

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: P265906

Luminaire Tested: **ARCH-AF16-60-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265906  
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-AF16-60-D-U-T2R-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4515.8 lumens  
Efficiency: N/A  
Efficacy: 71.7 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 - G1

Input Watts (W): 63  
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

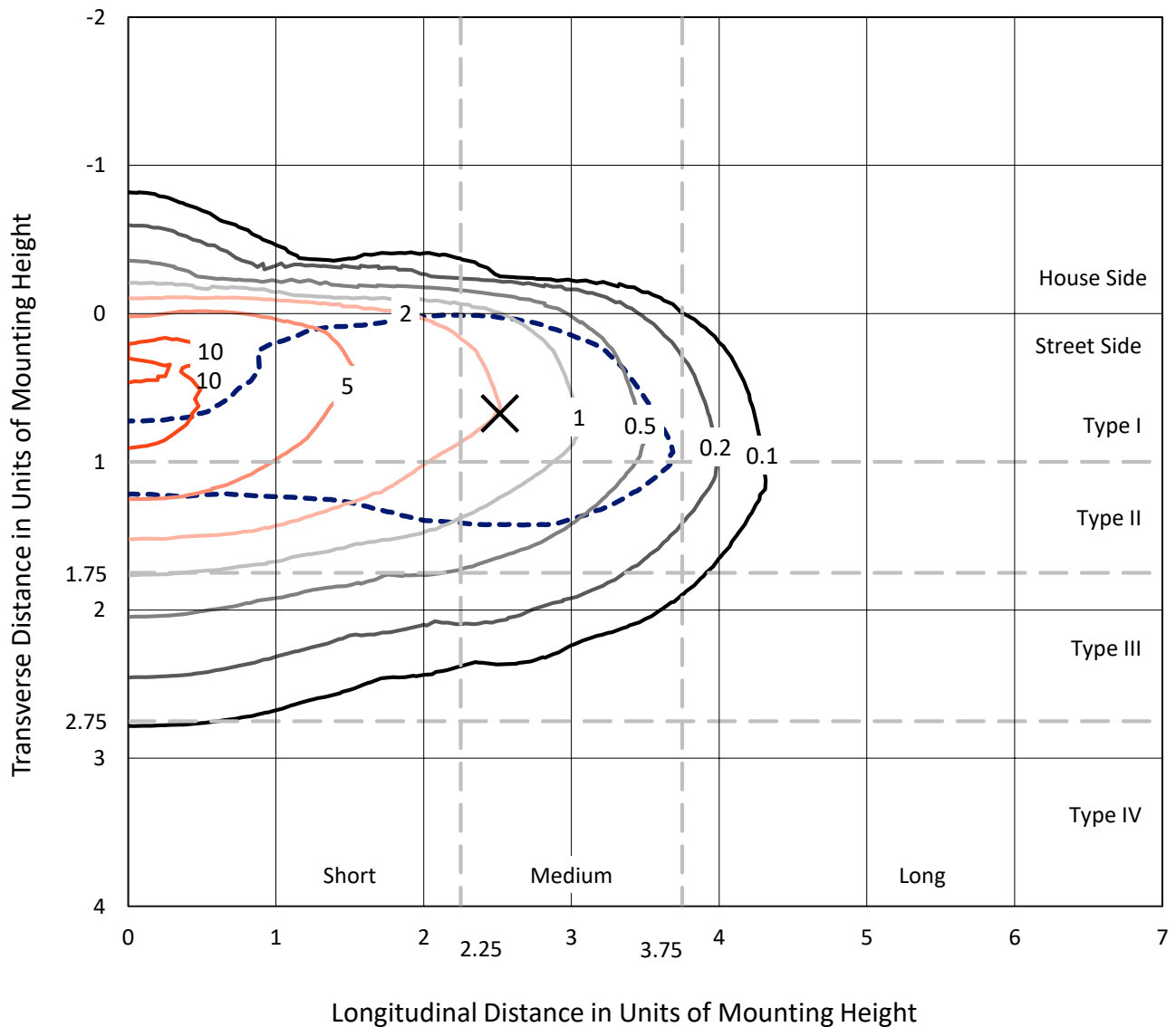


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

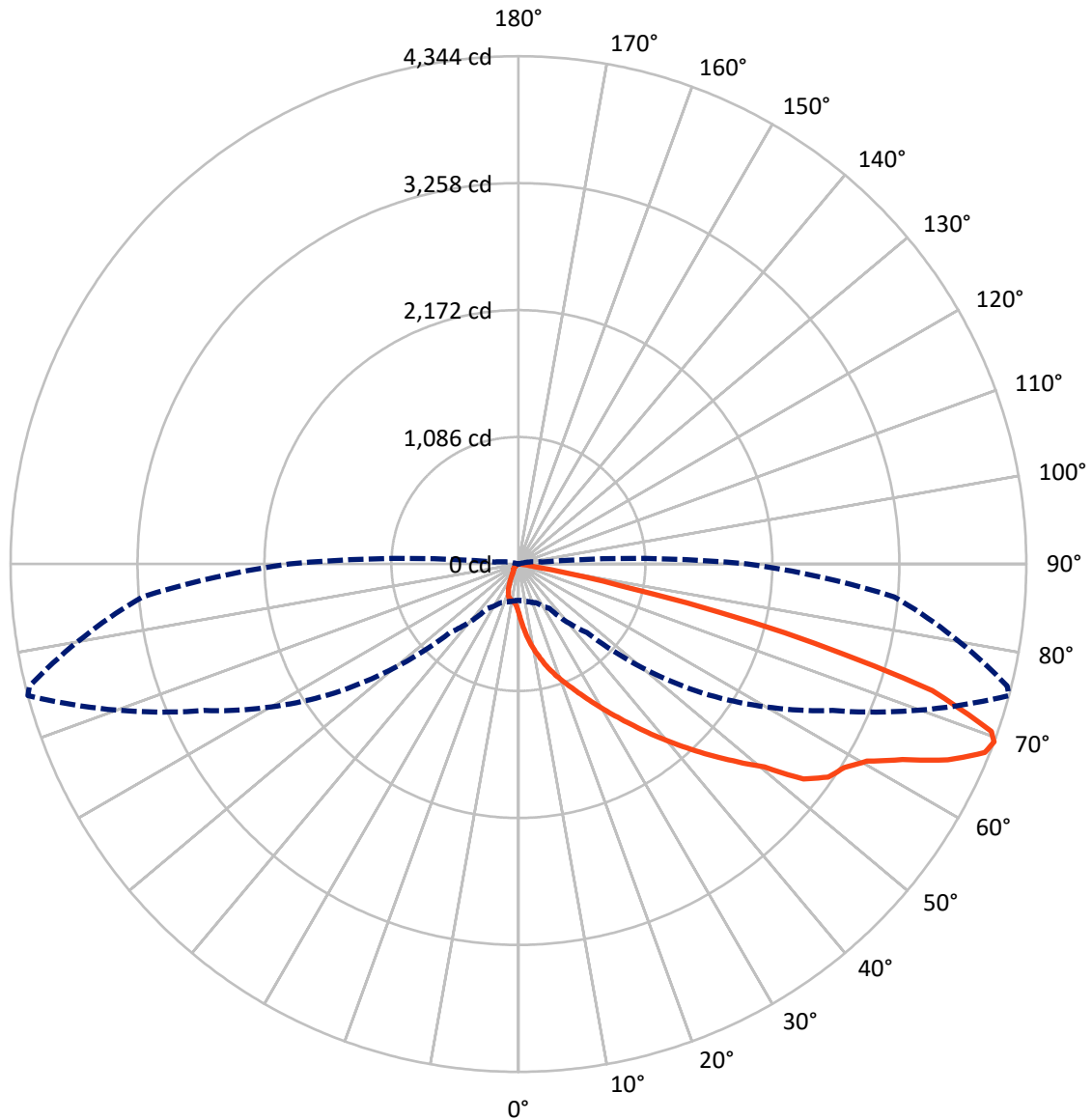


Based on 10 foot mounting height. Maximum calculated value = 11.5 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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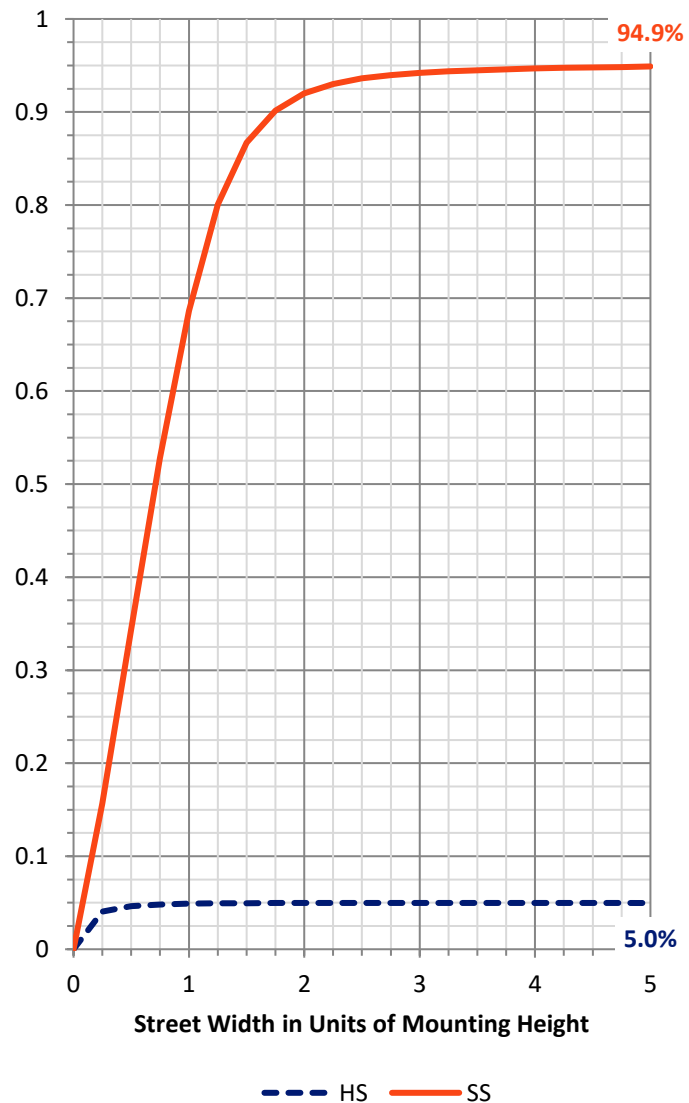
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	225.3	0.0	225.3
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	4290.5	0.0	4290.5
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	4515.8	0.0	4515.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.0	1.1
10°-20°	175.2	3.9
20°-30°	334.4	7.4
30°-40°	599.9	13.3
