

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: P234794

Luminaire Tested: **ARCH-M-AF48-60-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234794  
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-M-AF48-60-D-U-T2R-8027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 405mA LIGHT ENGINES 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: 5527 lumens  
Efficiency: N/A  
Efficacy: 87.7 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 63  
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

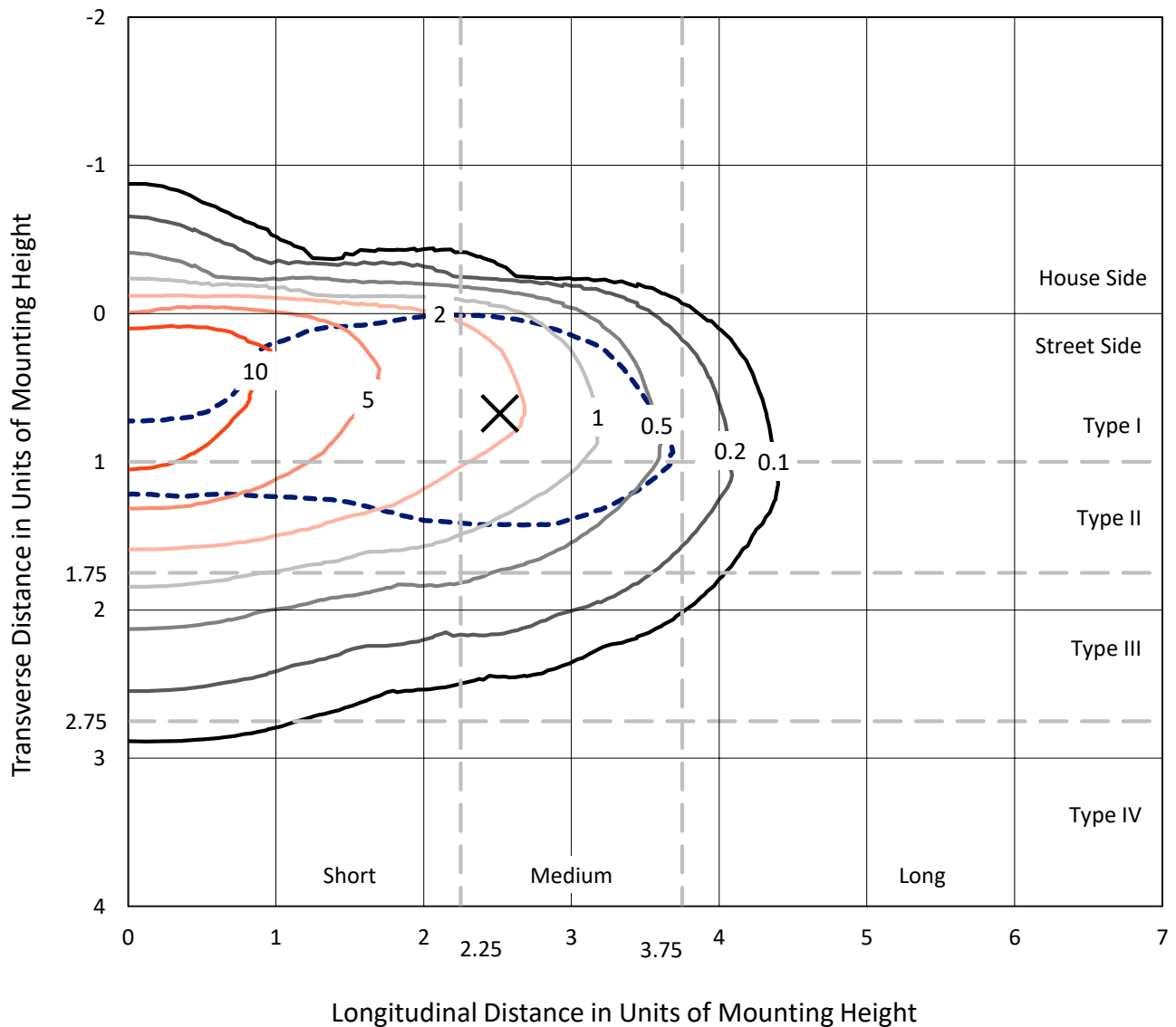


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

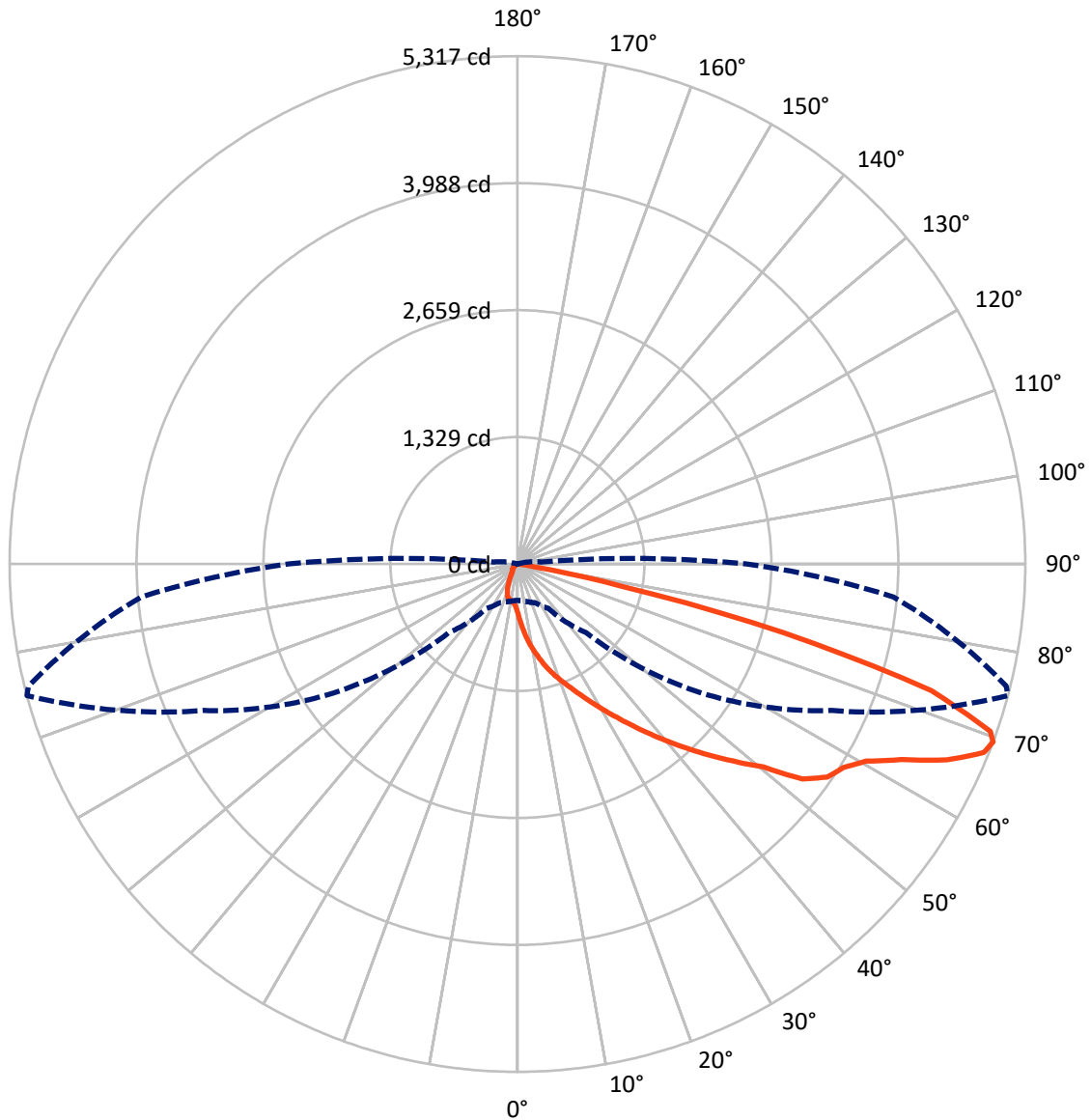


Based on 10 foot mounting height. Maximum calculated value = 14.1 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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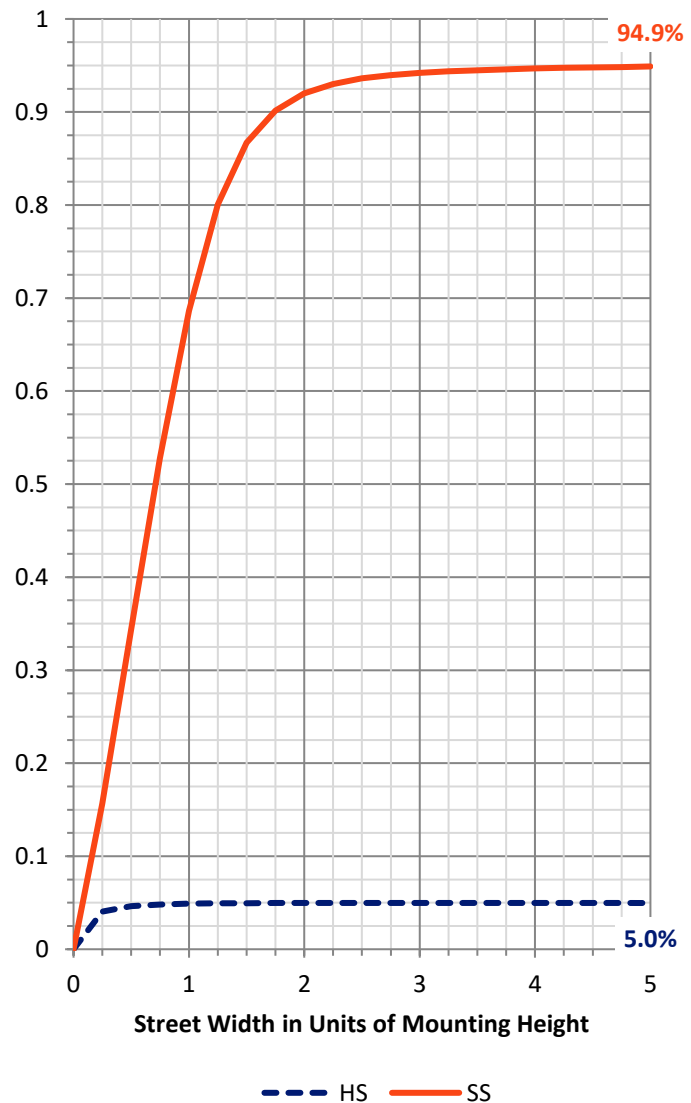
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	275.8	0.0	275.8
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	5251.2	0.0	5251.2
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	5527.0	0.0	5527.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.0	1.1
