

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: P234700

Luminaire Tested: **ARCH-AF16-60-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234700  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-60-D-U-T2R-8027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4039 lumens  
Efficiency: N/A  
Efficacy: 64.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 63  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

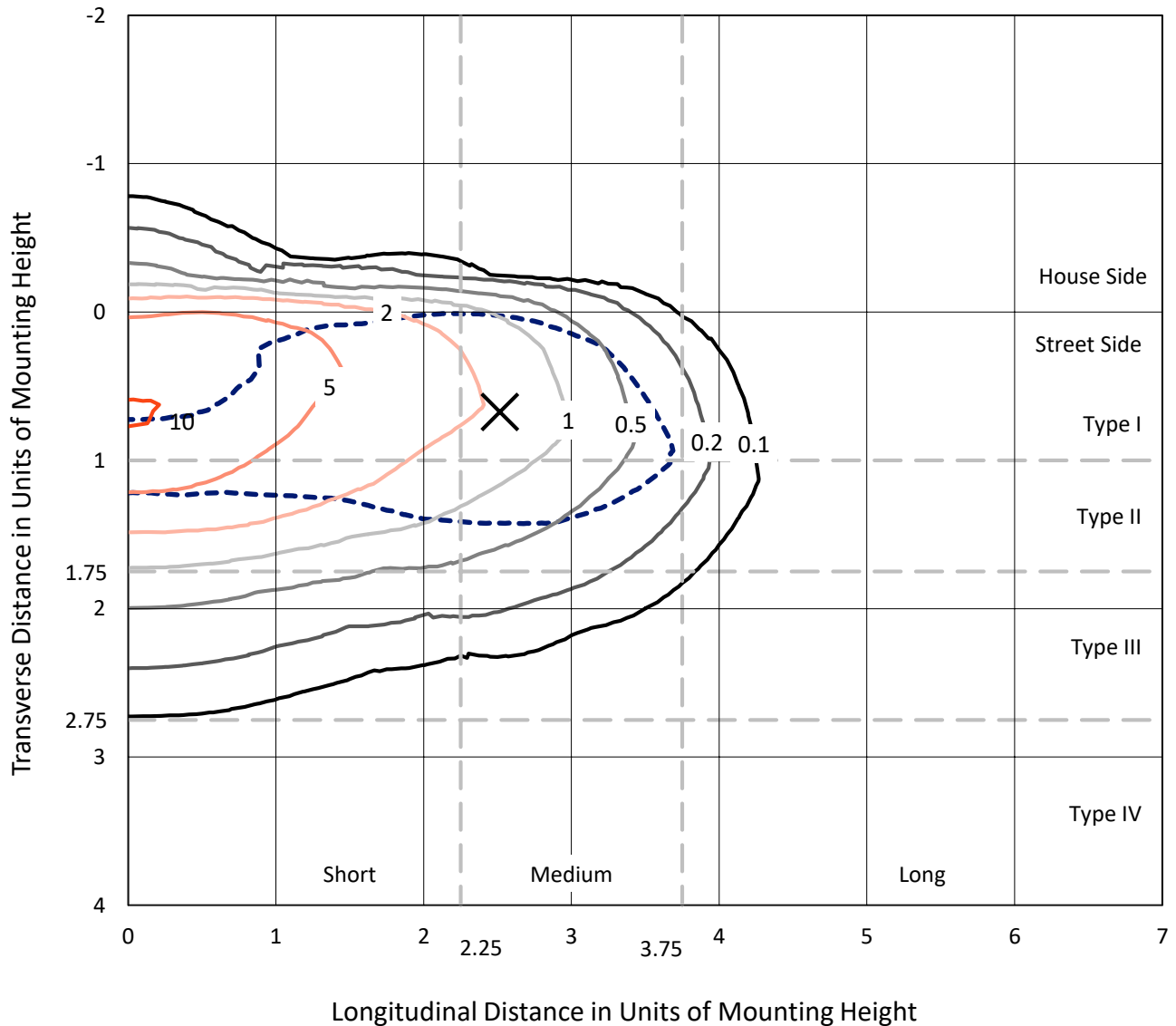


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

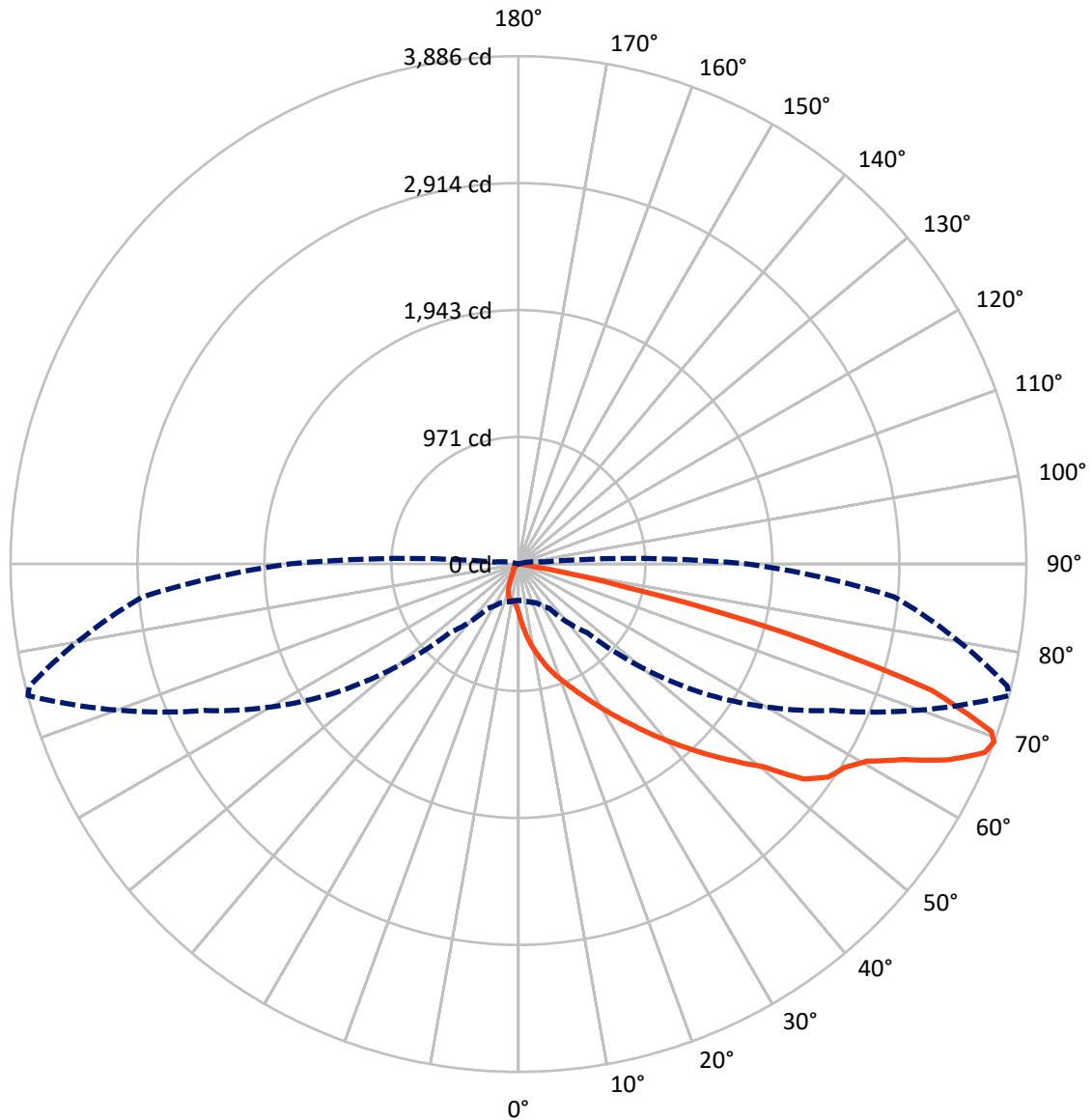


Based on 10 foot mounting height. Maximum calculated value = 10.3 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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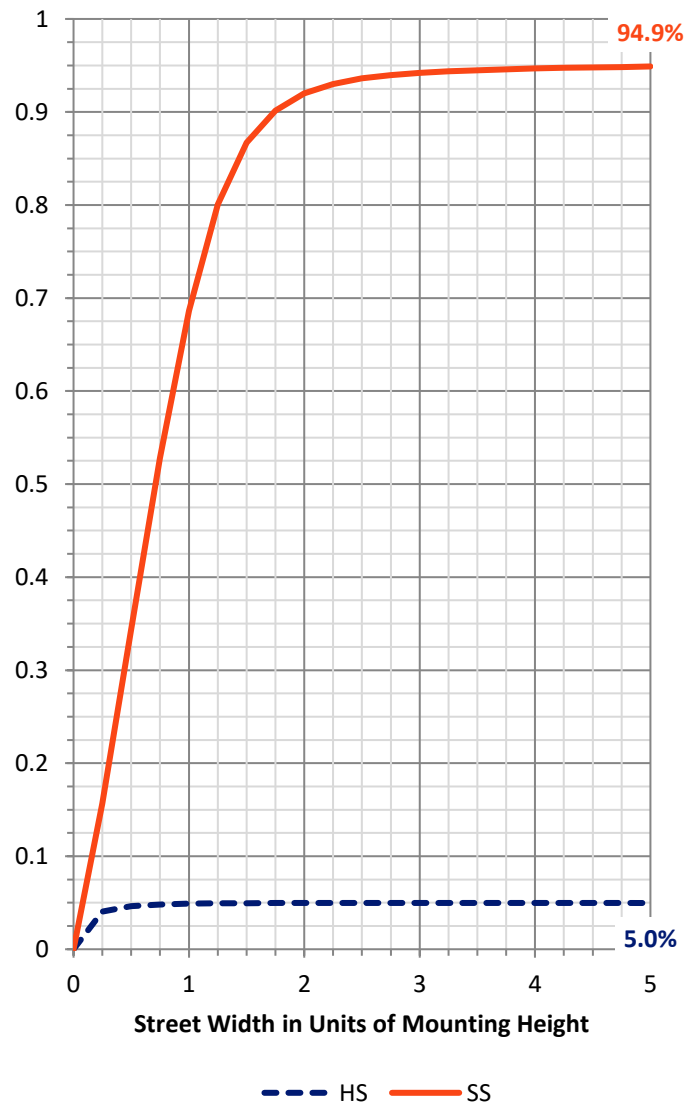
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	201.5	0.0	201.5
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	3837.5	0.0	3837.5
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	4039.0	0.0	4039.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.8	1.1
10°-20°	156.7	3.9
20°-30°	299.1	7.4
30°-40°	536.5	13.3
