

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: P265893

Luminaire Tested: **ARCH-AF16-40-D-U-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265893  
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-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 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: 4123.2 lumens  
Efficiency: N/A  
Efficacy: 98.2 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

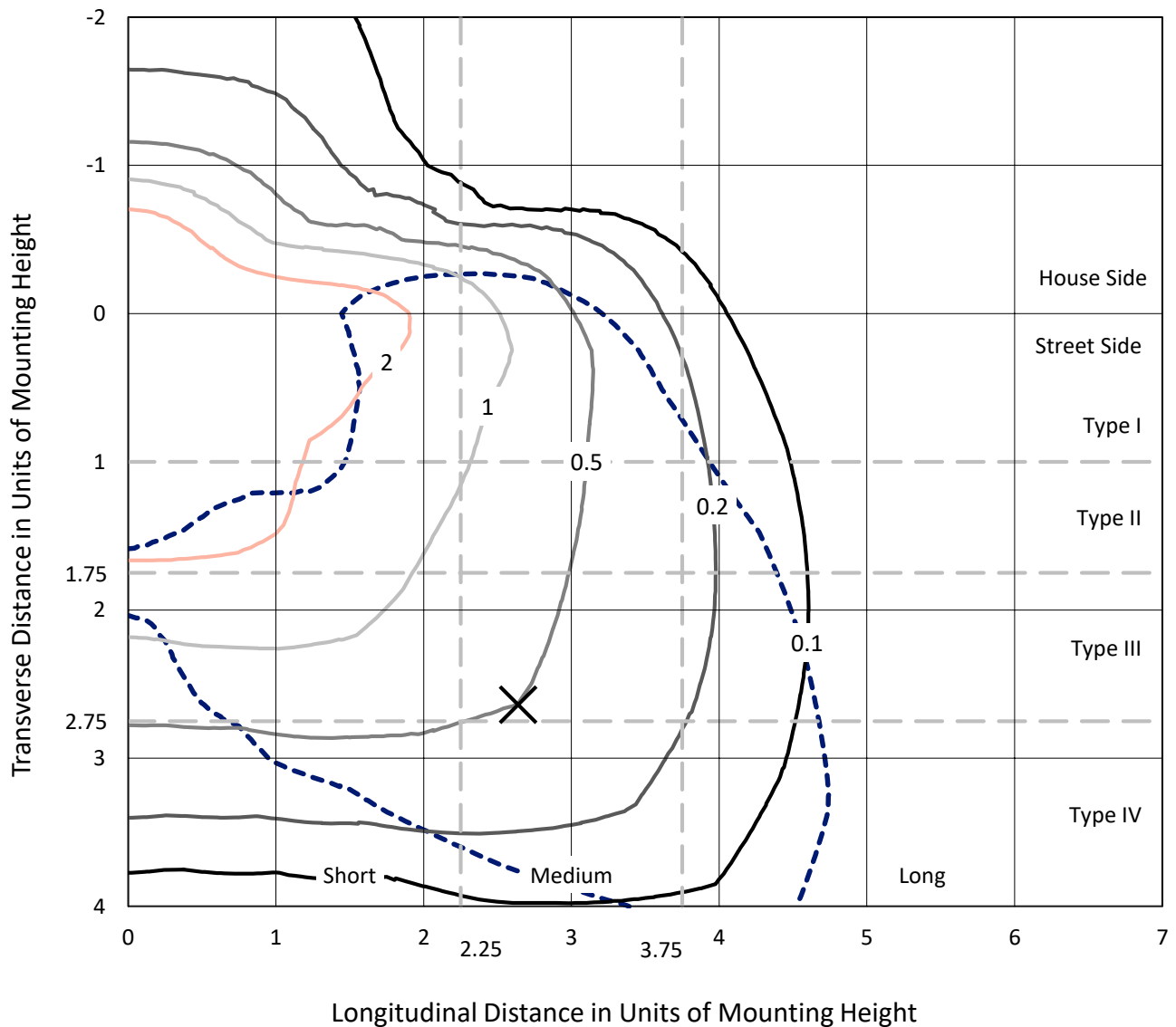


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

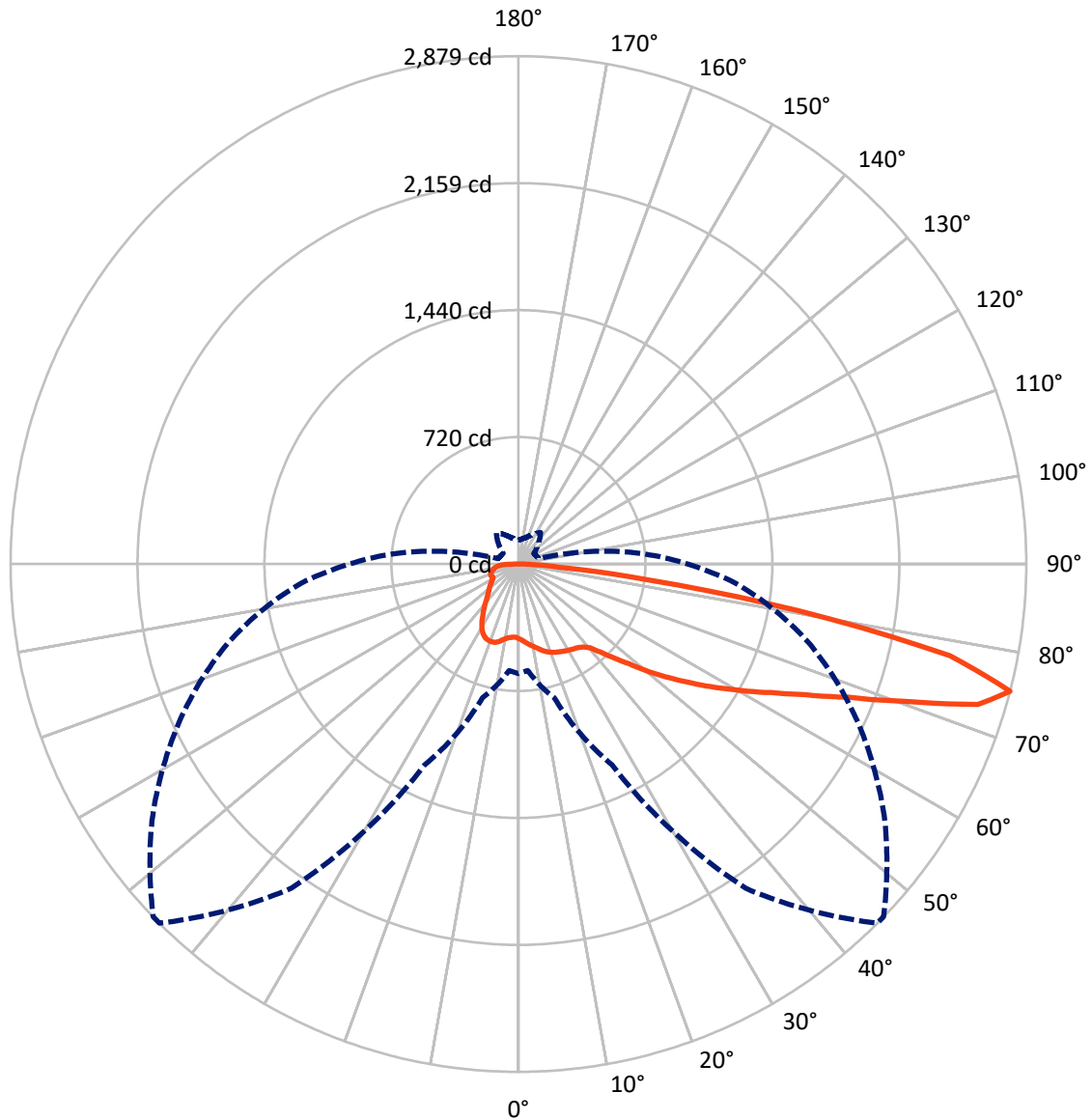


Based on 10 foot mounting height. Maximum calculated value = 4.9 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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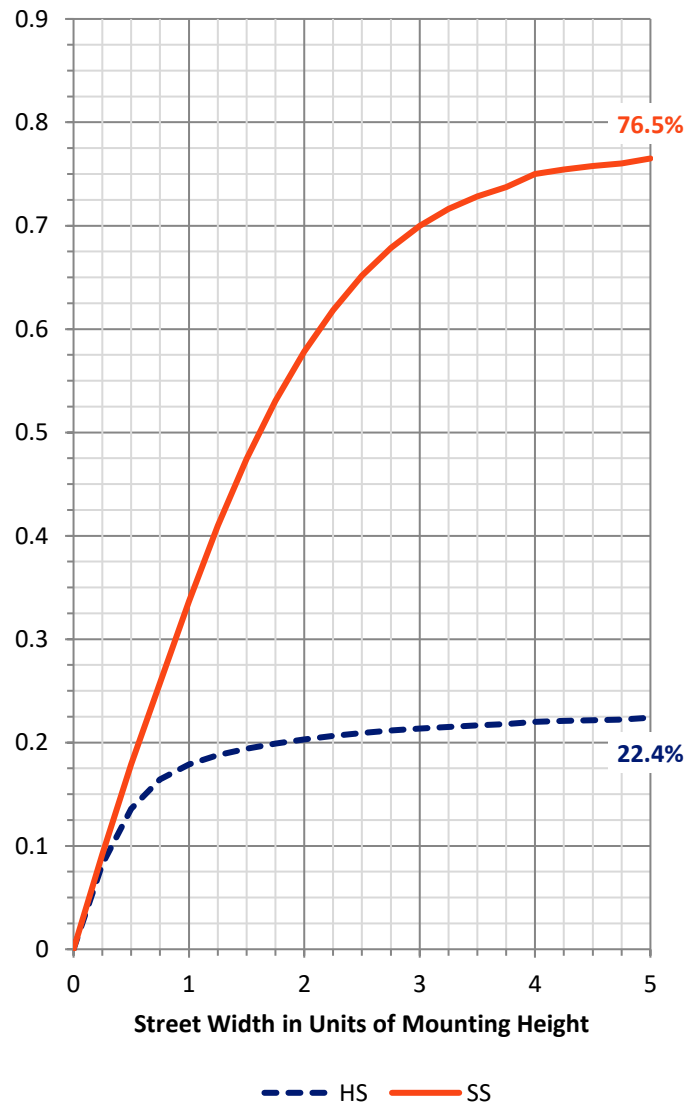
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	955.2	0.0	955.2
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	3168.0	0.0	3168.0
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	4123.2	0.0	4123.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.9	1.0
10°-20°	135.7	3.3
20°-30°	232.9	5.6
30°-40°	325.8	7.9
40°-50°	477.9	11.6
50°-60°	744.4	18.1
60°-70°	1071.2	26.0