40°-50°	919.0	20.4
50°-60°	1068.1	23.7
60°-70°	945.9	20.9
70°-80°	408.0	9.0
80°-90°	16.4	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°	4515.8	100.0
0°-180°	4515.8	100.0

**Coefficient of Utilization**



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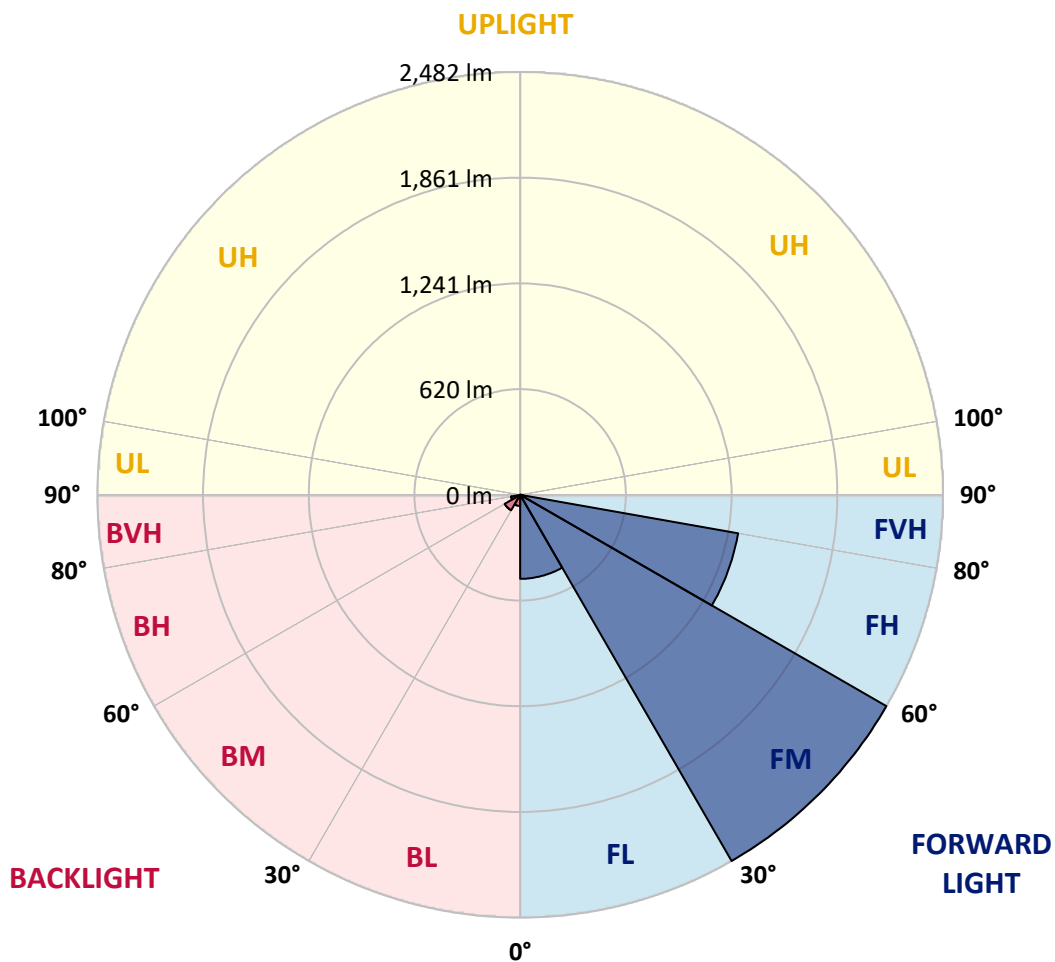
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	493.1	10.9			
FM	(30°-60°)	2482.0	55.0			
FH	(60°-80°)	1299.3	28.8			G1/1800
FVH	(80°-90°)	16.1	0.4			G1/100
BL	(0°-30°)	65.4	1.4	B0/110		
BM	(30°-60°)	105.1	2.3	B0/220		
BH	(60°-80°)	54.6	1.2	B0/110		G0/110
BVH	(80°-90°)	0.2	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°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	692.2	685.3	678.6	670.8	653.2	623.0	584.9	544.1	493.3	484.5	443.7
5°	840.4	837.5	830.7	820.0	800.4	767.2	724.4	663.9	579.0	564.5	477.7
7.5°	944.7	942.7	936.9	924.3	906.7	873.5	828.6	763.4	664.8	648.3	520.6
10°	1038.4	1037.4	1032.4	1020.7	1003.1	967.1	919.3	851.1	746.9	728.3	570.3
12.5°	1123.2	1124.0	1122.2	1116.4	1103.6	1069.5	1014.8	940.9	825.7	805.3	629.8
15°	1172.8	1175.7	1183.5	1195.3	1199.1	1171.8	1115.3	1033.4	906.7	889.1	698.1
