

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: P214920

Luminaire Tested: **ARCH-AF16-40-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214920  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
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-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3253.7 lumens  
Efficiency: N/A  
Efficacy: 77.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 42  
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

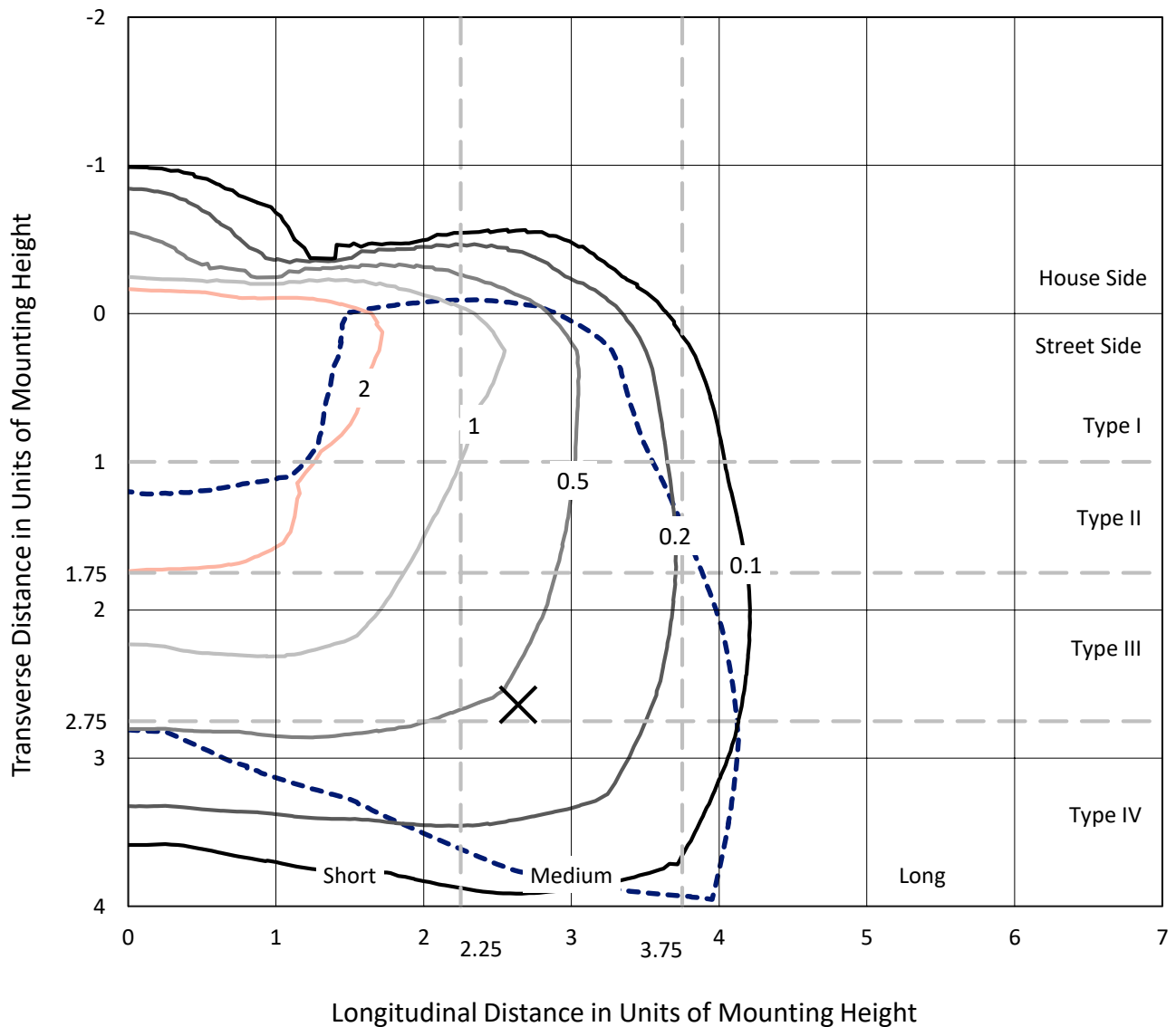


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

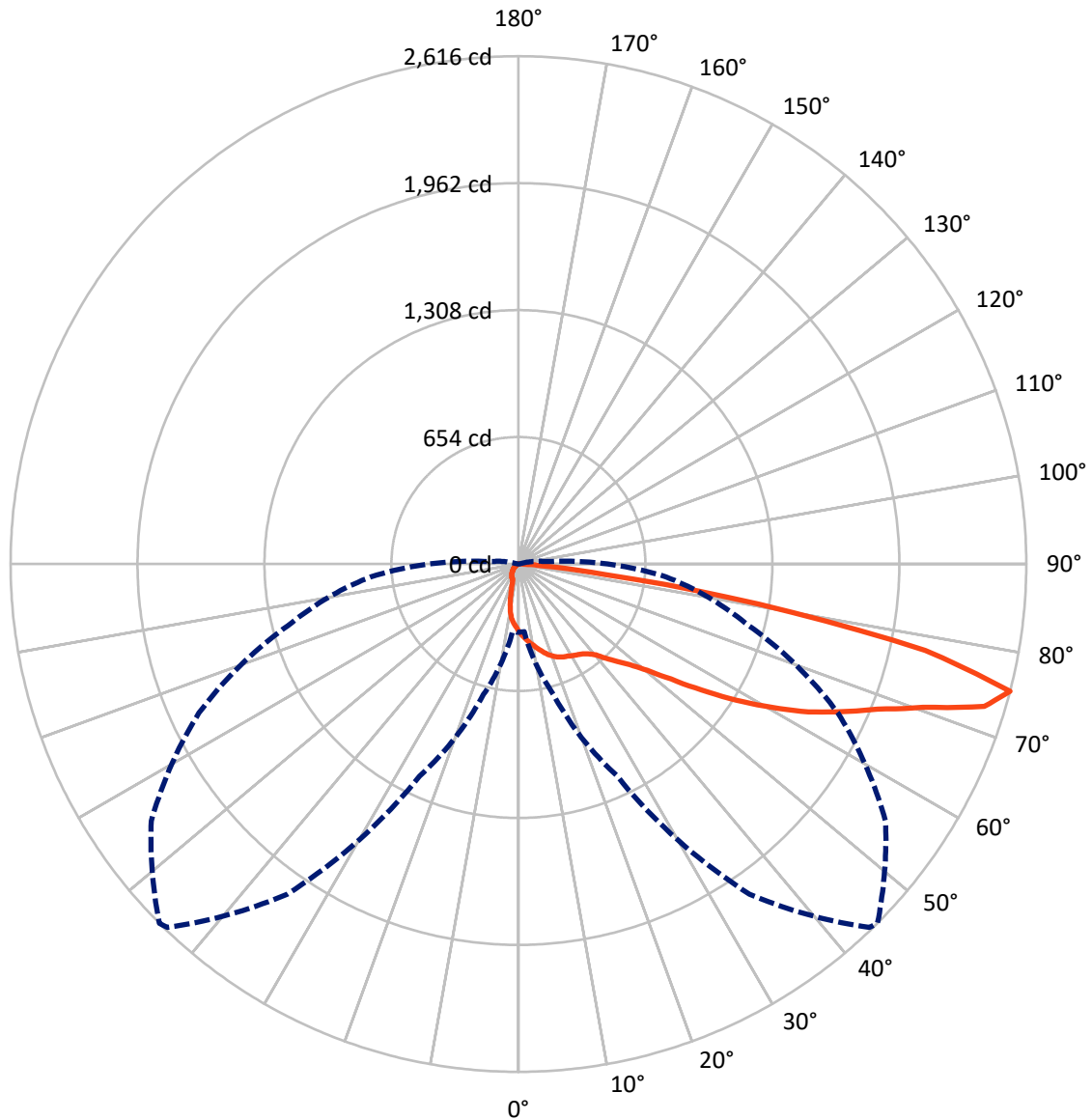


Based on 10 foot mounting height. Maximum calculated value = 4.6 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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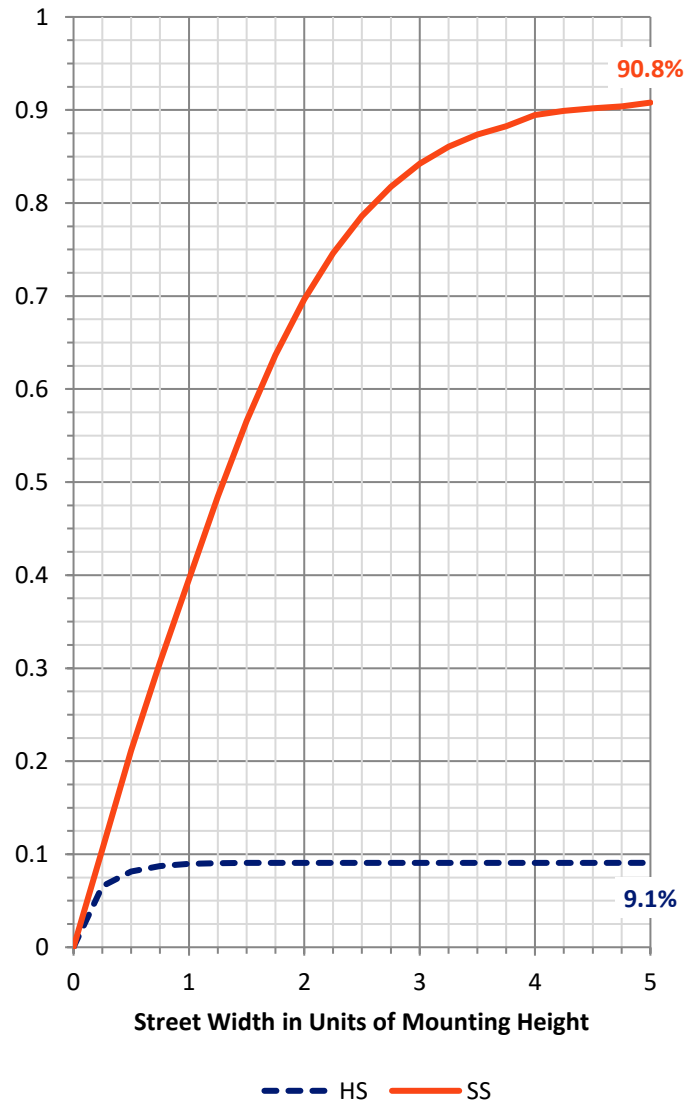
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	297.6	0.0	297.6
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	2956.1	0.0	2956.1
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	3253.7	0.0	3253.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.8	1.0
10°-20°	93.0	2.9
20°-30°	154.1	4.7
30°-40°	223.0	6.9
40°-50°	365.2	11.2
50°-60°	650.7	20.0
60°-70°	956.6	29.4
70°-80°	721.6	22.2
80°-90°	56.6	1.7
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°	3253.7	100.0
