

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: P234713

Luminaire Tested: **ARCH-AF16-50-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234713
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-AF16-50-D-U-T3-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4648 lumens
Efficiency: N/A
Efficacy: 87.7 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

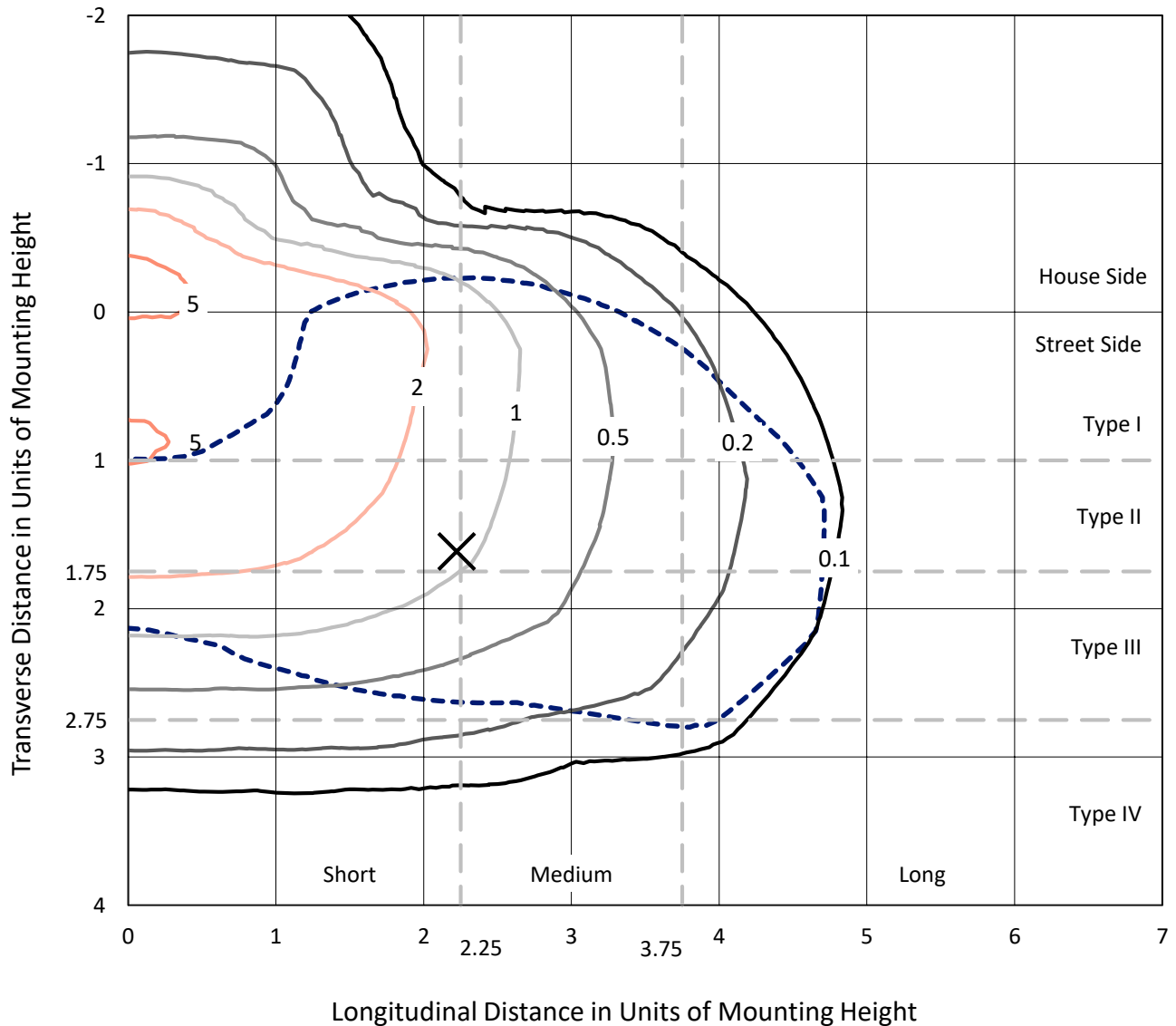
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P234713
 CATALOG NUMBER: ARCH-AF16-50-D-U-T3-8027