40°-50°	822.0	20.4
50°-60°	955.4	23.7
60°-70°	846.0	20.9
70°-80°	364.9	9.0
80°-90°	14.6	0.4
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°	4039.0	100.0
0°-180°	4039.0	100.0

**Coefficient of Utilization**



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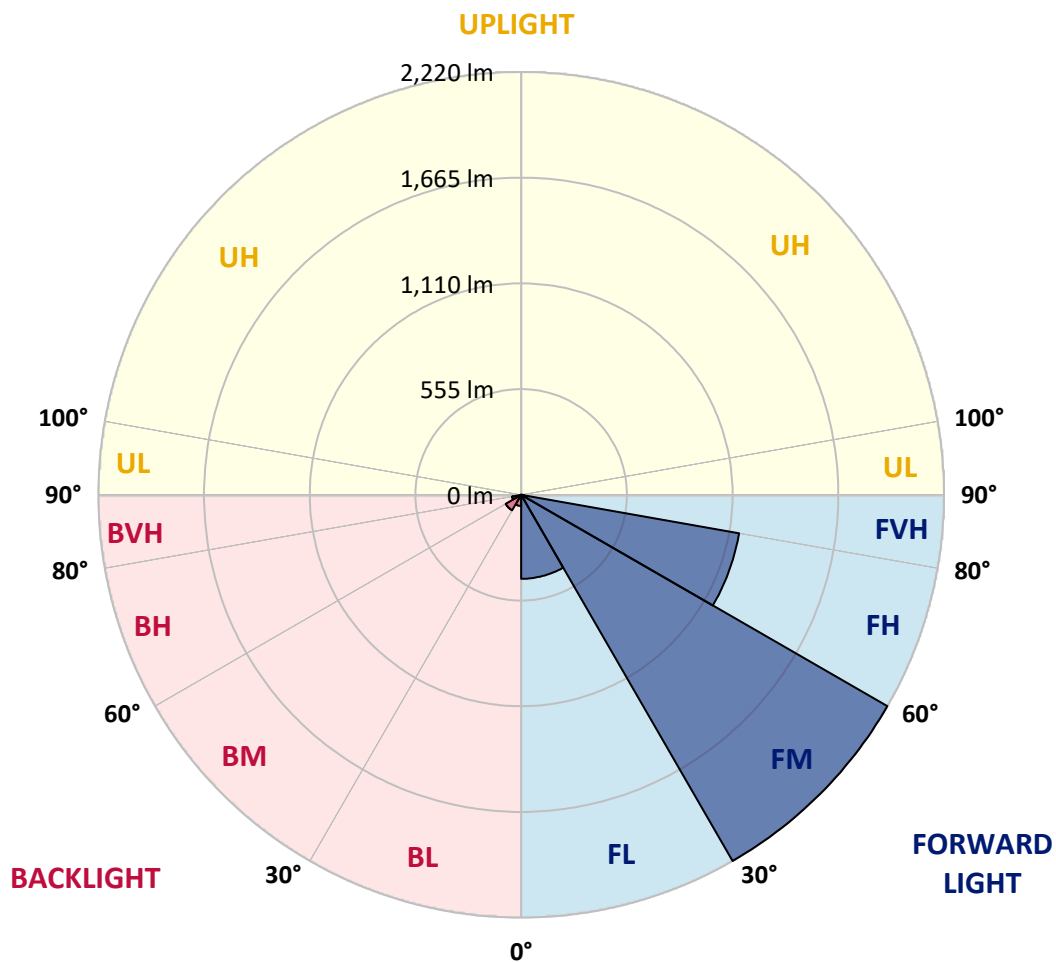
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	441.1	10.9			
FM	(30°-60°)	2219.9	55.0			
FH	(60°-80°)	1162.1	28.8			G1/1800
FVH	(80°-90°)	14.4	0.4			G1/100
BL	(0°-30°)	58.5	1.4	B0/110		
BM	(30°-60°)	94.0	2.3	B0/220		
BH	(60°-80°)	48.8	1.2	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	375.8	375.8	375.8	375.8	375.8	375.8	375.8	375.8	375.8	375.8	375.8
2.5°	619.1	613.0	606.9	599.9	584.2	557.2	523.2	486.6	441.2	433.4	396.8
5°	751.7	749.0	742.9	733.3	715.9	686.3	647.9	593.8	518.0	504.9	427.3
7.5°	845.0	843.2	838.0	826.6	811.0	781.3	741.2	682.8	594.7	579.9	465.6
10°	928.7	927.8	923.4	913.0	897.3	865.0	822.3	761.2	667.9	651.4	510.1
12.5°	1004.5	1005.4	1003.7	998.4	987.1	956.6	907.7	841.5	738.6	720.3	563.3
15°	1049.0	1051.6	1058.6	1069.1	1072.5	1048.1	997.6	924.3	811.0	795.3	624.3
