

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: P265888

Luminaire Tested: **ARCH-AF16-40-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265888  
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-AF16-40-D-U-T2R-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 740mA 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: 3203.6 lumens  
Efficiency: N/A  
Efficacy: 76.3 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): 42  
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

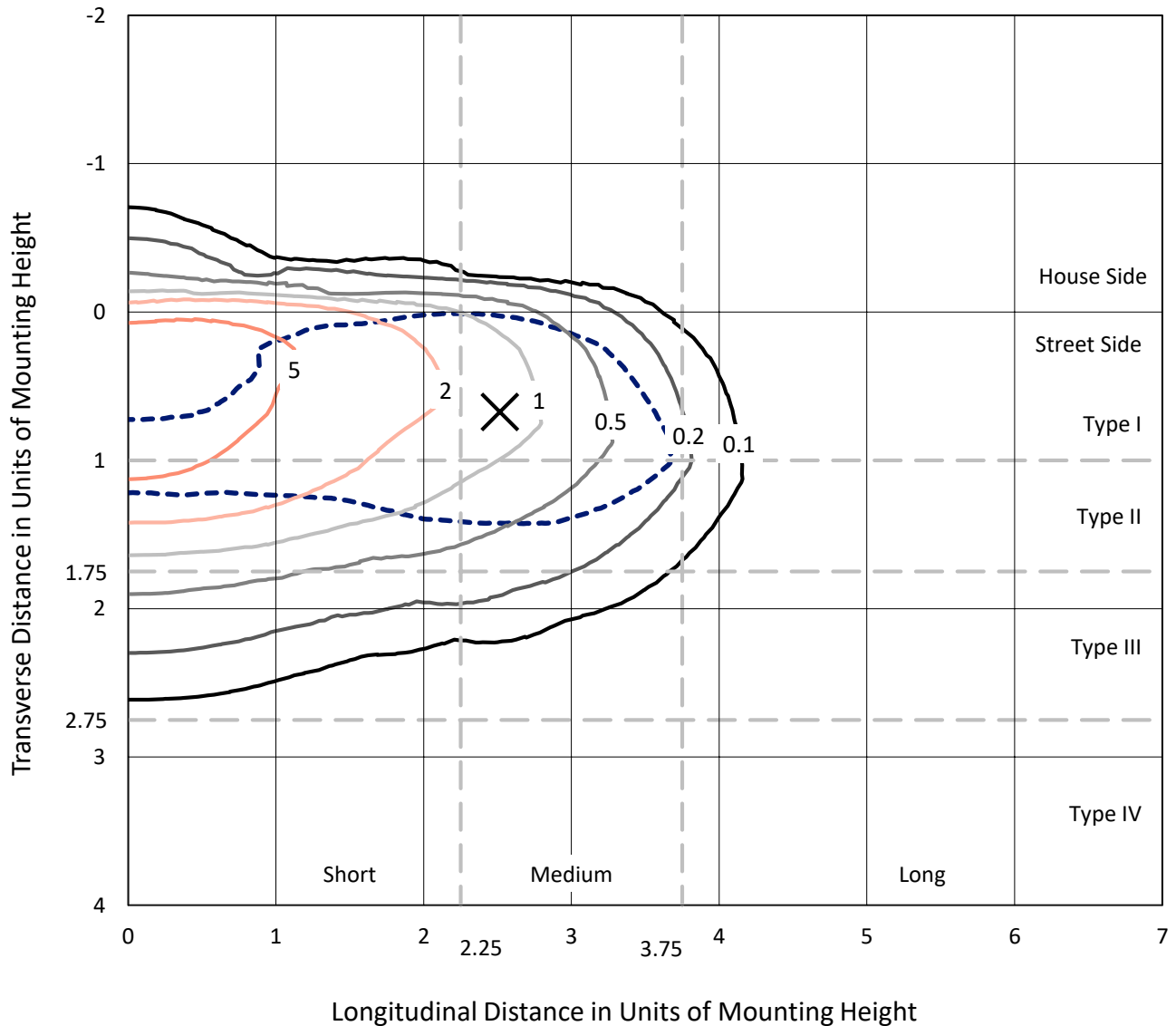


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

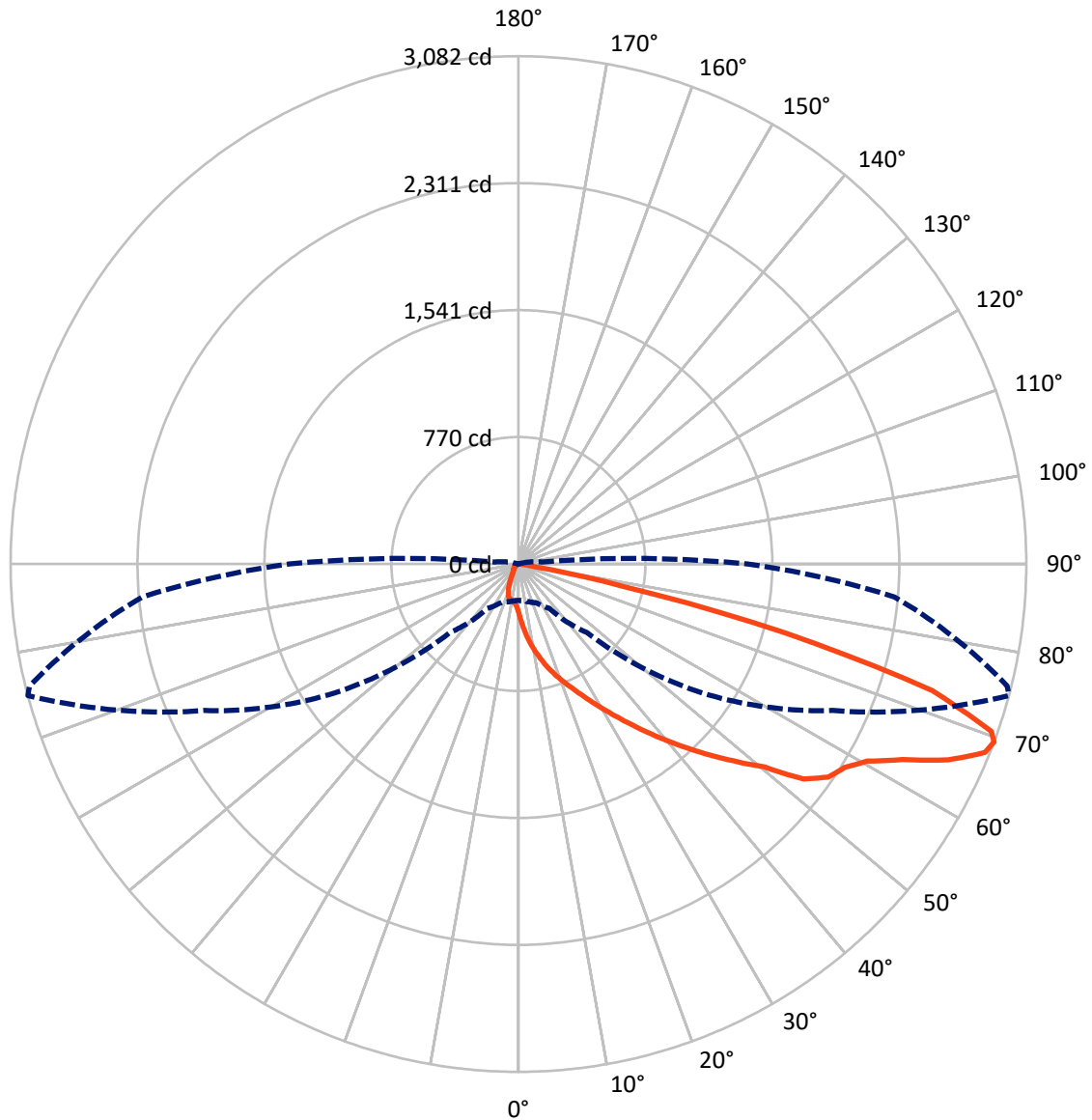


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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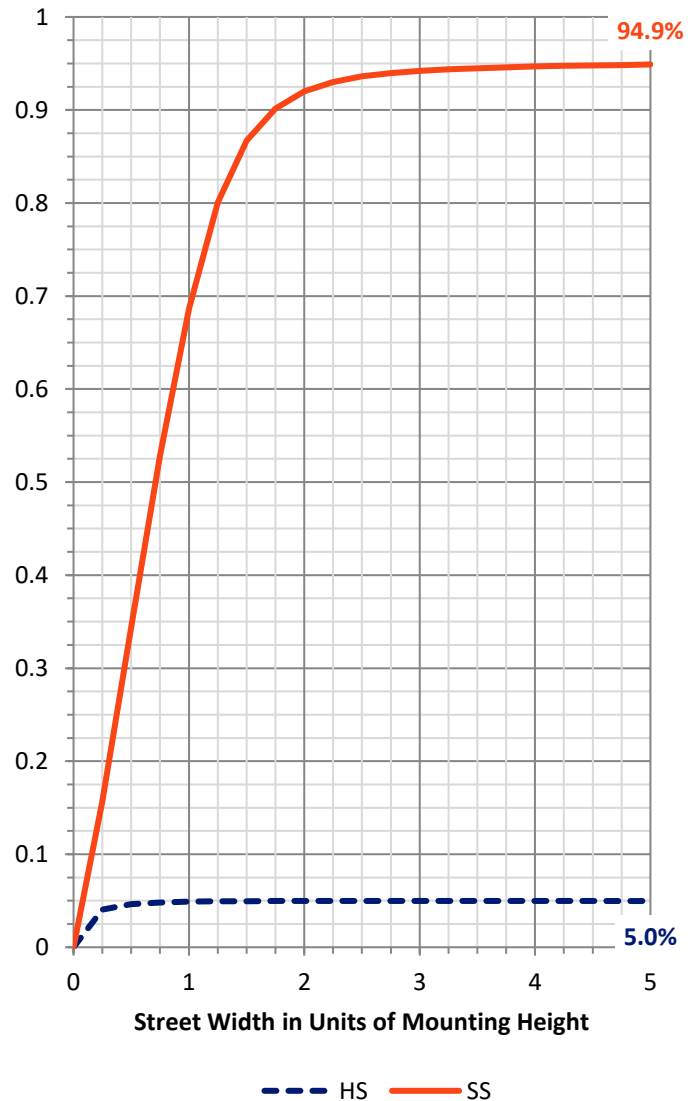
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	159.8	0.0	159.8
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	3043.7	0.0	3043.7
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	3203.6	0.0	3203.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.8	1.1
10°-20°	124.3	3.9
20°-30°	237.2	7.4