17.5°	1156.3	1159.3	1183.5	1223.5	1261.6	1265.4	1214.8	1121.2	986.6	969.1	765.4
20°	1116.4	1120.1	1145.6	1200.1	1274.2	1325.9	1305.4	1216.8	1062.7	1041.2	829.7
22.5°	1161.1	1161.1	1169.0	1202.1	1269.3	1350.2	1377.6	1312.2	1140.7	1114.3	894.1
25°	1315.2	1312.2	1295.6	1282.1	1303.5	1375.7	1432.2	1409.7	1232.4	1202.1	962.3
27.5°	1510.2	1523.9	1492.7	1442.9	1394.1	1425.3	1480.9	1506.3	1333.8	1302.5	1032.4
30°	1728.6	1734.4	1697.3	1631.1	1545.3	1515.0	1538.4	1589.1	1443.8	1409.7	1105.5
32.5°	1925.4	1920.5	1889.4	1820.1	1714.0	1648.6	1612.5	1655.4	1563.8	1524.9	1180.6
35°	2100.0	2103.9	2065.8	1986.0	1881.6	1812.4	1726.6	1730.5	1698.3	1653.5	1267.4
37.5°	2256.9	2250.2	2214.1	2134.2	2039.5	1964.5	1873.9	1808.5	1845.6	1798.8	1364.9
40°	2384.7	2377.9	2339.8	2261.8	2173.1	2111.6	2040.5	1912.9	2000.5	1946.9	1469.2
42.5°	2486.1	2478.2	2446.1	2371.0	2285.2	2230.6	2196.5	2041.5	2166.4	2112.6	1586.1
45°	2535.7	2529.0	2509.4	2452.9	2377.9	2330.1	2346.6	2189.7	2343.7	2298.9	1715.0
47.5°	2477.3	2474.3	2496.7	2487.0	2444.2	2418.7	2476.3	2351.6	2529.9	2486.1	1863.1
50°	2299.8	2304.7	2370.1	2450.9	2471.4	2501.7	2582.5	2522.1	2729.8	2683.0	2033.8