17.5°	1034.2	1036.8	1058.6	1094.3	1128.4	1131.8	1086.5	1002.8	882.5	866.8	684.5
20°	998.4	1001.9	1024.6	1073.4	1139.7	1185.9	1167.6	1088.2	950.5	931.3	742.1
22.5°	1038.5	1038.5	1045.5	1075.2	1135.3	1207.7	1232.1	1173.7	1020.2	996.7	799.6
25°	1176.3	1173.7	1158.9	1146.7	1165.8	1230.4	1281.0	1260.9	1102.2	1075.2	860.7
27.5°	1350.7	1362.9	1335.0	1290.5	1246.9	1274.8	1324.6	1347.2	1192.9	1165.0	923.4
30°	1546.0	1551.3	1518.1	1458.8	1382.1	1355.1	1376.0	1421.3	1291.4	1260.9	988.8
32.5°	1722.2	1717.8	1689.9	1628.0	1533.0	1474.5	1442.3	1480.6	1398.7	1363.8	1056.0
35°	1878.3	1881.8	1847.7	1776.2	1682.9	1621.0	1544.3	1547.8	1519.0	1478.9	1133.6
37.5°	2018.7	2012.6	1980.3	1908.8	1824.2	1757.1	1676.0	1617.5	1650.7	1608.8	1220.8
40°	2132.9	2126.8	2092.8	2023.0	1943.7	1888.7	1825.1	1710.8	1789.3	1741.4	1314.1
42.5°	2223.6	2216.6	2187.8	2120.7	2043.9	1995.1	1964.6	1825.9	1937.6	1889.6	1418.7
45°	2268.0	2261.9	2244.5	2193.9	2126.8	2084.1	2098.9	1958.5	2096.3	2056.2	1533.8
47.5°	2215.7	2213.1	2233.2	2224.4	2186.1	2163.4	2214.9	2103.2	2262.8	2223.6	1666.4
50°	2057.0	2061.4	2119.8	2192.2	2210.5	2237.5	2309.9	2255.8	2441.6	2399.7	1819.0