30°-40°	425.5	13.3
40°-50°	652.0	20.4
50°-60°	757.8	23.7
60°-70°	671.0	20.9
70°-80°	289.4	9.0
80°-90°	11.6	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°	3203.6	100.0
0°-180°	3203.6	100.0



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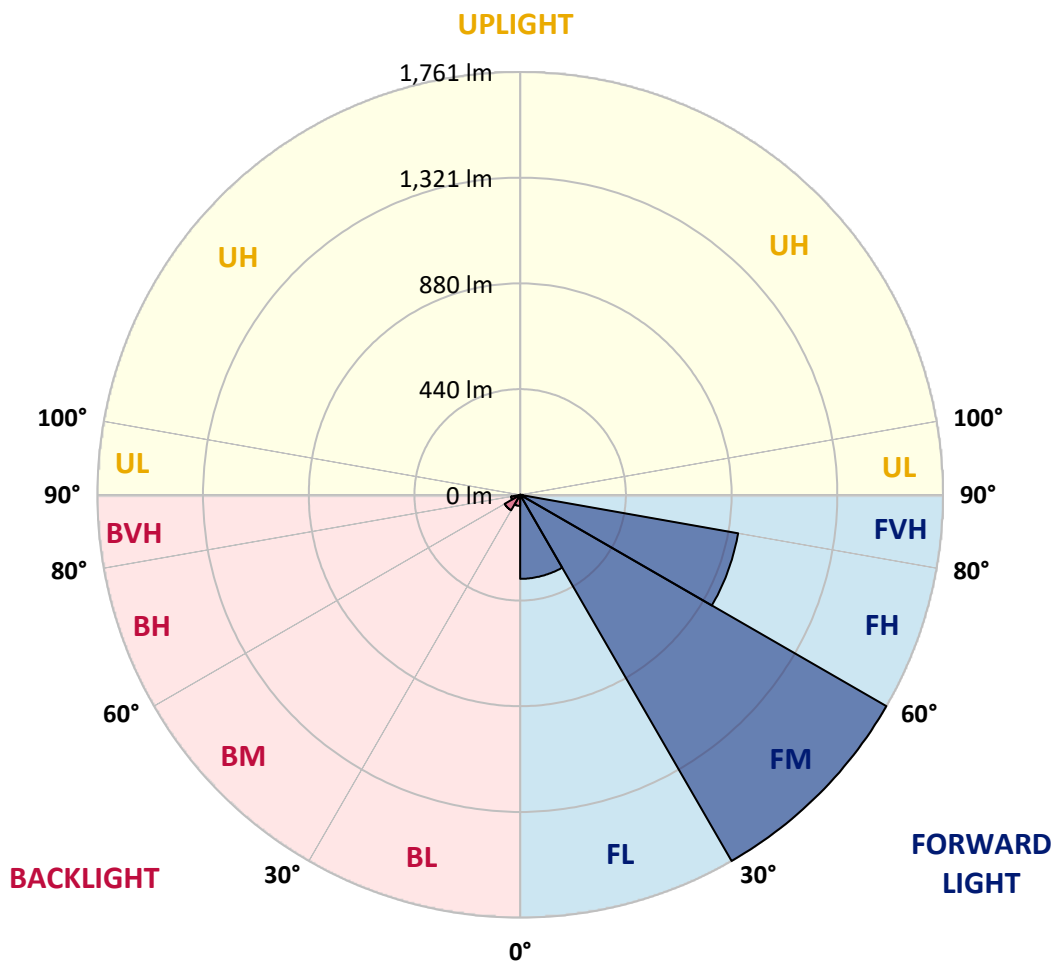
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	349.8	10.9			
FM	(30°-60°)	1760.8	55.0			
FH	(60°-80°)	921.7	28.8			G1/1800
FVH	(80°-90°)	11.4	0.4			G1/100
BL	(0°-30°)	46.4	1.4	B0/110		
BM	(30°-60°)	74.5	2.3	B0/220		
BH	(60°-80°)	38.7	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°	298.1	298.1	298.1	298.1	298.1	298.1	298.1	298.1	298.1	298.1	298.1
2.5°	491.1	486.3	481.4	475.8	463.3	442.0	414.9	385.9	350.0	343.7	314.6
5°	596.1	594.0	589.3	581.7	567.8	544.4	513.9	471.0	410.9	400.5	338.9
7.5°	670.1	668.8	664.7	655.7	643.1	619.7	587.9	541.6	471.7	459.9	369.4
10°	736.6	735.9	732.4	724.2	711.6	686.0	652.2	603.8	529.8	516.6	404.5
12.5°	796.7	797.4	796.1	791.9	783.0	758.7	720.0	667.4	585.9	571.3	446.7
15°	832.0	834.0	839.6	847.9	850.7	831.3	791.1	733.1	643.1	630.8	495.1
17.5°	820.2	822.4	839.6	868.0	894.9	897.8	861.7	795.4	699.9	687.5	542.9
