

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: P214779

Luminaire Tested: **ARCH-AF16-30-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214779  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
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-T3-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 560mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2625.5 lumens  
Efficiency: N/A  
Efficacy: 82.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B0 - 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

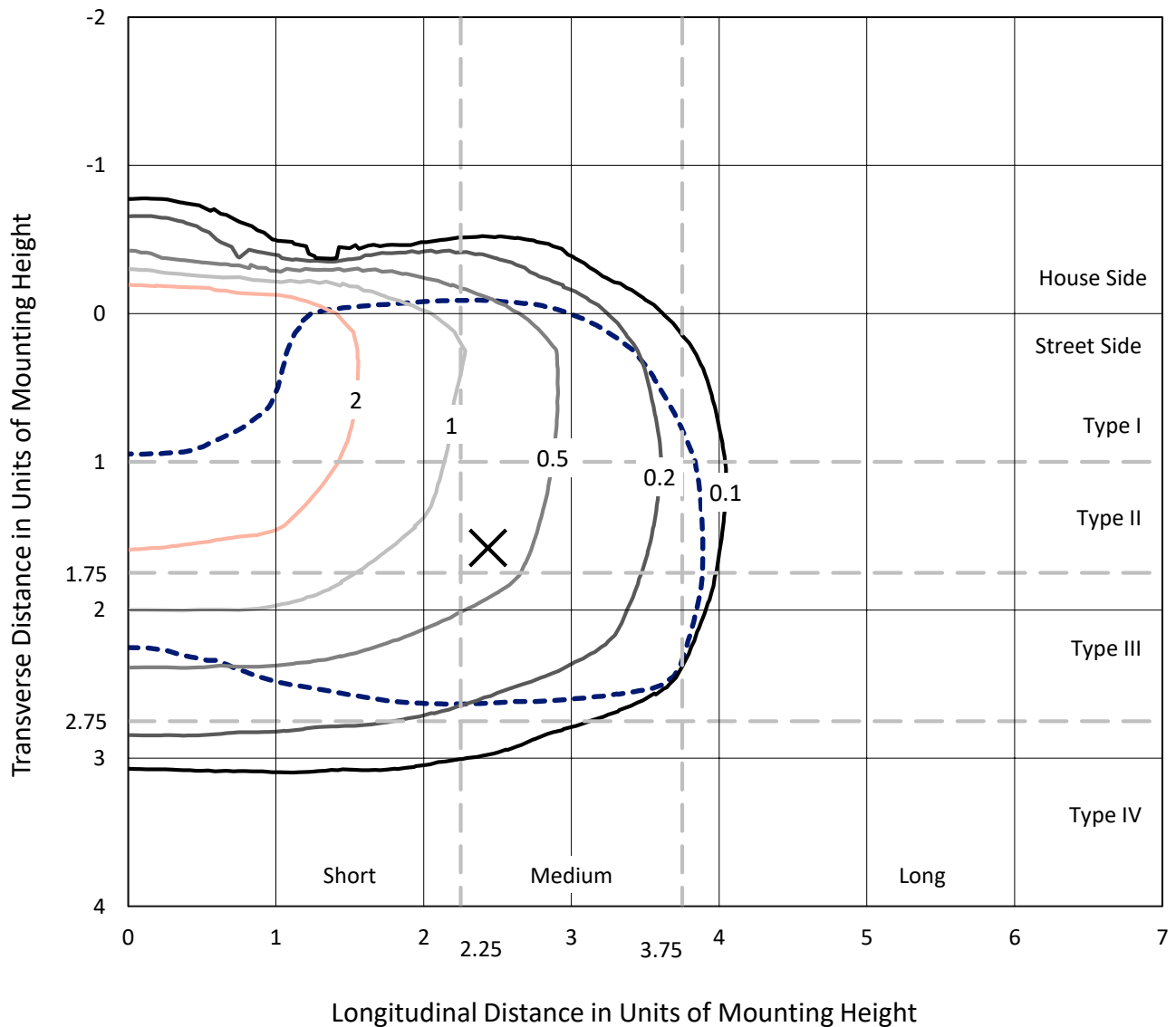


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

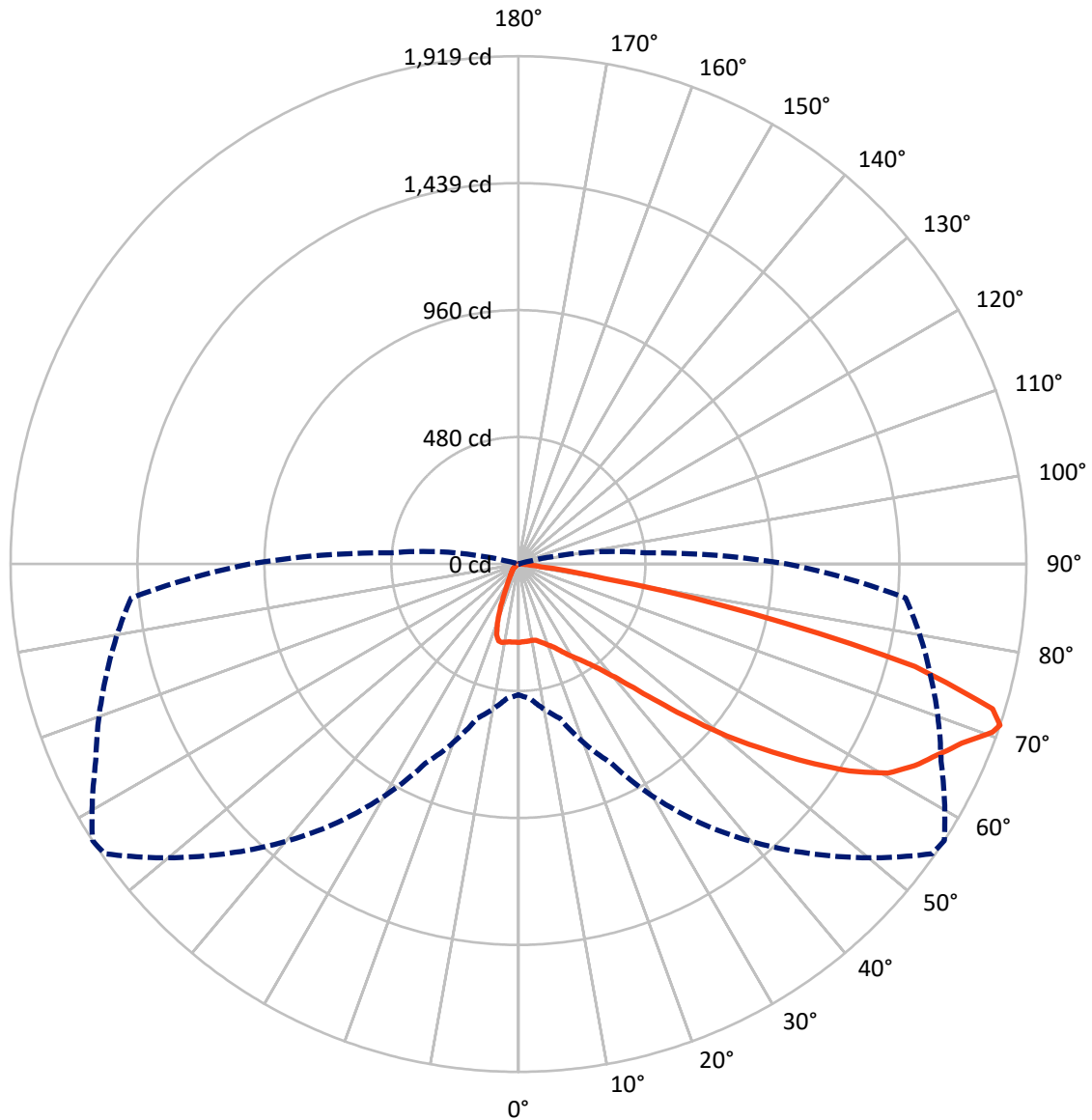


Based on 10 foot mounting height. Maximum calculated value = 3.7 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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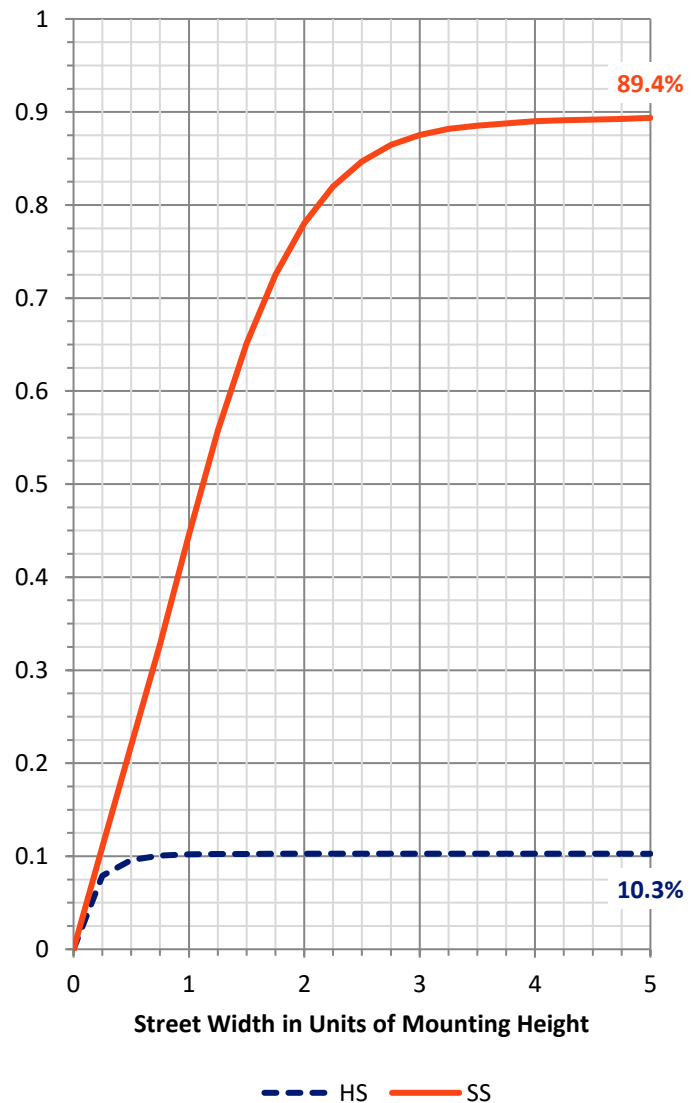
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	272.1	0.0	272.1
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	2353.4	0.0	2353.4
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	2625.5	0.0	2625.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.9	1.1
