

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: P214639

Luminaire Tested: **ARCH-AF16-30-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214639  
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-AF16-30-D-U-T2R-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 560mA 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: 2835.3 lumens  
Efficiency: N/A  
Efficacy: 88.6 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): 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

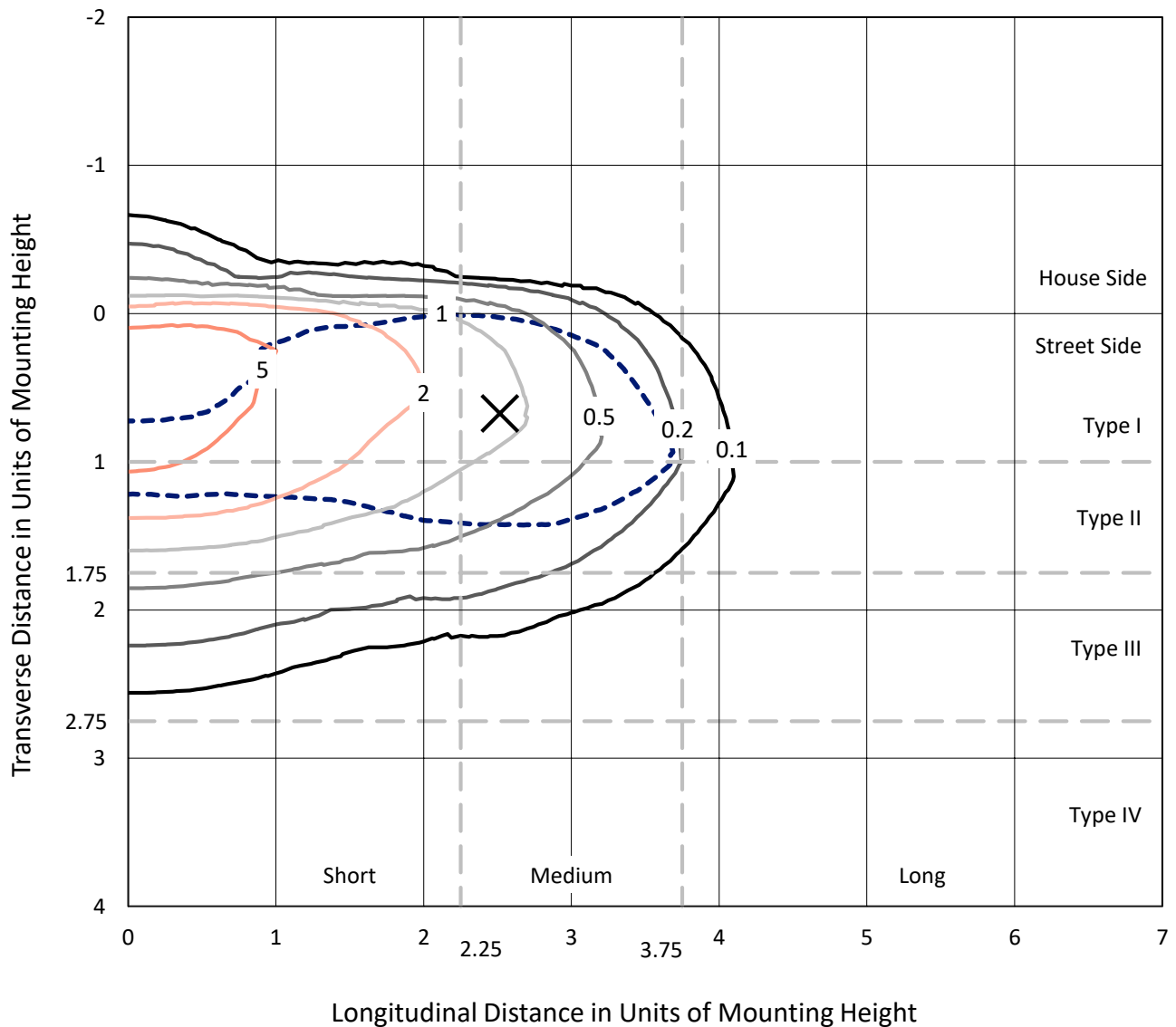


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

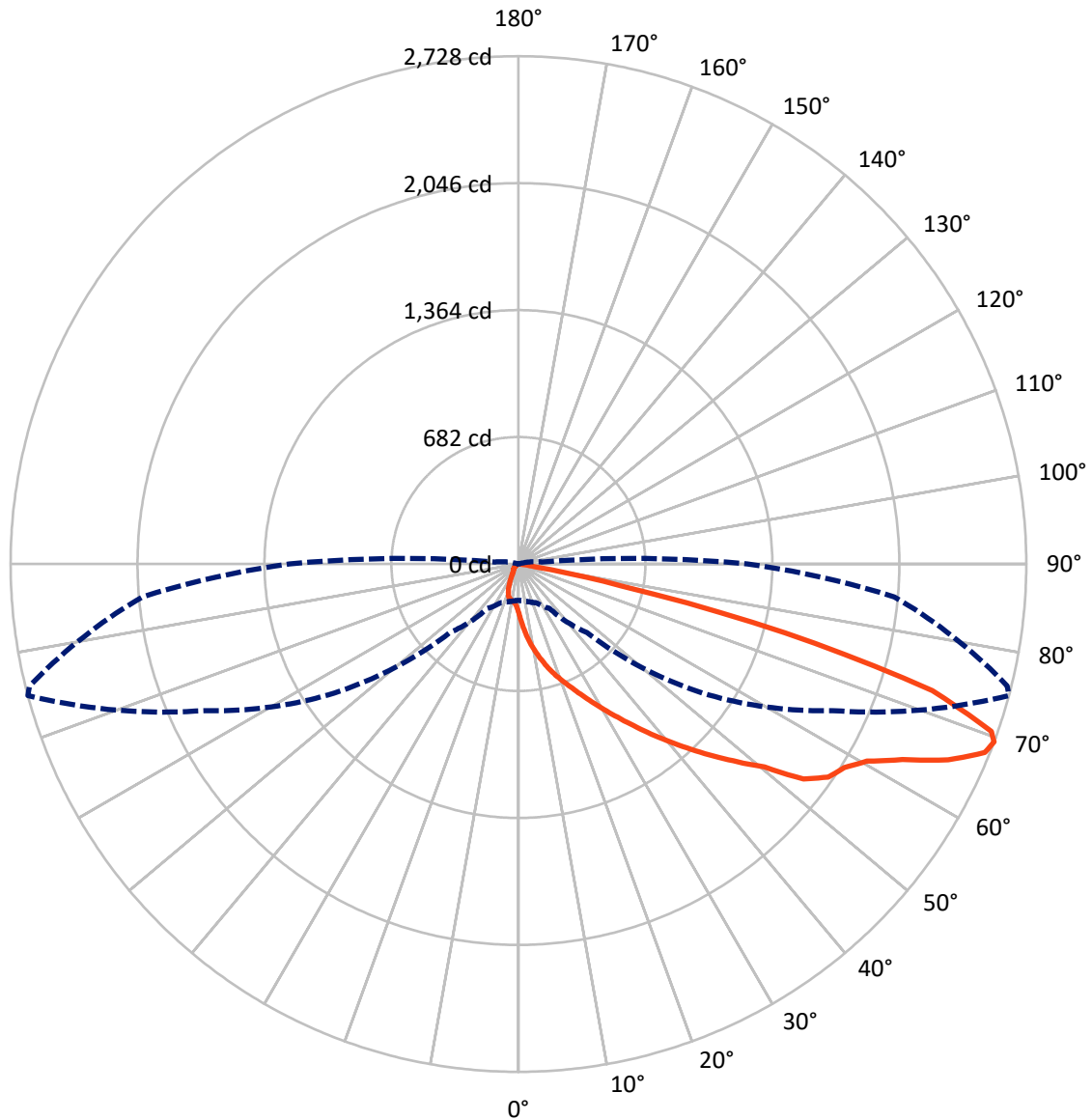


Based on 10 foot mounting height. Maximum calculated value = 7.2 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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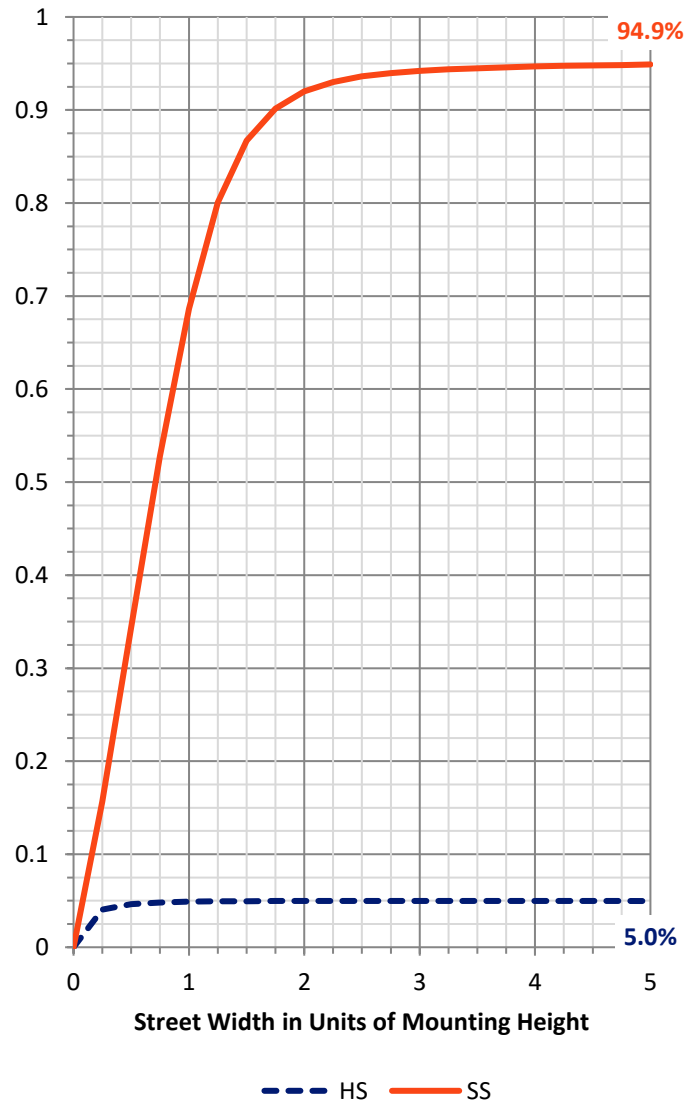
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	141.5	0.0	141.5
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	2693.8	0.0	2693.8
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	2835.3	0.0	2835.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.8	1.1
