

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: P234756

Luminaire Tested: **ARCH-AF16-60-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234756  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
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-T4W-8027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3685 lumens  
Efficiency: N/A  
Efficacy: 58.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G2

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

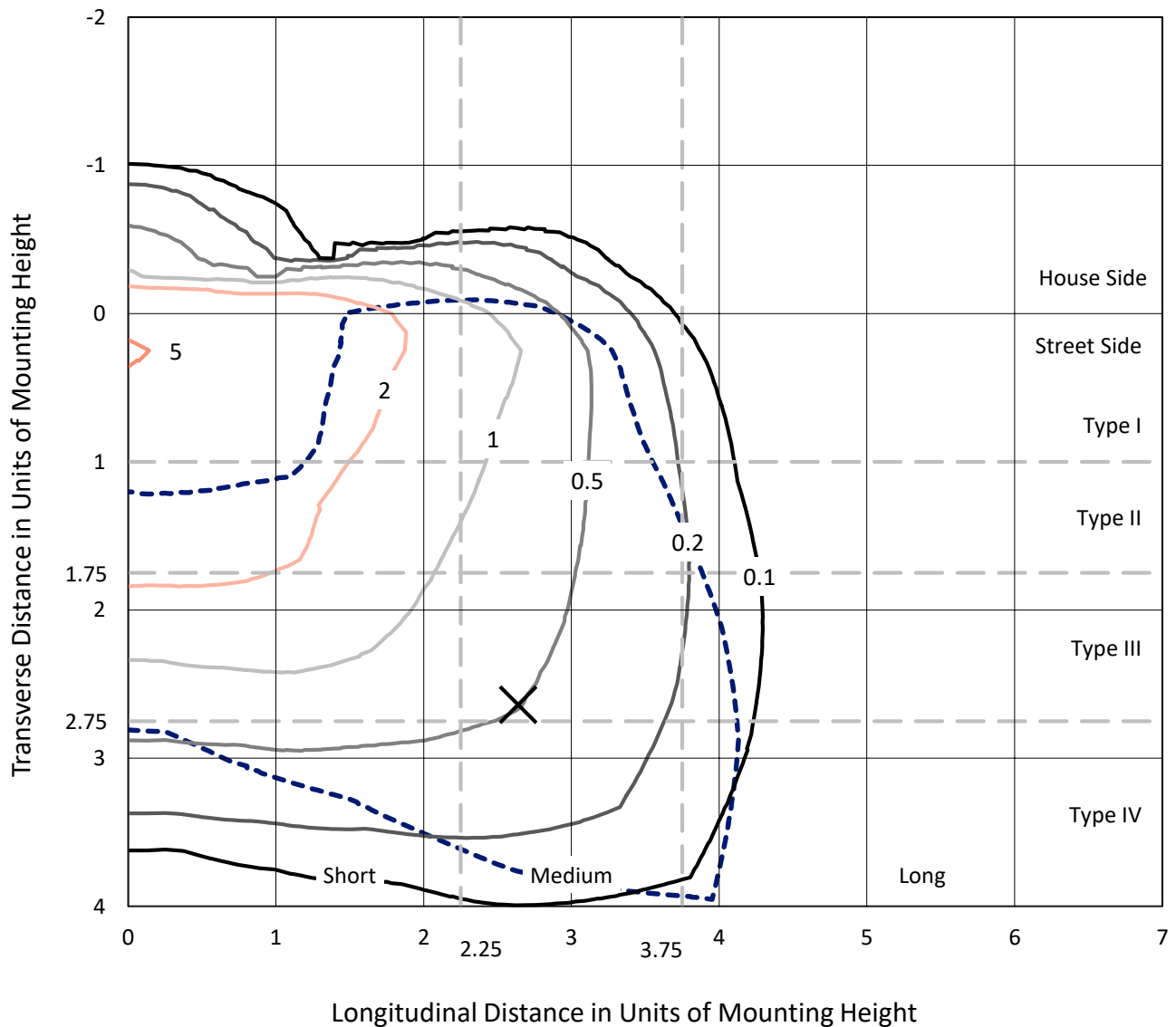


REPORT NUMBER: P234756

CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-8027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

