

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: P265938

Luminaire Tested: **ARCH-AF24-40-D-U-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265938
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-40-D-U-T4W-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4432.4 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 40
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

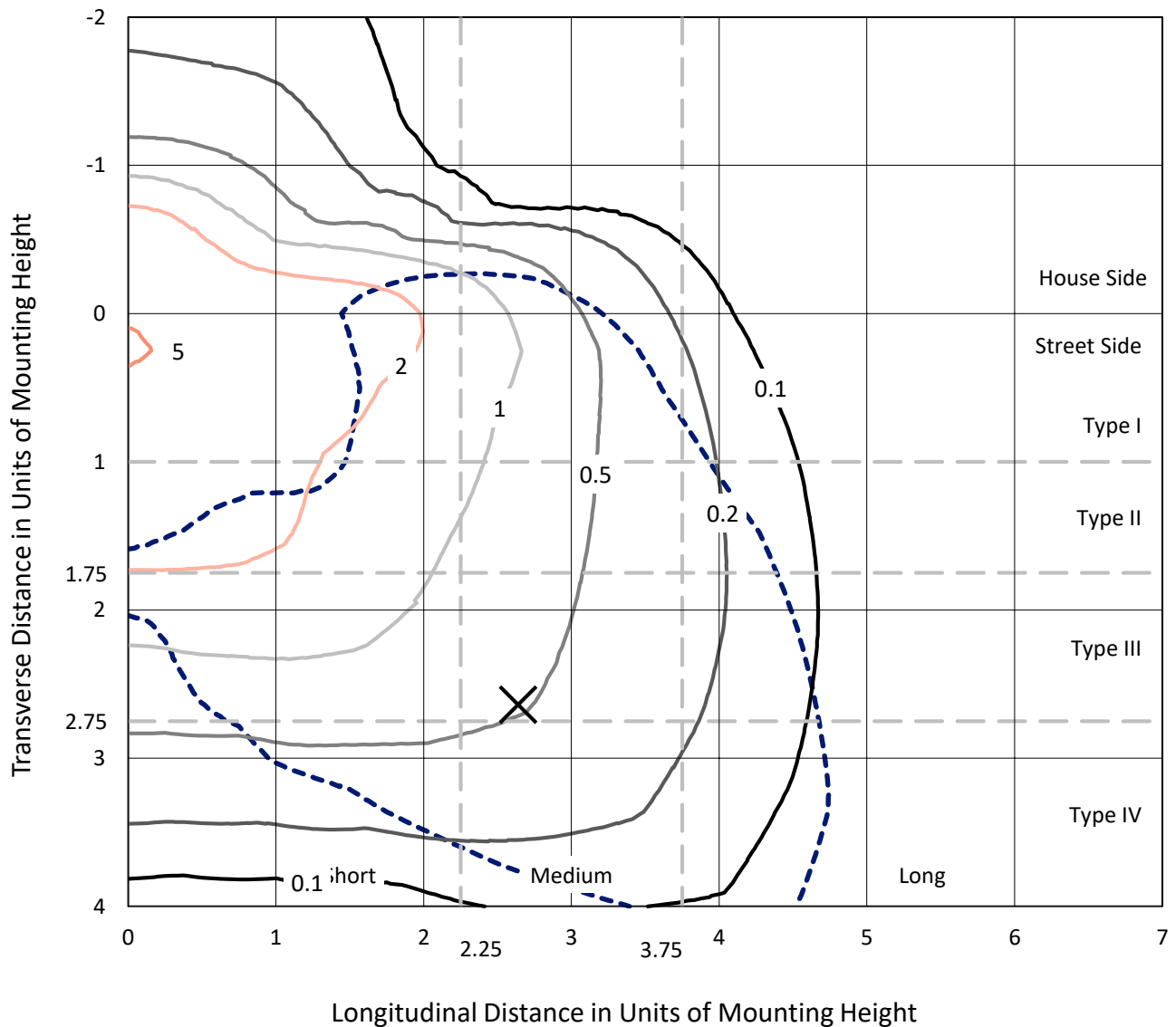


REPORT NUMBER: P265938