52.5°	1665.5	1695.1	1871.3	2045.7	2180.8	2282.9	2421.5	2473.8	2732.8	2691.8	2057.0
55°	1243.5	1255.7	1447.5	1745.7	2061.4	2279.4	2504.4	2602.0	2876.7	2834.8	2119.8
57.5°	986.2	990.6	1085.6	1390.0	1815.5	2200.9	2548.0	2648.2	2939.5	2904.6	2213.1
60°	774.3	779.6	848.4	1057.7	1469.3	1989.0	2485.2	2688.3	3062.4	3034.5	2376.2
62.5°	602.5	607.8	649.6	772.6	1102.2	1662.9	2358.7	2752.9	3296.1	3283.0	2643.0
65°	466.5	468.3	497.0	554.6	778.7	1309.7	2204.4	2813.0	3611.8	3600.4	2859.3
67.5°	344.4	347.1	367.1	402.9	525.8	940.9	1951.5	2766.8	3849.8	3816.7	2937.7
69°	278.2	280.8	298.2	327.0	415.1	741.2	1720.4	2652.6	3885.6	3854.2	2888.0
70°	238.1	239.8	257.2	281.7	354.0	629.6	1537.3	2554.1	3838.5	3808.0	2774.7
72.5°	152.6	161.3	178.8	194.5	234.6	416.8	1037.7	2118.1	3311.8	3259.5	2173.0
75°	84.6	87.2	118.6	137.8	156.1	271.2	577.3	1321.1	2106.7	2070.1	1162.4
77.5°	69.8	71.5	83.7	104.6	104.6	151.7	218.0	520.6	801.4	722.9	314.8
80°	48.8	50.6	63.7	68.9	75.0	85.5	70.6	114.2	123.8	109.9	47.1
82.5°	34.0	35.8	43.6	56.7	60.2	40.1	26.2	34.0	35.8	35.8	18.3
85°	6.1	8.7	32.3	47.1	35.8	12.2	14.8	12.2	11.3	12.2	4.4
