

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: P265960

Luminaire Tested: **ARCH-AF24-70-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265960  
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-AF24-70-D-U-T2R-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 930mA 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: 5706.4 lumens  
Efficiency: N/A  
Efficacy: 77.1 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): 74  
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

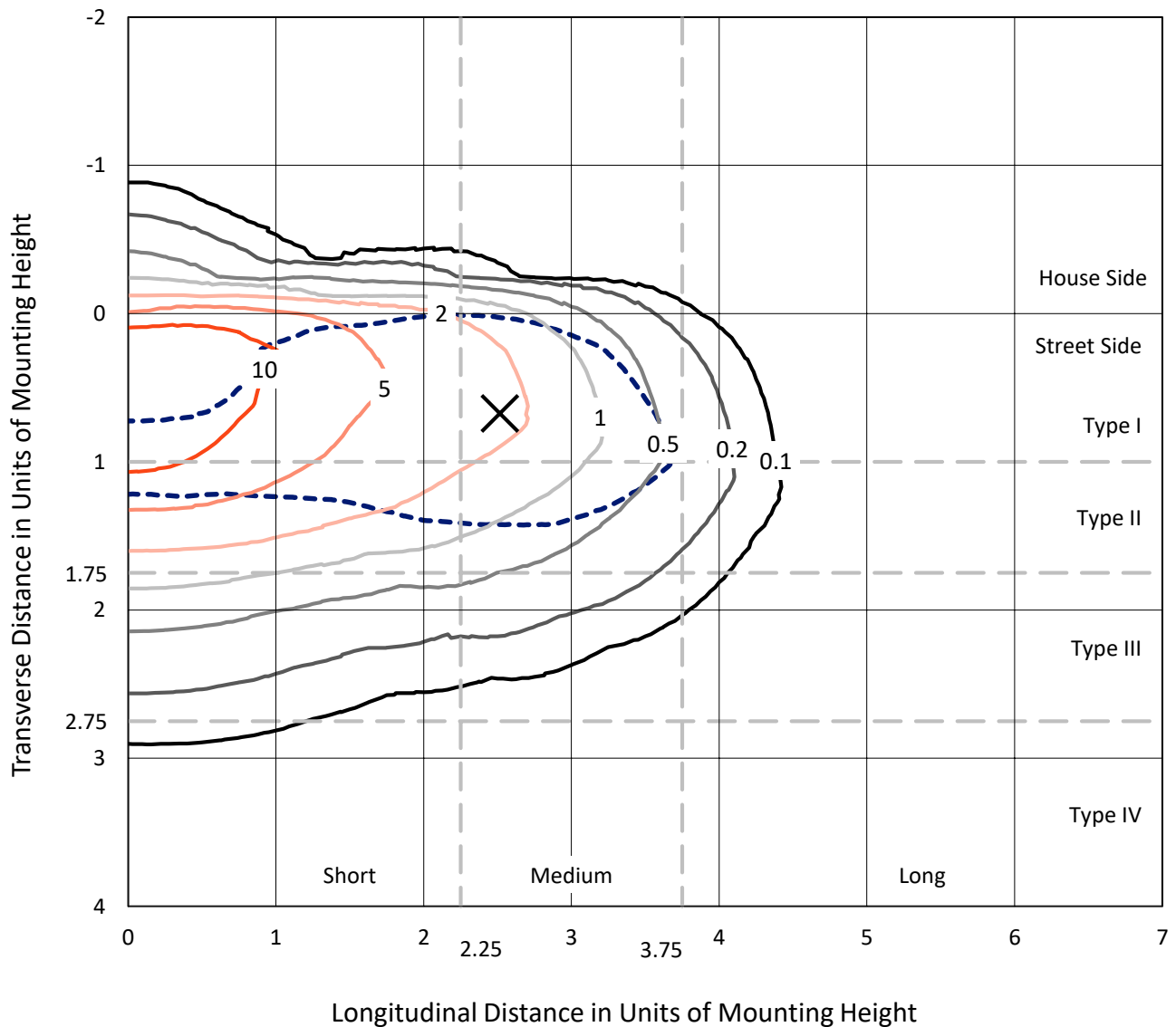


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

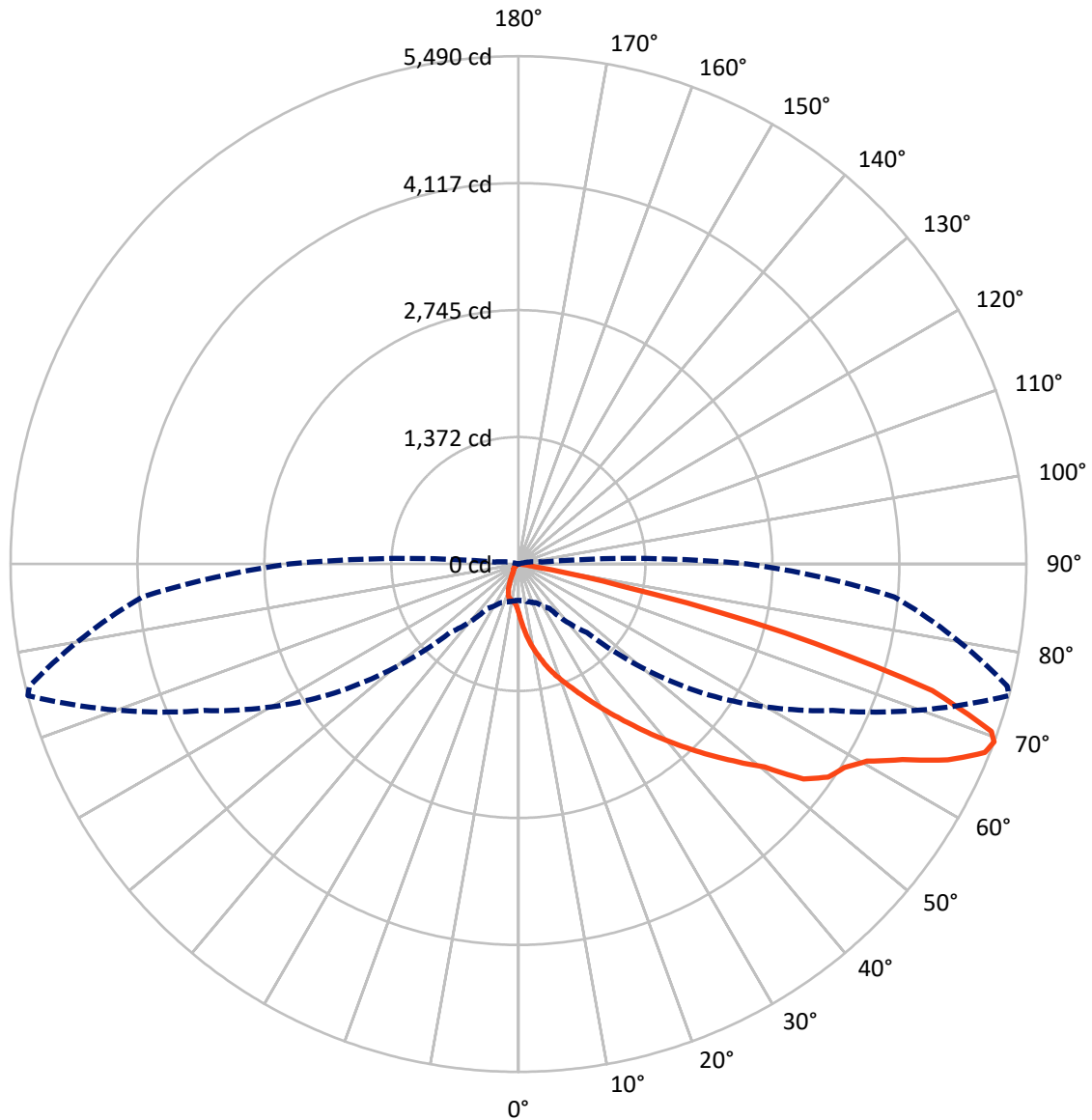


Based on 10 foot mounting height. Maximum calculated value = 14.5 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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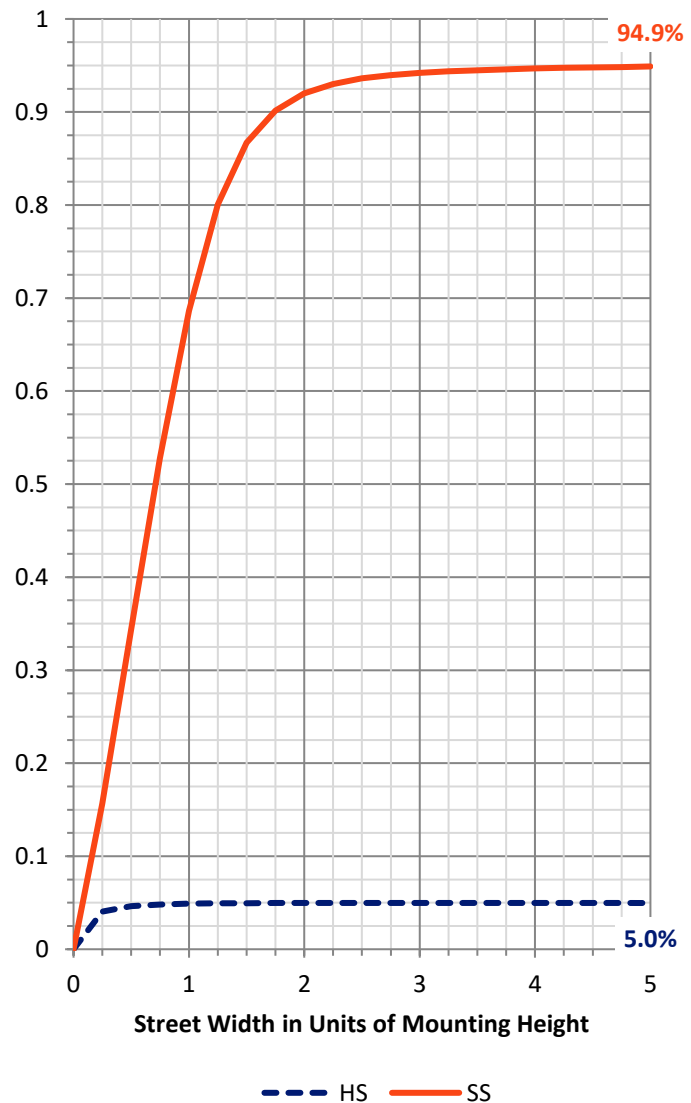
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	284.7	0.0	284.7
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	5421.6	0.0	5421.6
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	5706.4	0.0	5706.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.9	1.1
10°-20°	221.4	3.9