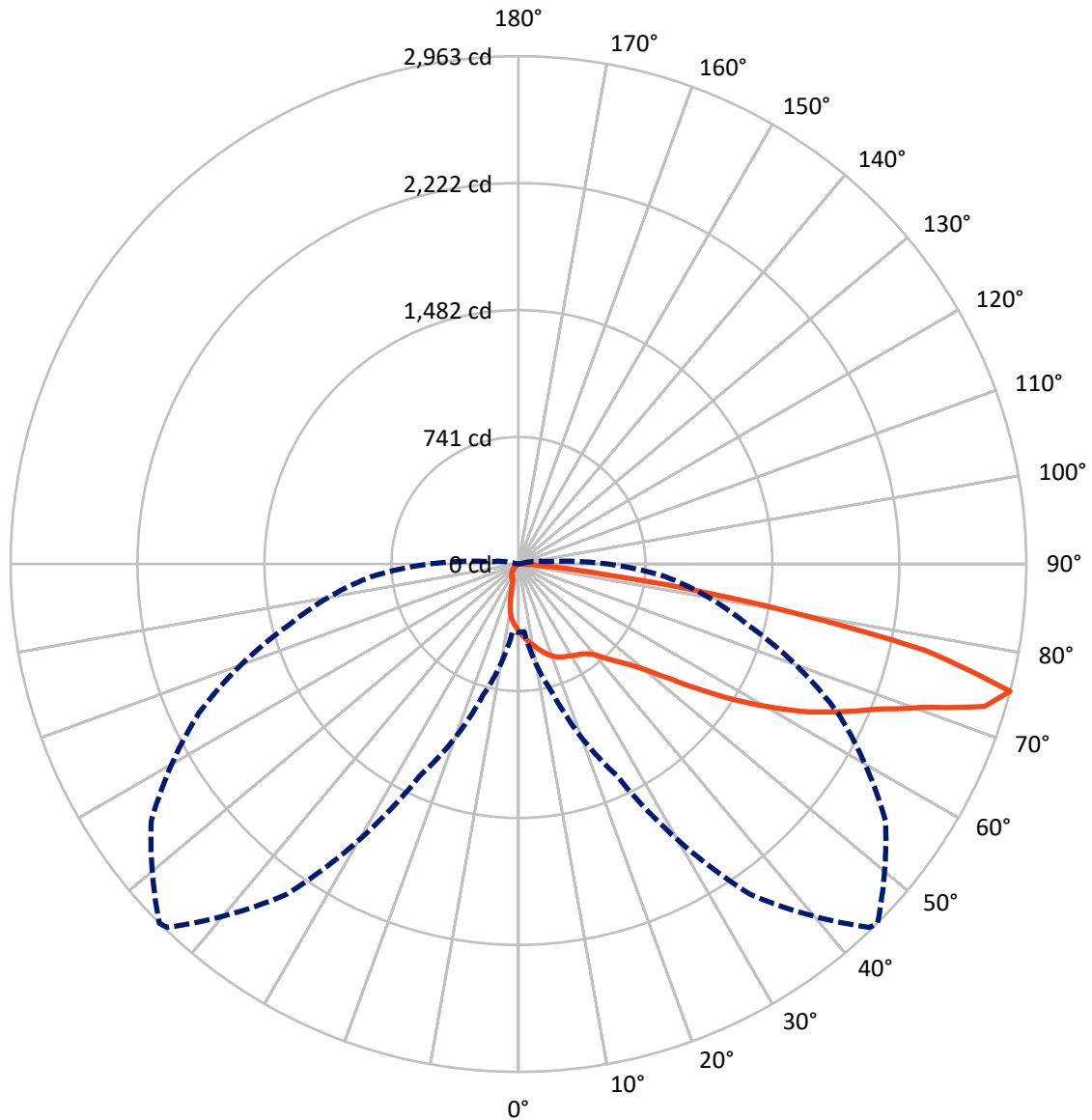


Based on 10 foot mounting height. Maximum calculated value = 5.3 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234756

CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-8027-HSS

### Luminous Intensity Polar Plot



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



REPORT NUMBER: P234756

CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-8027-HSS

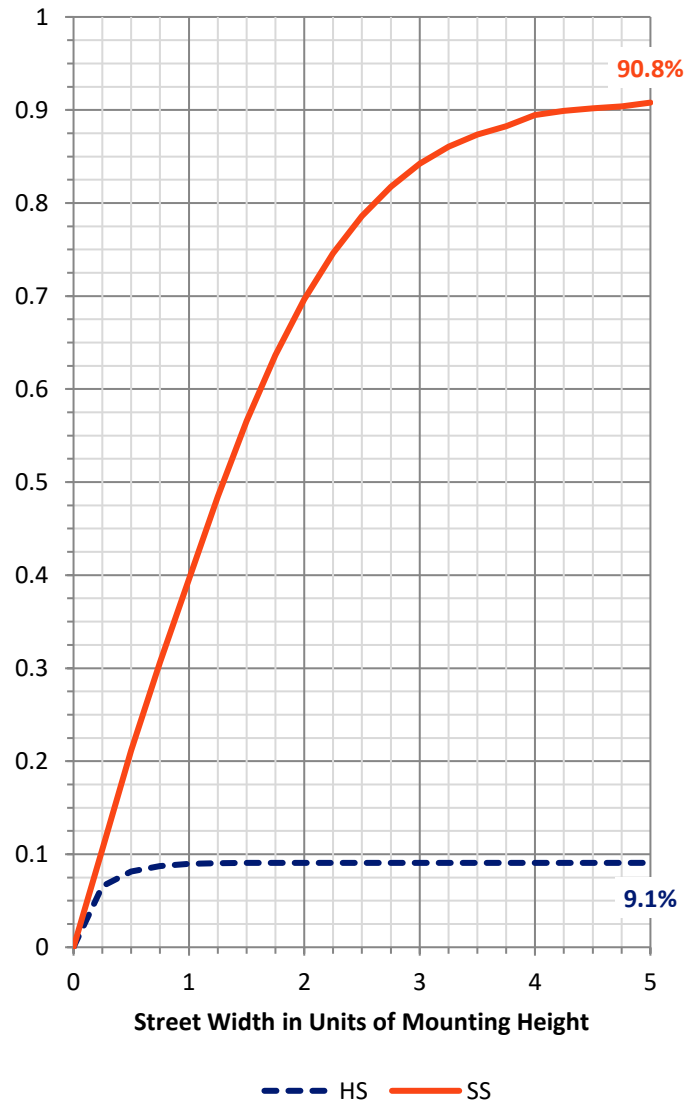
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	337.1	0.0	337.1
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	3347.9	0.0	3347.9
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	3685.0	0.0	3685.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.2	1.0
10°-20°	105.4	2.9
20°-30°	174.5	4.7
30°-40°	252.6	6.9
40°-50°	413.6	11.2
50°-60°	736.9	20.0
60°-70°	1083.4	29.4
70°-80°	817.3	22.2
80°-90°	64.1	1.7
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°	3685.0	100.0
0°-180°	3685.0	100.0



