

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: P234850

Luminaire Tested: **ARCH-M-AF48-100-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234850  
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-M-AF48-100-D-U-T4W-8027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7684 lumens  
Efficiency: N/A  
Efficacy: 76.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 101  
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

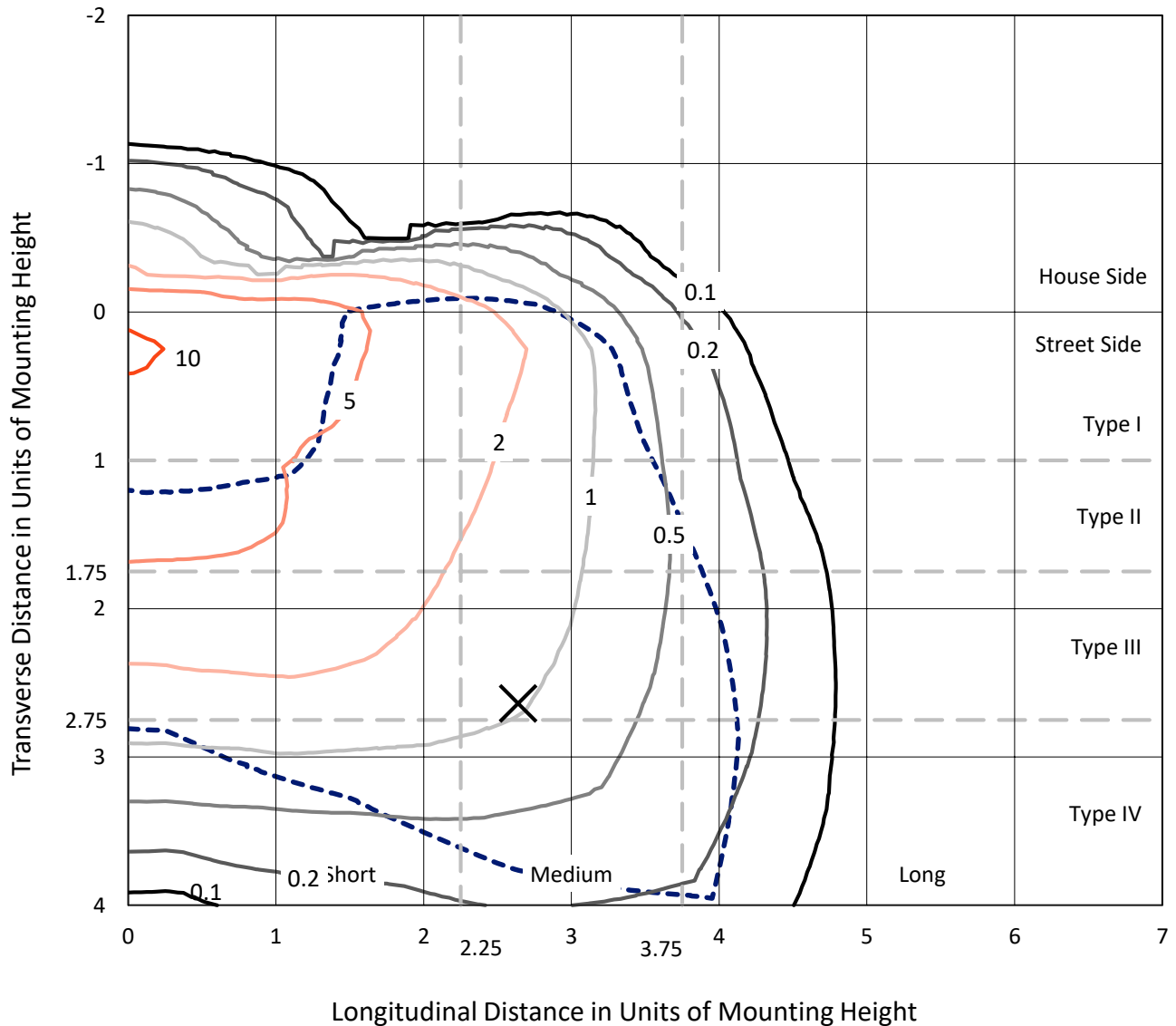


REPORT NUMBER: P234850

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

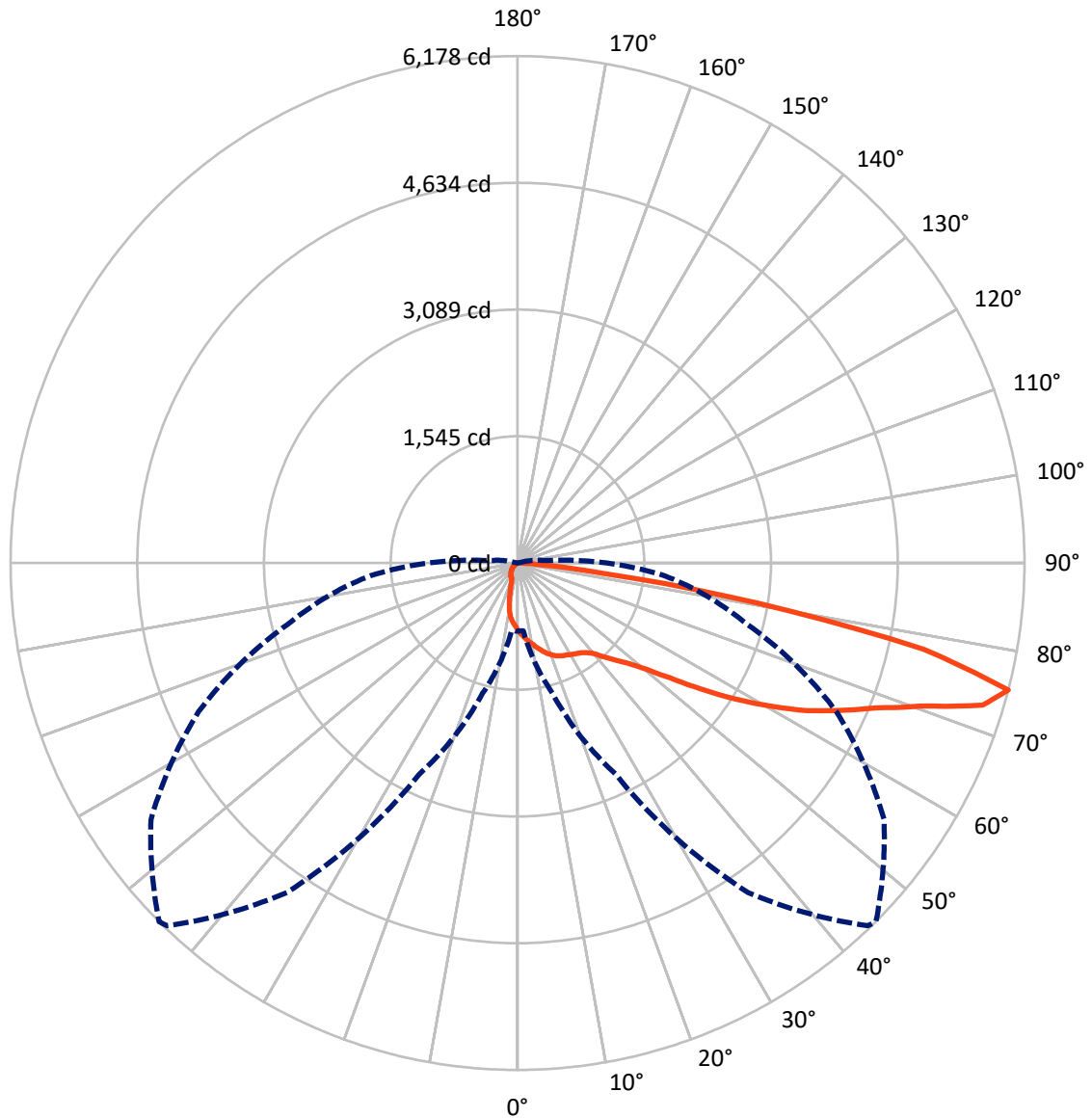


Based on 10 foot mounting height. Maximum calculated value = 11 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234850

