

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: P265987

Luminaire Tested: **ARCH-AF24-100-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265987  
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-AF24-100-D-U-T2R-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1200mA 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: 6678 lumens  
Efficiency: N/A  
Efficacy: 69.6 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 - G2

Input Watts (W): 96  
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

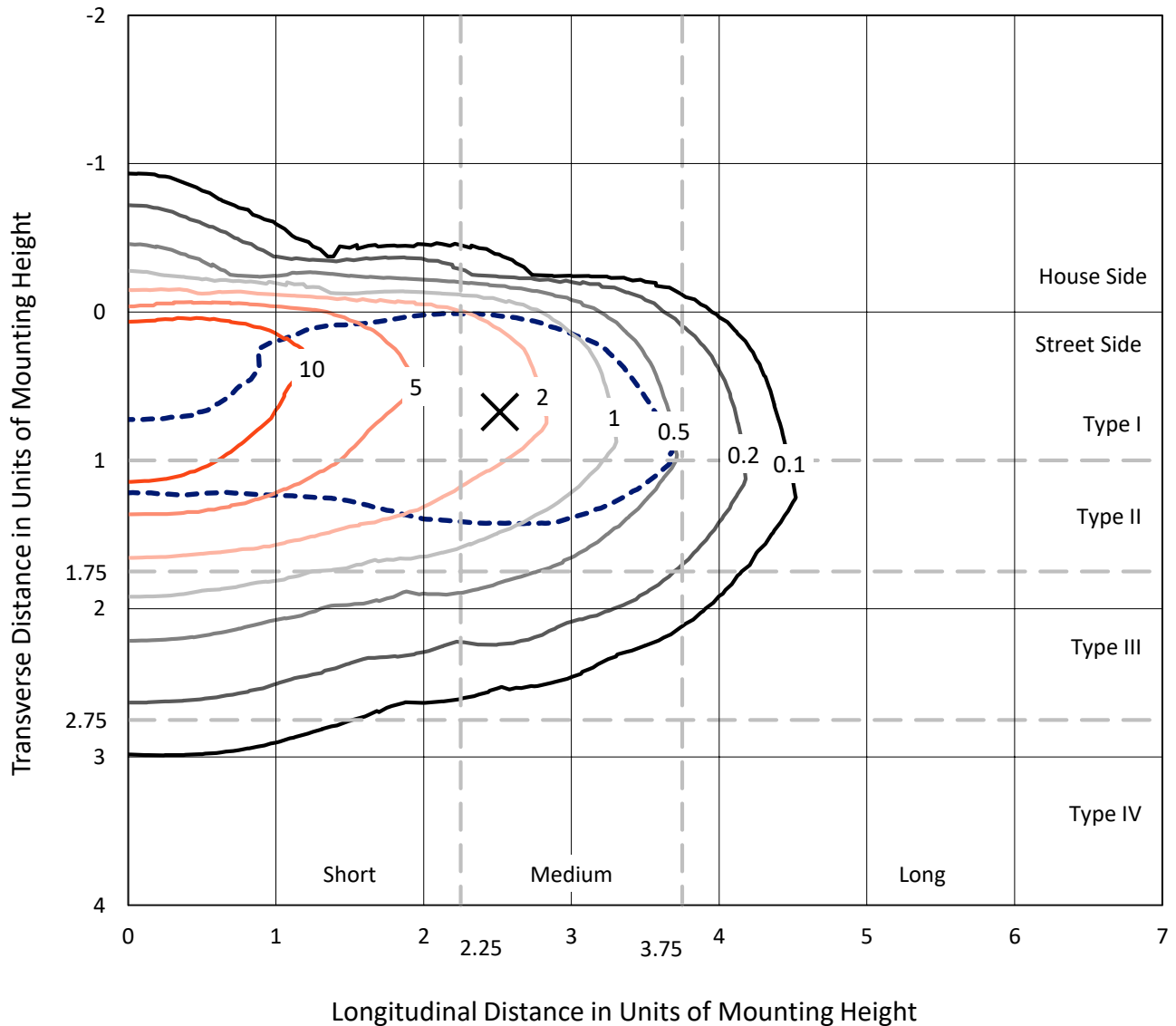


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

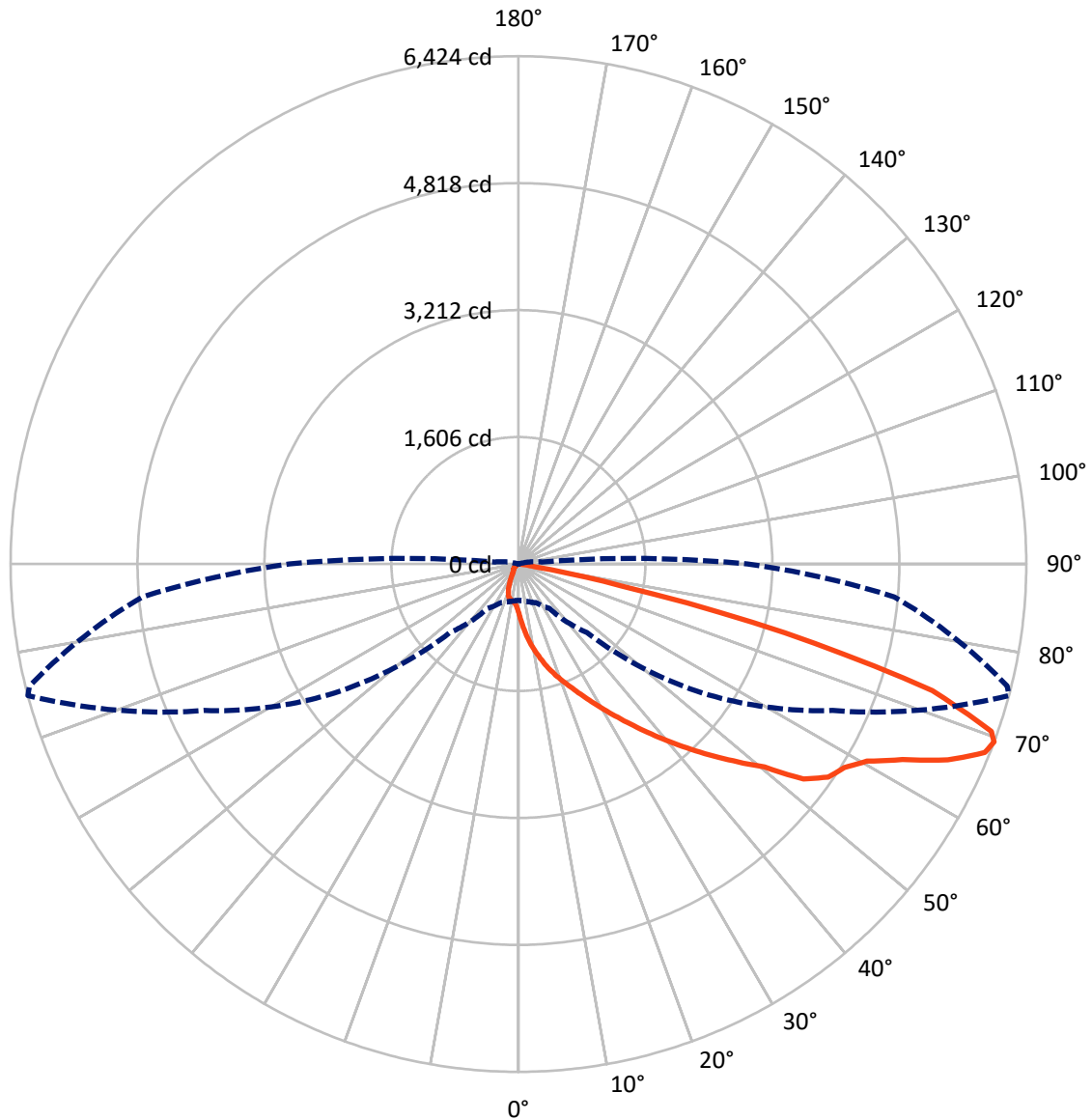


Based on 10 foot mounting height. Maximum calculated value = 17 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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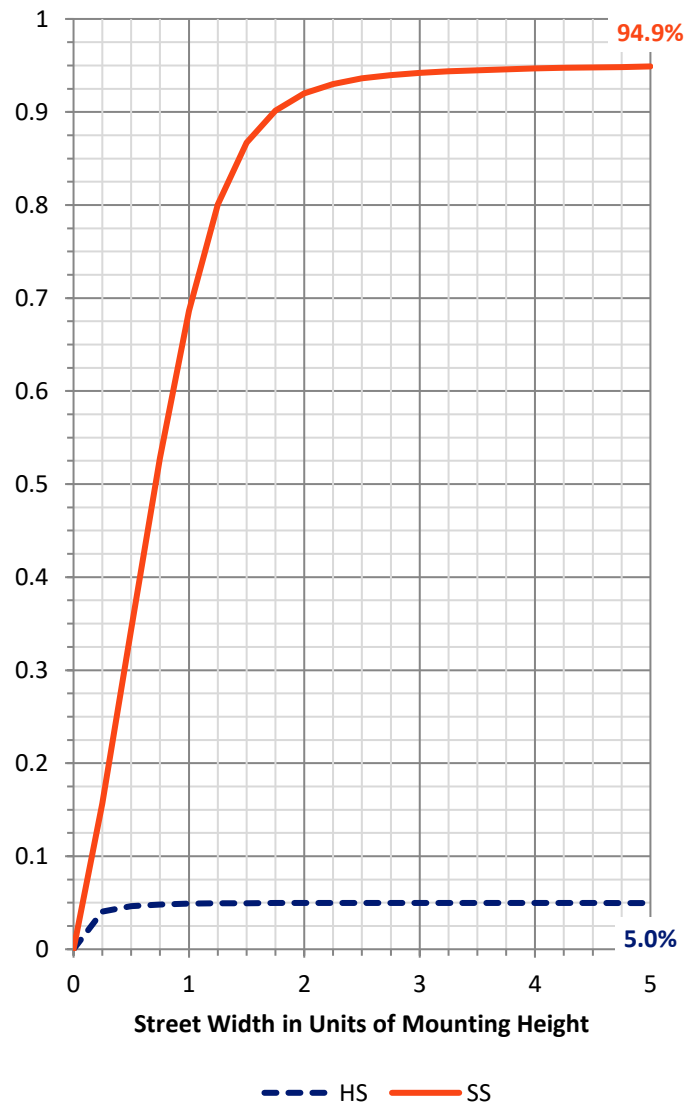
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	333.2	0.0	333.2
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	6344.8	0.0	6344.8
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	6678.0	0.0	6678.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.5	1.1
10°-20°	259.0	3.9