70°-80°	933.1	22.6
80°-90°	160.3	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°	4123.2	100.0
0°-180°	4123.2	100.0



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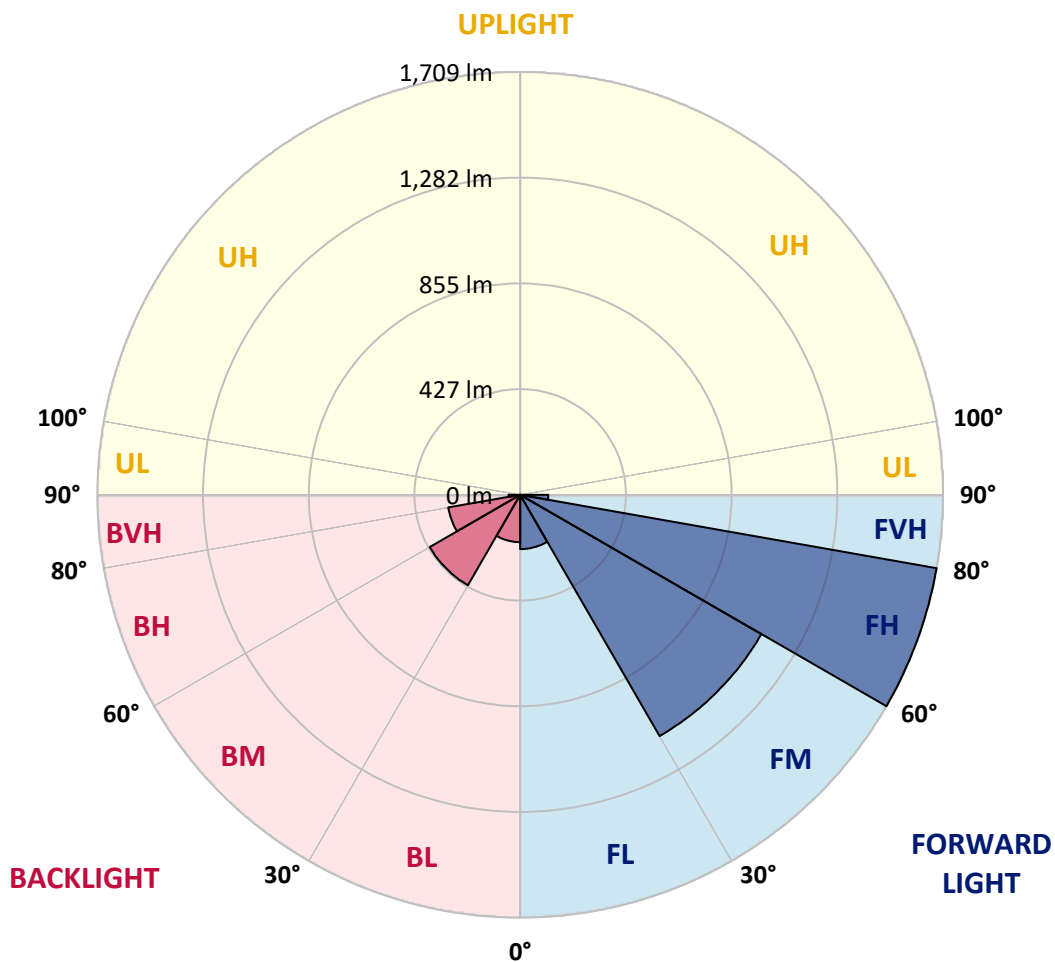
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	219.3	5.3			
FM	(30°-60°)	1126.0	27.3			
FH	(60°-80°)	1709.1	41.5			G1/1800
FVH	(80°-90°)	113.7	2.8			G2/225
BL	(0°-30°)	191.3	4.6	B1/500		
BM	(30°-60°)	422.1	10.2	B1/1000		
BH	(60°-80°)	295.2	7.2	B1/500		G1/500
BVH	(80°-90°)	46.6	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°	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7
2.5°	443.6	440.3	440.3	438.0	438.0	433.9	432.4	431.5	427.6	425.1	422.7
5°	469.3	465.2	464.5	458.8	456.3	447.5	446.7	441.2	433.9	426.6	421.0
7.5°	492.5	490.0	486.1	480.5	473.1	462.0	461.2	452.3	440.3	430.6	422.7
10°	509.2	507.7	502.2	494.8	486.8	475.7	474.8	465.2	450.8	439.5	428.3
12.5°	529.3	526.9	519.7	510.1	501.3	490.8	490.0	482.0	466.0	451.6	437.1
15°	548.7	545.5	536.6	526.9	517.3	508.5	508.5	499.6	482.8	466.0	449.2
17.5°	558.2	556.6	547.7	537.4	529.3	523.0	522.2	514.1	497.3	479.6	461.2
20°	561.4	562.2	554.3	542.9	537.4	534.2	533.4	527.8	509.2	492.5	474.8
