

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: P214710

Luminaire Tested: **ARCH-AF16-40-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-40-D-U-T3-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4605.3 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

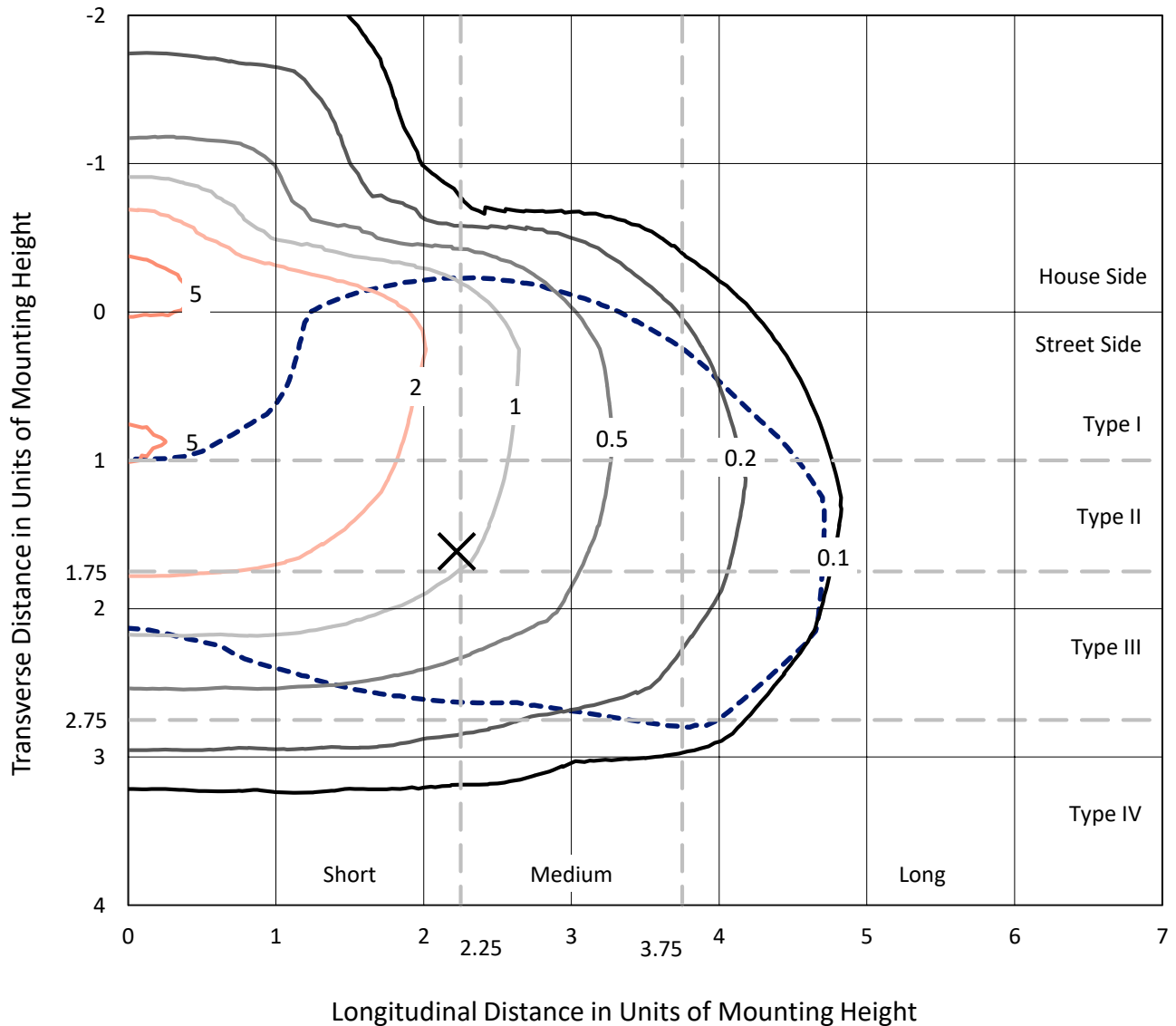
Input Watts (W): 42
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214710
 CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030