87.5°	0.0	0.0	20.1	22.7	19.2	5.2	6.1	4.4	2.6	3.5	1.7
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°	375.8	375.8	375.8	375.8	375.8	375.8	375.8	375.8	375.8	375.8	375.8
2.5°	378.4	360.1	328.7	306.1	286.9	272.1	266.0	256.4	249.4	252.9	248.5
5°	388.9	356.6	306.1	273.8	251.1	231.9	216.3	204.0	194.5	192.7	191.0
7.5°	405.5	359.3	293.0	252.9	218.9	189.2	164.8	146.5	132.5	132.5	127.3
10°	428.1	366.2	285.1	231.9	181.4	141.3	116.8	99.4	92.4	91.6	89.8
12.5°	459.5	379.3	279.0	204.9	141.3	102.9	88.1	82.0	79.4	78.5	77.6
15°	502.3	398.5	272.1	171.8	107.3	84.6	78.5	73.2	70.6	69.8	68.9
17.5°	543.2	415.9	257.2	137.8	87.2	76.7	69.8	65.4	61.9	61.0	61.0
20°	581.6	430.8	231.9	107.3	78.5	68.9	61.9	56.7	53.2	52.3	52.3
22.5°	621.7	443.0	200.6	87.2	71.5	61.0	54.1	48.8	45.3	44.5	43.6
25°	664.5	451.7	164.8	77.6	64.5	54.1	46.2	41.9	39.2	38.4	37.5
27.5°	710.7	455.2	130.8	70.6	56.7	47.1	40.1	35.8	34.0	33.1	33.1
30°	752.5	451.7	101.2	62.8	49.7	41.0	34.9	31.4	29.6	28.8	28.8
32.5°	796.1	443.0	81.1	55.8	43.6	34.9	29.6	27.0	26.2	25.3	25.3
35°	842.3	431.6	69.8	49.7	37.5	30.5	26.2	24.4	23.5	22.7	22.7
37.5°	896.4	417.7	63.7	44.5	33.1	27.0	22.7	21.8	20.9	20.9	20.9