22.5°	560.6	563.1	556.6	544.6	542.9	542.9	542.9	536.6	522.2	505.2	487.7
25°	563.9	567.1	562.2	547.7	547.7	551.0	551.0	547.7	535.0	520.6	503.0
27.5°	575.0	577.5	573.5	553.4	554.3	559.0	558.2	559.0	551.0	537.4	519.7
30°	588.7	592.0	587.1	562.2	561.4	566.2	566.2	570.2	564.7	550.2	535.7
32.5°	625.6	624.9	609.6	572.0	569.4	574.2	574.2	578.2	575.0	563.9	550.2
35°	735.5	723.5	689.8	603.1	579.0	581.6	581.6	588.7	590.4	581.6	569.4
37.5°	847.8	843.8	818.0	686.6	614.4	596.7	595.9	606.4	613.6	606.4	598.4
40°	960.8	957.7	952.1	798.1	688.2	624.1	621.5	630.4	643.2	638.4	633.7
42.5°	1066.0	1064.3	1069.9	907.9	782.1	682.5	675.3	664.9	683.4	681.8	681.8
45°	1148.6	1152.5	1155.8	1010.7	883.8	757.9	749.1	713.9	738.6	745.1	749.9
47.5°	1195.0	1198.2	1209.5	1110.8	985.7	845.3	838.9	781.2	814.1	833.4	847.0
50°	1261.6	1252.9	1262.5	1208.7	1108.5	959.3	941.7	871.9	913.5	947.3	979.3
52.5°	1325.8	1311.3	1319.4	1321.8	1248.0	1070.8	1052.4	978.6	1030.6	1083.5	1140.6
55°	1383.6	1382.8	1390.8	1431.7	1382.8	1190.3	1169.5	1096.4	1171.7	1228.7	1325.0
57.5°	1430.1	1438.0	1473.4	1559.2	1538.3	1320.1	1297.0	1233.6	1322.7	1379.5	1539.2
60°	1484.5	1497.5	1556.0	1667.4	1680.3	1456.5	1432.4	1386.8	1477.4	1535.2	1787.0