20°-30°	422.6	7.4
30°-40°	758.0	13.3
40°-50°	1161.3	20.4
50°-60°	1349.8	23.7
60°-70°	1195.2	20.9
70°-80°	515.5	9.0
80°-90°	20.7	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°	5706.4	100.0
0°-180°	5706.4	100.0

**Coefficient of Utilization**



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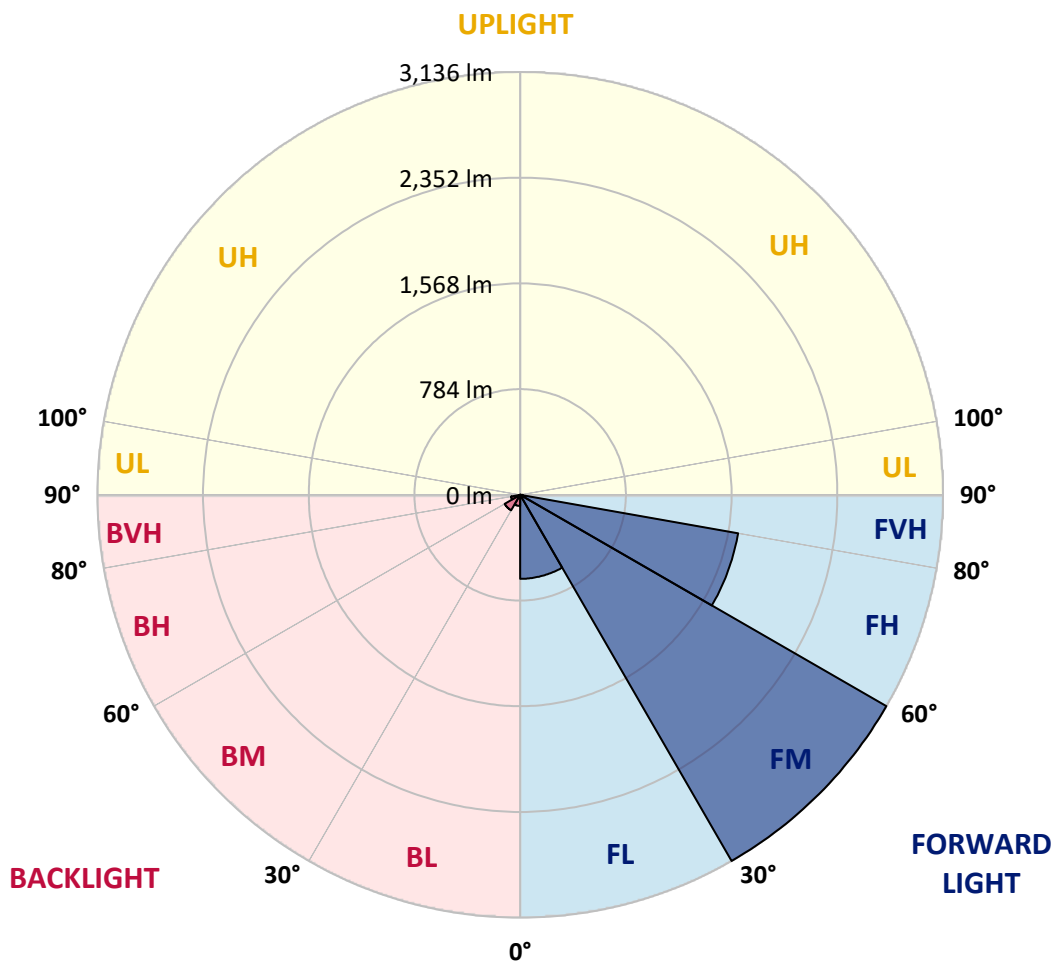
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	623.1	10.9			
FM	(30°-60°)	3136.3	55.0			
FH	(60°-80°)	1641.8	28.8			G1/1800
FVH	(80°-90°)	20.4	0.4			G1/100
BL	(0°-30°)	82.7	1.4	B0/110		
BM	(30°-60°)	132.7	2.3	B0/220		
BH	(60°-80°)	69.0	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°	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0
2.5°	874.7	866.1	857.4	847.6	825.5	787.3	739.1	687.5	623.3	612.3	560.5
5°	1061.9	1058.3	1049.6	1036.0	1011.4	969.5	915.4	838.9	731.8	713.3	603.7
7.5°	1193.8	1191.3	1183.8	1167.8	1145.7	1103.8	1047.2	964.6	840.2	819.3	657.9
10°	1312.1	1310.7	1304.7	1289.8	1267.7	1222.1	1161.8	1075.5	943.7	920.3	720.7
12.5°	1419.2	1420.4	1418.0	1410.6	1394.6	1351.5	1282.5	1188.8	1043.6	1017.6	795.9
15°	1482.1	1485.7	1495.6	1510.4	1515.4	1480.8	1409.4	1305.9	1145.7	1123.5	882.0