Iso-Footcandle Lines of Horizontal Illumination

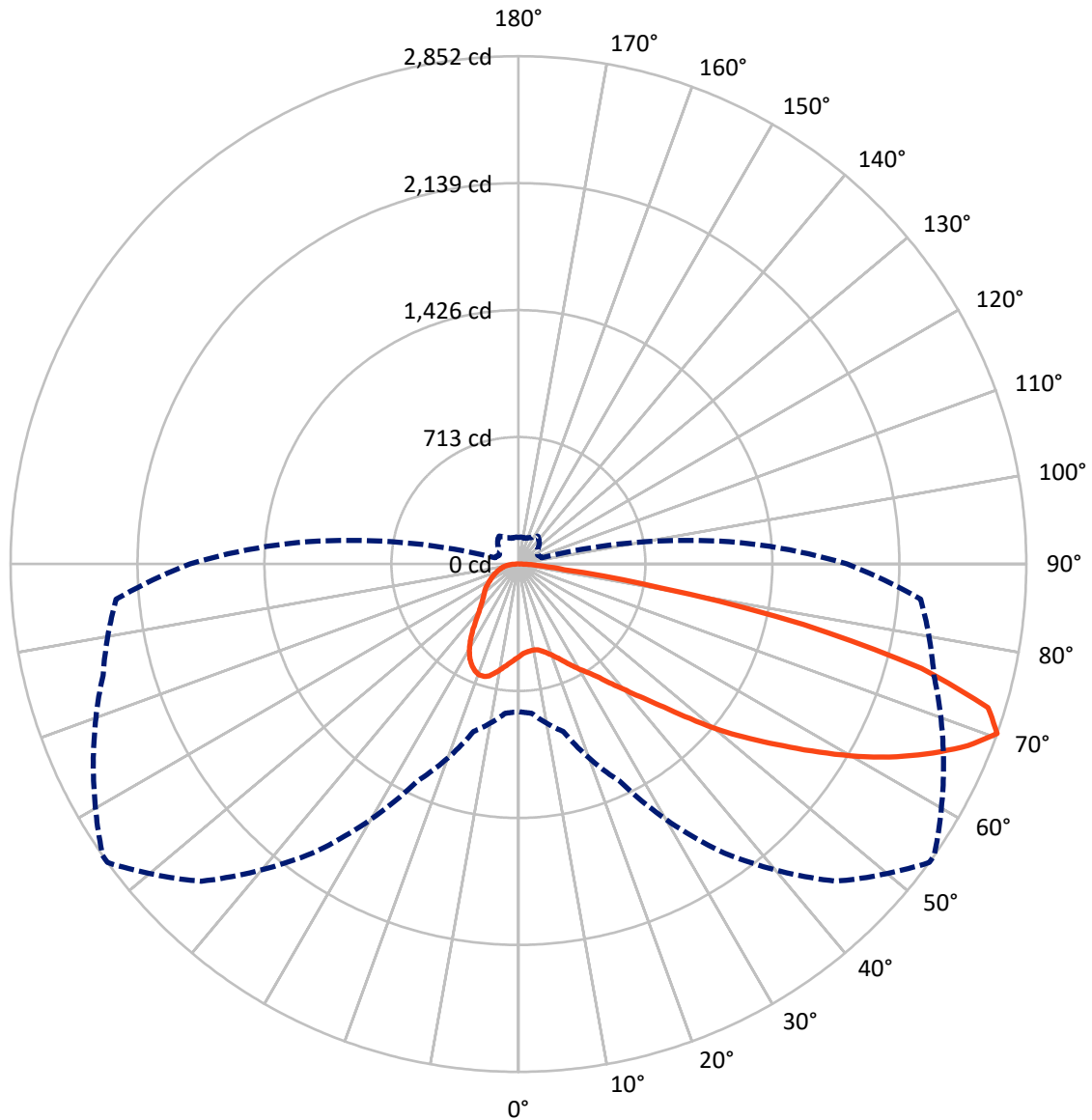
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P234713
CATALOG NUMBER: ARCH-AF16-50-D-U-T3-8027