20°	791.9	794.7	812.6	851.5	904.0	940.6	926.2	863.1	753.9	738.6	588.6
22.5°	823.7	823.7	829.2	852.9	900.6	958.0	977.3	931.0	809.3	790.5	634.3
25°	933.0	931.0	919.1	909.4	924.6	975.9	1016.1	1000.2	874.2	852.9	682.6
27.5°	1071.3	1081.0	1058.9	1023.6	989.0	1011.1	1050.6	1068.5	946.2	923.9	732.4
30°	1226.2	1230.4	1204.1	1157.0	1096.2	1074.8	1091.4	1127.4	1024.2	1000.2	784.3
32.5°	1366.0	1362.5	1340.5	1291.3	1215.9	1169.6	1143.9	1174.4	1109.3	1081.6	837.6
35°	1489.7	1492.5	1465.6	1408.8	1334.8	1285.7	1224.8	1227.7	1204.7	1172.9	899.2
37.5°	1601.0	1596.3	1570.6	1514.0	1446.9	1393.6	1329.3	1283.0	1309.2	1276.0	968.3
40°	1691.7	1686.8	1659.9	1604.6	1541.6	1498.1	1447.6	1357.0	1419.2	1381.1	1042.3
42.5°	1763.6	1758.2	1735.3	1682.0	1621.3	1582.5	1558.2	1448.2	1536.8	1498.7	1125.2
45°	1798.9	1794.1	1780.3	1740.1	1686.8	1653.1	1664.6	1553.3	1662.7	1630.9	1216.6
47.5°	1757.4	1755.4	1771.3	1764.4	1733.9	1715.9	1756.7	1668.2	1794.8	1763.6	1321.6
50°	1631.5	1634.9	1681.4	1738.7	1753.2	1774.7	1832.2	1789.2	1936.6	1903.4	1442.7
52.5°	1321.0	1344.6	1484.2	1622.6	1729.7	1810.7	1920.7	1962.2	2167.5	2135.0	1631.5
