

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: P265924

Luminaire Tested: **ARCH-AF24-30-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265924  
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-AF24-30-D-U-T2R-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2679.4 lumens  
Efficiency: N/A  
Efficacy: 86.4 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): 31  
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

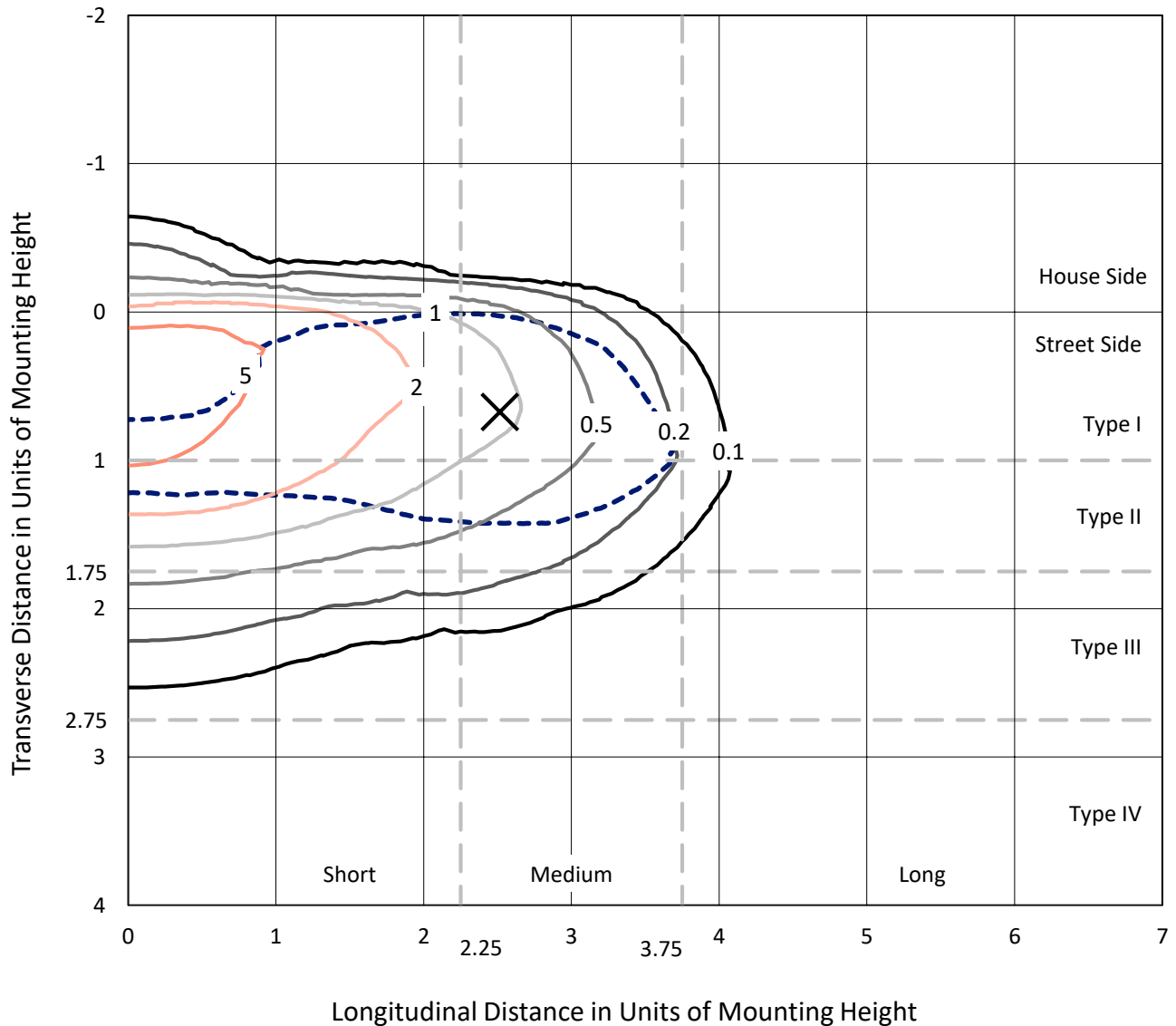


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

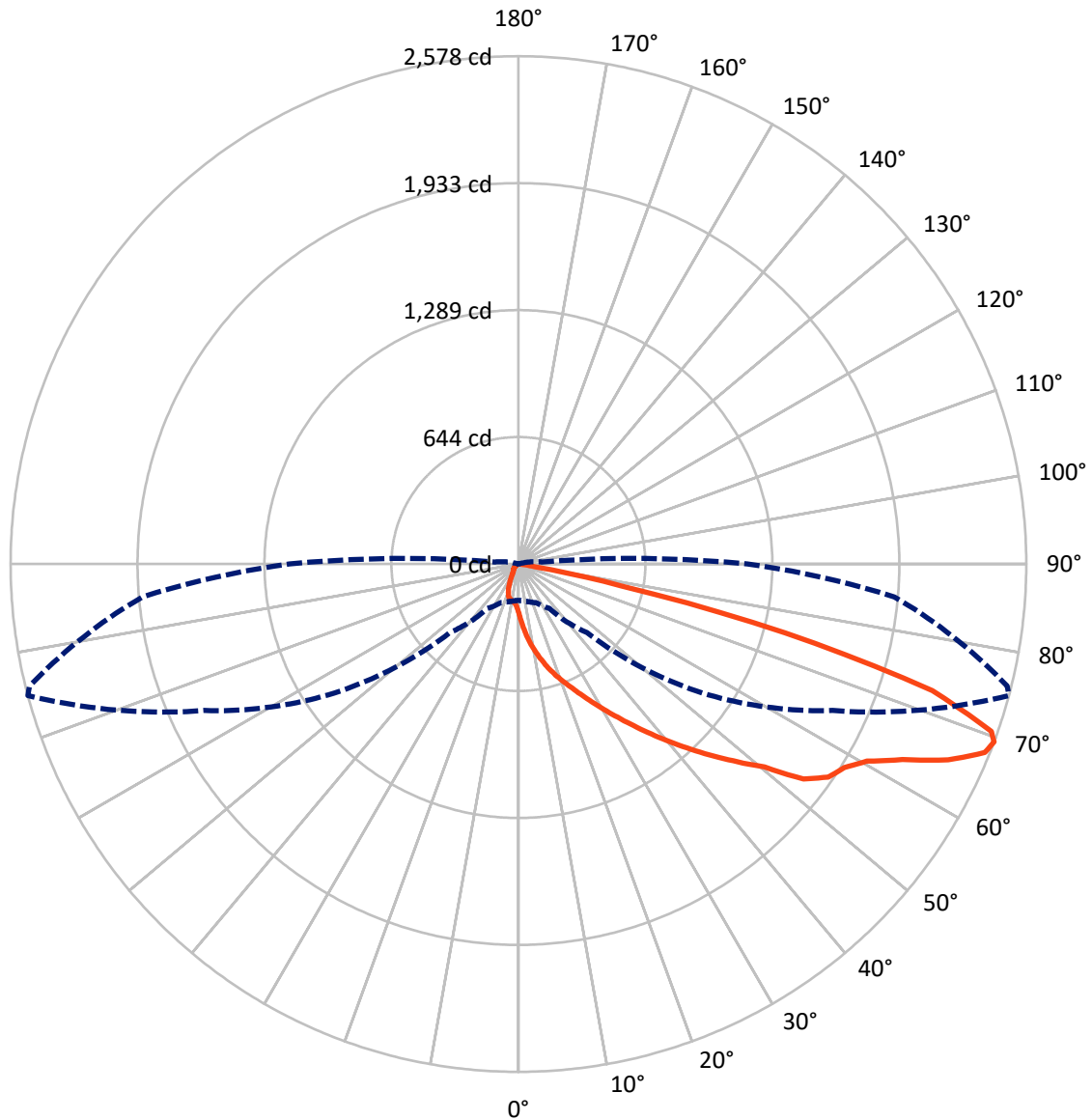


Based on 10 foot mounting height. Maximum calculated value = 6.8 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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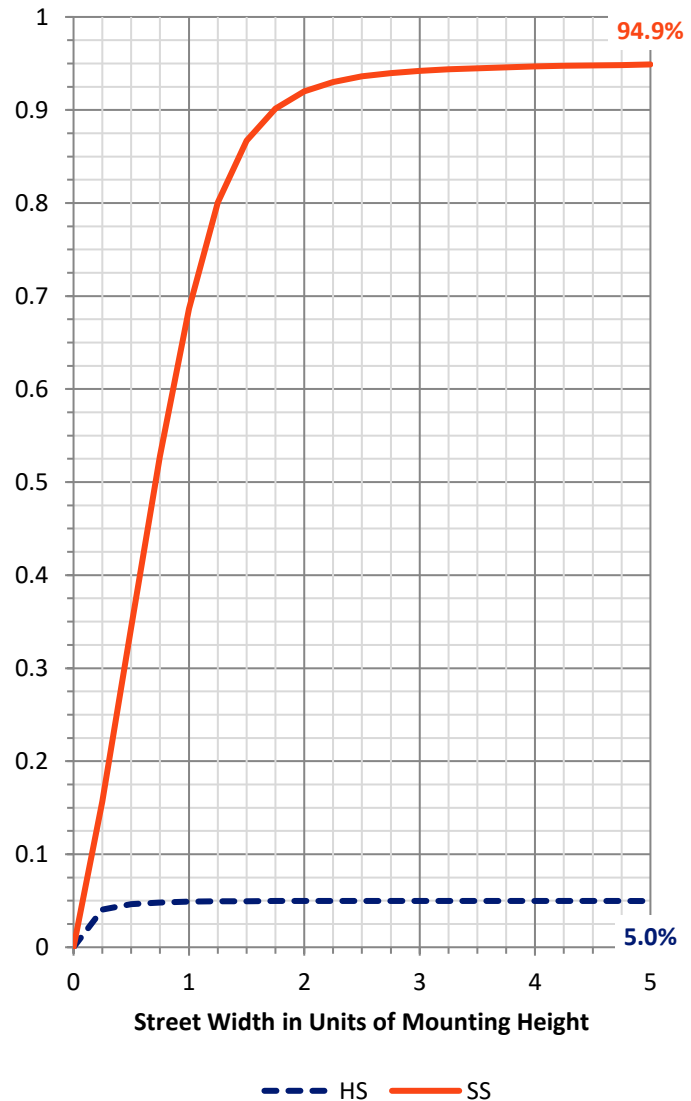
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	133.7	0.0	133.7
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	2545.8	0.0	2545.8
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	2679.4	0.0	2679.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.1	1.1
10°-20°	103.9	3.9
20°-30°	198.4	7.4