20°-30°	494.5	7.4
30°-40°	887.1	13.3
40°-50°	1359.1	20.4
50°-60°	1579.6	23.7
60°-70°	1398.7	20.9
70°-80°	603.3	9.0
80°-90°	24.2	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°	6678.0	100.0
0°-180°	6678.0	100.0

**Coefficient of Utilization**



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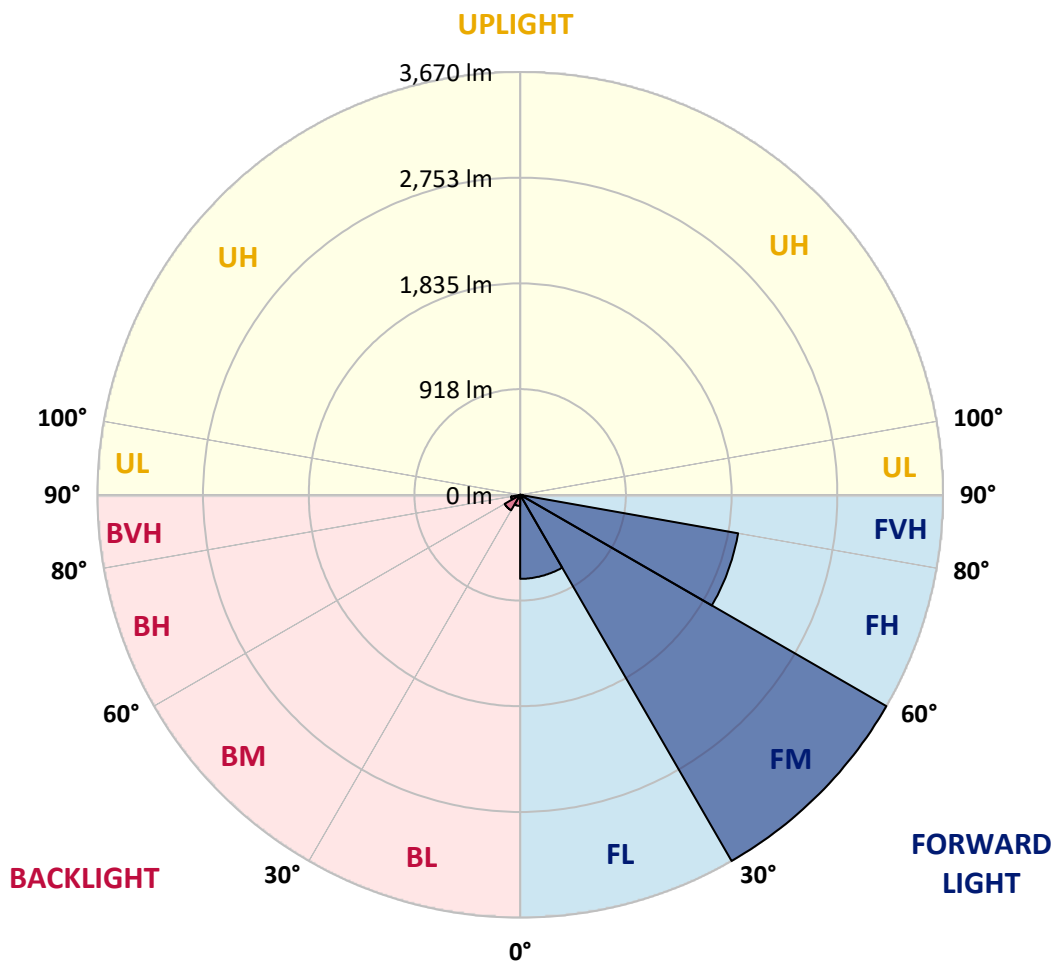
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	729.2	10.9			
FM	(30°-60°)	3670.4	55.0			
FH	(60°-80°)	1921.4	28.8			G2/5000
FVH	(80°-90°)	23.8	0.4			G1/100
BL	(0°-30°)	96.8	1.4	B0/110		
BM	(30°-60°)	155.3	2.3	B0/220		
BH	(60°-80°)	80.7	1.2	B0/110		G0/110
BVH	(80°-90°)	0.3	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-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4
2.5°	1023.6	1013.6	1003.4	991.9	965.9	921.2	865.1	804.5	729.6	716.6	656.0
5°	1242.7	1238.5	1228.3	1212.5	1183.6	1134.6	1071.1	981.8	856.4	834.7	706.4
7.5°	1397.0	1394.2	1385.5	1366.7	1340.8	1291.9	1225.5	1128.9	983.3	958.8	769.8
10°	1535.5	1533.9	1526.8	1509.5	1483.6	1430.2	1359.6	1258.6	1104.3	1077.0	843.4
12.5°	1660.8	1662.4	1659.3	1650.7	1632.0	1581.6	1500.9	1391.2	1221.2	1190.9	931.4
15°	1734.4	1738.7	1750.3	1767.5	1773.3	1733.0	1649.4	1528.2	1340.8	1314.8	1032.3