Iso-Footcandle Lines of Horizontal Illumination

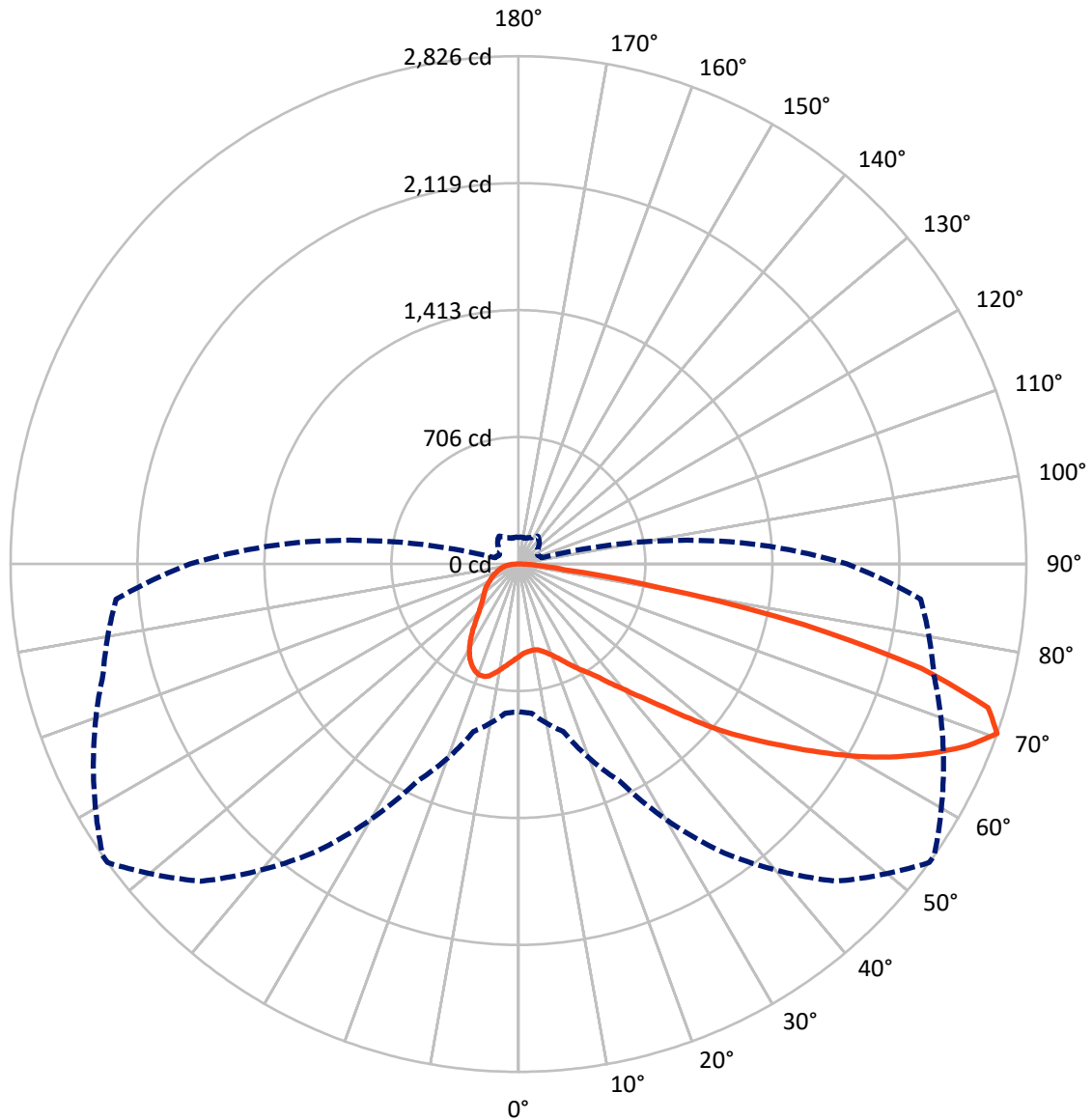
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P214710
CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P214710