17.5°	1461.2	1464.7	1495.6	1546.2	1594.1	1599.1	1535.1	1416.7	1246.8	1224.6	967.0
20°	1410.6	1415.5	1447.6	1516.5	1610.1	1675.5	1649.6	1537.4	1342.8	1315.7	1048.4
22.5°	1467.2	1467.2	1477.2	1519.0	1604.1	1706.2	1740.7	1658.2	1441.4	1408.2	1129.7
25°	1662.0	1658.2	1637.3	1620.1	1647.1	1738.3	1809.7	1781.3	1557.2	1519.0	1215.9
27.5°	1908.3	1925.5	1886.1	1823.3	1761.7	1801.1	1871.3	1903.4	1685.3	1645.9	1304.7
30°	2184.3	2191.7	2144.9	2061.0	1952.6	1914.5	1944.0	2008.2	1824.5	1781.3	1397.0
32.5°	2433.1	2427.0	2387.5	2300.1	2165.8	2083.2	2037.6	2091.9	1976.0	1926.8	1491.8
35°	2653.7	2658.5	2610.6	2509.4	2377.6	2290.1	2181.9	2186.7	2146.1	2089.4	1601.6
37.5°	2851.9	2843.3	2797.9	2696.7	2577.2	2482.3	2367.8	2285.3	2332.1	2272.9	1724.7
40°	3013.4	3004.7	2956.7	2858.1	2745.9	2668.4	2578.4	2417.1	2528.0	2460.2	1856.5
42.5°	3141.6	3131.6	3091.0	2996.0	2887.7	2818.7	2775.7	2579.8	2737.4	2669.7	2004.4
45°	3204.3	3195.7	3171.0	3099.6	3004.7	2944.4	2965.3	2767.0	2961.6	2904.9	2167.0
47.5°	3130.5	3126.7	3155.0	3142.7	3088.6	3056.5	3129.2	2971.5	3196.9	3141.6	2354.3
50°	2906.1	2912.3	2994.9	3097.1	3123.0	3161.1	3263.5	3187.0	3449.5	3390.4	2569.8