62.5°	1503.0	1521.5	1641.8	1781.3	1828.7	1605.7	1584.2	1553.6	1640.2	1692.3	2034.0
65°	1380.3	1415.6	1689.2	1839.9	1988.3	1785.4	1767.0	1740.5	1802.2	1836.8	2201.7
67.5°	1346.6	1362.6	1596.8	1924.2	2138.2	2016.3	1997.9	1952.2	1953.9	1939.4	2256.3
70°	1299.4	1316.9	1502.2	1987.5	2353.3	2332.4	2309.9	2175.2	2092.6	2005.1	2148.7
72.5°	1106.8	1101.2	1294.5	1816.6	2456.8	2723.8	2697.3	2415.1	2195.3	1948.2	1813.5
75°	621.5	605.5	785.2	1256.8	2243.3	2879.3	2878.6	2536.2	2123.1	1697.2	1234.5
77.5°	180.5	175.7	259.2	526.9	1510.3	2501.6	2532.1	2287.4	1771.7	1219.1	677.7
80°	85.0	86.6	111.5	174.0	644.9	1614.6	1702.0	1506.3	1058.7	562.2	279.9
82.5°	53.8	54.5	76.1	112.3	272.6	733.0	805.3	677.7	419.5	243.0	123.4
85°	33.6	33.6	50.6	73.8	162.9	234.2	254.3	231.0	179.8	132.3	67.4
87.5°	18.4	18.4	30.5	42.5	89.0	75.4	77.9	92.3	112.3	80.9	33.6
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°	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7
2.5°	421.8	420.2	417.9	417.1	416.3	415.5	416.3	417.9	416.3	416.3	417.1
5°	419.5	417.9	414.7	414.7	415.5	416.3	420.2	422.7	423.6	423.6	423.6
7.5°	419.5	417.1	414.7	415.5	417.1	420.2	426.6	430.6	433.9	434.7	434.7