0°-180°	3253.7	100.0



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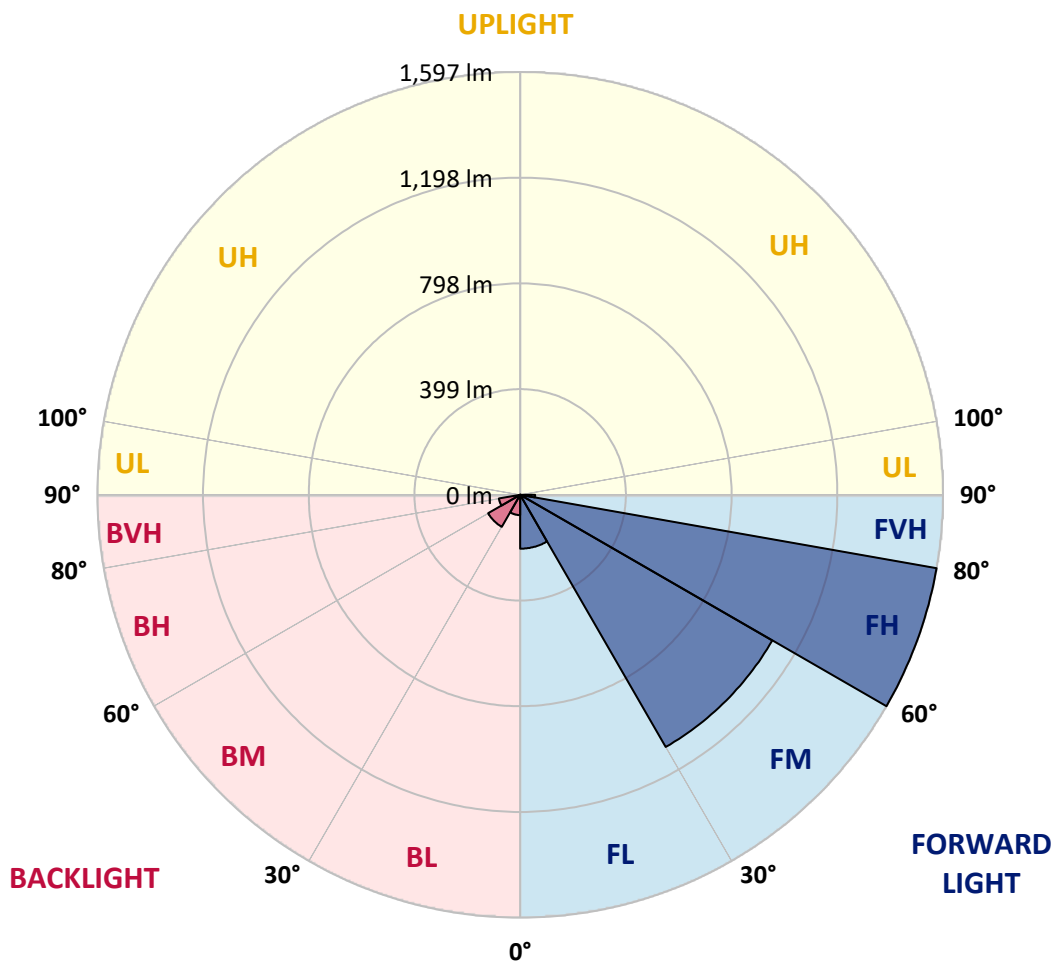
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	203.5	6.3			
FM	(30°-60°)	1099.4	33.8			
FH	(60°-80°)	1596.7	49.1			G1/1800
FVH	(80°-90°)	56.5	1.7			G1/100
BL	(0°-30°)	76.5	2.4	B0/110		
BM	(30°-60°)	139.5	4.3	B0/220		
BH	(60°-80°)	81.5	2.5	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 IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0
2.5°	378.0	378.0	377.3	376.5	372.7	368.8	367.9	365.7	358.8	354.2	349.5
5°	409.6	410.4	408.8	405.1	396.5	388.1	387.4	381.1	367.9	358.8	348.7
7.5°	439.7	441.2	437.4	430.4	420.4	408.1	407.3	395.7	378.8	365.7	351.0
10°	465.0	465.0	459.7	451.1	440.5	427.3	425.8	412.7	393.5	377.3	358.1
12.5°	492.8	492.0	484.2	472.8	460.4	448.1	447.3	431.1	412.7	391.9	367.9
15°	518.1	516.6	506.6	495.8	482.7	469.7	468.8	452.7	433.4	408.8	382.6
17.5°	532.0	531.2	522.0	511.3	500.4	490.5	489.7	472.8	451.9	426.5	397.2
20°	534.3	535.1	527.4	518.1	512.0	506.6	506.6	491.2	468.8	442.0	412.7
22.5°	535.1	537.4	532.0	519.7	518.1	519.0	520.5	508.2	485.0	459.7	428.9
25°	540.5	543.6	539.7	525.1	523.6	529.0	530.5	525.1	504.3	478.9	447.3
27.5°	551.2	554.4	551.2	532.7	530.5	535.9	537.4	540.5	525.1	497.3	466.5
30°	572.8	573.6	566.6	543.6	538.9	545.9	548.2	556.6	544.3	515.0	485.0