10°-20°	74.5	2.8
20°-30°	116.2	4.4
30°-40°	196.4	7.5
40°-50°	381.6	14.5
50°-60°	640.8	24.4
60°-70°	764.7	29.1
70°-80°	403.0	15.3
80°-90°	20.5	0.8
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°	2625.5	100.0
0°-180°	2625.5	100.0



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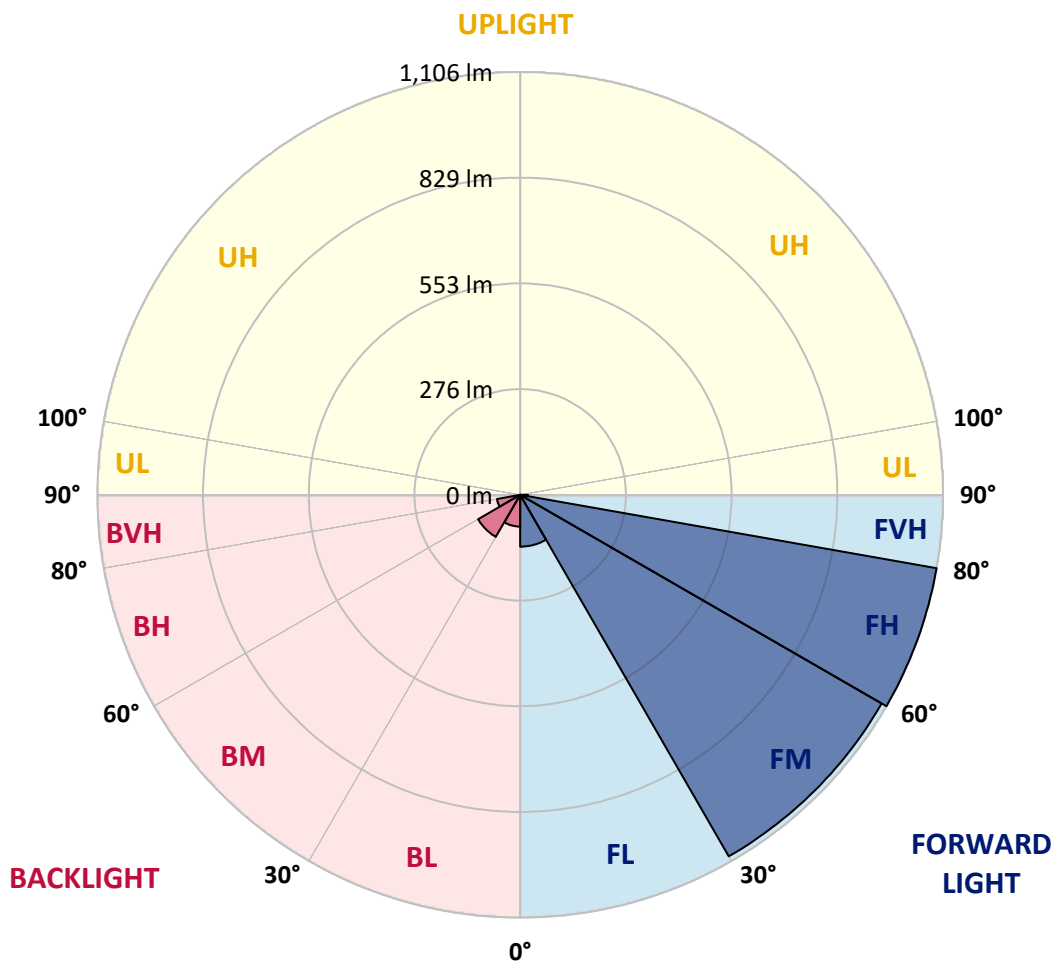
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	135.5	5.2			
FM	(30°-60°)	1091.7	41.6			
FH	(60°-80°)	1105.9	42.1			G1/1800
FVH	(80°-90°)	20.3	0.8			G1/100
BL	(0°-30°)	83.1	3.2	B0/110		
BM	(30°-60°)	127.1	4.8	B0/220		
BH	(60°-80°)	61.8	2.4	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	296.7	296.7	296.7	296.7	296.7	296.7	296.7	296.7	296.7	296.7	296.7
2.5°	292.5	292.5	292.5	293.1	293.7	293.7	294.9	294.2	294.2	294.2	295.5
5°	284.5	285.0	285.7	287.0	289.4	291.1	294.2	294.2	294.9	296.1	296.7
7.5°	273.4	274.1	275.9	278.4	283.3	287.6	292.5	293.7	295.5	298.6	299.8
10°	266.7	268.0	270.4	273.4	278.9	284.5	290.6	292.5	297.9	303.4	306.5
12.5°	265.0	265.5	268.0	272.8	279.6	286.4	294.2	296.1	304.1	312.6	317.5
15°	268.0	268.6	269.8	275.4	283.3	291.8	302.2	304.8	314.4	324.3	330.4