10°-20°	110.0	3.9
20°-30°	210.0	7.4
30°-40°	376.6	13.3
40°-50°	577.0	20.4
50°-60°	670.6	23.7
60°-70°	593.9	20.9
70°-80°	256.2	9.0
80°-90°	10.3	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°	2835.3	100.0
0°-180°	2835.3	100.0

**Coefficient of Utilization**



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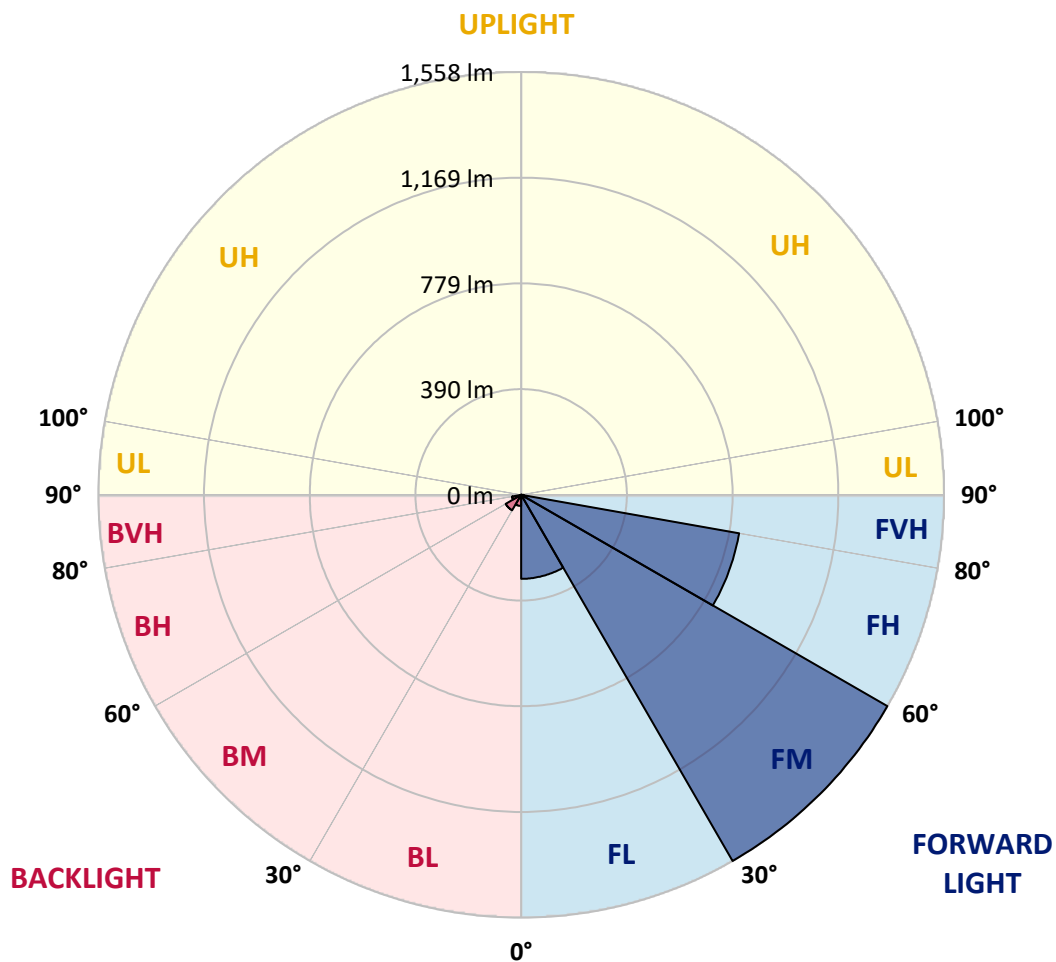
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	309.6	10.9			
FM (30°-60°)	1558.3	55.0			
FH (60°-80°)	815.8	28.8			G1/1800
FVH (80°-90°)	10.1	0.4			G1/100
BL (0°-30°)	41.1	1.4	B0/110		
BM (30°-60°)	66.0	2.3	B0/220		
BH (60°-80°)	34.3	1.2	B0/110		G0/110
BVH (80°-90°)	0.1	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°	263.9	263.9	263.9	263.9	263.9	263.9	263.9	263.9	263.9	263.9	263.9
2.5°	434.7	430.3	426.0	421.0	410.2	391.1	367.2	341.6	309.8	304.2	278.5
5°	527.6	525.7	521.5	514.8	502.6	481.8	454.8	416.9	363.7	354.4	299.9
7.5°	593.2	591.9	588.3	580.2	569.2	548.5	520.3	479.3	417.5	407.1	326.9
10°	651.9	651.3	648.2	641.0	629.9	607.3	577.2	534.4	468.8	457.2	358.1
12.5°	705.2	705.9	704.5	700.9	692.9	671.5	637.2	590.6	518.4	505.7	395.4