32.5°	610.5	602.9	582.1	551.2	547.4	555.1	557.4	566.6	562.0	532.0	504.3
35°	687.6	647.5	599.8	562.0	558.2	565.9	569.0	582.1	584.3	555.9	528.2
37.5°	686.8	650.6	641.4	582.8	577.4	582.8	586.7	602.9	612.1	587.5	562.8
40°	735.4	719.9	719.9	622.1	604.4	612.1	615.9	632.1	648.2	629.0	603.6
42.5°	887.7	877.7	867.0	697.5	642.1	663.6	665.9	676.0	695.2	689.1	659.1
45°	1057.8	1048.7	1007.1	825.4	706.8	710.6	715.9	732.1	759.9	771.5	736.1
47.5°	1191.0	1181.8	1146.4	979.3	807.7	773.8	773.8	805.4	848.5	877.7	843.8
50°	1298.1	1287.3	1265.8	1143.3	973.2	864.7	860.0	896.9	960.8	1006.3	983.3
52.5°	1402.1	1370.4	1357.3	1312.8	1160.3	996.2	984.0	1010.1	1098.7	1154.9	1135.6
55°	1471.2	1466.7	1452.8	1468.2	1356.6	1156.4	1145.7	1151.0	1262.0	1299.6	1275.7
57.5°	1535.9	1535.2	1566.0	1637.6	1570.6	1339.6	1322.7	1314.3	1419.8	1410.5	1431.3
60°	1616.1	1602.2	1673.9	1776.2	1766.9	1518.2	1499.0	1482.1	1540.7	1514.5	1617.6
62.5°	1619.9	1616.1	1761.6	1908.6	1961.7	1700.0	1677.6	1616.8	1646.1	1616.1	1795.4
65°	1472.9	1492.2	1798.5	1978.6	2125.0	1859.4	1832.4	1737.8	1740.1	1720.0	2004.9
67.5°	1439.7	1449.8	1696.9	2054.2	2242.8	2020.3	1994.8	1877.1	1849.3	1850.9	2128.8
70°	1357.3	1372.8	1570.6	2048.7	2336.0	2235.1	2209.7	2081.8	2014.8	1940.2	2033.4
72.5°	1037.1	1063.3	1323.4	1796.2	2310.5	2516.1	2509.1	2341.3	2081.1	1781.6	1538.3
