

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: P214649

Luminaire Tested: **ARCH-AF24-80-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214649  
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-AF24-80-D-U-T2R-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1050mA 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: 6283 lumens  
Efficiency: N/A  
Efficacy: 75.7 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): 83  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

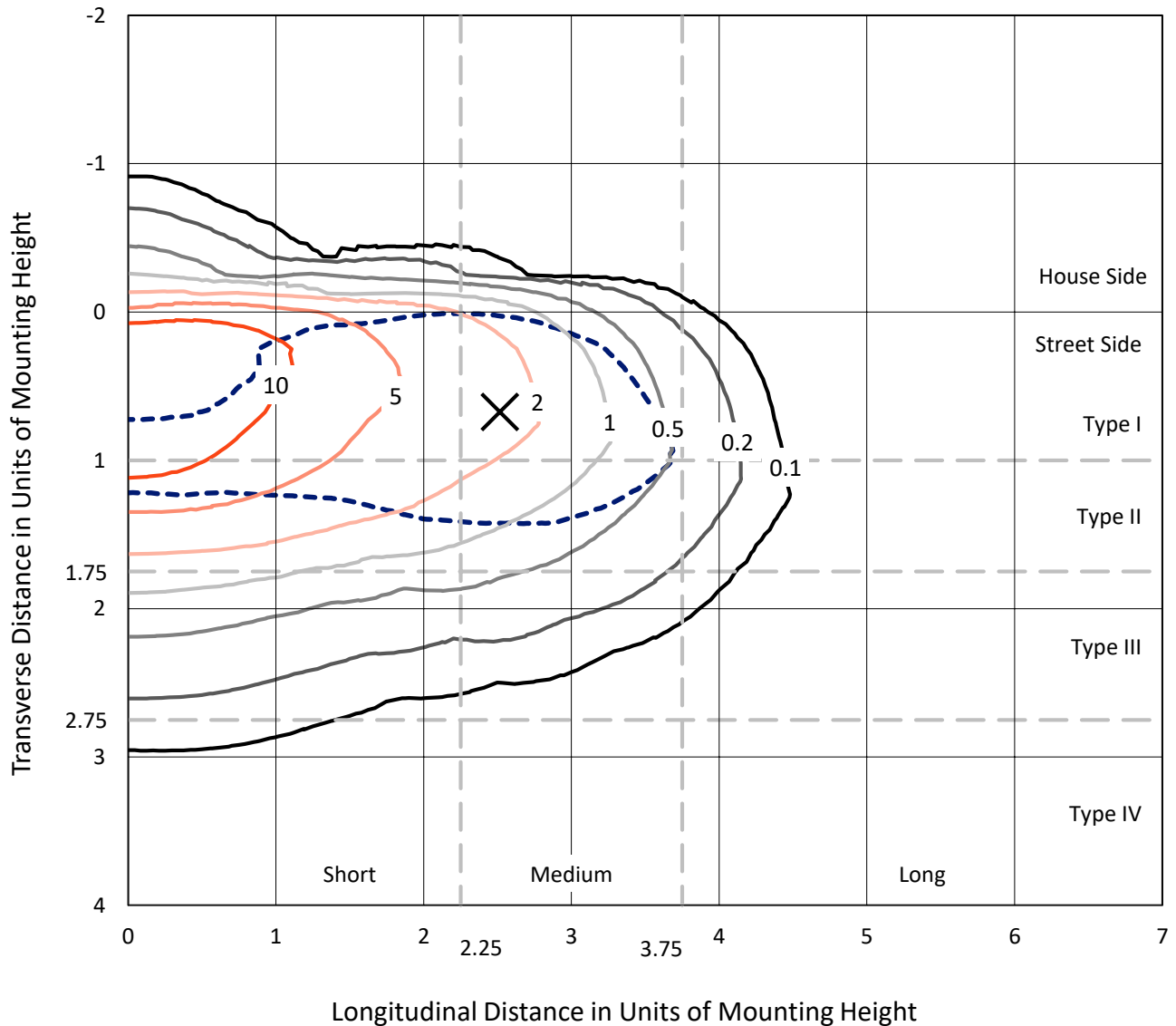


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

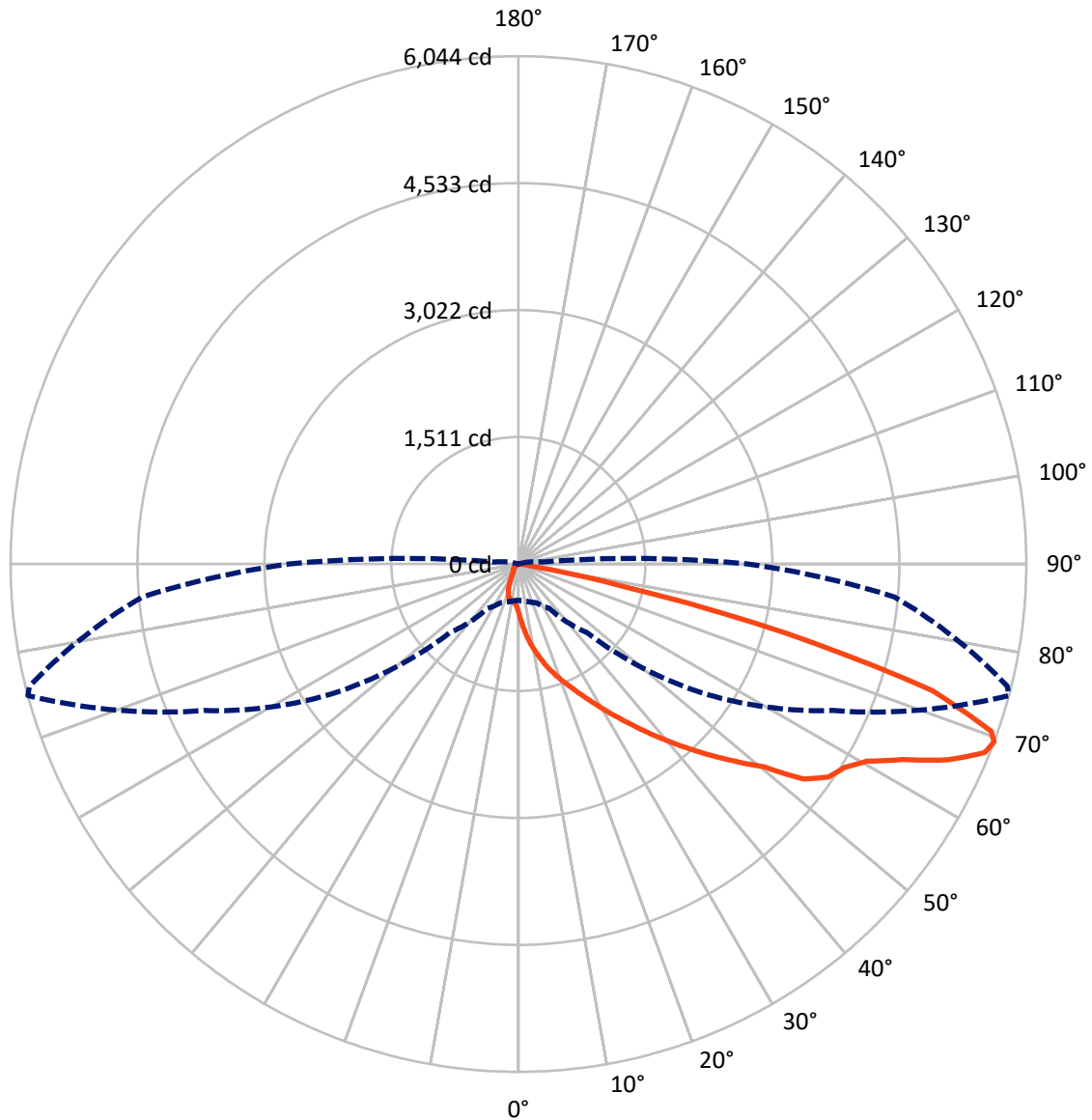


Based on 10 foot mounting height. Maximum calculated value = 16 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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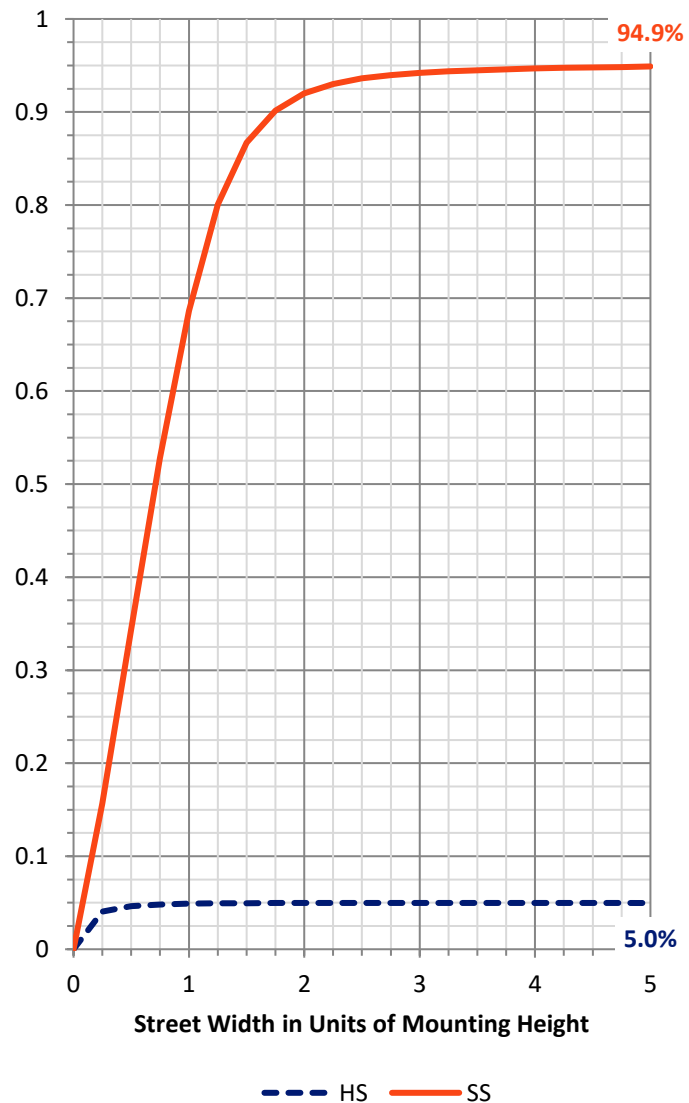
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	313.5	0.0	313.5
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	5969.5	0.0	5969.5
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	6283.0	0.0	6283.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.2	1.1
10°-20°	243.7	3.9
20°-30°	465.3	7.4