52.5°	1862.0	1895.2	2092.2	2287.2	2438.3	2552.4	2707.4	2765.9	3055.4	3009.6	2299.8
55°	1390.2	1404.0	1618.3	1951.7	2304.7	2548.4	2799.9	2909.3	3216.3	3169.5	2370.1
57.5°	1102.6	1107.5	1213.8	1554.1	2029.8	2460.6	2848.7	2960.9	3286.4	3247.6	2474.3
60°	865.7	871.5	948.6	1182.6	1642.7	2223.8	2778.5	3005.6	3423.9	3392.8	2656.6
62.5°	673.6	679.5	726.3	863.8	1232.4	1859.2	2637.2	3077.9	3685.2	3670.7	2955.1
65°	521.6	523.5	555.7	620.1	870.5	1464.3	2464.6	3145.1	4038.2	4025.5	3196.8
67.5°	385.2	388.0	410.4	450.4	587.9	1051.9	2182.0	3093.5	4304.3	4267.3	3284.6
69°	311.1	313.9	333.5	365.6	464.1	828.6	1923.5	2965.8	4344.3	4309.2	3229.0
70°	266.2	268.1	287.5	314.9	395.9	703.9	1718.7	2855.5	4291.7	4257.4	3102.1
72.5°	170.6	180.4	199.9	217.4	262.2	466.0	1160.3	2368.1	3702.8	3644.2	2429.6
75°	94.6	97.5	132.6	154.0	174.5	303.2	645.4	1477.1	2355.4	2314.5	1299.6
77.5°	78.1	79.9	93.7	117.0	117.0	169.6	243.7	582.0	896.0	808.2	352.0
80°	54.5	56.6	71.1	77.1	83.8	95.5	79.1	127.6	138.5	122.9	52.6
82.5°	38.0	40.0	48.8	63.4	67.3	44.8	29.3	38.0	40.0	40.0	20.5
85°	6.8	9.7	36.1	52.6	40.0	13.7	16.6	13.7	12.7	13.7	4.9
87.5°	0.0	0.0	22.4	25.3	21.5	5.8	6.8	4.9	3.0	4.0	1.9