10°-20°	214.4	3.9
20°-30°	409.3	7.4
30°-40°	734.2	13.3
40°-50°	1124.8	20.4
50°-60°	1307.3	23.7
60°-70°	1157.7	20.9
70°-80°	499.3	9.0
80°-90°	20.0	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°	5527.0	100.0
0°-180°	5527.0	100.0

**Coefficient of Utilization**



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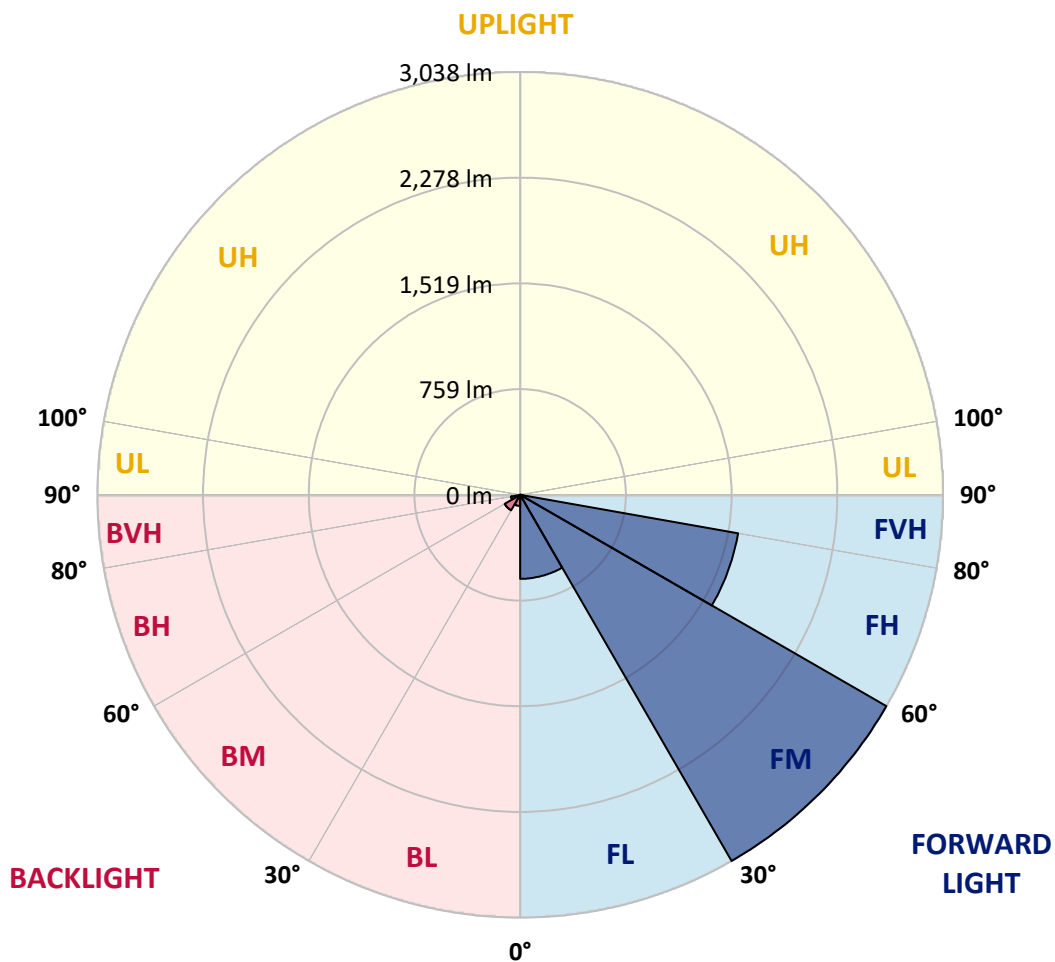
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	603.6	10.9			
FM	(30°-60°)	3037.8	55.0			
FH	(60°-80°)	1590.2	28.8			G1/1800
FVH	(80°-90°)	19.7	0.4			G1/100
BL	(0°-30°)	80.1	1.4	B0/110		
BM	(30°-60°)	128.6	2.3	B0/220		
BH	(60°-80°)	66.8	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-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3
2.5°	847.2	838.8	830.5	820.9	799.5	762.5	715.9	665.8	603.8	593.0	542.9
5°	1028.6	1025.0	1016.6	1003.5	979.6	939.1	886.6	812.6	708.8	690.9	584.7
7.5°	1156.2	1153.9	1146.7	1131.2	1109.7	1069.1	1014.3	934.3	813.8	793.5	637.2
10°	1270.8	1269.6	1263.6	1249.3	1227.8	1183.7	1125.2	1041.7	914.0	891.3	698.0
12.5°	1374.6	1375.8	1373.4	1366.3	1350.7	1309.0	1242.2	1151.5	1010.7	985.6	770.8
15°	1435.5	1439.0	1448.6	1462.9	1467.7	1434.3	1365.1	1264.8	1109.7	1088.2	854.4