52.5°	2353.0	2394.9	2643.8	2890.1	3081.1	3225.3	3421.1	3495.0	3860.9	3803.1	2906.1
55°	1756.7	1774.1	2045.0	2466.3	2912.3	3220.3	3538.2	3676.1	4064.2	4005.2	2994.9
57.5°	1393.4	1399.5	1533.8	1963.8	2564.9	3109.5	3599.8	3741.4	4153.0	4103.6	3126.7
60°	1094.0	1101.3	1198.7	1494.4	2075.9	2810.1	3511.0	3798.2	4326.6	4287.3	3357.1
62.5°	851.2	858.7	917.8	1091.5	1557.2	2349.3	3332.4	3889.3	4656.9	4638.3	3734.1
65°	659.0	661.5	702.2	783.5	1100.2	1850.4	3114.3	3974.3	5102.7	5086.7	4039.6
67.5°	486.6	490.4	518.6	569.2	742.9	1329.3	2757.1	3909.0	5439.1	5392.3	4150.4
69°	393.0	396.7	421.3	462.0	586.5	1047.2	2430.6	3747.5	5489.6	5445.3	4080.2
70°	336.3	338.8	363.5	397.9	500.1	889.5	2171.9	3608.4	5423.1	5379.9	3920.1
72.5°	215.7	227.9	252.6	274.7	331.4	588.8	1466.0	2992.4	4678.9	4605.0	3070.0
75°	119.6	123.2	167.5	194.7	220.5	383.1	815.5	1866.4	2976.4	2924.6	1642.2
77.5°	98.5	101.0	118.2	147.9	147.9	214.3	307.9	735.5	1132.1	1021.4	444.8
80°	69.0	71.4	89.9	97.3	105.9	120.7	99.8	161.3	174.9	155.2	66.6
82.5°	48.1	50.6	61.7	80.0	85.0	56.7	37.0	48.1	50.6	50.6	26.0
85°	8.7	12.3	45.5	66.6	50.6	17.2	20.9	17.2	16.0	17.2	6.2