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-7027

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

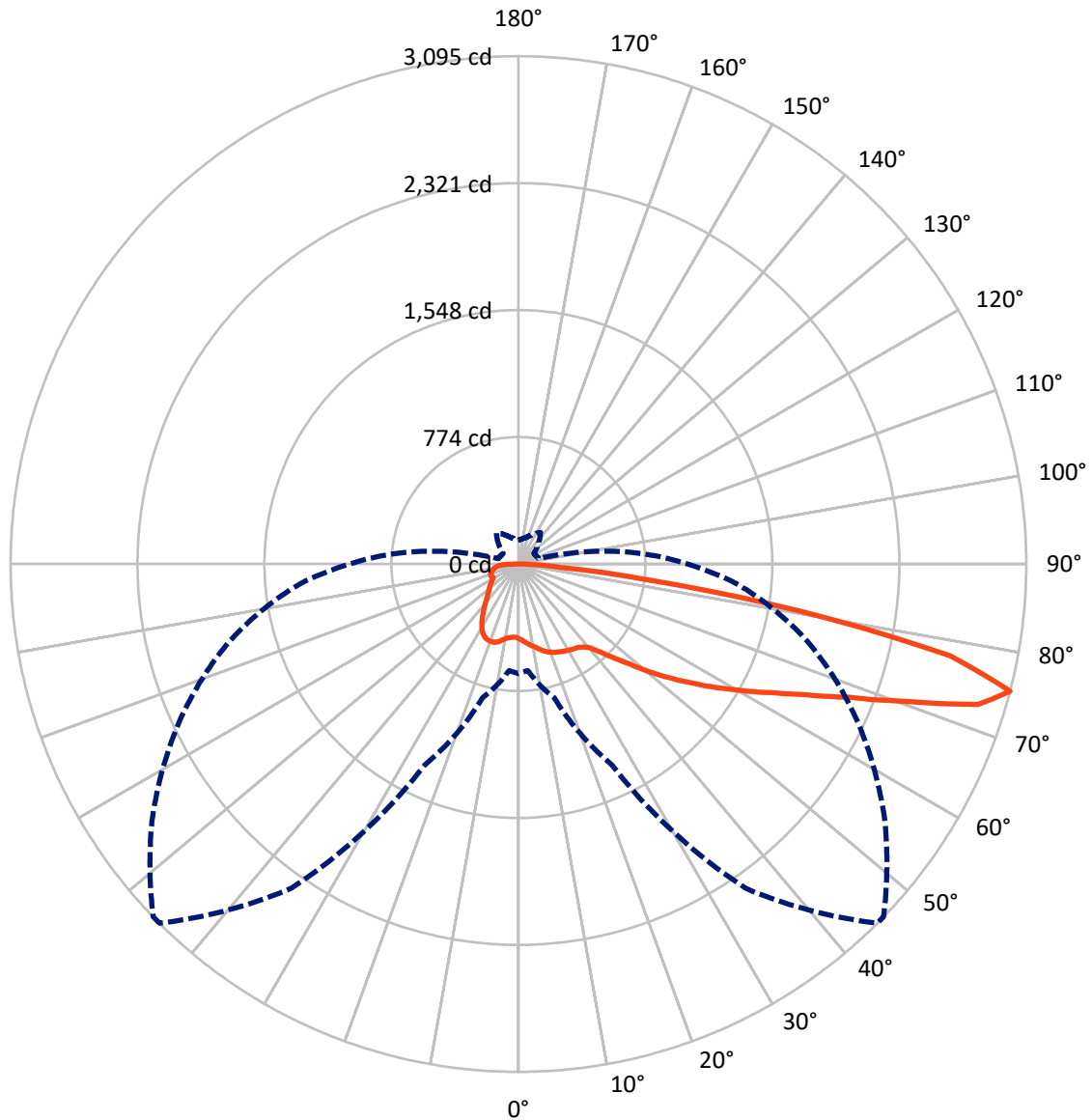


Based on 10 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P265938

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-7027

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P265938

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-7027

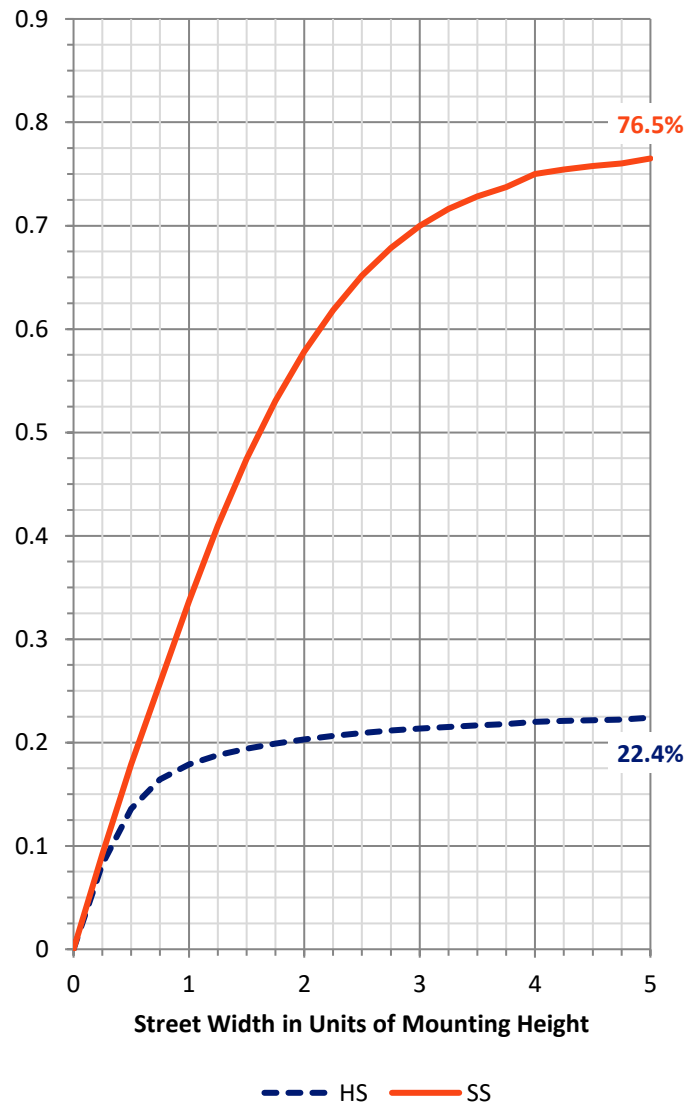
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1026.8	0.0	1026.8
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	3405.6	0.0	3405.6
	% Fixture	76.8	0.0	76.8
Total	Lumens	4432.4	0.0	4432.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.0	1.0
10°-20°	145.9	3.3
20°-30°	250.4	5.6
30°-40°	350.2	7.9
40°-50°	513.7	11.6
50°-60°	800.2	18.1
60°-70°	1151.5	26.0
70°-80°	1003.1	22.6
80°-90°	172.3	3.9
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°	4432.4	100.0
0°-180°	4432.4	100.0