15°	736.4	738.3	743.1	750.5	752.9	735.8	700.3	648.9	569.2	558.2	438.2
17.5°	725.9	727.7	743.1	768.2	792.1	794.6	762.7	703.9	619.5	608.5	480.5
20°	700.9	703.3	719.3	753.6	800.0	832.4	819.7	763.9	667.2	653.7	520.9
22.5°	729.0	729.0	733.9	754.8	796.9	847.8	864.9	824.0	716.2	699.7	561.3
25°	825.8	824.0	813.6	804.9	818.4	863.7	899.2	885.1	773.7	754.8	604.2
27.5°	948.2	956.8	937.1	906.0	875.2	895.0	929.8	945.7	837.4	817.8	648.2
30°	1085.3	1089.0	1065.8	1024.1	970.2	951.2	966.0	997.7	906.6	885.1	694.2
32.5°	1209.0	1205.9	1186.2	1142.9	1076.1	1035.1	1012.4	1039.4	981.8	957.3	741.4
35°	1318.5	1321.0	1297.1	1246.8	1181.4	1137.9	1084.1	1086.5	1066.3	1038.2	795.7
37.5°	1417.1	1412.7	1390.1	1339.9	1280.5	1233.4	1176.5	1135.4	1158.7	1129.3	856.9
40°	1497.2	1492.9	1469.1	1420.2	1364.4	1325.9	1281.2	1201.0	1256.1	1222.4	922.4
42.5°	1560.9	1556.0	1535.7	1488.6	1434.8	1400.4	1379.1	1281.7	1360.2	1326.4	995.9
45°	1592.1	1587.9	1575.6	1540.1	1492.9	1463.0	1473.4	1374.8	1471.5	1443.4	1076.8
47.5°	1555.5	1553.5	1567.7	1561.6	1534.5	1518.7	1554.8	1476.4	1588.4	1560.9	1169.7
50°	1444.0	1447.0	1488.0	1538.8	1551.7	1570.7	1621.5	1583.5	1714.0	1684.6	1276.9