30°-40°	834.6	13.3
40°-50°	1278.7	20.4
50°-60°	1486.2	23.7
60°-70°	1316.0	20.9
70°-80°	567.7	9.0
80°-90°	22.7	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°	6283.0	100.0
0°-180°	6283.0	100.0

**Coefficient of Utilization**



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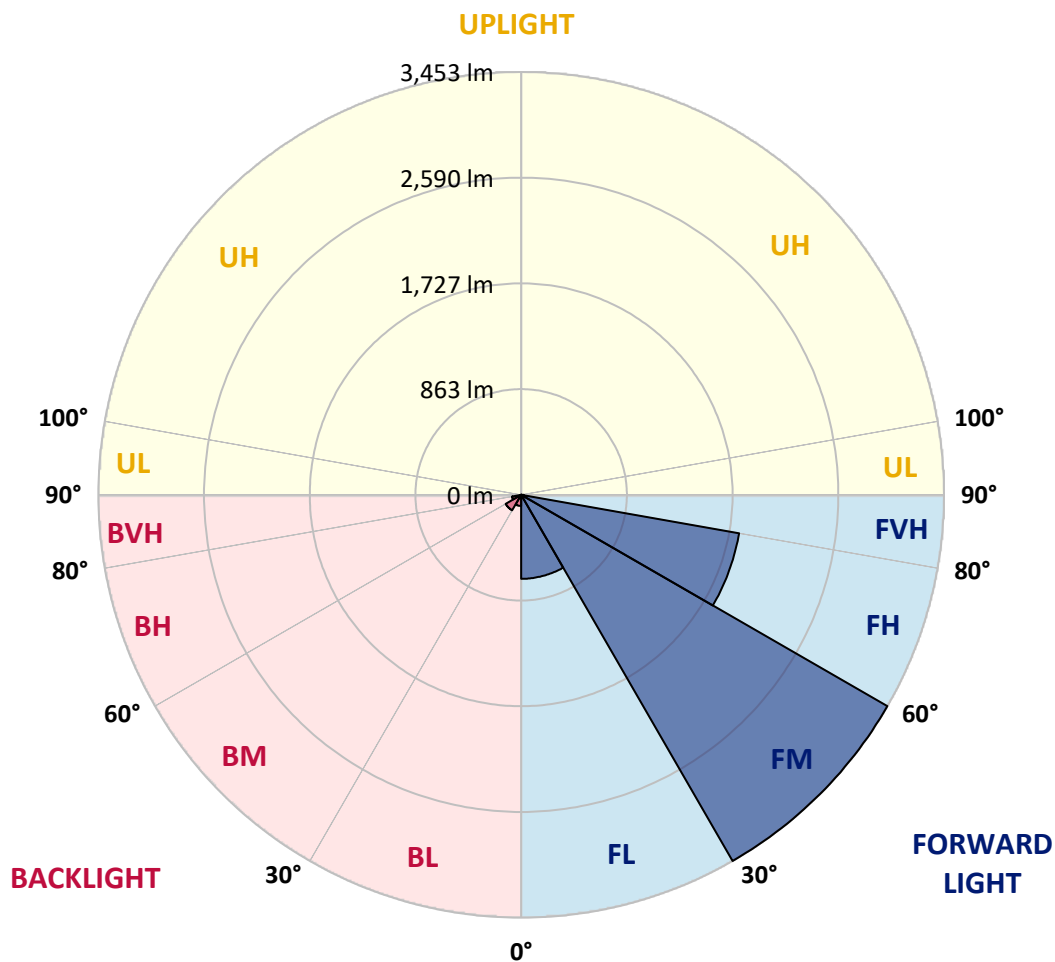
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	686.1	10.9			
FM (30°-60°)	3453.3	55.0			
FH (60°-80°)	1807.7	28.8			G2/5000
FVH (80°-90°)	22.4	0.4			G1/100
BL (0°-30°)	91.0	1.4	B0/110		
BM (30°-60°)	146.2	2.3	B0/220		
BH (60°-80°)	76.0	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-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	584.6	584.6	584.6	584.6	584.6	584.6	584.6	584.6	584.6	584.6	584.6
2.5°	963.1	953.6	944.1	933.2	908.8	866.8	813.9	756.9	686.4	674.2	617.2
5°	1169.3	1165.2	1155.7	1140.8	1113.6	1067.5	1007.8	923.7	805.7	785.4	664.7
7.5°	1314.4	1311.7	1303.6	1285.9	1261.5	1215.4	1153.0	1062.1	925.1	902.0	724.3
10°	1444.6	1443.3	1436.5	1420.2	1395.8	1345.6	1279.1	1184.2	1039.0	1013.3	793.5
12.5°	1562.6	1564.0	1561.3	1553.1	1535.5	1488.0	1412.1	1309.0	1148.9	1120.4	876.3