REPORT NUMBER: P265938

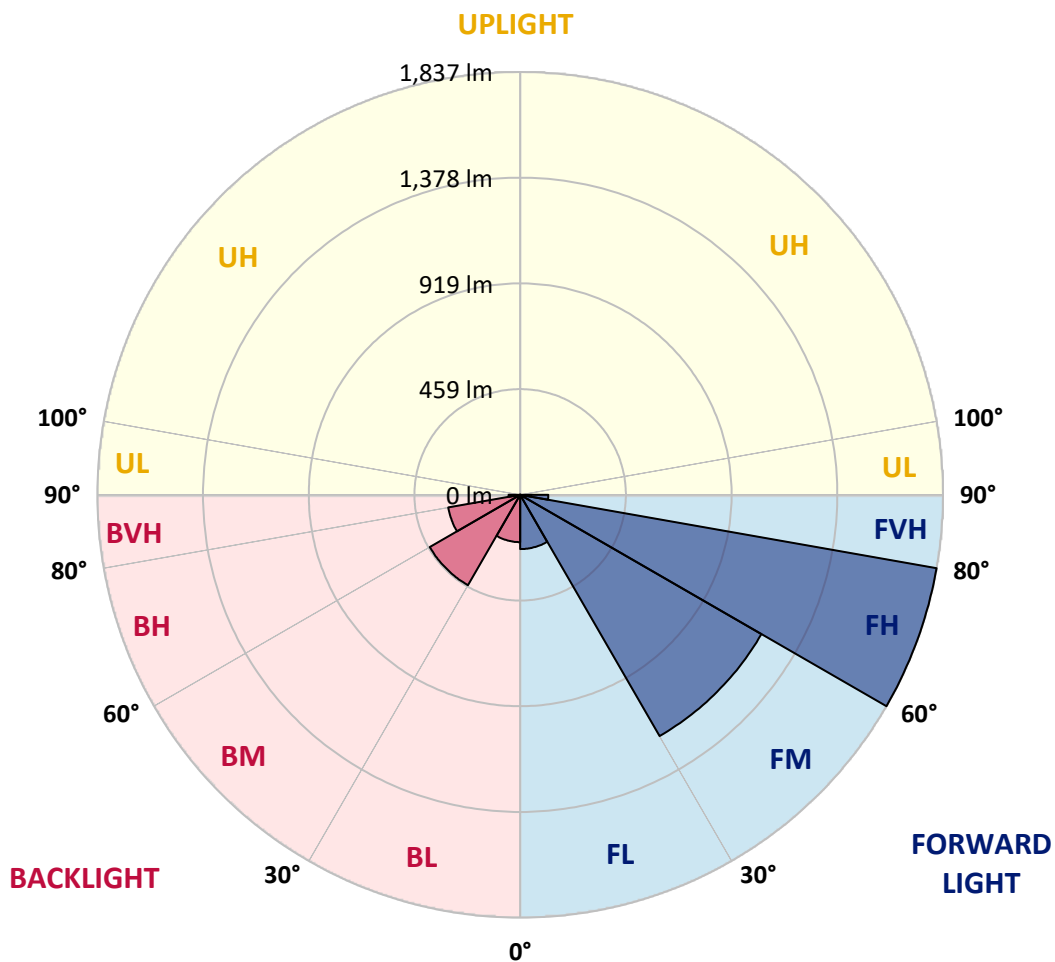
CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	235.7	5.3			
FM (30°-60°)	1210.4	27.3			
FH (60°-80°)	1837.3	41.5			G2/5000
FVH (80°-90°)	122.2	2.8			G2/225
BL (0°-30°)	205.7	4.6	B1/500		
BM (30°-60°)	453.8	10.2	B1/1000		
BH (60°-80°)	317.3	7.2	B1/500		G1/500
BVH (80°-90°)	50.0	1.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium





REPORT NUMBER: P265938

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5
2.5°	476.8	473.3	473.3	470.7	470.7	466.5	464.8	463.9	459.6	457.0	454.5
5°	504.4	500.0	499.2	493.2	490.6	481.1	480.2	474.2	466.5	458.7	452.7
7.5°	529.5	526.8	522.5	516.4	508.7	496.7	495.8	486.3	473.3	462.9	454.5
10°	547.4	545.8	539.7	531.9	523.4	511.2	510.4	500.0	484.5	472.5	460.4
12.5°	569.0	566.6	558.7	548.3	538.9	527.7	526.8	518.2	501.0	485.4	470.0
15°	589.7	586.4	576.8	566.6	556.1	546.7	546.7	537.1	519.0	501.0	482.7
17.5°	600.1	598.5	588.8	577.7	569.0	562.2	561.4	552.6	534.6	515.5	495.8
20°	603.5	604.4	595.8	583.7	577.7	574.2	573.4	567.3	547.4	529.5	510.4
22.5°	602.8	605.3	598.5	585.4	583.7	583.7	583.7	576.8	561.4	543.1	524.3
25°	606.1	609.6	604.4	588.8	588.8	592.3	592.3	588.8	575.0	559.6	540.6
27.5°	618.3	620.8	616.4	594.9	595.8	601.0	600.1	601.0	592.3	577.7	558.7
30°	632.9	636.3	631.1	604.4	603.5	608.7	608.7	613.1	607.0	591.4	576.0
32.5°	672.6	671.7	655.3	614.7	612.1	617.3	617.3	621.6	618.3	606.1	591.4
35°	790.7	777.8	741.6	648.3	622.5	625.1	625.1	632.9	634.7	625.1	612.1
37.5°	911.3	907.1	879.4	738.0	660.4	641.5	640.6	651.8	659.5	651.8	643.1
40°	1033.0	1029.5	1023.3	857.9	739.8	670.9	668.2	677.7	691.4	686.3	681.2
42.5°	1145.9	1144.1	1150.2	976.0	840.6	733.7	726.0	714.8	734.6	732.8	732.8
45°	1234.7	1239.0	1242.4	1086.4	950.1	814.9	805.3	767.3	794.1	801.0	806.1
47.5°	1284.7	1288.1	1300.1	1194.1	1059.6	908.7	901.9	839.7	875.0	895.8	910.5
50°	1356.3	1346.7	1357.1	1299.4	1191.5	1031.3	1012.2	937.2	982.0	1018.3	1052.8
52.5°	1425.3	1409.7	1418.3	1420.8	1341.6	1151.1	1131.2	1051.8	1107.9	1164.8	1226.0
55°	1487.4	1486.4	1495.0	1539.1	1486.4	1279.5	1257.1	1178.7	1259.7	1320.9	1424.4
57.5°	1537.3	1546.0	1583.9	1676.1	1653.7	1419.2	1394.2	1326.1	1421.7	1483.0	1654.6
60°	1595.8	1609.8	1672.6	1792.5	1806.3	1565.7	1539.9	1490.7	1588.2	1650.2	1920.9
62.5°	1615.8	1635.6	1764.9	1914.9	1965.9	1726.2	1702.8	1670.0	1763.3	1819.2	2186.6
65°	1483.8	1521.8	1815.8	1977.9	2137.3	1919.3	1899.5	1871.0	1937.4	1974.5	2366.8
67.5°	1447.7	1464.9	1716.7	2068.4	2298.7	2167.6	2147.8	2098.6	2100.3	2084.7	2425.3
70°	1396.8	1415.6	1615.0	2136.6	2529.6	2507.3	2483.2	2338.3	2249.4	2155.6	2309.8
72.5°	1189.8	1183.7	1391.7	1952.8	2640.9	2928.0	2899.5	2596.1	2359.8	2094.3	1949.4
75°	668.2	650.9	844.0	1351.1	2411.6	3095.3	3094.4	2726.3	2282.2	1824.4	1326.9
77.5°	194.0	188.9	278.5	566.6	1623.5	2689.3	2722.0	2459.0	1904.5	1310.5	728.5
80°	91.4	93.2	119.8	187.0	693.2	1735.6	1829.6	1619.3	1138.2	604.4	300.9
82.5°	57.9	58.6	81.9	120.7	293.1	788.1	865.6	728.5	450.9	261.2	132.8
85°	36.2	36.2	54.3	79.3	175.0	251.7	273.4	248.3	193.1	142.2	72.5
87.5°	19.9	19.9	32.8	45.8	95.7	81.0	83.6	99.2	120.7	87.0	36.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P265938

