

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: P214737

Luminaire Tested: **ARCH-AF16-30-D-U-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214737  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-30-D-U-T3-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 560mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3785 lumens  
Efficiency: N/A  
Efficacy: 118.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 32  
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

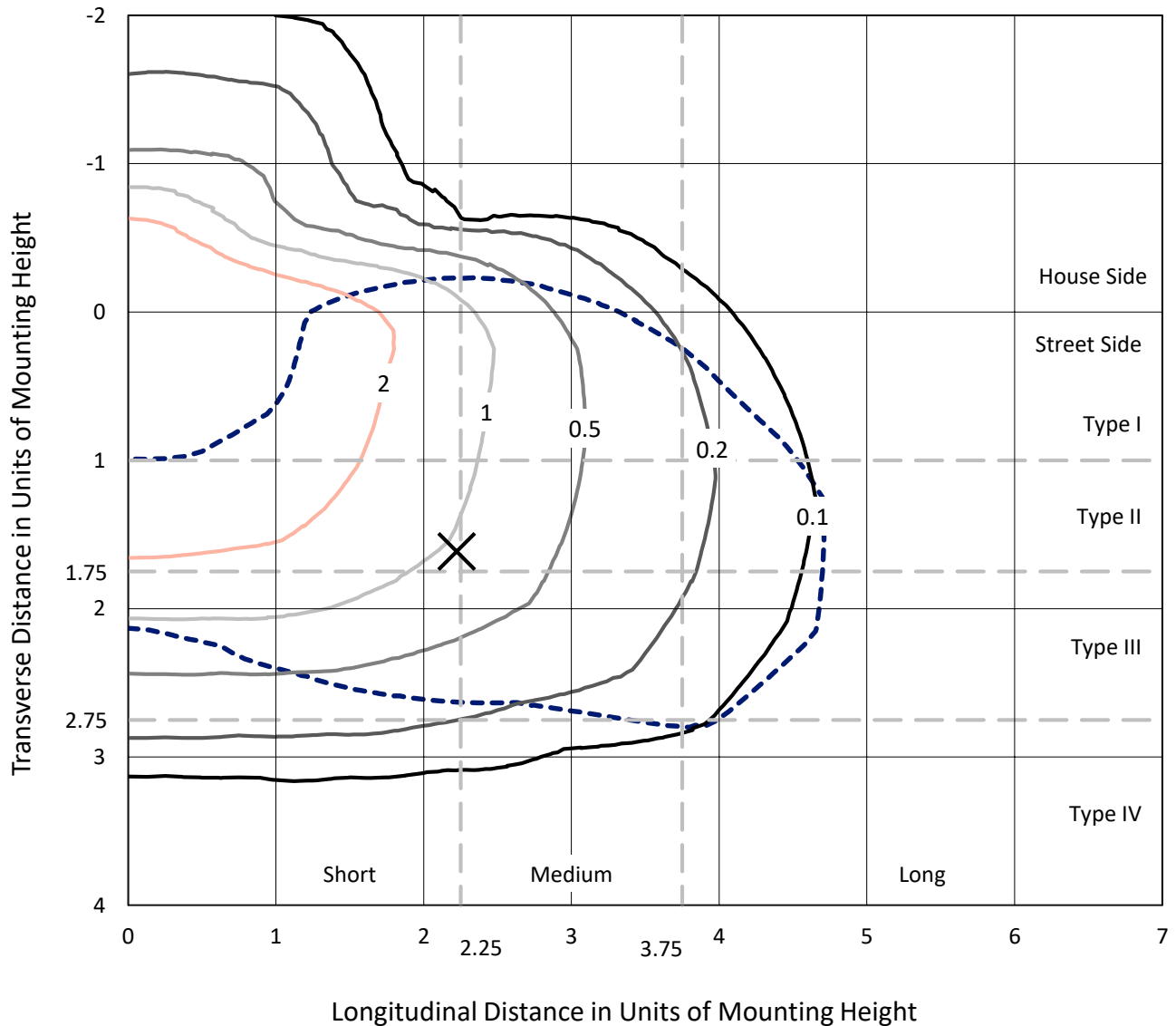




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### Iso-Footcandle Lines of Horizontal Illumination

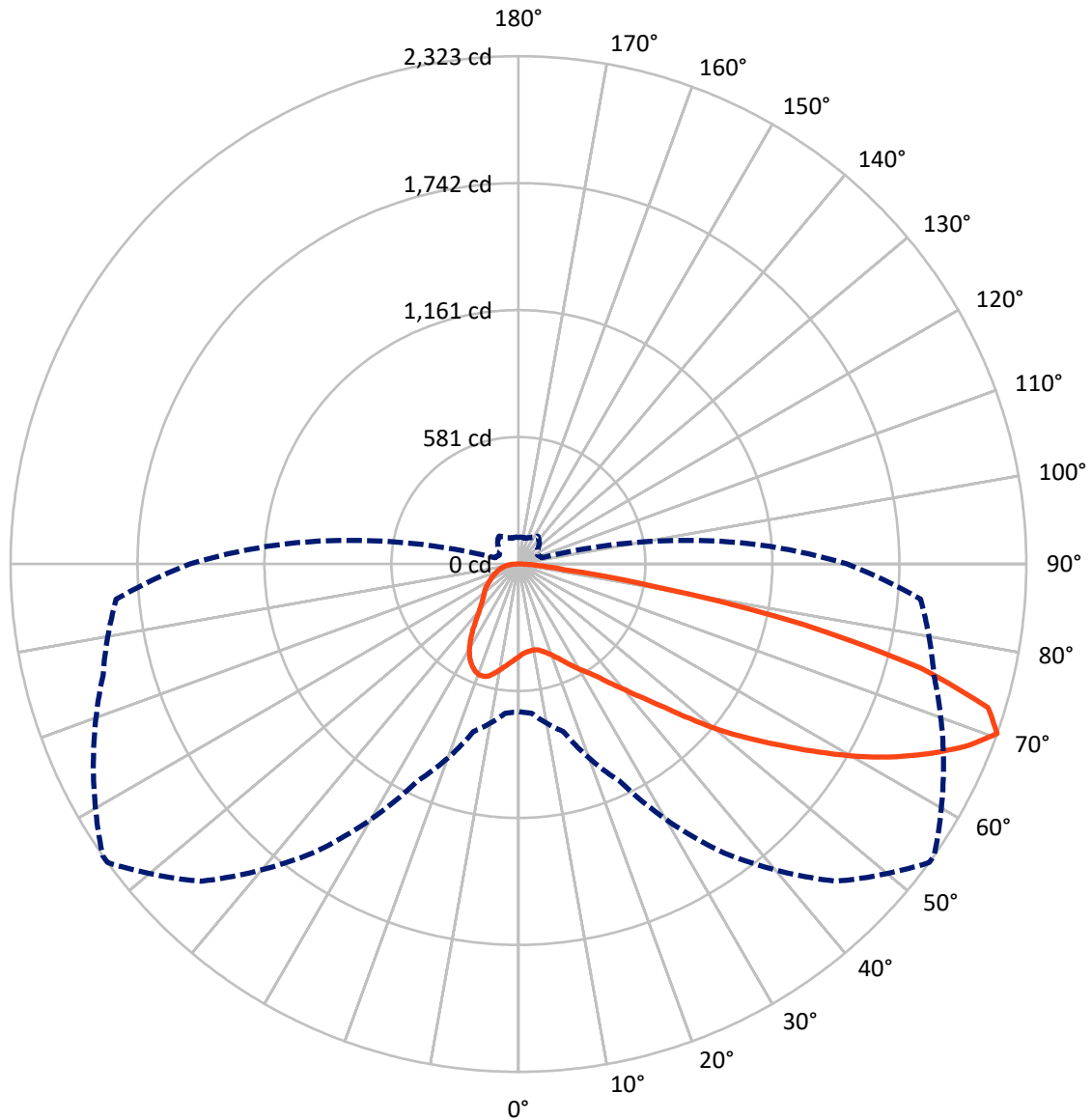
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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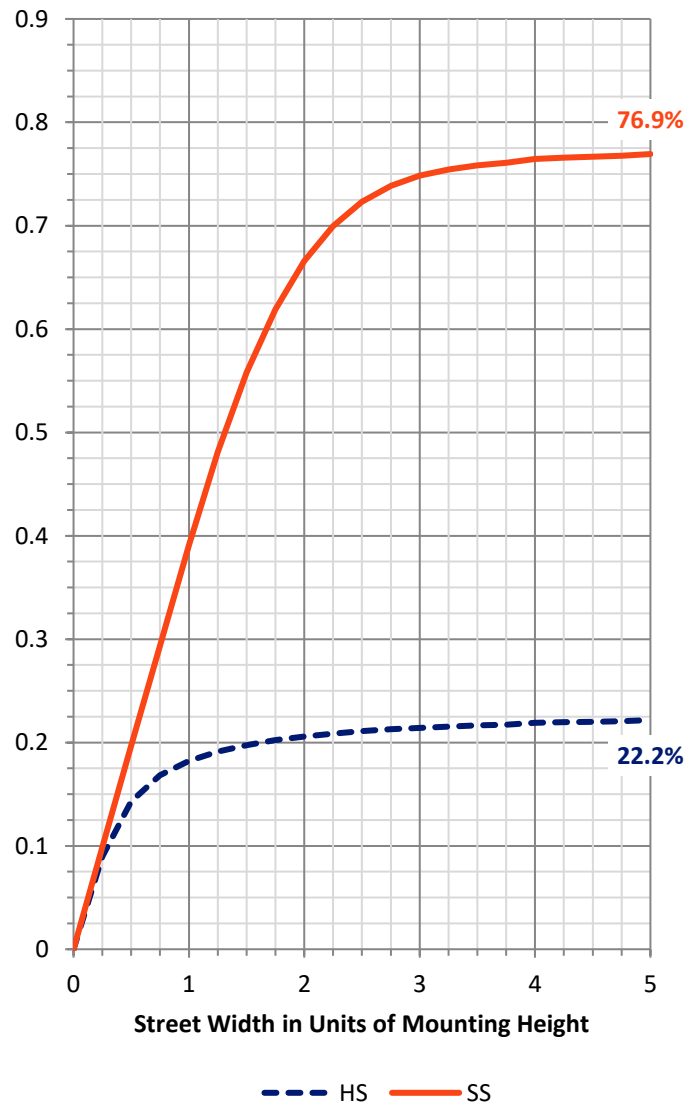
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	858.4	0.0	858.4
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	2926.6	0.0	2926.6
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	3785.0	0.0	3785.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.6	1.1
10°-20°	132.8	3.5
20°-30°	230.7	6.1
30°-40°	337.1	8.9