55°	986.2	996.0	1148.2	1384.6	1634.9	1807.8	1986.3	2063.8	2281.7	2248.5	1681.4
57.5°	782.2	785.7	861.0	1102.4	1440.0	1745.6	2020.9	2100.4	2331.6	2303.9	1755.4
60°	614.1	618.4	672.9	838.9	1165.5	1577.7	1971.2	2132.2	2428.9	2406.9	1884.6
62.5°	477.9	482.1	515.3	612.7	874.2	1318.9	1870.8	2183.5	2614.3	2603.9	2096.4
65°	370.0	371.4	394.3	439.9	617.7	1038.8	1748.5	2231.2	2864.8	2855.7	2267.9
67.5°	273.2	275.3	291.2	319.5	417.1	746.2	1547.9	2194.5	3053.5	3027.3	2330.1
69°	220.7	222.7	236.6	259.4	329.1	587.9	1364.5	2103.9	3081.8	3057.0	2290.7
70°	188.9	190.3	204.1	223.4	280.8	499.4	1219.3	2025.8	3044.5	3020.3	2200.8
72.5°	121.0	128.0	141.8	154.1	186.0	330.5	823.0	1680.0	2626.7	2585.3	1723.5
75°	67.2	69.2	94.1	109.2	123.7	215.1	457.9	1047.9	1670.9	1641.9	921.9
77.5°	55.3	56.8	66.4	83.1	83.1	120.4	173.0	413.0	635.6	573.4	249.6
80°	38.7	40.2	50.5	54.6	59.5	67.8	56.1	90.5	98.3	87.1	37.4
82.5°	26.9	28.3	34.6	44.9	47.7	31.8	20.8	26.9	28.3	28.3	14.6
85°	4.9	6.8	25.6	37.4	28.3	9.7	11.8	9.7	9.1	9.7	3.5
87.5°	0.0	0.0	15.9	18.0	15.2	4.1	4.9	3.5	2.1	2.8	1.3