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P234850

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027-HSS

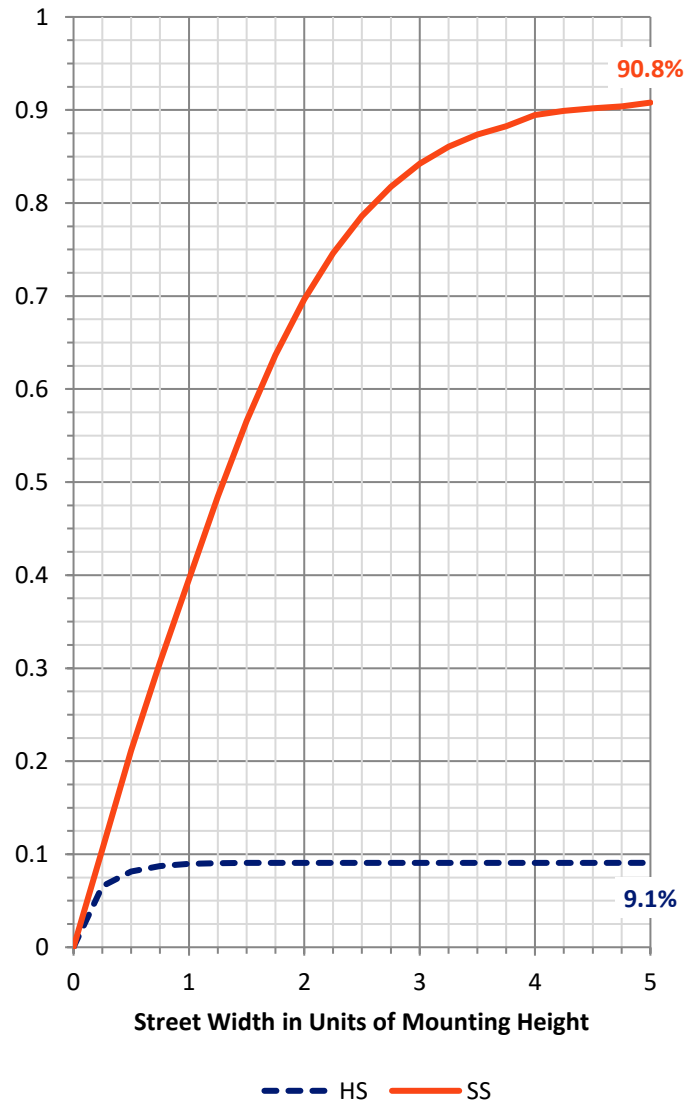
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	702.8	0.0	702.8
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	6981.1	0.0	6981.1
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	7684.0	0.0	7684.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.6	1.0
10°-20°	219.7	2.9
20°-30°	363.9	4.7
30°-40°	526.7	6.9
40°-50°	862.4	11.2
50°-60°	1536.6	20.0
60°-70°	2259.1	29.4
70°-80°	1704.3	22.2
80°-90°	133.7	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°	7684.0	100.0
0°-180°	7684.0	100.0