52.5°	1169.2	1190.0	1313.7	1436.0	1530.9	1602.5	1699.8	1736.5	1918.4	1889.6	1444.0
55°	872.9	881.4	1016.1	1225.5	1447.0	1600.1	1758.0	1826.6	2019.3	1989.9	1488.0
57.5°	692.2	695.3	762.1	975.6	1274.4	1544.9	1788.6	1859.0	2063.5	2039.0	1553.5
60°	543.6	547.3	595.6	742.5	1031.4	1396.3	1744.6	1887.1	2149.7	2130.1	1668.1
62.5°	423.0	426.6	456.0	542.4	773.7	1167.3	1655.9	1932.5	2313.8	2304.6	1855.3
65°	327.4	328.7	348.9	389.3	546.7	919.4	1547.4	1974.7	2535.4	2527.3	2007.1
67.5°	241.8	243.6	257.8	282.8	369.1	660.5	1369.9	1942.2	2702.5	2679.2	2062.3
69°	195.2	197.1	209.3	229.6	291.4	520.3	1207.8	1862.1	2727.5	2705.6	2027.3
70°	167.0	168.4	180.6	197.8	248.6	442.0	1079.2	1792.8	2694.6	2673.1	1947.8
72.5°	107.1	113.2	125.4	136.5	164.7	292.6	728.4	1486.8	2324.8	2288.1	1525.4
75°	59.3	61.1	83.2	96.7	109.6	190.3	405.3	927.4	1478.9	1453.1	815.9
77.5°	48.9	50.1	58.8	73.4	73.4	106.5	153.1	365.5	562.5	507.4	220.9
80°	34.3	35.5	44.7	48.4	52.7	60.0	49.6	80.2	87.0	77.1	33.1
82.5°	23.8	25.1	30.6	39.8	42.3	28.2	18.3	23.8	25.1	25.1	12.9
85°	4.3	6.1	22.6	33.1	25.1	8.5	10.4	8.5	7.9	8.5	3.1
87.5°	0.0	0.0	14.1	16.0	13.4	3.8	4.3	3.1	1.8	2.4	1.2