75°	351.0	350.2	695.2	1206.4	2075.7	2602.3	2616.2	2308.9	1815.5	1228.8	763.7
77.5°	75.5	76.3	143.2	488.9	1379.0	2089.6	2142.7	1741.6	1171.0	547.4	174.9
80°	36.9	37.7	59.3	129.4	551.2	1171.8	1255.0	895.4	432.6	109.4	29.3
82.5°	18.5	19.2	30.8	68.5	204.0	416.5	445.0	329.5	124.0	61.6	14.6
85°	6.9	6.9	15.4	40.8	93.2	97.8	120.0	95.5	74.8	50.0	3.9
87.5°	1.5	1.5	8.5	20.0	41.6	30.8	30.8	29.3	45.5	33.9	1.5
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°	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0
2.5°	347.2	344.1	338.8	333.3	329.5	324.9	322.7	320.2	319.5	318.7	320.2
5°	343.4	338.8	328.8	320.2	312.6	306.5	301.8	297.1	294.9	293.4	294.1
7.5°	343.4	336.4	321.9	308.7	296.4	283.3	270.2	260.2	252.5	247.9	248.7
10°	347.2	338.0	318.7	301.0	277.9	250.2	221.7	200.2	185.5	177.1	177.1
12.5°	355.7	343.4	319.5	291.8	252.5	204.0	160.9	134.7	124.0	117.8	118.5
15°	367.2	352.6	323.4	279.4	217.1	151.7	112.4	95.5	95.5	97.0	97.8
17.5°	380.3	364.2	326.4	261.0	171.6	108.6	88.5	87.0	89.3	93.2	93.2
20°	393.5	375.8	328.0	231.7	128.6	86.2	83.9	83.9	85.4	89.3	90.0
22.5°	409.6	390.4	326.4	195.6	96.2	81.6	80.9	80.9	80.9	85.4	85.4
25°	426.5	407.3	320.2	157.2	81.6	78.5	77.8	77.0	77.0	80.9	81.6
27.5°	445.8	425.0	305.7	120.0	77.0	75.5	74.8	73.1	73.1	76.3	76.3
30°	465.0	445.0	283.3	90.9	73.1	72.3	70.8	69.3	67.7	70.8	70.8
32.5°	485.8	465.8	254.0	72.3	67.7	67.7	66.9	64.7	63.2	64.7	65.4