REPORT NUMBER: P234850

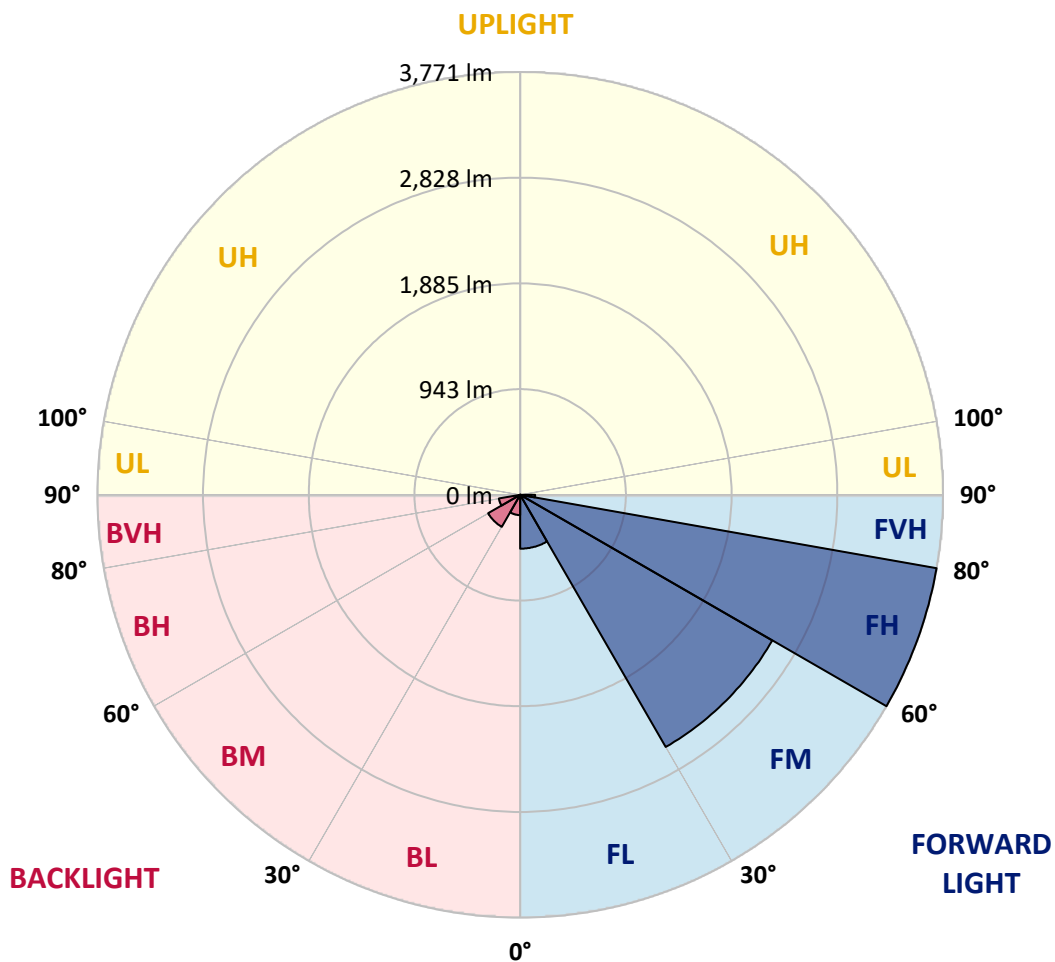
CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	480.6	6.3			
FM (30°-60°)	2596.4	33.8			
FH (60°-80°)	3770.8	49.1			G2/5000
FVH (80°-90°)	133.3	1.7			G2/225
BL (0°-30°)	180.6	2.4	B1/500		
BM (30°-60°)	329.4	4.3	B1/1000		
BH (60°-80°)	192.5	2.5	B1/500		G1/500
BVH (80°-90°)	0.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Medium