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°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	423.1	402.6	367.5	342.3	320.8	304.2	297.3	286.6	278.8	282.7	277.8
5°	434.8	398.8	342.3	306.1	280.8	259.3	241.7	228.1	217.4	215.5	213.4
7.5°	453.4	401.6	327.6	282.7	244.7	211.6	184.2	163.9	148.2	148.2	142.3
10°	478.6	409.4	318.8	259.3	202.7	157.9	130.7	111.1	103.3	102.3	100.4
12.5°	513.8	424.1	312.0	229.1	157.9	115.1	98.5	91.6	88.8	87.8	86.7
15°	561.6	445.5	304.2	192.1	120.0	94.6	87.8	81.8	79.1	78.1	77.1
17.5°	607.3	465.1	287.5	154.0	97.5	85.8	78.1	73.1	69.2	68.2	68.2
20°	650.3	481.6	259.3	120.0	87.8	77.1	69.2	63.4	59.5	58.5	58.5
22.5°	695.1	495.2	224.2	97.5	79.9	68.2	60.5	54.5	50.8	49.8	48.8
25°	742.9	504.9	184.2	86.7	72.1	60.5	51.7	46.8	43.8	42.8	42.0
27.5°	794.6	508.9	146.2	79.1	63.4	52.6	44.8	40.0	38.0	37.0	37.0
30°	841.4	504.9	113.0	70.2	55.5	45.9	38.9	35.2	33.1	32.2	32.2
32.5°	890.1	495.2	90.6	62.4	48.8	38.9	33.1	30.3	29.3	28.2	28.2
35°	941.8	482.6	78.1	55.5	42.0	34.1	29.3	27.3	26.3	25.3	25.3
37.5°	1002.1	466.9	71.1	49.8	37.0	30.3	25.3	24.3	23.4	23.4	23.4
40°	1070.5	447.4	66.3	44.8	33.1	26.3	22.4	21.5	20.5	20.5	20.5