40°-50°	529.1	14.0
50°-60°	813.7	21.5
60°-70°	994.1	26.3
70°-80°	616.4	16.3
80°-90°	89.5	2.4
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°	3785.0	100.0
0°-180°	3785.0	100.0

**Coefficient of Utilization**



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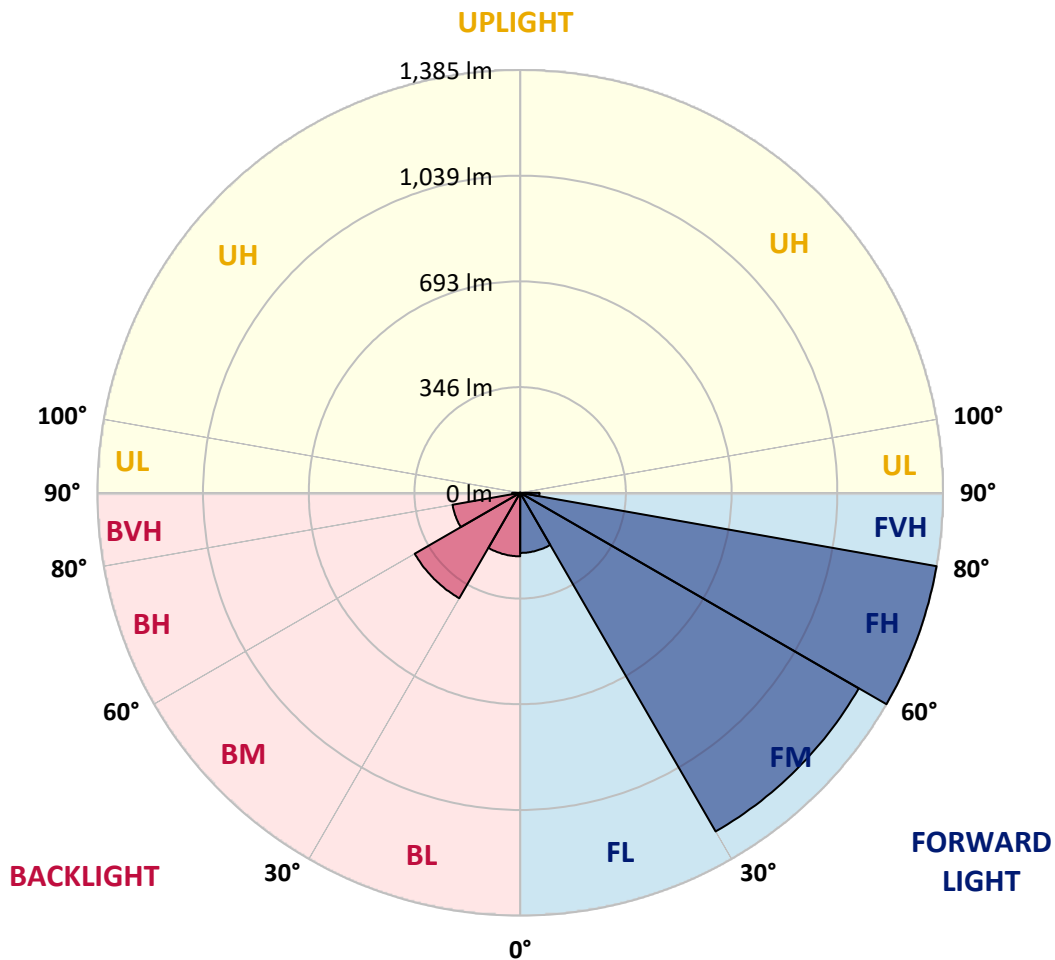
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	196.9	5.2			
FM	(30°-60°)	1281.1	33.8			
FH	(60°-80°)	1385.4	36.6			G1/1800
FVH	(80°-90°)	63.2	1.7			G1/100
BL	(0°-30°)	208.1	5.5	B1/500		
BM	(30°-60°)	398.9	10.5	B1/1000		
BH	(60°-80°)	225.1	5.9	B1/500		G1/500
BVH	(80°-90°)	26.3	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5
2.5°	406.8	405.4	405.4	407.5	408.2	410.3	410.3	411.0	413.1	416.5	420.7
5°	394.4	393.7	394.4	397.1	398.5	402.7	404.1	404.8	408.9	414.5	420.7
7.5°	381.9	381.2	382.6	386.7	390.9	397.1	400.6	401.3	407.5	415.1	423.5
10°	377.7	377.0	379.1	382.6	386.7	393.7	399.2	399.9	408.9	417.9	429.7
12.5°	383.3	382.6	384.7	388.1	392.3	397.1	403.4	404.1	415.8	427.6	440.1
15°	397.1	397.1	397.8	399.9	404.1	408.2	413.8	414.5	426.9	440.8	453.3
17.5°	418.6	417.2	417.2	416.5	419.3	421.4	428.3	429.0	442.2	454.7	467.1