15°	1631.8	1635.9	1646.7	1663.0	1668.4	1630.5	1551.8	1437.8	1261.5	1237.1	971.2
17.5°	1608.8	1612.8	1646.7	1702.3	1755.2	1760.7	1690.1	1559.9	1372.7	1348.3	1064.8
20°	1553.1	1558.6	1593.8	1669.8	1772.9	1844.8	1816.3	1692.9	1478.5	1448.7	1154.3
22.5°	1615.5	1615.5	1626.4	1672.5	1766.1	1878.7	1916.7	1825.8	1587.0	1550.4	1243.9
25°	1829.9	1825.8	1802.7	1783.7	1813.6	1914.0	1992.6	1961.4	1714.6	1672.5	1338.8
27.5°	2101.1	2120.1	2076.7	2007.5	1939.7	1983.1	2060.5	2095.7	1855.6	1812.2	1436.5
30°	2405.0	2413.1	2361.6	2269.3	2150.0	2107.9	2140.5	2211.0	2008.9	1961.4	1538.2
32.5°	2679.0	2672.2	2628.8	2532.5	2384.6	2293.8	2243.6	2303.3	2175.7	2121.5	1642.7
35°	2921.8	2927.2	2874.3	2763.1	2618.0	2521.6	2402.3	2407.7	2362.9	2300.5	1763.4
37.5°	3140.2	3130.7	3080.5	2969.3	2837.7	2733.3	2607.1	2516.2	2567.8	2502.7	1899.0
40°	3317.9	3308.4	3255.5	3147.0	3023.5	2938.1	2839.1	2661.4	2783.4	2708.8	2044.2
42.5°	3459.0	3448.1	3403.3	3298.9	3179.5	3103.6	3056.1	2840.4	3014.0	2939.4	2206.9
45°	3528.1	3518.6	3491.5	3412.8	3308.4	3241.9	3265.0	3046.6	3260.9	3198.5	2386.0
47.5°	3446.7	3442.7	3473.9	3460.3	3400.6	3365.4	3445.4	3271.8	3520.0	3459.0	2592.2
50°	3199.9	3206.7	3297.5	3410.1	3438.6	3480.7	3593.2	3509.1	3798.1	3733.0	2829.6