87.5°	0.0	0.0	28.3	32.0	27.0	7.4	8.7	6.2	3.8	4.9	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°	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0
2.5°	534.8	508.8	464.5	432.4	405.3	384.4	375.8	362.1	352.3	357.3	351.1
5°	549.5	503.9	432.4	386.8	354.8	327.7	305.6	288.3	274.7	272.2	269.9
7.5°	572.8	507.5	413.8	357.3	309.2	267.3	232.8	207.0	187.2	187.2	179.9
10°	604.9	517.5	402.8	327.7	256.2	199.6	165.1	140.4	130.7	129.4	126.9
12.5°	649.3	535.8	394.3	289.6	199.6	145.3	124.4	115.8	112.1	110.9	109.7
15°	709.7	563.0	384.4	242.7	151.5	119.6	110.9	103.5	99.8	98.5	97.3
17.5°	767.5	587.6	363.5	194.7	123.2	108.4	98.5	92.3	87.5	86.2	86.2
20°	821.7	608.6	327.7	151.5	110.9	97.3	87.5	80.0	75.2	73.9	73.9
22.5°	878.5	625.8	283.3	123.2	101.0	86.2	76.4	69.0	64.0	62.8	61.7
25°	938.8	638.2	232.8	109.7	91.2	76.4	65.2	59.1	55.4	54.2	53.0
27.5°	1004.0	643.0	184.8	99.8	80.0	66.6	56.7	50.6	48.1	46.8	46.8
30°	1063.1	638.2	142.9	88.8	70.2	57.9	49.2	44.3	42.0	40.7	40.7
32.5°	1124.8	625.8	114.5	78.8	61.7	49.2	42.0	38.2	37.0	35.8	35.8
35°	1190.1	609.8	98.5	70.2	53.0	43.1	37.0	34.5	33.2	32.0	32.0
37.5°	1266.4	590.0	89.9	62.8	46.8	38.2	32.0	30.8	29.6	29.6	29.6
40°	1352.7	565.5	83.8	56.7	42.0	33.2	28.3	27.0	26.0	26.0	26.0