Luminous Intensity Polar Plot



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



REPORT NUMBER: P234713

CATALOG NUMBER: ARCH-AF16-50-D-U-T3-8027

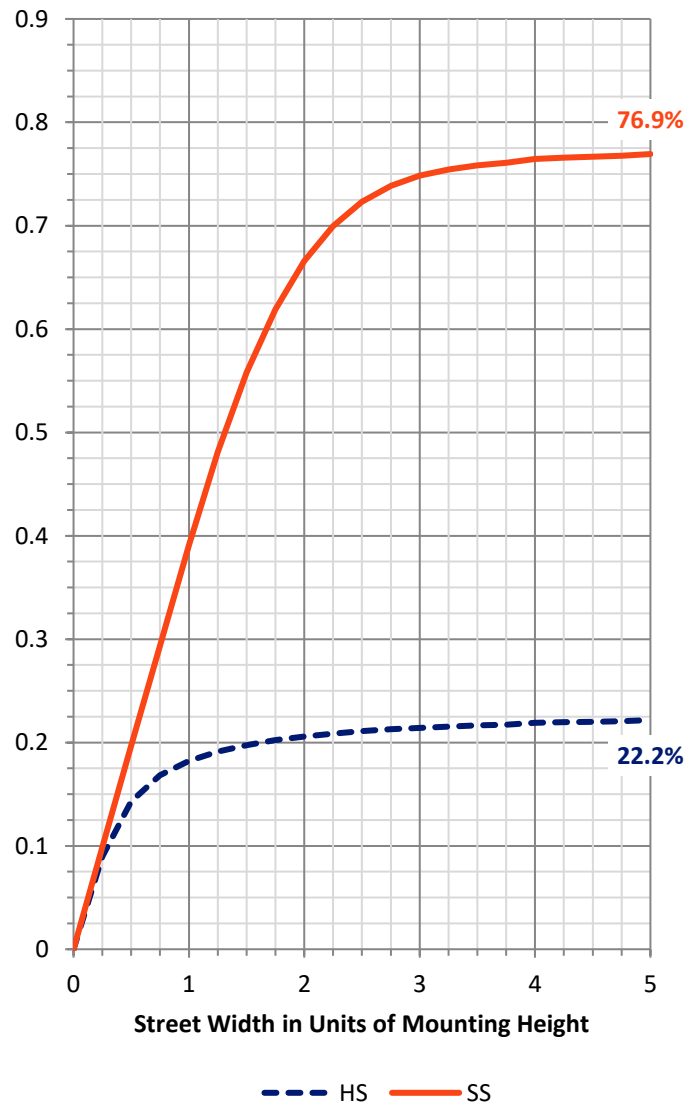
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1054.1	0.0	1054.1
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	3593.9	0.0	3593.9
	% Fixture	77.3	0.0	77.3
Total	Lumens	4648.0	0.0	4648.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.0	1.1
10°-20°	163.1	3.5
20°-30°	283.3	6.1
30°-40°	414.0	8.9
40°-50°	649.8	14.0
50°-60°	999.2	21.5
60°-70°	1220.8	26.3
70°-80°	756.9	16.3
80°-90°	110.0	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°	4648.0	100.0
0°-180°	4648.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234713