30°-40°	355.9	13.3
40°-50°	545.3	20.4
50°-60°	633.8	23.7
60°-70°	561.2	20.9
70°-80°	242.1	9.0
80°-90°	9.7	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°	2679.4	100.0
0°-180°	2679.4	100.0

**Coefficient of Utilization**



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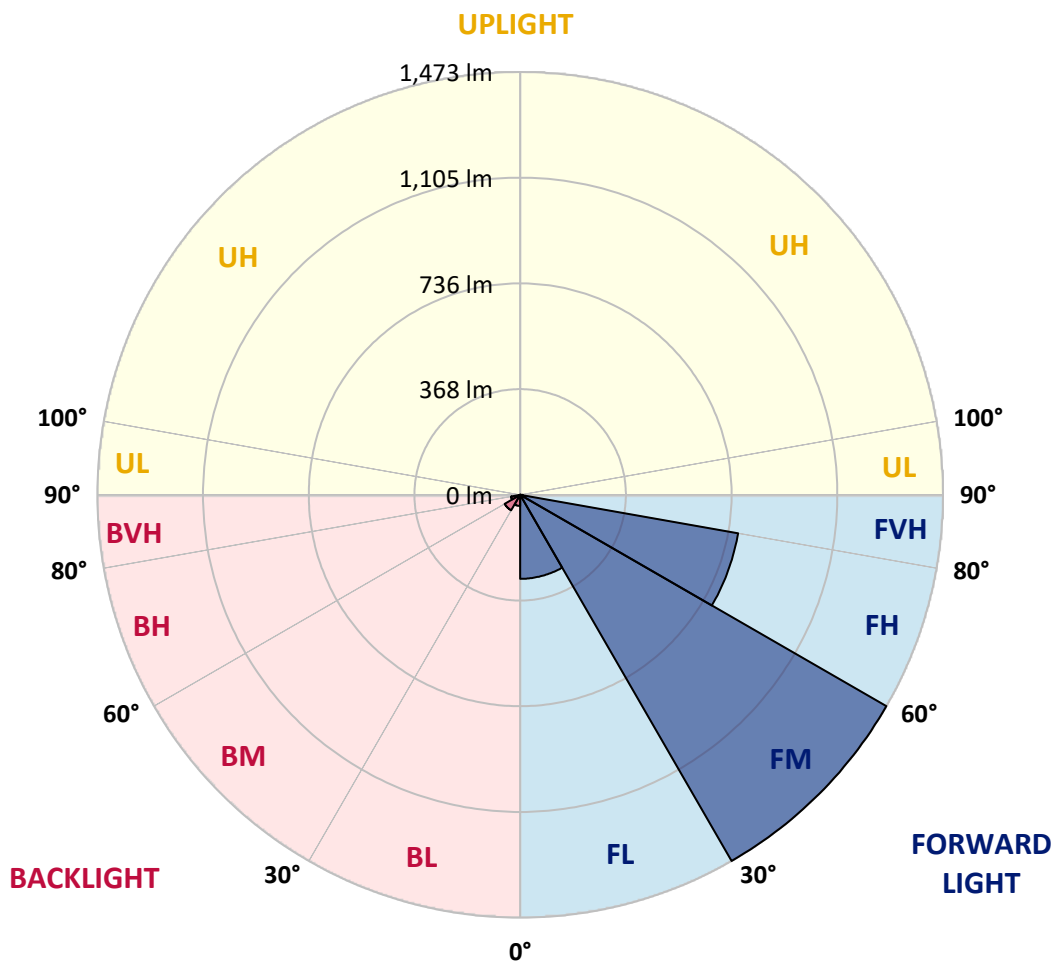
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	292.6	10.9			
FM	(30°-60°)	1472.7	55.0			
FH	(60°-80°)	770.9	28.8			G1/1800
FVH	(80°-90°)	9.6	0.4			G0/10
BL	(0°-30°)	38.8	1.4	B0/110		
BM	(30°-60°)	62.3	2.3	B0/220		
BH	(60°-80°)	32.4	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°	249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3
2.5°	410.7	406.7	402.6	397.9	387.6	369.7	347.0	322.9	292.7	287.5	263.3
5°	498.6	496.9	492.9	486.5	474.9	455.3	429.7	393.9	343.6	335.0	283.4
7.5°	560.5	559.4	556.0	548.3	537.9	518.3	491.7	452.9	394.5	384.7	308.8
10°	616.1	615.5	612.6	605.6	595.2	573.8	545.5	504.9	443.1	432.2	338.4
12.5°	666.5	667.0	665.9	662.3	654.9	634.7	602.3	558.2	489.9	477.8	373.6
15°	695.8	697.7	702.2	709.2	711.5	695.3	661.8	613.2	537.9	527.6	414.2