17.5°	1710.0	1714.2	1750.3	1809.4	1865.6	1871.3	1796.4	1658.0	1459.0	1433.1	1131.8
20°	1650.7	1656.6	1694.1	1774.8	1884.4	1960.7	1930.5	1799.2	1571.5	1539.8	1226.9
22.5°	1717.1	1717.1	1728.6	1777.7	1877.1	1996.8	2037.1	1940.6	1686.8	1647.9	1322.0
25°	1944.9	1940.6	1916.1	1895.9	1927.7	2034.3	2117.9	2084.7	1822.3	1777.7	1422.9
27.5°	2233.2	2253.4	2207.2	2133.7	2061.7	2107.9	2190.0	2227.4	1972.3	1926.1	1526.8
30°	2556.1	2564.8	2510.0	2411.9	2285.2	2240.5	2275.0	2350.1	2135.2	2084.7	1634.9
32.5°	2847.4	2840.3	2794.1	2691.7	2534.6	2438.0	2384.6	2448.1	2312.5	2254.8	1745.9
35°	3105.5	3111.3	3055.0	2936.7	2782.5	2680.2	2553.3	2559.1	2511.5	2445.1	1874.3
37.5°	3337.7	3327.5	3274.1	3155.9	3016.1	2905.1	2771.0	2674.4	2729.2	2660.1	2018.4
40°	3526.4	3516.3	3460.1	3344.7	3213.5	3122.8	3017.5	2828.7	2958.4	2879.2	2172.7
42.5°	3676.5	3664.8	3617.4	3506.3	3379.5	3298.7	3248.2	3018.9	3203.5	3124.2	2345.7
45°	3750.0	3739.9	3711.0	3627.4	3516.3	3445.7	3470.2	3238.1	3465.9	3399.5	2536.1
47.5°	3663.5	3659.1	3692.3	3677.8	3614.4	3577.0	3662.0	3477.5	3741.4	3676.5	2755.1
50°	3401.1	3408.3	3504.8	3624.5	3654.8	3699.5	3819.1	3729.8	4036.9	3967.6	3007.4