20°	445.0	444.3	441.5	438.0	437.3	438.7	445.6	446.3	459.5	469.9	481.7
22.5°	476.8	477.5	471.3	463.7	460.2	462.3	468.5	469.2	478.9	487.9	498.3
25°	519.1	517.0	508.0	496.9	490.0	490.0	496.2	496.2	505.2	510.8	517.7
27.5°	559.3	555.1	546.8	530.9	519.8	521.9	528.1	528.1	536.4	538.5	542.0
30°	603.0	598.8	588.4	568.3	553.8	552.4	560.0	559.3	570.4	569.7	566.9
32.5°	656.3	654.3	636.9	611.3	591.9	587.0	594.0	594.7	601.6	599.5	590.5
35°	731.2	730.5	714.6	669.5	643.9	634.9	639.0	639.0	643.9	638.3	623.1
37.5°	825.4	826.8	813.0	746.4	710.4	695.1	695.8	695.1	696.5	690.3	674.4
40°	919.7	923.2	922.5	842.1	796.3	770.0	760.3	758.9	762.4	759.6	744.4
42.5°	1043.8	1052.1	1032.7	959.9	908.6	864.3	837.9	834.5	842.1	845.5	831.0
45°	1172.7	1169.9	1139.4	1086.7	1040.3	983.5	933.6	928.0	933.6	944.0	928.7
47.5°	1239.9	1237.8	1230.2	1203.9	1196.9	1131.8	1056.2	1051.4	1041.0	1055.5	1037.5
50°	1350.8	1352.9	1321.7	1318.9	1348.0	1312.0	1194.9	1183.8	1165.0	1176.8	1161.6
52.5°	1431.2	1422.2	1402.8	1427.0	1517.8	1498.4	1325.1	1320.3	1303.0	1300.2	1293.3
55°	1463.8	1463.8	1467.2	1523.4	1653.0	1627.3	1466.5	1471.4	1447.8	1428.4	1437.4
57.5°	1473.5	1477.6	1507.4	1600.3	1811.7	1727.8	1622.5	1629.4	1595.4	1556.6	1585.0