REPORT NUMBER: P234850

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	821.8	821.8	821.8	821.8	821.8	821.8	821.8	821.8	821.8	821.8	821.8
2.5°	892.8	892.8	890.9	889.1	880.0	870.9	869.1	863.7	847.3	836.4	825.5
5°	967.3	969.1	965.5	956.4	936.4	916.4	914.6	900.0	869.1	847.3	823.7
7.5°	1038.2	1041.9	1032.8	1016.4	992.8	963.7	961.9	934.6	894.6	863.7	829.1
10°	1098.2	1098.2	1085.5	1065.5	1040.0	1009.1	1005.5	974.6	929.1	890.9	845.5
12.5°	1163.7	1161.9	1143.7	1116.4	1087.3	1058.2	1056.4	1018.2	974.6	925.5	869.1
15°	1223.7	1220.0	1196.4	1170.9	1140.0	1109.1	1107.3	1069.1	1023.7	965.5	903.7
17.5°	1256.4	1254.6	1232.8	1207.3	1181.9	1158.2	1156.4	1116.4	1067.3	1007.3	938.2
20°	1261.9	1263.7	1245.5	1223.7	1209.1	1196.4	1196.4	1160.0	1107.3	1043.7	974.6
22.5°	1263.7	1269.1	1256.4	1227.3	1223.7	1225.5	1229.1	1200.0	1145.5	1085.5	1012.8
25°	1276.4	1283.7	1274.6	1240.0	1236.4	1249.1	1252.8	1240.0	1190.9	1130.9	1056.4
27.5°	1301.9	1309.1	1301.9	1258.2	1252.8	1265.5	1269.1	1276.4	1240.0	1174.6	1101.9
30°	1352.8	1354.6	1338.2	1283.7	1272.8	1289.1	1294.6	1314.6	1285.5	1216.4	1145.5
32.5°	1441.9	1423.7	1374.6	1301.9	1292.8	1311.0	1316.4	1338.2	1327.3	1256.4	1190.9
35°	1623.7	1529.1	1416.4	1327.3	1318.2	1336.4	1343.7	1374.6	1380.0	1312.8	1247.3
37.5°	1621.9	1536.4	1514.6	1376.4	1363.7	1376.4	1385.5	1423.7	1445.5	1387.3	1329.1
40°	1736.4	1700.1	1700.1	1469.1	1427.3	1445.5	1454.6	1492.8	1531.0	1485.5	1425.5
42.5°	2096.4	2072.8	2047.3	1647.3	1516.4	1567.3	1572.8	1596.4	1641.9	1627.3	1556.4
45°	2498.3	2476.4	2378.3	1949.2	1669.1	1678.2	1691.0	1729.1	1794.6	1821.9	1738.2
47.5°	2812.8	2791.0	2707.4	2312.8	1907.3	1827.3	1827.3	1901.9	2003.7	2072.8	1992.8
50°	3065.6	3040.1	2989.2	2700.1	2298.3	2041.9	2031.0	2118.3	2269.2	2376.4	2321.9
52.5°	3311.0	3236.5	3205.6	3100.1	2740.1	2352.8	2323.7	2385.5	2594.6	2727.4	2681.9
55°	3474.7	3463.8	3431.0	3467.4	3203.7	2731.0	2705.5	2718.3	2980.1	3069.2	3012.8
57.5°	3627.4	3625.6	3698.3	3867.4	3709.2	3163.7	3123.7	3103.7	3352.8	3331.0	3380.1
60°	3816.5	3783.8	3952.9	4194.7	4172.9	3585.6	3540.1	3500.1	3638.3	3576.5	3820.1
62.5°	3825.6	3816.5	4160.1	4507.4	4632.9	4014.7	3961.9	3818.3	3887.4	3816.5	4240.1
65°	3478.3	3523.8	4247.4	4672.9	5018.3	4391.1	4327.4	4103.8	4109.2	4062.0	4734.7
67.5°	3400.1	3423.7	4007.4	4851.1	5296.5	4771.1	4711.1	4432.9	4367.4	4371.1	5027.4
70°	3205.6	3241.9	3709.2	4838.3	5516.5	5278.4	5218.4	4916.5	4758.3	4582.0	4802.0
72.5°	2449.2	2511.0	3125.6	4242.0	5456.5	5942.0	5925.7	5529.3	4914.7	4207.4	3632.8
75°	829.1	827.3	1641.9	2849.2	4902.0	6145.7	6178.4	5452.9	4287.4	2901.9	1803.7
77.5°	178.2	180.0	338.2	1154.6	3256.5	4934.7	5060.2	4112.9	2765.5	1292.8	412.7
80°	87.3	89.1	140.0	305.5	1301.9	2767.4	2963.7	2114.6	1021.9	258.2	69.1
82.5°	43.6	45.5	72.7	161.8	481.8	983.7	1050.9	778.2	292.7	145.5	34.5
85°	16.4	16.4	36.4	96.4	220.0	230.9	283.6	225.5	176.4	118.2	9.1
87.5°	3.6	3.6	20.0	47.3	98.2	72.7	72.7	69.1	107.3	80.0	3.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P234850