17.5°	273.4	273.4	274.7	279.6	288.1	297.9	311.4	315.1	326.1	337.1	343.8
20°	277.2	277.2	278.9	283.8	293.7	306.5	322.5	327.3	339.6	351.9	358.0
22.5°	280.8	281.5	283.3	288.8	299.8	317.5	335.9	340.8	354.9	367.6	373.7
25°	291.1	290.6	291.1	296.1	308.9	330.9	354.2	360.3	375.0	389.1	392.1
27.5°	320.0	318.7	310.9	307.8	317.5	345.0	377.5	383.6	400.8	414.7	414.7
30°	386.0	383.6	364.1	338.9	330.9	358.0	399.5	408.1	430.1	442.3	438.6
32.5°	469.9	464.4	439.2	396.4	364.6	375.0	422.8	432.5	460.6	471.1	463.2
35°	561.6	561.0	529.8	474.7	429.5	410.5	452.8	464.4	499.9	509.0	496.1
37.5°	659.0	661.3	640.6	564.7	511.5	468.6	492.5	506.0	549.3	560.4	548.2
40°	767.2	766.6	758.6	668.6	610.0	551.2	550.0	562.2	614.8	631.9	614.8
42.5°	904.2	903.0	874.3	793.6	729.3	659.0	633.8	638.1	696.8	724.9	700.0
45°	1043.8	1035.1	1002.1	932.4	875.5	792.2	744.6	744.6	794.8	833.3	794.1
47.5°	1121.4	1112.8	1099.3	1060.9	1043.8	950.8	880.4	871.8	911.0	950.1	895.1
50°	1223.6	1223.6	1190.0	1175.3	1204.6	1139.1	1030.4	1021.7	1040.7	1071.9	999.7
52.5°	1304.3	1289.7	1265.8	1278.7	1362.5	1332.5	1180.1	1163.6	1178.4	1186.2	1090.9