40°	957.4	400.2	59.3	40.1	29.6	23.5	20.1	19.2	18.3	18.3	18.3
42.5°	1022.0	380.2	54.9	35.8	26.2	20.1	17.4	17.4	16.6	16.6	15.7
45°	1094.3	360.1	50.6	31.4	22.7	17.4	14.8	14.0	14.0	13.1	13.1
47.5°	1179.8	341.8	46.2	27.9	20.1	14.8	13.1	12.2	11.3	10.5	10.5
50°	1300.1	340.1	41.0	24.4	18.3	12.2	10.5	9.6	8.7	7.8	7.8
52.5°	1419.6	324.4	34.9	20.1	14.8	10.5	7.8	7.0	6.1	6.1	5.2
55°	1446.6	298.2	30.5	17.4	11.3	7.8	6.1	4.4	4.4	3.5	3.5
57.5°	1505.9	286.0	26.2	14.0	8.7	6.1	3.5	2.6	2.6	2.6	2.6
60°	1622.8	282.5	22.7	12.2	6.1	4.4	2.6	1.7	1.7	0.9	0.9
62.5°	1784.1	279.0	19.2	10.5	4.4	2.6	1.7	0.9	0.0	0.0	0.0
65°	1873.0	255.5	15.7	7.8	3.5	2.6	0.9	0.0	0.0	0.0	0.0
67.5°	1849.5	211.0	14.0	5.2	2.6	1.7	0.9	0.0	0.0	0.0	0.0
69°	1751.0	177.9	11.3	4.4	2.6	1.7	0.9	0.0	0.0	0.0	0.0
70°	1632.4	153.5	10.5	3.5	1.7	0.9	0.9	0.0	0.0	0.0	0.0
72.5°	1158.9	80.2	7.0	2.6	1.7	0.9	0.0	0.0	0.0	0.0	0.0
75°	541.5	35.8	4.4	1.7	0.9	0.9	0.0	0.0	0.0	0.0	0.0
77.5°	119.5	16.6	2.6	1.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
80°	22.7	6.1	1.7	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.8	2.6	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)