.6	713.6	280.7	222.5	220.6	214.2	198.5	180.9	168.0	166.2
57.5°	1869.5	1607.3	722.9	248.3	204.0	207.7	205.9	187.4	168.0	156.0	155.1
60°	2091.1	1797.5	693.3	219.7	187.4	194.8	196.6	180.9	170.8	173.6	174.5
62.5°	2314.5	1944.3	580.7	198.5	176.3	186.5	202.2	201.3	196.6	201.3	202.2
65°	2394.8	1974.7	411.8	180.9	165.3	190.2	219.7	217.9	196.6	188.3	186.5
67.5°	2349.6	1884.3	277.0	167.1	156.9	194.8	238.2	217.9	189.3	178.2	174.5
70°	2134.5	1661.8	203.1	153.3	149.6	193.9	248.3	217.0	185.6	173.6	168.9
72.5°	1702.4	1282.3	163.4	140.3	138.5	189.3	253.9	215.1	181.9	168.9	163.4
75°	1102.3	797.7	137.6	127.4	121.9	181.9	251.1	209.6	177.3	160.6	156.9
77.5°	511.5	343.4	117.2	112.6	106.2	170.8	242.8	198.5	167.1	151.4	146.8
80°	238.2	162.5	98.8	97.9	95.1	161.6	231.7	185.6	155.1	142.2	134.8
82.5°	127.4	97.9	80.3	80.3	83.1	150.5	217.9	169.9	139.4	132.9	113.6
85°	67.4	56.3	58.2	62.8	71.1	132.9	199.4	153.3	121.9	101.6	98.8
87.5°	34.2	36.0	36.0	42.5	54.5	108.0	164.3	126.5	103.4	83.1	81.2
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)