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°	263.9	263.9	263.9	263.9	263.9	263.9	263.9	263.9	263.9	263.9	263.9
2.5°	265.6	252.8	230.7	214.8	201.4	190.9	186.8	180.0	175.1	177.5	174.5
5°	273.0	250.3	214.8	192.2	176.2	162.8	151.8	143.2	136.5	135.3	134.1
7.5°	284.6	252.2	205.6	177.5	153.6	132.9	115.7	102.8	93.1	93.1	89.4
10°	300.6	257.1	200.2	162.8	127.3	99.2	82.1	69.8	64.9	64.3	63.1
12.5°	322.6	266.3	195.9	143.9	99.2	72.2	61.8	57.6	55.7	55.0	54.5
15°	352.6	279.7	190.9	120.6	75.3	59.3	55.0	51.5	49.6	48.9	48.4
17.5°	381.4	291.9	180.6	96.7	61.1	53.9	48.9	45.9	43.4	42.8	42.8
20°	408.3	302.4	162.8	75.3	55.0	48.4	43.4	39.8	37.3	36.7	36.7
22.5°	436.5	311.0	140.8	61.1	50.1	42.8	37.9	34.3	31.8	31.2	30.6
25°	466.4	317.1	115.7	54.5	45.4	37.9	32.4	29.4	27.6	27.0	26.3
27.5°	498.9	319.5	91.8	49.6	39.8	33.1	28.2	25.1	23.8	23.3	23.3
30°	528.3	317.1	71.0	44.0	34.9	28.7	24.5	22.1	20.8	20.2	20.2
32.5°	558.9	311.0	57.0	39.3	30.6	24.5	20.8	19.0	18.3	17.7	17.7
35°	591.3	302.9	48.9	34.9	26.3	21.5	18.3	17.2	16.5	16.0	16.0
37.5°	629.3	293.3	44.7	31.2	23.3	19.0	16.0	15.3	14.6	14.6	14.6