REPORT NUMBER: P234756

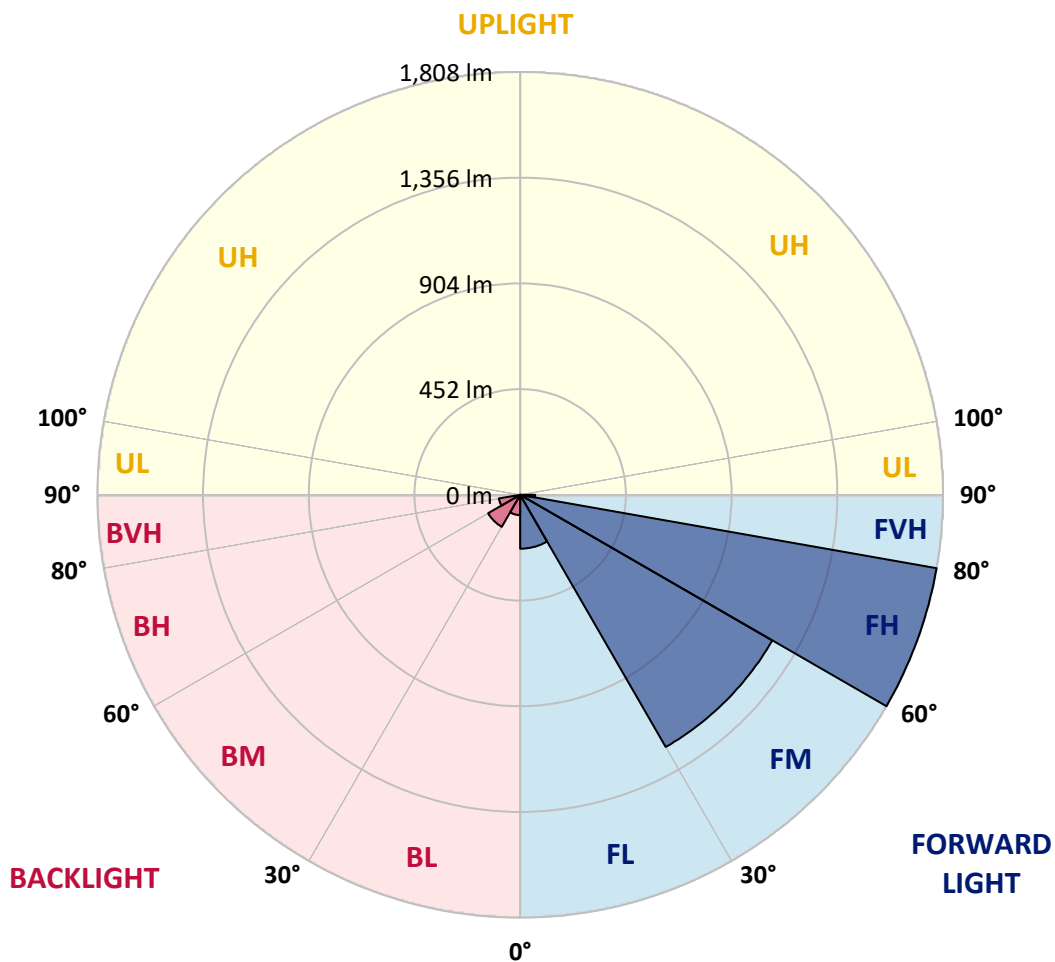
CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-8027-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	230.5	6.3			
FM	(30°-60°)	1245.1	33.8			
FH	(60°-80°)	1808.4	49.1			G2/5000
FVH	(80°-90°)	63.9	1.7			G1/100
BL	(0°-30°)	86.6	2.4	B0/110		
BM	(30°-60°)	157.9	4.3	B0/220		
BH	(60°-80°)	92.3	2.5	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-G2**