52.5°	2753.8	2802.7	3093.9	3382.3	3605.7	3774.5	4003.7	4090.3	4518.4	4450.7	3401.1
55°	2056.0	2076.2	2393.3	2886.3	3408.3	3768.7	4140.6	4302.2	4756.3	4687.0	3504.8
57.5°	1630.7	1637.8	1795.0	2298.1	3001.6	3638.9	4212.7	4378.5	4860.1	4802.3	3659.1
60°	1280.3	1288.9	1402.9	1748.8	2429.3	3288.5	4108.9	4444.9	5063.3	5017.3	3928.6
62.5°	996.2	1004.8	1074.2	1277.4	1822.3	2749.4	3899.9	4551.5	5449.7	5428.1	4369.9
65°	771.4	774.2	821.8	916.9	1287.5	2165.5	3644.8	4651.1	5971.7	5952.9	4727.4
67.5°	569.4	573.7	607.0	666.1	869.4	1555.7	3226.6	4574.6	6365.2	6310.5	4857.1
69°	459.9	464.2	493.1	540.6	686.2	1225.5	2844.6	4385.7	6424.4	6372.4	4775.0
70°	393.5	396.5	425.3	465.7	585.3	1041.0	2541.8	4222.8	6346.4	6296.0	4587.6
72.5°	252.3	266.7	295.5	321.6	387.8	689.1	1715.7	3502.0	5475.7	5389.2	3592.9
75°	139.9	144.2	196.1	227.8	258.1	448.3	954.4	2184.1	3483.2	3422.6	1921.8
77.5°	115.3	118.2	138.3	173.1	173.1	250.8	360.4	860.8	1324.9	1195.1	520.5
80°	80.8	83.6	105.2	113.8	124.0	141.4	116.8	188.9	204.8	181.6	77.9
82.5°	56.2	59.1	72.0	93.8	99.5	66.4	43.3	56.2	59.1	59.1	30.3
85°	10.2	14.5	53.4	77.9	59.1	20.2	24.6	20.2	18.8	20.2	7.1
87.5°	0.0	0.0	33.1	37.5	31.7	8.7	10.2	7.1	4.3	5.7	2.9