17.5°	686.0	687.8	702.2	726.0	748.6	750.9	720.8	665.3	585.4	574.9	454.2
20°	662.3	664.7	679.7	712.0	756.1	786.7	774.6	722.0	630.5	617.9	492.4
22.5°	689.0	689.0	693.6	713.3	753.1	801.2	817.4	778.7	676.9	661.2	530.4
25°	780.4	778.7	768.8	760.7	773.4	816.2	849.7	836.5	731.2	713.3	571.0
27.5°	896.1	904.1	885.6	856.2	827.2	845.8	878.7	893.8	791.3	772.8	612.6
30°	1025.7	1029.1	1007.1	967.7	916.9	898.9	912.9	943.0	856.8	836.5	656.0
32.5°	1142.5	1139.6	1121.1	1080.0	1016.9	978.3	956.8	982.2	927.9	904.8	700.5
35°	1245.9	1248.4	1225.7	1178.3	1116.5	1075.5	1024.4	1026.9	1007.7	981.0	752.1
37.5°	1339.2	1335.2	1313.7	1266.3	1210.1	1165.6	1111.8	1073.0	1095.0	1067.2	809.8
40°	1414.9	1410.9	1388.3	1342.1	1289.3	1253.0	1210.7	1135.0	1187.0	1155.2	871.7
42.5°	1475.0	1470.4	1451.4	1406.8	1355.9	1323.6	1303.4	1211.4	1285.4	1253.6	941.2
45°	1504.7	1500.6	1489.0	1455.4	1410.9	1382.5	1392.5	1299.3	1390.7	1364.0	1017.5
47.5°	1469.8	1468.2	1481.5	1475.6	1450.3	1435.2	1469.3	1395.2	1501.2	1475.0	1105.5
50°	1364.6	1367.5	1406.2	1454.3	1466.5	1484.4	1532.4	1496.4	1619.7	1591.9	1206.8