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-7027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5
2.5°	453.6	451.8	449.2	448.3	447.4	446.5	447.4	449.2	447.4	447.4	448.3
5°	450.9	449.2	445.7	445.7	446.5	447.4	451.8	454.5	455.3	455.3	455.3
7.5°	450.9	448.3	445.7	446.5	448.3	451.8	458.7	462.9	466.5	467.3	467.3
10°	455.3	451.8	450.1	451.8	457.0	459.6	466.5	473.3	477.7	479.3	479.3
12.5°	462.9	459.6	459.6	462.9	470.0	473.3	479.3	484.5	489.8	492.4	492.4
15°	475.9	471.6	472.5	478.5	486.3	489.8	494.1	495.8	500.0	503.5	503.5
17.5°	488.0	483.6	485.4	492.4	497.5	499.2	501.9	501.0	502.6	505.2	506.1
20°	501.9	497.5	498.4	502.6	503.5	501.9	501.9	499.2	498.4	502.6	504.4
22.5°	515.5	511.2	510.4	507.8	503.5	499.2	496.7	494.1	492.4	496.7	498.4
25°	531.9	526.0	521.6	510.4	499.2	491.5	488.0	486.3	485.4	489.8	491.5
27.5°	550.1	544.1	531.1	507.0	488.9	475.9	473.3	473.3	475.1	477.7	479.3
30°	567.3	561.4	538.1	499.2	470.7	451.8	449.2	451.8	456.1	458.7	461.3
32.5°	584.5	578.6	542.3	487.2	444.0	419.9	418.3	422.6	429.4	431.0	432.9
35°	607.9	601.9	547.4	470.0	410.4	384.6	382.8	385.5	391.4	394.0	396.6
37.5°	640.6	637.2	555.2	450.9	379.4	350.9	345.8	344.1	347.5	346.6	350.1
40°	683.7	686.3	569.0	425.9	349.3	319.8	308.7	303.4	300.0	293.1	296.6
42.5°	746.8	748.4	584.5	397.5	323.3	290.5	275.9	266.3	259.5	248.3	250.1
45°	838.9	824.3	602.8	367.2	300.0	267.2	250.1	238.8	229.3	219.8	220.8
47.5°	961.4	916.5	622.5	342.3	276.8	248.3	232.8	219.8	208.6	201.0	201.8
50°	1112.2	1031.3	642.4	319.0	253.5	233.6	219.8	206.2	194.8	187.0	186.2
52.5°	1311.4	1169.1	655.3	293.1	230.2	220.8	208.6	195.7	181.9	172.5	171.5
55°	1518.3	1329.5	666.5	262.1	207.8	206.2	200.1	185.4	169.1	156.9	155.1
57.5°	1745.9	1501.1	675.0	231.9	190.5	194.0	192.2	175.0	156.9	145.7	144.8
60°	1952.8	1678.8	647.5	205.3	175.0	181.9	183.7	169.1	159.4	162.1	163.0
62.5°	2161.5	1815.8	542.3	185.4	164.7	174.2	188.9	187.9	183.7	187.9	188.9
65°	2236.6	1844.2	384.6	169.1	154.2	177.7	205.3	203.5	183.7	175.9	174.2
67.5°	2194.3	1759.8	258.6	156.0	146.6	181.9	222.4	203.5	176.7	166.4	163.0
70°	1993.3	1551.9	189.7	143.1	139.6	181.1	231.9	202.6	173.4	162.1	157.8
72.5°	1589.9	1197.6	152.6	131.1	129.4	176.7	237.2	201.0	169.9	157.8	152.6
75°	1029.5	745.0	128.5	118.9	113.8	169.9	234.5	195.7	165.6	150.0	146.6
77.5°	477.7	320.8	109.6	105.2	99.2	159.4	226.7	185.4	156.0	141.5	137.1
80°	222.4	151.8	92.3	91.4	88.8	150.8	216.4	173.4	144.8	132.8	125.9
82.5°	118.9	91.4	75.0	75.0	77.7	140.6	203.5	158.6	130.2	124.1	106.1
85°	62.9	52.6	54.3	58.6	66.4	124.1	186.2	143.1	113.8	94.9	92.3
87.5°	31.9	33.6	33.6	39.6	50.8	100.9	153.5	118.1	96.6	77.7	75.8
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)