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°	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4
2.5°	625.7	595.4	543.6	506.0	474.3	449.8	439.7	423.9	412.3	418.2	410.9
5°	642.9	589.6	506.0	452.7	415.2	383.4	357.5	337.4	321.6	318.5	315.8
7.5°	670.5	594.0	484.5	418.2	361.8	312.9	272.5	242.3	219.1	219.1	210.6
10°	707.9	605.5	471.4	383.4	299.9	233.6	193.1	164.4	152.8	151.4	148.5
12.5°	759.7	627.1	461.4	338.8	233.6	170.0	145.6	135.6	131.2	129.7	128.3
15°	830.5	658.8	449.8	284.0	177.3	139.9	129.7	121.1	116.8	115.3	113.8
17.5°	898.1	687.7	425.3	227.8	144.2	126.9	115.3	108.2	102.3	100.9	100.9
20°	961.6	712.3	383.4	177.3	129.7	113.8	102.3	93.8	87.9	86.4	86.4
22.5°	1027.9	732.4	331.7	144.2	118.2	100.9	89.4	80.8	75.0	73.5	72.0
25°	1098.5	746.9	272.5	128.3	106.7	89.4	76.4	69.2	64.9	63.4	62.1
27.5°	1175.1	752.6	216.2	116.8	93.8	77.9	66.4	59.1	56.2	54.7	54.7
30°	1244.2	746.9	167.3	103.8	82.1	67.7	57.8	51.9	49.0	47.6	47.6
32.5°	1316.2	732.4	134.0	92.3	72.0	57.8	49.0	44.6	43.3	41.9	41.9
35°	1392.7	713.7	115.3	82.1	62.1	50.5	43.3	40.3	38.9	37.5	37.5
37.5°	1482.2	690.5	105.2	73.5	54.7	44.6	37.5	36.0	34.7	34.7	34.7