17.5°	1415.2	1418.8	1448.6	1497.5	1544.0	1548.8	1486.8	1372.2	1207.6	1186.1	936.7
20°	1366.3	1371.0	1402.1	1468.9	1559.6	1622.8	1597.7	1489.2	1300.6	1274.4	1015.4
22.5°	1421.1	1421.1	1430.7	1471.3	1553.6	1652.6	1686.0	1606.1	1396.1	1363.9	1094.2
25°	1609.7	1606.1	1585.8	1569.1	1595.4	1683.7	1752.9	1725.4	1508.3	1471.3	1177.7
27.5°	1848.3	1865.0	1826.8	1766.0	1706.3	1744.5	1812.5	1843.6	1632.3	1594.2	1263.6
30°	2115.6	2122.8	2077.4	1996.3	1891.3	1854.3	1882.9	1945.0	1767.2	1725.4	1353.1
32.5°	2356.6	2350.7	2312.5	2227.8	2097.7	2017.8	1973.6	2026.1	1914.0	1866.2	1445.0
35°	2570.2	2575.0	2528.5	2430.6	2302.9	2218.2	2113.2	2118.0	2078.6	2023.7	1551.2
37.5°	2762.3	2754.0	2709.8	2612.0	2496.3	2404.4	2293.4	2213.5	2258.8	2201.5	1670.5
40°	2918.7	2910.3	2863.8	2768.3	2659.7	2584.6	2497.4	2341.1	2448.5	2382.9	1798.2
42.5°	3042.8	3033.2	2993.8	2902.0	2796.9	2730.1	2688.4	2498.6	2651.4	2585.7	1941.4
45°	3103.6	3095.3	3071.4	3002.2	2910.3	2851.8	2872.1	2680.0	2868.5	2813.7	2098.9
47.5°	3032.0	3028.4	3055.9	3043.9	2991.4	2960.4	3030.8	2878.1	3096.5	3042.8	2280.3
50°	2814.8	2820.8	2900.8	2999.8	3024.9	3061.8	3160.9	3086.9	3341.1	3283.8	2489.1