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	821.8	821.8	821.8	821.8	821.8	821.8	821.8	821.8	821.8	821.8	821.8
2.5°	820.0	812.8	800.0	787.3	778.2	767.3	761.8	756.4	754.6	752.8	756.4
5°	810.9	800.0	776.4	756.4	738.2	723.7	712.8	701.8	696.4	692.8	694.6
7.5°	810.9	794.6	760.0	729.1	700.0	669.1	638.2	614.6	596.4	585.5	587.3
10°	820.0	798.2	752.8	710.9	656.4	590.9	523.7	472.7	438.2	418.2	418.2
12.5°	840.0	810.9	754.6	689.1	596.4	481.8	380.0	318.2	292.7	278.2	280.0
15°	867.3	832.8	763.7	660.0	512.7	358.2	265.5	225.5	225.5	229.1	230.9
17.5°	898.2	860.0	770.9	616.4	405.5	256.4	209.1	205.5	210.9	220.0	220.0
20°	929.1	887.3	774.6	547.3	303.6	203.6	198.2	198.2	201.8	210.9	212.7
22.5°	967.3	921.8	770.9	461.8	227.3	192.7	190.9	190.9	190.9	201.8	201.8
25°	1007.3	961.9	756.4	370.9	192.7	185.5	183.6	181.8	181.8	190.9	192.7
27.5°	1052.8	1003.7	721.8	283.6	181.8	178.2	176.4	172.7	172.7	180.0	180.0
30°	1098.2	1050.9	669.1	214.6	172.7	170.9	167.3	163.6	160.0	167.3	167.3
32.5°	1147.3	1100.0	600.0	170.9	160.0	160.0	158.2	152.7	149.1	152.7	154.6
35°	1212.8	1156.4	521.8	149.1	143.6	143.6	143.6	141.8	134.5	138.2	138.2
37.5°	1300.0	1234.6	430.9	138.2	130.9	127.3	127.3	127.3	121.8	123.6	123.6
40°	1411.0	1325.5	343.6	129.1	121.8	112.7	109.1	110.9	107.3	107.3	105.5
42.5°	1561.9	1423.7	258.2	121.8	114.5	101.8	94.5	92.7	89.1	87.3	87.3
45°	1778.2	1543.7	185.5	114.5	109.1	89.1	81.8	76.4	67.3	61.8	61.8
47.5°	2058.3	1680.1	138.2	107.3	103.6	78.2	69.1	58.2	45.5	41.8	41.8
50°	2400.1	1832.8	116.4	96.4	94.5	69.1	54.5	38.2	25.5	21.8	23.6
52.5°	2732.8	1976.4	103.6	85.5	83.6	60.0	40.0	20.0	10.9	10.9	10.9
55°	3012.8	2078.3	94.5	76.4	72.7	47.3	21.8	9.1	5.5	5.5	5.5
57.5°	3265.6	2136.4	85.5	67.3	58.2	32.7	9.1	3.6	3.6	1.8	1.8
60°	3496.5	2171.0	74.5	58.2	45.5	18.2	3.6	1.8	1.8	0.0	0.0
62.5°	3723.8	2196.4	63.6	47.3	34.5	7.3	1.8	1.8	0.0	0.0	0.0
65°	3896.5	2187.3	50.9	38.2	21.8	3.6	1.8	0.0	0.0	0.0	0.0
67.5°	3891.0	2063.7	38.2	29.1	10.9	1.8	0.0	0.0	0.0	0.0	0.0
70°	3480.1	1738.2	25.5	18.2	3.6	1.8	0.0	0.0	0.0	0.0	0.0
72.5°	2469.2	1114.6	16.4	10.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	1087.3	338.2	9.1	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	212.7	78.2	5.5	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	50.9	9.1	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.8	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.6	1.8	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)