52.5°	1104.8	1124.6	1241.4	1357.1	1446.8	1514.5	1606.3	1641.2	1812.9	1785.7	1364.6
55°	825.0	833.0	960.3	1158.2	1367.5	1512.1	1661.3	1726.2	1908.4	1880.6	1406.2
57.5°	654.2	657.1	720.3	922.1	1204.4	1460.0	1690.3	1756.8	1950.0	1926.9	1468.2
60°	513.7	517.2	562.9	701.7	974.8	1319.5	1648.7	1783.5	2031.5	2013.1	1576.3
62.5°	399.7	403.2	430.9	512.6	731.2	1103.2	1564.8	1826.3	2186.7	2177.9	1753.3
65°	309.5	310.6	329.8	367.9	516.5	868.9	1462.4	1866.1	2396.0	2388.6	1896.9
67.5°	228.4	230.2	243.5	267.2	348.8	624.1	1294.5	1835.4	2553.9	2532.0	1948.9
69°	184.5	186.3	197.8	216.9	275.3	491.7	1141.3	1759.7	2577.6	2556.8	1915.8
70°	157.9	159.1	170.7	186.8	234.8	417.6	1019.8	1694.4	2546.4	2526.2	1840.6
72.5°	101.1	107.0	118.5	128.9	155.5	276.5	688.5	1405.0	2197.1	2162.3	1441.6
75°	56.1	57.9	78.7	91.4	103.6	179.9	382.9	876.3	1397.7	1373.2	771.1
77.5°	46.4	47.4	55.5	69.3	69.3	100.7	144.5	345.4	531.5	479.5	208.9
80°	32.3	33.5	42.2	45.8	49.8	56.8	46.8	75.7	82.1	72.9	31.3
82.5°	22.5	23.7	28.9	37.5	40.0	26.6	17.3	22.5	23.7	23.7	12.1
85°	4.0	5.7	21.4	31.3	23.7	8.2	9.8	8.2	7.5	8.2	2.9