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°	298.1	298.1	298.1	298.1	298.1	298.1	298.1	298.1	298.1	298.1	298.1
2.5°	300.2	285.7	260.8	242.7	227.5	215.9	210.9	203.3	197.7	200.6	197.1
5°	308.5	282.8	242.7	217.2	199.2	184.0	171.5	161.9	154.1	152.8	151.5
7.5°	321.7	284.9	232.4	200.6	173.6	150.0	130.8	116.2	105.1	105.1	101.0
10°	339.6	290.5	226.2	184.0	143.9	112.1	92.6	78.8	73.3	72.7	71.2
12.5°	364.5	300.8	221.3	162.6	112.1	81.7	69.9	64.9	62.9	62.3	61.5
15°	398.4	316.1	215.9	136.3	85.1	67.2	62.3	58.1	56.1	55.3	54.6
17.5°	430.8	329.9	204.1	109.2	69.2	60.8	55.3	51.9	49.0	48.4	48.4
20°	461.3	341.6	184.0	85.1	62.3	54.6	49.0	44.9	42.2	41.5	41.5
22.5°	493.1	351.3	159.1	69.2	56.8	48.4	42.8	38.7	35.9	35.3	34.6
25°	527.0	358.2	130.8	61.5	51.2	42.8	36.7	33.1	31.1	30.5	29.7
27.5°	563.6	360.9	103.8	56.1	44.9	37.4	31.8	28.3	26.9	26.3	26.3
30°	596.8	358.2	80.2	49.8	39.4	32.5	27.7	25.0	23.5	22.8	22.8
32.5°	631.5	351.3	64.3	44.2	34.6	27.7	23.5	21.4	20.8	20.0	20.0
35°	668.1	342.3	55.3	39.4	29.7	24.3	20.8	19.4	18.7	18.0	18.0
37.5°	711.0	331.3	50.5	35.3	26.3	21.4	18.0	17.2	16.6	16.6	16.6
40°	759.3	317.5	47.0	31.8	23.5	18.7	15.9	15.2	14.6	14.6	14.6