Type IV Medium





REPORT NUMBER: P234756

CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-8027-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	394.1	394.1	394.1	394.1	394.1	394.1	394.1	394.1	394.1	394.1	394.1
2.5°	428.1	428.1	427.3	426.4	422.0	417.7	416.8	414.2	406.3	401.1	395.9
5°	463.9	464.8	463.0	458.7	449.1	439.5	438.6	431.6	416.8	406.3	395.0
7.5°	497.9	499.6	495.3	487.4	476.1	462.1	461.3	448.2	429.0	414.2	397.6
10°	526.7	526.7	520.6	511.0	498.8	483.9	482.2	467.4	445.6	427.3	405.5
12.5°	558.1	557.2	548.5	535.4	521.4	507.5	506.6	488.3	467.4	443.8	416.8
15°	586.8	585.1	573.8	561.5	546.7	531.9	531.0	512.7	490.9	463.0	433.4
17.5°	602.5	601.7	591.2	579.0	566.8	555.4	554.6	535.4	511.8	483.1	449.9
20°	605.1	606.0	597.3	586.8	579.9	573.8	573.8	556.3	531.0	500.5	467.4
22.5°	606.0	608.6	602.5	588.6	586.8	587.7	589.5	575.5	549.3	520.6	485.7
25°	612.1	615.6	611.3	594.7	592.9	599.0	600.8	594.7	571.1	542.4	506.6
27.5°	624.3	627.8	624.3	603.4	600.8	606.9	608.6	612.1	594.7	563.3	528.4
30°	648.7	649.6	641.8	615.6	610.4	618.2	620.8	630.4	616.5	583.3	549.3
32.5°	691.5	682.8	659.2	624.3	620.0	628.7	631.3	641.8	636.5	602.5	571.1
35°	778.7	733.3	679.3	636.5	632.2	640.9	644.4	659.2	661.8	629.6	598.2
37.5°	777.8	736.8	726.4	660.1	654.0	660.1	664.4	682.8	693.2	665.3	637.4
40°	832.7	815.3	815.3	704.6	684.5	693.2	697.6	715.9	734.2	712.4	683.6
42.5°	1005.4	994.0	981.8	790.0	727.2	751.6	754.3	765.6	787.4	780.4	746.4
45°	1198.1	1187.6	1140.5	934.8	800.5	804.8	810.9	829.2	860.6	873.7	833.6
47.5°	1348.9	1338.5	1298.4	1109.1	914.7	876.3	876.3	912.1	960.9	994.0	955.7
50°	1470.1	1457.9	1433.5	1294.9	1102.2	979.2	974.0	1015.8	1088.2	1139.7	1113.5
52.5°	1587.9	1552.1	1537.3	1486.7	1314.1	1128.3	1114.4	1144.0	1244.3	1308.0	1286.2
55°	1666.3	1661.1	1645.4	1662.8	1536.4	1309.7	1297.5	1303.6	1429.2	1471.9	1444.9
57.5°	1739.6	1738.7	1773.6	1854.7	1778.8	1517.2	1498.0	1488.5	1607.9	1597.5	1621.0
60°	1830.3	1814.6	1895.7	2011.6	2001.2	1719.5	1697.7	1678.5	1744.8	1715.2	1832.0
62.5°	1834.6	1830.3	1995.1	2161.6	2221.8	1925.3	1900.0	1831.1	1864.3	1830.3	2033.4
65°	1668.1	1689.9	2036.9	2241.0	2406.6	2105.8	2075.3	1968.0	1970.7	1948.0	2270.6
67.5°	1630.6	1641.9	1921.8	2326.4	2540.1	2288.1	2259.3	2125.9	2094.5	2096.2	2411.0
70°	1537.3	1554.7	1778.8	2320.3	2645.6	2531.3	2502.6	2357.8	2281.9	2197.4	2302.9
72.5°	1174.5	1204.2	1498.9	2034.3	2616.8	2849.6	2841.8	2651.7	2356.9	2017.7	1742.2
75°	397.6	396.7	787.4	1366.4	2350.8	2947.3	2963.0	2615.0	2056.1	1391.7	865.0
77.5°	85.5	86.3	162.2	553.7	1561.7	2366.5	2426.7	1972.4	1326.3	620.0	197.9
80°	41.9	42.7	67.1	146.5	624.3	1327.1	1421.3	1014.1	490.0	123.8	33.1
82.5°	20.9	21.8	34.9	77.6	231.1	471.7	504.0	373.2	140.4	69.8	16.6
85°	7.8	7.8	17.4	46.2	105.5	110.7	136.0	108.1	84.6	56.7	4.4
87.5°	1.7	1.7	9.6	22.7	47.1	34.9	34.9	33.1	51.4	38.4	1.7
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: P234756

CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-8027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	394.1	394.1	394.1	394.1	394.1	394.1	394.1	394.1	394.1	394.1	394.1
2.5°	393.3	389.8	383.7	377.6	373.2	368.0	365.4	362.7	361.9	361.0	362.7
5°	388.9	383.7	372.3	362.7	354.0	347.0	341.8	336.6	334.0	332.2	333.1
7.5°	388.9	381.1	364.5	349.7	335.7	320.9	306.1	294.7	286.0	280.8	281.6
10°	393.3	382.8	361.0	340.9	314.8	283.4	251.1	226.7	210.1	200.6	200.6
12.5°	402.9	388.9	361.9	330.5	286.0	231.1	182.2	152.6	140.4	133.4	134.3
15°	415.9	399.4	366.2	316.5	245.9	171.8	127.3	108.1	108.1	109.9	110.7
17.5°	430.8	412.4	369.7	295.6	194.4	122.9	100.3	98.5	101.1	105.5	105.5
20°	445.6	425.5	371.5	262.5	145.6	97.7	95.0	95.0	96.8	101.1	102.0
22.5°	463.9	442.1	369.7	221.5	109.0	92.4	91.6	91.6	91.6	96.8	96.8
25°	483.1	461.3	362.7	177.9	92.4	88.9	88.1	87.2	87.2	91.6	92.4
27.5°	504.9	481.3	346.2	136.0	87.2	85.5	84.6	82.8	82.8	86.3	86.3
30°	526.7	504.0	320.9	102.9	82.8	82.0	80.2	78.5	76.7	80.2	80.2
32.5°	550.2	527.5	287.8	82.0	76.7	76.7	75.9	73.2	71.5	73.2	74.1
35°	581.6	554.6	250.3	71.5	68.9	68.9	68.9	68.0	64.5	66.3	66.3
37.5°	623.5	592.1	206.7	66.3	62.8	61.0	61.0	61.0	58.4	59.3	59.3
40°	676.6	635.7	164.8	61.9	58.4	54.1	52.3	53.2	51.4	51.4	50.6
42.5°	749.0	682.8	123.8	58.4	54.9	48.8	45.3	44.5	42.7	41.9	41.9
45°	852.8	740.3	88.9	54.9	52.3	42.7	39.2	36.6	32.3	29.6	29.6
47.5°	987.1	805.7	66.3	51.4	49.7	37.5	33.1	27.9	21.8	20.1	20.1
50°	1151.0	878.9	55.8	46.2	45.3	33.1	26.2	18.3	12.2	10.5	11.3
52.5°	1310.6	947.8	49.7	41.0	40.1	28.8	19.2	9.6	5.2	5.2	5.2
55°	1444.9	996.7	45.3	36.6	34.9	22.7	10.5	4.4	2.6	2.6	2.6
57.5°	1566.1	1024.6	41.0	32.3	27.9	15.7	4.4	1.7	1.7	0.9	0.9
60°	1676.8	1041.1	35.8	27.9	21.8	8.7	1.7	0.9	0.9	0.0	0.0
62.5°	1785.8	1053.3	30.5	22.7	16.6	3.5	0.9	0.9	0.0	0.0	0.0
65°	1868.6	1049.0	24.4	18.3	10.5	1.7	0.9	0.0	0.0	0.0	0.0
67.5°	1866.0	989.7	18.3	14.0	5.2	0.9	0.0	0.0	0.0	0.0	0.0
70°	1669.0	833.6	12.2	8.7	1.7	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1184.1	534.5	7.8	5.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0
75°	521.4	162.2	4.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	102.0	37.5	2.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	24.4	4.4	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	0.9	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)