87.5°	0.0	0.0	13.4	15.0	12.8	3.5	4.0	2.9	1.7	2.3	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°	249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3	249.3
2.5°	251.0	238.9	218.1	203.0	190.4	180.5	176.4	170.0	165.5	167.8	164.8
5°	258.1	236.7	203.0	181.6	166.5	153.9	143.5	135.4	128.9	127.9	126.8
7.5°	269.0	238.3	194.4	167.8	145.2	125.6	109.4	97.1	87.9	87.9	84.5
10°	284.0	242.9	189.2	153.9	120.4	93.8	77.6	65.9	61.4	60.7	59.6
12.5°	304.9	251.6	185.1	136.0	93.8	68.2	58.4	54.3	52.6	52.0	51.6
15°	333.2	264.3	180.5	113.9	71.1	56.1	52.0	48.6	46.8	46.4	45.8
17.5°	360.4	275.9	170.7	91.4	57.9	50.9	46.4	43.4	41.1	40.6	40.6
20°	385.8	285.8	153.9	71.1	52.0	45.8	41.1	37.5	35.4	34.8	34.8
22.5°	412.4	293.8	133.0	57.9	47.4	40.6	35.8	32.3	30.1	29.6	28.9
25°	440.8	299.7	109.4	51.6	42.8	35.8	30.6	27.8	26.1	25.4	24.9
27.5°	471.4	302.0	86.7	46.8	37.5	31.3	26.6	23.7	22.5	22.0	22.0
30°	499.2	299.7	67.2	41.6	33.0	27.2	23.1	20.8	19.7	19.0	19.0
32.5°	528.2	293.8	53.8	37.0	28.9	23.1	19.7	18.0	17.3	16.8	16.8
35°	558.7	286.3	46.4	33.0	24.9	20.2	17.3	16.2	15.6	15.0	15.0
37.5°	594.7	277.0	42.2	29.6	22.0	18.0	15.0	14.5	13.8	13.8	13.8
40°	635.1	265.4	39.3	26.6	19.7	15.6	13.4	12.8	12.1	12.1	12.1