52.5°	2590.8	2636.9	2910.9	3182.2	3392.5	3551.2	3766.9	3848.3	4251.1	4187.4	3199.9
55°	1934.3	1953.3	2251.7	2715.6	3206.7	3545.8	3895.7	4047.7	4474.9	4409.8	3297.5
57.5°	1534.1	1540.9	1688.8	2162.2	2824.1	3423.7	3963.6	4119.5	4572.6	4518.3	3442.7
60°	1204.5	1212.7	1319.8	1645.4	2285.6	3094.1	3865.9	4181.9	4763.9	4720.5	3696.3
62.5°	937.3	945.4	1010.6	1201.8	1714.6	2586.8	3669.2	4282.3	5127.4	5107.0	4111.4
65°	725.7	728.4	773.2	862.7	1211.3	2037.4	3429.1	4375.9	5618.4	5600.8	4447.8
67.5°	535.8	539.9	571.1	626.7	817.9	1463.6	3035.7	4304.0	5988.7	5937.2	4569.9
69°	432.7	436.8	463.9	508.7	645.7	1153.0	2676.3	4126.3	6044.4	5995.5	4492.6
70°	370.3	373.0	400.2	438.1	550.7	979.4	2391.4	3973.0	5971.1	5923.6	4316.2
72.5°	237.4	250.9	278.1	302.5	364.9	648.4	1614.2	3294.8	5151.8	5070.4	3380.3
75°	131.6	135.6	184.5	214.3	242.8	421.9	898.0	2055.0	3277.2	3220.2	1808.2
77.5°	108.5	111.2	130.2	162.8	162.8	236.0	339.1	809.8	1246.6	1124.5	489.7
80°	76.0	78.7	99.0	107.2	116.7	132.9	109.9	177.7	192.6	170.9	73.2
82.5°	52.9	55.6	67.8	88.2	93.6	62.4	40.7	52.9	55.6	55.6	28.5
85°	9.5	13.6	50.2	73.2	55.6	19.0	23.1	19.0	17.6	19.0	6.8
87.5°	0.0	0.0	31.2	35.3	29.8	8.1	9.5	6.8	4.1	5.4	2.7