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030

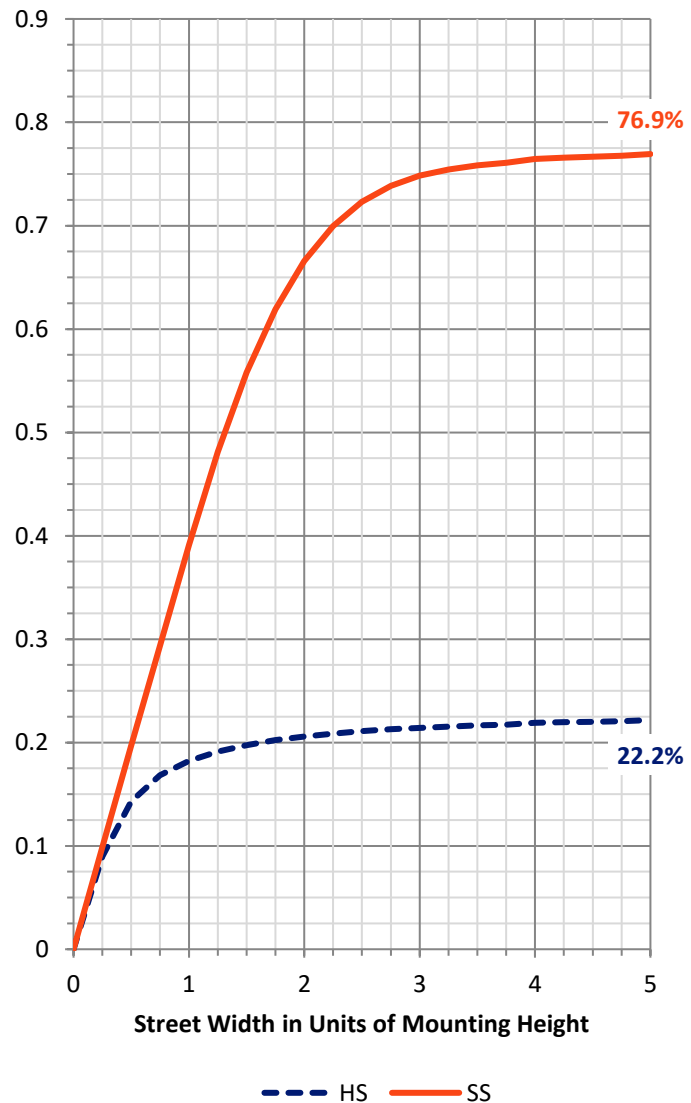
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1044.5	0.0	1044.5
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	3560.8	0.0	3560.8
	% Fixture	77.3	0.0	77.3
Total	Lumens	4605.3	0.0	4605.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.6	1.1
10°-20°	161.6	3.5
20°-30°	280.7	6.1
30°-40°	410.2	8.9
40°-50°	643.8	14.0
50°-60°	990.0	21.5
60°-70°	1209.6	26.3
70°-80°	749.9	16.3
80°-90°	108.9	2.4
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°	4605.3	100.0
0°-180°	4605.3	100.0