42.5°	1443.8	537.1	77.7	50.6	37.0	28.3	24.7	24.7	23.4	23.4	22.2
45°	1546.2	508.8	71.4	44.3	32.0	24.7	20.9	19.8	19.8	18.4	18.4
47.5°	1666.8	482.8	65.2	39.4	28.3	20.9	18.4	17.2	16.0	14.8	14.8
50°	1836.9	480.5	57.9	34.5	26.0	17.2	14.8	13.6	12.3	11.0	11.0
52.5°	2005.6	458.2	49.2	28.3	20.9	14.8	11.0	9.8	8.7	8.7	7.4
55°	2043.9	421.3	43.1	24.7	16.0	11.0	8.7	6.2	6.2	4.9	4.9
57.5°	2127.5	404.1	37.0	19.8	12.3	8.7	4.9	3.8	3.8	3.8	3.8
60°	2292.7	399.1	32.0	17.2	8.7	6.2	3.8	2.4	2.4	1.3	1.3
62.5°	2520.6	394.3	27.0	14.8	6.2	3.8	2.4	1.3	0.0	0.0	0.0
65°	2646.2	360.9	22.2	11.0	4.9	3.8	1.3	0.0	0.0	0.0	0.0
67.5°	2613.0	298.1	19.8	7.4	3.8	2.4	1.3	0.0	0.0	0.0	0.0
69°	2473.8	251.3	16.0	6.2	3.8	2.4	1.3	0.0	0.0	0.0	0.0
70°	2306.2	216.9	14.8	4.9	2.4	1.3	1.3	0.0	0.0	0.0	0.0
72.5°	1637.3	113.4	9.8	3.8	2.4	1.3	0.0	0.0	0.0	0.0	0.0
75°	765.0	50.6	6.2	2.4	1.3	1.3	0.0	0.0	0.0	0.0	0.0
77.5°	168.8	23.4	3.8	2.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0
80°	32.0	8.7	2.4	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.0	3.8	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	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)