55°	1338.0	1323.9	1322.1	1369.2	1498.9	1457.3	1333.7	1319.1	1317.7	1278.7	1170.3
57.5°	1344.8	1332.5	1355.7	1438.3	1631.7	1559.4	1486.7	1475.6	1441.3	1343.5	1251.8
60°	1287.8	1293.9	1350.2	1476.3	1710.0	1648.1	1615.7	1604.2	1525.3	1398.5	1342.2
62.5°	1170.9	1185.7	1290.9	1479.9	1681.2	1684.2	1687.3	1679.5	1590.0	1448.8	1433.5
65°	1032.7	1037.0	1163.6	1429.1	1631.0	1673.3	1740.0	1739.3	1639.7	1505.0	1536.1
67.5°	851.0	858.3	967.8	1257.9	1530.7	1668.4	1809.2	1807.2	1695.9	1569.3	1597.4
70°	633.1	642.3	731.1	978.3	1306.8	1607.2	1899.6	1900.9	1755.2	1618.2	1555.2
71°	493.8	510.2	603.2	830.8	1192.3	1545.4	1908.2	1919.2	1762.1	1611.5	1468.3
72.5°	242.2	261.9	378.7	584.9	981.3	1407.1	1852.0	1873.4	1719.7	1527.7	1255.4
75°	63.1	66.6	113.2	239.2	526.2	932.4	1493.3	1547.8	1405.9	1163.1	767.2
77.5°	39.8	41.0	53.2	93.0	197.0	354.2	877.4	904.2	803.3	589.1	270.4
80°	28.2	28.7	33.7	60.0	115.0	103.4	315.6	327.3	290.6	156.0	48.3
82.5°	17.2	17.2	24.5	38.6	71.0	56.3	83.2	88.7	78.3	43.4	16.0
85°	9.9	10.4	15.3	26.3	33.7	27.6	31.2	33.0	33.7	28.7	6.8
87.5°	7.9	8.5	13.4	22.1	18.3	13.4	13.4	14.1	14.6	17.2	3.1