40°	672.1	281.1	41.6	28.2	20.8	16.5	14.1	13.4	12.9	12.9	12.9
42.5°	717.4	266.9	38.6	25.1	18.3	14.1	12.2	12.2	11.6	11.6	11.0
45°	768.2	252.8	35.5	22.1	16.0	12.2	10.4	9.9	9.9	9.2	9.2
47.5°	828.1	240.0	32.4	19.5	14.1	10.4	9.2	8.5	7.9	7.3	7.3
50°	912.7	238.7	28.7	17.2	12.9	8.5	7.3	6.8	6.1	5.5	5.5
52.5°	996.6	227.7	24.5	14.1	10.4	7.3	5.5	4.9	4.3	4.3	3.8
55°	1015.4	209.3	21.5	12.2	7.9	5.5	4.3	3.1	3.1	2.4	2.4
57.5°	1057.1	200.8	18.3	9.9	6.1	4.3	2.4	1.8	1.8	1.8	1.8
60°	1139.1	198.3	16.0	8.5	4.3	3.1	1.8	1.2	1.2	0.6	0.6
62.5°	1252.4	195.9	13.4	7.3	3.1	1.8	1.2	0.6	0.0	0.0	0.0
65°	1314.8	179.4	11.0	5.5	2.4	1.8	0.6	0.0	0.0	0.0	0.0
67.5°	1298.3	148.1	9.9	3.8	1.8	1.2	0.6	0.0	0.0	0.0	0.0
69°	1229.1	124.9	7.9	3.1	1.8	1.2	0.6	0.0	0.0	0.0	0.0
70°	1145.9	107.7	7.3	2.4	1.2	0.6	0.6	0.0	0.0	0.0	0.0
72.5°	813.6	56.3	4.9	1.8	1.2	0.6	0.0	0.0	0.0	0.0	0.0
75°	380.1	25.1	3.1	1.2	0.6	0.6	0.0	0.0	0.0	0.0	0.0
77.5°	83.9	11.6	1.8	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	16.0	4.3	1.2	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.5	1.8	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	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)