52.5°	2279.1	2319.7	2560.7	2799.3	2984.3	3123.9	3313.6	3385.2	3739.6	3683.5	2814.8
55°	1701.6	1718.3	1980.8	2388.9	2820.8	3119.1	3427.0	3560.6	3936.5	3879.2	2900.8
57.5°	1349.6	1355.5	1485.6	1902.0	2484.3	3011.7	3486.6	3623.9	4022.4	3974.7	3028.4
60°	1059.6	1066.8	1161.0	1447.4	2010.6	2721.8	3400.7	3678.8	4190.6	4152.5	3251.6
62.5°	824.5	831.7	889.0	1057.2	1508.3	2275.5	3227.7	3767.1	4510.4	4492.5	3616.7
65°	638.4	640.8	680.1	758.9	1065.6	1792.2	3016.5	3849.4	4942.4	4926.9	3912.6
67.5°	471.3	474.9	502.4	551.3	719.5	1287.5	2670.5	3786.1	5268.1	5222.8	4020.0
69°	380.6	384.2	408.1	447.5	568.0	1014.3	2354.3	3629.8	5317.1	5274.1	3952.0
70°	325.8	328.1	352.0	385.4	484.5	861.5	2103.7	3495.0	5252.6	5210.9	3796.9
72.5°	208.8	220.7	244.6	266.1	321.0	570.4	1420.0	2898.4	4531.9	4460.3	2973.5
75°	115.7	119.3	162.3	188.5	213.6	371.1	789.9	1807.8	2882.9	2832.7	1590.6
77.5°	95.5	97.8	114.6	143.2	143.2	207.6	298.3	712.4	1096.6	989.2	430.8
80°	66.8	69.2	87.1	94.3	102.6	116.9	96.7	156.3	169.4	150.3	64.4
82.5°	46.5	48.9	59.7	77.6	82.3	54.9	35.8	46.5	48.9	48.9	25.1
85°	8.4	11.9	44.1	64.4	48.9	16.7	20.3	16.7	15.5	16.7	6.0
87.5°	0.0	0.0	27.4	31.0	26.3	7.2	8.4	6.0	3.6	4.8	2.4