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°	584.6	584.6	584.6	584.6	584.6	584.6	584.6	584.6	584.6	584.6	584.6
2.5°	588.7	560.2	511.4	476.1	446.3	423.2	413.7	398.8	387.9	393.4	386.6
5°	605.0	554.8	476.1	425.9	390.7	360.8	336.4	317.4	302.5	299.8	297.1
7.5°	630.8	558.9	455.8	393.4	340.5	294.4	256.4	227.9	206.2	206.2	198.0
10°	666.0	569.7	443.6	360.8	282.1	219.7	181.8	154.6	143.8	142.4	139.7
12.5°	714.9	590.1	434.1	318.8	219.7	160.1	137.0	127.5	123.4	122.1	120.7
15°	781.3	619.9	423.2	267.2	166.8	131.6	122.1	113.9	109.9	108.5	107.2
17.5°	845.1	647.0	400.2	214.3	135.6	119.4	108.5	101.7	96.3	95.0	95.0
20°	904.8	670.1	360.8	166.8	122.1	107.2	96.3	88.2	82.7	81.4	81.4
22.5°	967.2	689.1	312.0	135.6	111.2	95.0	84.1	76.0	70.5	69.2	67.8
25°	1033.6	702.6	256.4	120.7	100.4	84.1	71.9	65.1	61.0	59.7	58.3
27.5°	1105.5	708.1	203.5	109.9	88.2	73.2	62.4	55.6	52.9	51.5	51.5
30°	1170.6	702.6	157.3	97.7	77.3	63.8	54.3	48.8	46.1	44.8	44.8
32.5°	1238.4	689.1	126.2	86.8	67.8	54.3	46.1	42.1	40.7	39.3	39.3
35°	1310.3	671.4	108.5	77.3	58.3	47.5	40.7	38.0	36.6	35.3	35.3
37.5°	1394.4	649.7	99.0	69.2	51.5	42.1	35.3	33.9	32.6	32.6	32.6