Coefficient of Utilization



REPORT NUMBER: P214710

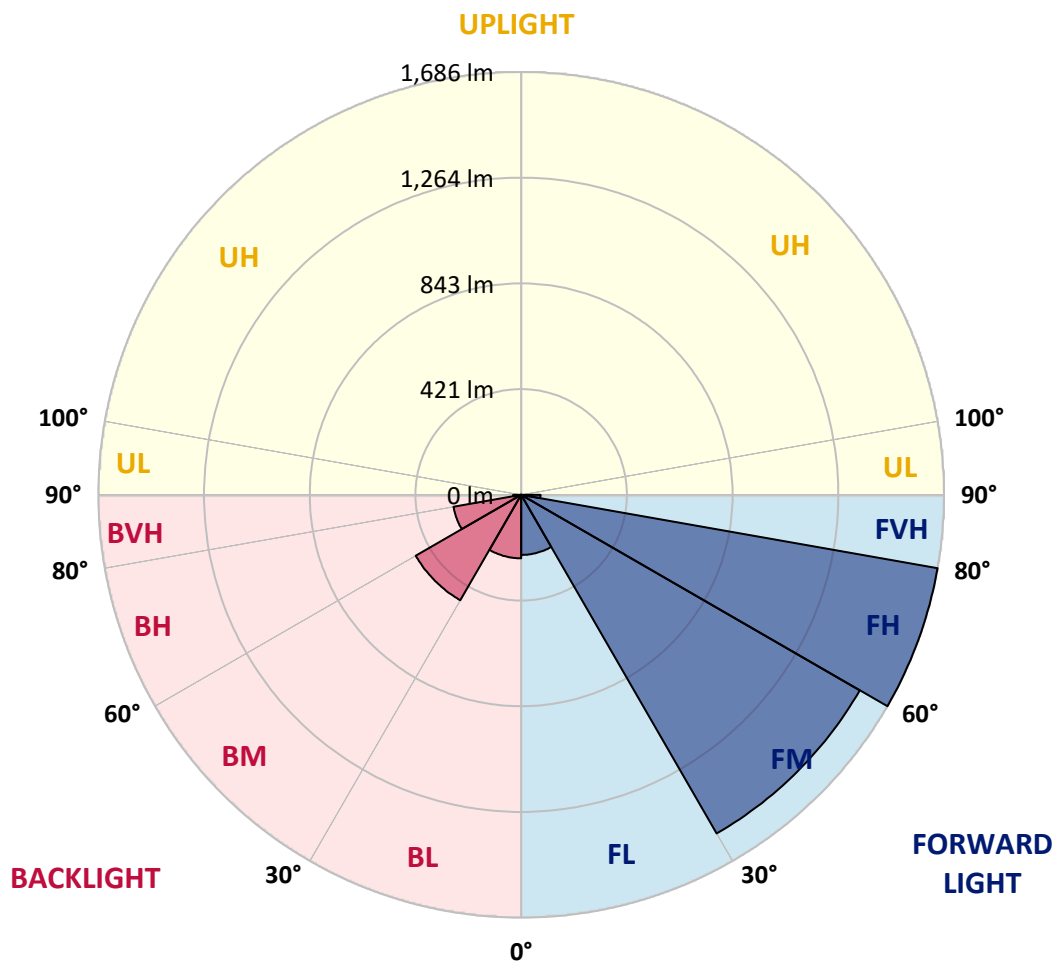
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	239.6	5.2			
FM	(30°-60°)	1558.7	33.8			
FH	(60°-80°)	1685.6	36.6			G1/1800
FVH	(80°-90°)	76.9	1.7			G1/100
BL	(0°-30°)	253.2	5.5	B1/500		
BM	(30°-60°)	485.3	10.5	B1/1000		
BH	(60°-80°)	273.9	5.9	B1/500		G1/500
BVH	(80°-90°)	32.0	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