42.5°	678.0	252.2	36.4	23.7	17.3	13.4	11.6	11.6	11.0	11.0	10.4
45°	726.0	238.9	33.5	20.8	15.0	11.6	9.8	9.3	9.3	8.7	8.7
47.5°	782.7	226.7	30.6	18.5	13.4	9.8	8.7	8.2	7.5	6.9	6.9
50°	862.6	225.7	27.2	16.2	12.1	8.2	6.9	6.4	5.7	5.2	5.2
52.5°	941.8	215.2	23.1	13.4	9.8	6.9	5.2	4.6	4.0	4.0	3.5
55°	959.7	197.8	20.2	11.6	7.5	5.2	4.0	2.9	2.9	2.3	2.3
57.5°	999.0	189.7	17.3	9.3	5.7	4.0	2.3	1.7	1.7	1.7	1.7
60°	1076.4	187.4	15.0	8.2	4.0	2.9	1.7	1.2	1.2	0.5	0.5
62.5°	1183.5	185.1	12.8	6.9	2.9	1.7	1.2	0.5	0.0	0.0	0.0
65°	1242.5	169.5	10.4	5.2	2.3	1.7	0.5	0.0	0.0	0.0	0.0
67.5°	1226.9	140.0	9.3	3.5	1.7	1.2	0.5	0.0	0.0	0.0	0.0
69°	1161.6	117.9	7.5	2.9	1.7	1.2	0.5	0.0	0.0	0.0	0.0
70°	1082.8	101.8	6.9	2.3	1.2	0.5	0.5	0.0	0.0	0.0	0.0
72.5°	768.8	53.2	4.6	1.7	1.2	0.5	0.0	0.0	0.0	0.0	0.0
75°	359.2	23.7	2.9	1.2	0.5	0.5	0.0	0.0	0.0	0.0	0.0
77.5°	79.2	11.0	1.7	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	15.0	4.0	1.2	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.2	1.7	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	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)