40°	1583.1	661.7	98.1	66.4	49.0	38.9	33.1	31.7	30.3	30.3	30.3
42.5°	1689.7	628.6	90.8	59.1	43.3	33.1	28.8	28.8	27.4	27.4	26.0
45°	1809.4	595.4	83.6	51.9	37.5	28.8	24.6	23.0	23.0	21.6	21.6
47.5°	1950.7	565.2	76.4	46.2	33.1	24.6	21.6	20.2	18.8	17.2	17.2
50°	2149.6	562.2	67.7	40.3	30.3	20.2	17.2	15.9	14.5	12.9	12.9
52.5°	2347.1	536.3	57.8	33.1	24.6	17.2	12.9	11.6	10.2	10.2	8.7
55°	2391.8	493.1	50.5	28.8	18.8	12.9	10.2	7.1	7.1	5.7	5.7
57.5°	2489.8	472.9	43.3	23.0	14.5	10.2	5.7	4.3	4.3	4.3	4.3
60°	2683.1	467.1	37.5	20.2	10.2	7.1	4.3	2.9	2.9	1.4	1.4
62.5°	2949.8	461.4	31.7	17.2	7.1	4.3	2.9	1.4	0.0	0.0	0.0
65°	3096.8	422.5	26.0	12.9	5.7	4.3	1.4	0.0	0.0	0.0	0.0
67.5°	3057.9	348.9	23.0	8.7	4.3	2.9	1.4	0.0	0.0	0.0	0.0
69°	2895.0	294.1	18.8	7.1	4.3	2.9	1.4	0.0	0.0	0.0	0.0
70°	2698.9	253.7	17.2	5.7	2.9	1.4	1.4	0.0	0.0	0.0	0.0
72.5°	1916.1	132.6	11.6	4.3	2.9	1.4	0.0	0.0	0.0	0.0	0.0
75°	895.3	59.1	7.1	2.9	1.4	1.4	0.0	0.0	0.0	0.0	0.0
77.5°	197.4	27.4	4.3	2.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	37.5	10.2	2.9	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.9	4.3	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	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)