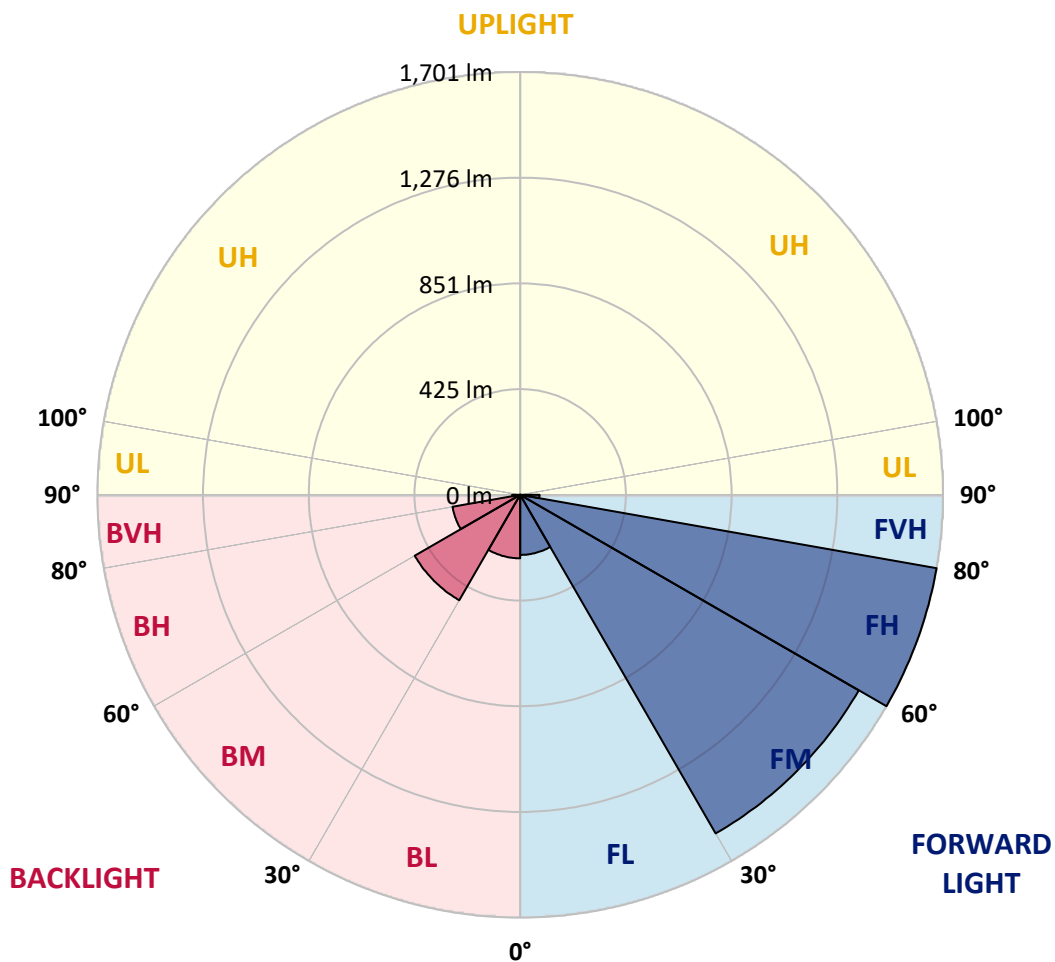
CATALOG NUMBER: ARCH-AF16-50-D-U-T3-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	241.8	5.2			
FM	(30°-60°)	1573.1	33.8			
FH	(60°-80°)	1701.2	36.6			G1/1800
FVH	(80°-90°)	77.6	1.7			G1/100
BL	(0°-30°)	255.6	5.5	B1/500		
BM	(30°-60°)	489.9	10.5	B1/1000		
BH	(60°-80°)	276.4	5.9	B1/500		G1/500
BVH	(80°-90°)	32.3	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: P234713