60°	1425.6	1438.1	1509.5	1644.0	1901.1	1834.6	1786.7	1788.8	1739.6	1682.8	1732.7
62.5°	1303.0	1318.2	1445.7	1662.0	1886.5	1944.1	1942.0	1946.8	1879.6	1808.9	1871.3
65°	1152.6	1167.8	1303.7	1611.4	1875.4	2022.4	2084.1	2097.2	2010.6	1915.6	1957.9
67.5°	931.5	951.6	1080.5	1440.9	1821.4	2086.8	2217.1	2231.0	2111.8	1971.1	1950.3
70°	675.0	684.8	792.9	1095.0	1601.0	2051.5	2322.5	2321.8	2145.0	1966.9	1846.3
72.5°	325.0	332.7	426.2	679.9	1144.9	1741.0	2246.2	2259.4	2099.3	1906.6	1608.6
75°	133.8	141.4	172.6	286.9	600.9	1150.5	1903.9	1935.0	1906.6	1711.2	1258.6
77.5°	83.2	85.9	101.2	148.3	274.5	537.1	1332.8	1375.0	1510.9	1370.9	831.0
80°	62.4	64.5	75.5	104.0	173.3	198.2	661.9	715.2	915.5	786.6	376.3
82.5°	52.0	52.7	60.3	75.5	117.8	113.7	212.1	236.3	426.9	300.1	129.6
85°	48.5	49.9	54.1	54.1	74.9	71.4	88.0	92.2	124.1	102.6	45.0
87.5°	25.0	23.6	47.8	42.3	38.8	34.7	37.4	40.2	46.4	49.2	20.1
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°	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5	423.5
2.5°	422.1	424.2	427.6	431.1	435.2	440.1	442.9	446.3	449.1	447.7	447.0
5°	424.2	427.6	435.2	442.2	450.5	460.2	466.4	473.4	478.9	480.3	478.2