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°	296.7	296.7	296.7	296.7	296.7	296.7	296.7	296.7	296.7	296.7	296.7
2.5°	295.5	295.5	296.1	295.5	295.5	295.5	296.1	296.1	296.1	297.3	297.9
5°	296.7	296.7	296.7	296.1	295.5	295.5	296.7	297.3	297.3	299.2	299.2
7.5°	299.8	299.8	298.6	297.3	296.1	294.2	294.9	295.5	294.9	295.5	295.5
10°	306.5	306.5	304.8	302.2	298.6	293.1	285.7	276.5	268.0	265.0	263.7
12.5°	317.5	317.0	313.2	308.9	301.0	282.0	254.5	222.2	195.1	187.8	185.4
15°	329.8	328.6	324.3	317.0	295.5	245.3	187.8	146.2	120.5	114.4	113.2
17.5°	342.6	340.8	334.7	320.0	270.4	182.4	121.2	91.8	77.7	76.5	77.1
20°	356.0	353.7	345.0	313.9	218.4	121.8	78.3	71.0	69.7	69.7	70.4
22.5°	371.4	368.3	356.7	291.8	159.1	80.8	67.3	66.6	66.1	65.4	65.4
25°	389.1	385.4	367.6	252.1	109.5	66.1	64.3	62.4	61.1	60.0	59.3
27.5°	410.5	405.6	376.3	203.1	75.3	61.8	60.5	57.5	55.0	52.7	52.7
30°	431.9	425.8	373.7	153.0	61.1	57.5	55.0	51.4	47.7	45.3	44.7
32.5°	454.5	448.4	358.0	102.8	55.7	52.7	49.6	44.0	39.8	36.7	36.0
35°	488.2	483.4	326.6	68.0	50.1	46.6	42.2	36.7	31.2	28.2	27.6
37.5°	538.4	532.3	288.1	52.0	44.0	38.6	34.9	28.7	23.3	20.2	19.5
40°	605.7	587.4	242.2	45.9	38.6	31.8	26.9	20.8	16.5	14.6	14.6