35°	513.5	489.7	220.9	63.2	60.8	60.8	60.8	60.1	57.0	58.6	58.6
37.5°	550.4	522.8	182.5	58.6	55.4	53.9	53.9	53.9	51.6	52.3	52.3
40°	597.4	561.3	145.6	54.6	51.6	47.7	46.2	47.0	45.5	45.5	44.7
42.5°	661.3	602.9	109.4	51.6	48.5	43.1	40.0	39.3	37.7	36.9	36.9
45°	753.1	653.7	78.5	48.5	46.2	37.7	34.6	32.3	28.5	26.2	26.2
47.5°	871.6	711.4	58.6	45.5	43.9	33.1	29.3	24.6	19.2	17.7	17.7
50°	1016.3	776.1	49.2	40.8	40.0	29.3	23.1	16.2	10.8	9.3	10.1
52.5°	1157.2	836.9	43.9	36.2	35.4	25.4	16.9	8.5	4.6	4.6	4.6
55°	1275.7	880.0	40.0	32.3	30.8	20.0	9.3	3.9	2.3	2.3	2.3
57.5°	1382.7	904.6	36.2	28.5	24.6	13.8	3.9	1.5	1.5	0.8	0.8
60°	1480.6	919.3	31.5	24.6	19.2	7.6	1.5	0.8	0.8	0.0	0.0
62.5°	1576.8	930.1	27.0	20.0	14.6	3.1	0.8	0.8	0.0	0.0	0.0
65°	1650.0	926.2	21.6	16.2	9.3	1.5	0.8	0.0	0.0	0.0	0.0
67.5°	1647.6	873.8	16.2	12.3	4.6	0.8	0.0	0.0	0.0	0.0	0.0
70°	1473.6	736.1	10.8	7.6	1.5	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1045.5	472.0	6.9	4.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	460.4	143.2	3.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	90.0	33.1	2.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	21.6	3.9	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	9.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	0.8	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)