7.5°	427.6	433.9	444.3	456.7	467.8	480.3	490.0	499.7	506.6	508.0	508.0
10°	435.9	442.9	456.7	473.4	486.5	499.7	510.8	518.4	524.7	527.4	527.4
12.5°	447.7	456.0	472.7	492.8	507.3	519.8	526.0	529.5	532.3	535.0	535.7
15°	461.6	470.6	490.7	512.2	527.4	533.7	533.7	533.0	533.0	534.4	535.7
17.5°	475.4	485.1	505.9	528.8	538.5	535.0	530.2	528.1	526.7	526.0	528.1
20°	490.0	499.7	520.5	542.0	539.2	524.7	517.7	512.9	508.7	506.6	509.4
22.5°	505.9	515.0	536.4	551.0	530.2	508.0	494.9	487.2	480.3	476.1	478.9
25°	524.7	533.7	554.5	553.8	514.3	483.1	462.3	449.8	442.2	438.0	438.0
27.5°	546.8	554.5	574.6	546.8	492.1	449.8	419.3	407.5	405.4	402.0	402.0
30°	569.7	575.9	593.3	530.9	461.6	406.1	372.9	367.3	368.0	364.6	365.2
32.5°	593.3	599.5	604.4	507.3	422.1	356.9	334.8	330.6	329.9	327.1	324.4
35°	626.5	635.5	605.7	475.4	374.3	316.0	300.1	295.9	291.8	282.1	282.1
37.5°	677.1	686.8	602.3	435.9	325.0	284.2	269.6	264.1	257.1	247.4	244.0
40°	746.4	746.4	594.7	391.6	285.5	258.5	244.7	237.7	230.1	220.4	218.3
42.5°	828.2	808.8	582.9	346.5	256.4	241.2	228.7	221.1	212.1	201.0	199.6
45°	923.9	871.2	566.2	306.3	235.0	230.8	223.2	210.0	194.8	183.0	180.9
47.5°	1016.7	927.3	550.3	277.9	216.9	226.6	220.4	198.2	177.4	160.8	158.7