42.5°	684.0	640.6	192.8	41.6	34.3	26.3	19.5	14.1	11.6	11.0	11.0
45°	767.2	690.1	143.1	38.6	29.9	20.8	14.1	9.9	8.5	7.9	7.9
47.5°	852.9	730.5	99.8	34.9	25.1	16.0	9.9	7.3	6.1	5.5	5.5
50°	933.0	756.8	70.4	31.2	21.5	11.6	7.3	5.5	4.3	4.3	4.3
52.5°	988.7	754.3	50.8	26.9	16.5	7.9	4.9	3.8	3.8	3.8	3.8
55°	1037.6	745.1	39.8	23.3	12.9	5.5	3.8	3.1	3.1	2.4	2.4
57.5°	1079.3	730.5	33.7	19.0	9.2	4.3	2.4	2.4	1.8	1.8	1.8
60°	1114.7	712.2	28.2	16.0	6.1	3.1	1.8	1.2	1.2	0.6	1.2
62.5°	1163.1	700.5	24.5	12.2	4.3	1.8	1.2	0.6	0.6	0.0	0.0
65°	1198.5	678.5	20.8	8.5	2.4	1.2	0.6	0.6	0.0	0.0	0.0
67.5°	1199.7	638.7	15.3	4.9	1.8	1.2	0.6	0.0	0.0	0.0	0.0
70°	1103.1	544.5	9.9	2.4	1.2	0.6	0.6	0.0	0.0	0.0	0.0
71°	1014.4	482.1	7.9	1.8	1.2	0.6	0.0	0.0	0.0	0.0	0.0
72.5°	835.8	354.2	6.1	1.8	0.6	0.6	0.0	0.0	0.0	0.0	0.0
75°	460.6	128.5	3.1	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	147.4	39.2	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	25.1	6.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.5	2.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	0.6	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)