10°	423.6	420.2	418.7	420.2	425.1	427.6	433.9	440.3	444.3	446.0	446.0
12.5°	430.6	427.6	427.6	430.6	437.1	440.3	446.0	450.8	455.6	458.0	458.0
15°	442.8	438.7	439.5	445.1	452.3	455.6	459.7	461.2	465.2	468.3	468.3
17.5°	454.0	450.0	451.6	458.0	462.7	464.5	466.8	466.0	467.6	470.1	470.8
20°	466.8	462.7	463.5	467.6	468.3	466.8	466.8	464.5	463.5	467.6	469.3
22.5°	479.6	475.7	474.8	472.4	468.3	464.5	462.0	459.7	458.0	462.0	463.5
25°	494.8	489.2	485.3	474.8	464.5	457.1	454.0	452.3	451.6	455.6	457.1
27.5°	511.8	506.1	494.1	471.6	454.7	442.8	440.3	440.3	442.0	444.3	446.0
30°	527.8	522.2	500.4	464.5	438.0	420.2	417.9	420.2	424.3	426.6	429.1
32.5°	543.8	538.2	504.5	453.1	413.1	390.7	389.0	393.0	399.4	401.1	402.6
35°	565.5	559.9	509.2	437.1	381.8	357.7	356.1	358.6	364.2	366.6	368.9
37.5°	595.9	592.7	516.5	419.5	352.9	326.4	321.7	320.1	323.2	322.4	325.6
40°	636.0	638.4	529.3	396.2	324.8	297.6	287.2	282.3	279.2	272.6	275.9
42.5°	694.6	696.1	543.8	369.7	300.8	270.3	256.6	247.8	241.5	231.0	232.7
45°	780.4	766.8	560.6	341.6	279.2	248.7	232.7	222.2	213.3	204.5	205.4
47.5°	894.4	852.6	579.0	318.4	257.5	231.0	216.5	204.5	194.2	186.8	187.7