CATALOG NUMBER: ARCH-AF16-50-D-U-T3-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0
2.5°	499.6	497.9	497.9	500.4	501.3	503.8	503.8	504.7	507.3	511.5	516.6
5°	484.3	483.4	484.3	487.7	489.4	494.5	496.2	497.0	502.1	509.0	516.6
7.5°	469.0	468.1	469.8	474.9	480.0	487.7	491.9	492.8	500.4	509.8	520.0
10°	463.8	463.0	465.5	469.8	474.9	483.4	490.2	491.1	502.1	513.2	527.7
12.5°	470.7	469.8	472.4	476.6	481.7	487.7	495.3	496.2	510.7	525.1	540.4
15°	487.7	487.7	488.5	491.1	496.2	501.3	508.1	509.0	524.3	541.3	556.6
17.5°	514.1	512.4	512.4	511.5	514.9	517.5	526.0	526.8	543.0	558.3	573.6
20°	546.4	545.6	542.1	537.9	537.0	538.7	547.3	548.1	564.3	577.0	591.5
22.5°	585.6	586.4	578.7	569.4	565.1	567.7	575.3	576.2	588.1	599.2	611.9
25°	637.5	634.9	623.9	610.2	601.7	601.7	609.4	609.4	620.4	627.3	635.8
27.5°	686.8	681.7	671.5	651.9	638.3	640.9	648.5	648.5	658.7	661.3	665.6
30°	740.5	735.3	722.6	697.9	680.0	678.3	687.7	686.8	700.4	699.6	696.2
32.5°	806.0	803.4	782.2	750.7	726.8	720.9	729.4	730.2	738.7	736.2	725.1
35°	897.9	897.1	877.5	822.2	790.7	779.6	784.7	784.7	790.7	783.9	765.1
37.5°	1013.7	1015.4	998.3	916.6	872.4	853.6	854.5	853.6	855.3	847.7	828.1
40°	1129.4	1133.7	1132.8	1034.1	977.9	945.6	933.6	931.9	936.2	932.8	914.1
42.5°	1281.7	1292.0	1268.1	1178.8	1115.8	1061.3	1029.0	1024.7	1034.1	1038.3	1020.5
45°	1440.0	1436.6	1399.2	1334.5	1277.5	1207.7	1146.4	1139.6	1146.4	1159.2	1140.5
47.5°	1522.6	1520.1	1510.7	1478.3	1469.8	1389.8	1297.1	1291.1	1278.3	1296.2	1274.1
50°	1658.8	1661.3	1623.0	1619.6	1655.4	1611.1	1467.3	1453.7	1430.7	1445.2	1426.4
52.5°	1757.5	1746.4	1722.6	1752.4	1863.9	1840.1	1627.3	1621.3	1600.1	1596.6	1588.1
55°	1797.5	1797.5	1801.8	1870.7	2029.9	1998.4	1800.9	1806.9	1777.9	1754.1	1765.2
57.5°	1809.4	1814.5	1851.1	1965.2	2224.8	2121.8	1992.4	2000.9	1959.2	1911.6	1946.4
60°	1750.7	1766.0	1853.7	2018.8	2334.5	2252.8	2194.1	2196.7	2136.2	2066.5	2127.7
62.5°	1600.1	1618.8	1775.4	2040.9	2316.7	2387.3	2384.8	2390.7	2308.2	2221.4	2297.9
65°	1415.4	1434.1	1600.9	1978.8	2303.1	2483.5	2559.2	2575.4	2469.0	2352.4	2404.3
67.5°	1143.9	1168.5	1326.9	1769.4	2236.7	2562.6	2722.6	2739.7	2593.3	2420.5	2395.0
70°	829.0	840.9	973.6	1344.7	1966.0	2519.2	2852.0	2851.2	2634.1	2415.4	2267.3
72.5°	399.2	408.5	523.4	834.9	1406.0	2137.9	2758.4	2774.6	2578.0	2341.4	1975.4
75°	164.3	173.6	211.9	352.4	737.9	1412.8	2338.0	2376.2	2341.4	2101.3	1545.6
77.5°	102.1	105.5	124.3	182.1	337.0	659.6	1636.7	1688.6	1855.4	1683.5	1020.5
80°	76.6	79.2	92.8	127.7	212.8	243.4	812.8	878.3	1124.3	966.0	462.1
82.5°	63.8	64.7	74.0	92.8	144.7	139.6	260.4	290.2	524.3	368.5	159.2
85°	59.6	61.3	66.4	66.4	91.9	87.7	108.1	113.2	152.3	126.0	55.3
87.5°	30.6	28.9	58.7	51.9	47.7	42.6	46.0	49.4	57.0	60.4	24.7
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: P234713