REPORT NUMBER: P214710

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	515.2	515.2	515.2	515.2	515.2	515.2	515.2	515.2	515.2	515.2	515.2
2.5°	495.1	493.3	493.3	495.8	496.7	499.2	499.2	500.1	502.6	506.9	511.9
5°	479.8	479.0	479.8	483.2	484.9	489.9	491.6	492.4	497.5	504.2	511.9
7.5°	464.7	463.8	465.5	470.6	475.6	483.2	487.4	488.3	495.8	505.1	515.2
10°	459.6	458.8	461.3	465.5	470.6	479.0	485.7	486.5	497.5	508.5	522.8
12.5°	466.3	465.5	468.0	472.2	477.3	483.2	490.8	491.6	506.0	520.3	535.5
15°	483.2	483.2	484.0	486.5	491.6	496.7	503.4	504.2	519.4	536.4	551.5
17.5°	509.3	507.6	507.6	506.9	510.1	512.8	521.1	521.9	538.0	553.2	568.3
20°	541.4	540.5	537.1	532.9	532.1	533.8	542.3	543.0	559.1	571.8	586.0
22.5°	580.1	581.0	573.4	564.1	560.0	562.4	570.0	570.9	582.7	593.8	606.3
25°	631.6	629.2	618.1	604.6	596.2	596.2	603.7	603.7	614.7	621.4	629.9
27.5°	680.4	675.4	665.4	645.9	632.5	635.1	642.6	642.6	652.8	655.2	659.5
30°	733.6	728.5	715.9	691.5	673.8	672.1	681.3	680.4	694.1	693.1	689.8
32.5°	798.5	796.1	774.9	743.7	720.1	714.2	722.6	723.6	731.9	729.5	718.5
35°	889.7	888.9	869.3	814.6	783.4	772.5	777.5	777.5	783.4	776.7	758.1
37.5°	1004.3	1006.1	989.2	908.2	864.4	845.7	846.6	845.7	847.6	839.8	820.5
40°	1119.1	1123.1	1122.4	1024.6	968.9	936.9	925.1	923.4	927.6	924.3	905.6
42.5°	1269.9	1280.1	1256.5	1168.0	1105.4	1051.5	1019.5	1015.3	1024.6	1028.7	1011.0
45°	1426.8	1423.4	1386.3	1322.2	1265.8	1196.6	1135.9	1129.0	1135.9	1148.6	1130.0
47.5°	1508.7	1506.0	1496.9	1464.7	1456.3	1377.1	1285.1	1279.2	1266.7	1284.4	1262.4
50°	1643.5	1646.1	1608.1	1604.7	1640.2	1596.3	1453.8	1440.2	1417.5	1431.9	1413.3
52.5°	1741.4	1730.3	1706.7	1736.2	1846.8	1823.1	1612.3	1606.4	1585.4	1582.0	1573.6
55°	1781.0	1781.0	1785.2	1853.5	2011.3	1980.0	1784.3	1790.2	1761.6	1738.0	1748.9
57.5°	1792.8	1797.9	1834.1	1947.1	2204.3	2102.2	1974.1	1982.5	1941.2	1894.0	1928.5
60°	1734.6	1749.8	1836.6	2000.2	2313.1	2232.1	2173.9	2176.5	2116.6	2047.4	2108.1
62.5°	1585.4	1603.9	1759.1	2022.2	2295.4	2365.4	2362.8	2368.7	2286.9	2200.9	2276.9
65°	1402.4	1420.9	1586.2	1960.5	2281.9	2460.6	2535.7	2551.8	2446.4	2330.8	2382.3
67.5°	1133.3	1157.8	1314.6	1753.2	2216.1	2539.0	2697.6	2714.4	2569.4	2398.2	2373.0
70°	821.3	833.1	964.6	1332.4	1948.0	2496.0	2825.8	2824.9	2609.8	2393.3	2246.5
72.5°	395.5	404.8	518.7	827.2	1393.0	2118.3	2733.0	2749.1	2554.3	2319.8	1957.3
75°	162.8	172.0	210.0	349.1	731.2	1399.8	2316.6	2354.4	2319.8	2082.1	1531.4
77.5°	101.2	104.6	123.1	180.5	333.9	653.5	1621.6	1673.1	1838.3	1668.0	1011.0
80°	75.9	78.4	91.9	126.5	210.9	241.1	805.4	870.2	1114.0	957.1	457.9
82.5°	63.3	64.1	73.3	91.9	143.3	138.3	258.1	287.6	519.4	365.2	157.7
85°	59.0	60.7	65.8	65.8	91.1	86.9	107.1	112.2	151.0	124.8	54.8
87.5°	30.4	28.6	58.2	51.5	47.2	42.2	45.6	48.9	56.5	59.9	24.5
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: P214710