42.5°	1142.6	425.1	61.4	40.0	29.3	22.4	19.6	19.6	18.5	18.5	17.5
45°	1223.5	402.6	56.6	35.2	25.3	19.6	16.6	15.6	15.6	14.6	14.6
47.5°	1319.2	382.1	51.7	31.3	22.4	16.6	14.6	13.7	12.7	11.7	11.7
50°	1453.5	380.3	45.9	27.3	20.5	13.7	11.7	10.7	9.7	8.8	8.8
52.5°	1587.1	362.6	38.9	22.4	16.6	11.7	8.8	7.7	6.8	6.8	5.8
55°	1617.4	333.5	34.1	19.6	12.7	8.8	6.8	4.9	4.9	4.0	4.0
57.5°	1683.8	319.7	29.3	15.6	9.7	6.8	4.0	3.0	3.0	3.0	3.0
60°	1814.3	315.8	25.3	13.7	6.8	4.9	3.0	1.9	1.9	1.0	1.0
62.5°	1994.6	312.0	21.5	11.7	4.9	3.0	1.9	1.0	0.0	0.0	0.0
65°	2094.2	285.7	17.5	8.8	4.0	3.0	1.0	0.0	0.0	0.0	0.0
67.5°	2067.8	236.0	15.6	5.8	3.0	1.9	1.0	0.0	0.0	0.0	0.0
69°	1957.6	198.9	12.7	4.9	3.0	1.9	1.0	0.0	0.0	0.0	0.0
70°	1825.0	171.5	11.7	4.0	1.9	1.0	1.0	0.0	0.0	0.0	0.0
72.5°	1295.6	89.7	7.7	3.0	1.9	1.0	0.0	0.0	0.0	0.0	0.0
75°	605.5	40.0	4.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0
77.5°	133.6	18.5	3.0	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	25.3	6.8	1.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.8	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	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)