CATALOG NUMBER: ARCH-AF16-50-D-U-T3-8027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0
2.5°	518.3	520.9	525.1	529.4	534.5	540.4	543.8	548.1	551.5	549.8	549.0
5°	520.9	525.1	534.5	543.0	553.2	565.1	572.8	581.3	588.1	589.8	587.3
7.5°	525.1	532.8	545.6	560.9	574.5	589.8	601.7	613.6	622.1	623.9	623.9
10°	535.3	543.8	560.9	581.3	597.5	613.6	627.3	636.6	644.3	647.7	647.7
12.5°	549.8	560.0	580.4	605.1	623.0	638.3	646.0	650.2	653.6	657.0	657.9
15°	566.8	577.9	602.6	629.0	647.7	655.3	655.3	654.5	654.5	656.2	657.9
17.5°	583.8	595.8	621.3	649.4	661.3	657.0	651.1	648.5	646.8	646.0	648.5
20°	601.7	613.6	639.2	665.6	662.1	644.3	635.8	629.8	624.7	622.1	625.6
22.5°	621.3	632.4	658.7	676.6	651.1	623.9	607.7	598.3	589.8	584.7	588.1
25°	644.3	655.3	680.9	680.0	631.5	593.2	567.7	552.4	543.0	537.9	537.9
27.5°	671.5	680.9	705.6	671.5	604.3	552.4	514.9	500.4	497.9	493.6	493.6
30°	699.6	707.3	728.5	651.9	566.8	498.7	457.9	451.1	451.9	447.7	448.5
32.5°	728.5	736.2	742.2	623.0	518.3	438.3	411.1	406.0	405.1	401.7	398.3
35°	769.4	780.5	743.9	583.8	459.6	388.1	368.5	363.4	358.3	346.4	346.4
37.5°	831.5	843.4	739.6	535.3	399.2	348.9	331.1	324.3	315.8	303.8	299.6
40°	916.6	916.6	730.2	480.9	350.6	317.5	300.4	291.9	282.6	270.6	268.1
42.5°	1017.1	993.2	715.8	425.5	314.9	296.2	280.9	271.5	260.4	246.8	245.1
45°	1134.5	1069.8	695.3	376.2	288.5	283.4	274.1	257.9	239.2	224.7	222.1
47.5°	1248.6	1138.8	675.8	341.3	266.4	278.3	270.6	243.4	217.9	197.5	194.9
50°	1373.7	1200.0	652.8	312.4	249.4	274.9	266.4	222.1	194.0	179.6	177.9
52.5°	1498.8	1262.2	628.1	281.7	234.9	268.1	256.2	206.8	193.2	173.6	171.1
55°	1630.7	1334.5	599.2	247.7	217.9	254.5	242.6	206.0	199.2	173.6	167.7
57.5°	1759.2	1414.5	552.4	214.5	199.2	234.1	237.5	200.9	186.4	171.9	165.1
60°	1901.3	1499.6	474.9	186.4	183.0	217.0	230.6	189.8	171.9	166.8	163.4
62.5°	2015.4	1576.2	371.1	166.8	169.4	203.4	222.1	183.0	166.0	161.7	160.9
65°	2064.7	1577.9	266.4	149.8	155.7	190.6	213.6	177.0	160.9	159.2	158.3
67.5°	2012.8	1491.1	187.2	133.6	141.3	178.7	202.6	171.1	155.7	156.6	154.9
70°	1845.2	1308.1	137.0	118.3	127.7	166.0	190.6	163.4	149.8	151.5	148.9
72.5°	1543.9	1019.6	109.8	105.5	116.6	152.3	178.7	154.9	140.4	141.3	136.2
75°	1140.5	675.8	91.9	94.5	103.8	139.6	163.4	143.8	130.2	126.8	123.4
77.5°	678.3	347.2	75.7	82.6	92.8	124.3	146.4	130.2	119.2	113.2	110.6
80°	280.0	140.4	62.1	69.8	80.9	110.6	129.4	114.0	106.4	100.4	97.0
82.5°	111.5	68.9	49.4	57.0	68.1	96.2	113.2	100.4	92.8	88.5	79.2
85°	42.6	34.0	33.2	40.0	51.1	74.0	93.6	84.3	78.3	67.2	64.7
87.5°	17.0	15.3	15.3	19.6	28.9	46.8	67.2	58.7	61.3	48.5	49.4
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)