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°	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3
2.5°	517.9	492.8	449.9	418.8	392.6	372.3	363.9	350.8	341.3	346.0	340.1
5°	532.2	488.0	418.8	374.7	343.7	317.4	295.9	279.2	266.1	263.7	261.3
7.5°	554.9	491.6	400.9	346.0	299.5	258.9	225.5	200.5	181.4	181.4	174.2
10°	585.9	501.2	390.2	317.4	248.2	193.3	159.9	136.0	126.5	125.3	122.9
12.5°	628.8	519.1	381.8	280.4	193.3	140.8	120.5	112.2	108.6	107.4	106.2
15°	687.3	545.3	372.3	235.1	146.8	115.7	107.4	100.2	96.7	95.5	94.3
17.5°	743.4	569.2	352.0	188.5	119.3	105.0	95.5	89.5	84.7	83.5	83.5
20°	795.9	589.5	317.4	146.8	107.4	94.3	84.7	77.6	72.8	71.6	71.6
22.5°	850.8	606.2	274.4	119.3	97.8	83.5	74.0	66.8	62.0	60.9	59.7
25°	909.2	618.1	225.5	106.2	88.3	74.0	63.2	57.3	53.7	52.5	51.3
27.5°	972.5	622.9	179.0	96.7	77.6	64.4	54.9	48.9	46.5	45.3	45.3
30°	1029.8	618.1	138.4	85.9	68.0	56.1	47.7	43.0	40.6	39.4	39.4
32.5°	1089.4	606.2	111.0	76.4	59.7	47.7	40.6	37.0	35.8	34.6	34.6
35°	1152.7	590.7	95.5	68.0	51.3	41.8	35.8	33.4	32.2	31.0	31.0
37.5°	1226.6	571.6	87.1	60.9	45.3	37.0	31.0	29.8	28.6	28.6	28.6