50°	1118.6	977.2	531.6	254.4	203.1	223.9	216.9	180.9	158.0	146.2	144.9
52.5°	1220.5	1027.8	511.5	229.4	191.3	218.3	208.6	168.4	157.3	141.4	139.3
55°	1327.9	1086.7	487.9	201.7	177.4	207.2	197.5	167.7	162.2	141.4	136.5
57.5°	1432.6	1151.9	449.8	174.7	162.2	190.6	193.4	163.6	151.8	140.0	134.5
60°	1548.3	1221.2	386.7	151.8	149.0	176.7	187.8	154.6	140.0	135.8	133.1
62.5°	1641.2	1283.6	302.2	135.8	137.9	165.6	180.9	149.0	135.1	131.7	131.0
65°	1681.4	1284.9	216.9	122.0	126.8	155.2	174.0	144.2	131.0	129.6	128.9
67.5°	1639.1	1214.3	152.5	108.8	115.0	145.5	165.0	139.3	126.8	127.5	126.1
70°	1502.6	1065.2	111.6	96.3	104.0	135.1	155.2	133.1	122.0	123.4	121.3
72.5°	1257.2	830.3	89.4	85.9	95.0	124.1	145.5	126.1	114.4	115.0	110.9
75°	928.7	550.3	74.9	76.9	84.6	113.7	133.1	117.1	106.0	103.3	100.5
77.5°	552.4	282.8	61.7	67.2	75.5	101.2	119.2	106.0	97.0	92.2	90.1
80°	228.0	114.4	50.6	56.8	65.8	90.1	105.3	92.9	86.6	81.8	79.0
82.5°	90.8	56.1	40.2	46.4	55.4	78.3	92.2	81.8	75.5	72.1	64.5
85°	34.7	27.7	27.0	32.6	41.6	60.3	76.2	68.6	63.8	54.8	52.7
87.5°	13.9	12.5	12.5	15.9	23.6	38.1	54.8	47.8	49.9	39.5	40.2
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)