40°	1489.4	622.6	92.2	62.4	46.1	36.6	31.2	29.8	28.5	28.5	28.5
42.5°	1589.8	591.4	85.5	55.6	40.7	31.2	27.1	27.1	25.8	25.8	24.4
45°	1702.3	560.2	78.7	48.8	35.3	27.1	23.1	21.7	21.7	20.3	20.3
47.5°	1835.3	531.7	71.9	43.4	31.2	23.1	20.3	19.0	17.6	16.3	16.3
50°	2022.5	529.0	63.8	38.0	28.5	19.0	16.3	14.9	13.6	12.2	12.2
52.5°	2208.3	504.6	54.3	31.2	23.1	16.3	12.2	10.9	9.5	9.5	8.1
55°	2250.4	463.9	47.5	27.1	17.6	12.2	9.5	6.8	6.8	5.4	5.4
57.5°	2342.6	444.9	40.7	21.7	13.6	9.5	5.4	4.1	4.1	4.1	4.1
60°	2524.4	439.5	35.3	19.0	9.5	6.8	4.1	2.7	2.7	1.4	1.4
62.5°	2775.3	434.1	29.8	16.3	6.8	4.1	2.7	1.4	0.0	0.0	0.0
65°	2913.7	397.4	24.4	12.2	5.4	4.1	1.4	0.0	0.0	0.0	0.0
67.5°	2877.0	328.3	21.7	8.1	4.1	2.7	1.4	0.0	0.0	0.0	0.0
69°	2723.8	276.7	17.6	6.8	4.1	2.7	1.4	0.0	0.0	0.0	0.0
70°	2539.3	238.7	16.3	5.4	2.7	1.4	1.4	0.0	0.0	0.0	0.0
72.5°	1802.7	124.8	10.9	4.1	2.7	1.4	0.0	0.0	0.0	0.0	0.0
75°	842.4	55.6	6.8	2.7	1.4	1.4	0.0	0.0	0.0	0.0	0.0
77.5°	185.8	25.8	4.1	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	35.3	9.5	2.7	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.2	4.1	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.1	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)