40°	1310.2	547.7	81.1	54.9	40.6	32.2	27.4	26.3	25.1	25.1	25.1
42.5°	1398.5	520.3	75.2	48.9	35.8	27.4	23.9	23.9	22.7	22.7	21.5
45°	1497.5	492.8	69.2	43.0	31.0	23.9	20.3	19.1	19.1	17.9	17.9
47.5°	1614.5	467.7	63.2	38.2	27.4	20.3	17.9	16.7	15.5	14.3	14.3
50°	1779.1	465.4	56.1	33.4	25.1	16.7	14.3	13.1	11.9	10.7	10.7
52.5°	1942.6	443.9	47.7	27.4	20.3	14.3	10.7	9.5	8.4	8.4	7.2
55°	1979.6	408.1	41.8	23.9	15.5	10.7	8.4	6.0	6.0	4.8	4.8
57.5°	2060.7	391.4	35.8	19.1	11.9	8.4	4.8	3.6	3.6	3.6	3.6
60°	2220.6	386.6	31.0	16.7	8.4	6.0	3.6	2.4	2.4	1.2	1.2
62.5°	2441.4	381.8	26.3	14.3	6.0	3.6	2.4	1.2	0.0	0.0	0.0
65°	2563.1	349.6	21.5	10.7	4.8	3.6	1.2	0.0	0.0	0.0	0.0
67.5°	2530.9	288.8	19.1	7.2	3.6	2.4	1.2	0.0	0.0	0.0	0.0
69°	2396.0	243.4	15.5	6.0	3.6	2.4	1.2	0.0	0.0	0.0	0.0
70°	2233.7	210.0	14.3	4.8	2.4	1.2	1.2	0.0	0.0	0.0	0.0
72.5°	1585.8	109.8	9.5	3.6	2.4	1.2	0.0	0.0	0.0	0.0	0.0
75°	741.0	48.9	6.0	2.4	1.2	1.2	0.0	0.0	0.0	0.0	0.0
77.5°	163.5	22.7	3.6	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	31.0	8.4	2.4	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.7	3.6	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	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)