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	515.2	515.2	515.2	515.2	515.2	515.2	515.2	515.2	515.2	515.2	515.2
2.5°	513.5	516.0	520.3	524.6	529.6	535.5	538.8	543.0	546.4	544.7	543.9
5°	516.0	520.3	529.6	538.0	548.2	560.0	567.5	575.9	582.7	584.4	581.8
7.5°	520.3	527.9	540.5	555.7	569.2	584.4	596.2	608.0	616.4	618.1	618.1
10°	530.5	538.8	555.7	575.9	591.9	608.0	621.4	630.8	638.4	641.7	641.7
12.5°	544.7	554.8	575.1	599.7	617.4	632.5	640.0	644.3	647.6	650.9	651.8
15°	561.6	572.6	597.0	623.3	641.7	649.3	649.3	648.5	648.5	650.2	651.8
17.5°	578.5	590.3	615.5	643.4	655.2	650.9	645.0	642.6	641.0	640.0	642.6
20°	596.2	608.0	633.2	659.5	656.1	638.4	629.9	624.0	619.0	616.4	619.8
22.5°	615.5	626.6	652.8	670.5	645.0	618.1	602.1	592.8	584.4	579.3	582.7
25°	638.4	649.3	674.5	673.8	625.7	587.7	562.4	547.3	538.0	532.9	532.9
27.5°	665.4	674.5	699.0	665.4	598.7	547.3	510.1	495.8	493.3	489.1	489.1
30°	693.1	700.8	721.8	645.9	561.6	494.2	453.7	447.0	447.8	443.6	444.3
32.5°	721.8	729.5	735.4	617.4	513.5	434.3	407.3	402.3	401.4	398.0	394.7
35°	762.3	773.2	737.1	578.5	455.4	384.5	365.2	360.1	355.0	343.2	343.2
37.5°	824.0	835.8	732.8	530.5	395.5	345.7	328.0	321.3	312.8	301.0	296.8
40°	908.2	908.2	723.6	476.5	347.5	314.5	297.6	289.2	279.9	268.1	265.6
42.5°	1007.7	984.1	709.2	421.6	312.1	293.5	278.3	269.0	258.1	244.5	242.9
45°	1124.1	1060.1	689.0	372.7	285.8	280.8	271.5	255.5	237.0	222.7	220.0
47.5°	1237.1	1128.3	669.5	338.1	264.0	275.8	268.1	241.1	215.9	195.7	193.1
50°	1361.1	1189.0	646.9	309.5	247.0	272.4	264.0	220.0	192.3	178.0	176.2
52.5°	1485.1	1250.6	622.3	279.1	232.7	265.6	253.8	204.9	191.4	172.0	169.5
55°	1615.7	1322.2	593.8	245.4	215.9	252.2	240.4	204.1	197.3	172.0	166.1
57.5°	1743.0	1401.5	547.3	212.5	197.3	231.8	235.2	199.0	184.6	170.3	163.6
60°	1883.8	1485.8	470.6	184.6	181.3	215.0	228.6	188.0	170.3	165.3	161.9
62.5°	1996.8	1561.8	367.6	165.3	167.8	201.6	220.0	181.3	164.4	160.2	159.4
65°	2045.8	1563.4	264.0	148.4	154.3	188.9	211.6	175.4	159.4	157.7	156.9
67.5°	1994.3	1477.4	185.5	132.4	140.0	177.1	200.7	169.5	154.3	155.1	153.5
70°	1828.2	1296.2	135.8	117.2	126.5	164.4	188.9	161.9	148.4	150.1	147.6
72.5°	1529.7	1010.2	108.8	104.6	115.5	151.0	177.1	153.5	139.1	140.0	134.9
75°	1130.0	669.5	91.1	93.6	102.9	138.3	161.9	142.5	129.0	125.6	122.3
77.5°	672.1	344.0	75.1	81.8	91.9	123.1	145.1	129.0	118.1	112.2	109.6
80°	277.4	139.1	61.5	69.2	80.1	109.6	128.2	113.0	105.4	99.5	96.1
82.5°	110.5	68.3	48.9	56.5	67.4	95.3	112.2	99.5	91.9	87.7	78.4
85°	42.2	33.8	32.9	39.7	50.6	73.3	92.8	83.5	77.6	66.6	64.1
87.5°	16.8	15.2	15.2	19.4	28.6	46.3	66.6	58.2	60.7	48.1	48.9
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)