42.5°	810.6	301.6	43.6	28.3	20.8	15.9	13.8	13.8	13.1	13.1	12.4
45°	868.0	285.7	40.2	25.0	18.0	13.8	11.8	11.0	11.0	10.4	10.4
47.5°	935.8	271.1	36.7	22.1	15.9	11.8	10.4	9.7	9.1	8.4	8.4
50°	1031.3	269.8	32.5	19.4	14.6	9.7	8.4	7.6	6.8	6.2	6.2
52.5°	1125.9	257.3	27.7	15.9	11.8	8.4	6.2	5.5	4.9	4.9	4.1
55°	1147.5	236.6	24.3	13.8	9.1	6.2	4.9	3.5	3.5	2.8	2.8
57.5°	1194.4	226.8	20.8	11.0	6.8	4.9	2.8	2.1	2.1	2.1	2.1
60°	1287.1	224.0	18.0	9.7	4.9	3.5	2.1	1.3	1.3	0.7	0.7
62.5°	1415.1	221.3	15.2	8.4	3.5	2.1	1.3	0.7	0.0	0.0	0.0
65°	1485.5	202.7	12.4	6.2	2.8	2.1	0.7	0.0	0.0	0.0	0.0
67.5°	1466.9	167.4	11.0	4.1	2.1	1.3	0.7	0.0	0.0	0.0	0.0
69°	1388.8	141.2	9.1	3.5	2.1	1.3	0.7	0.0	0.0	0.0	0.0
70°	1294.6	121.7	8.4	2.8	1.3	0.7	0.7	0.0	0.0	0.0	0.0
72.5°	919.1	63.6	5.5	2.1	1.3	0.7	0.0	0.0	0.0	0.0	0.0
75°	429.5	28.3	3.5	1.3	0.7	0.7	0.0	0.0	0.0	0.0	0.0
77.5°	94.7	13.1	2.1	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
80°	18.0	4.9	1.3	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.2	2.1	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.7	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)