50°	1034.7	959.3	597.6	296.8	235.9	217.4	204.5	191.7	181.3	174.0	173.3
52.5°	1220.0	1087.6	609.6	272.6	214.2	205.4	194.2	182.0	169.2	160.3	159.5
55°	1412.5	1236.7	620.0	243.8	193.2	191.7	186.0	172.5	157.3	146.0	144.4
57.5°	1624.1	1396.3	628.0	215.8	177.2	180.5	178.9	162.9	146.0	135.6	134.7
60°	1816.6	1561.7	602.4	190.9	162.9	169.2	170.9	157.3	148.4	150.7	151.5
62.5°	2010.8	1689.2	504.5	172.5	153.3	162.1	175.7	174.8	170.9	174.8	175.7
65°	2080.6	1715.7	357.7	157.3	143.5	165.2	190.9	189.4	170.9	163.6	162.1
67.5°	2041.3	1637.0	240.7	145.2	136.4	169.2	206.9	189.4	164.4	154.8	151.5
70°	1854.5	1443.8	176.4	133.2	130.0	168.4	215.8	188.5	161.2	150.7	146.8
72.5°	1479.0	1114.1	141.9	121.9	120.4	164.4	220.5	186.8	158.0	146.8	141.9
75°	957.7	693.0	119.6	110.8	105.9	158.0	218.2	182.0	154.0	139.5	136.4
77.5°	444.3	298.3	101.9	97.8	92.3	148.4	210.9	172.5	145.2	131.5	127.5
80°	206.9	141.2	85.8	85.0	82.6	140.3	201.3	161.2	134.7	123.4	117.0
82.5°	110.8	85.0	69.8	69.8	72.1	130.8	189.4	147.6	121.1	115.5	98.6
85°	58.6	48.9	50.6	54.5	61.8	115.5	173.3	133.2	105.9	88.3	85.8
87.5°	29.6	31.4	31.4	36.9	47.3	93.9	142.8	110.0	89.8	72.1	70.5
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)