

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: P234755

Luminaire Tested: **ARCH-AF16-50-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234755
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-AF16-50-D-U-T4W-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 980mA 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: 3284 lumens
Efficiency: N/A
Efficacy: 62.0 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 - G1

Input Watts (W): 53
Input Voltage (V): NR
Input Current (A_{in}): 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

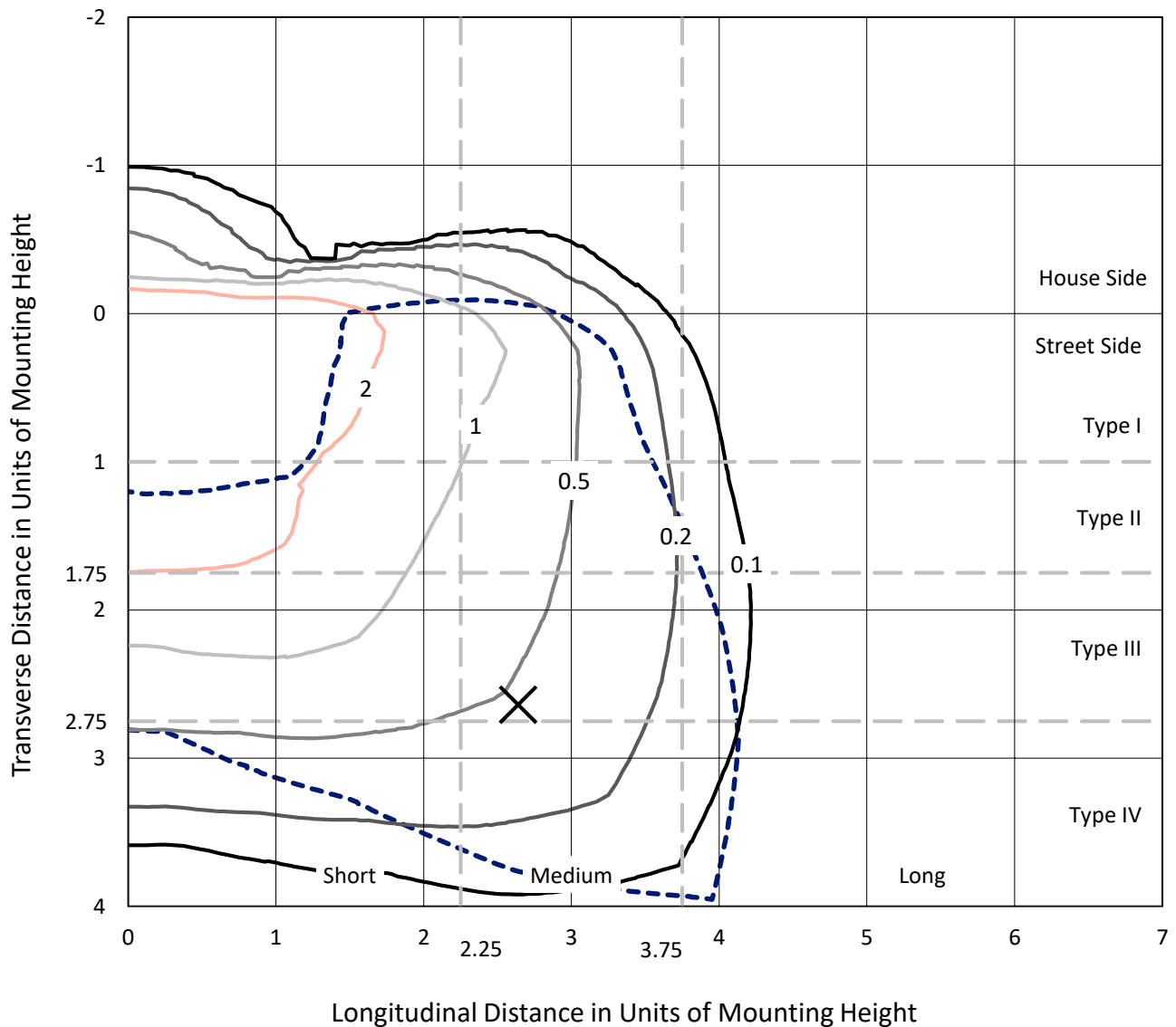


REPORT NUMBER: P234755

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

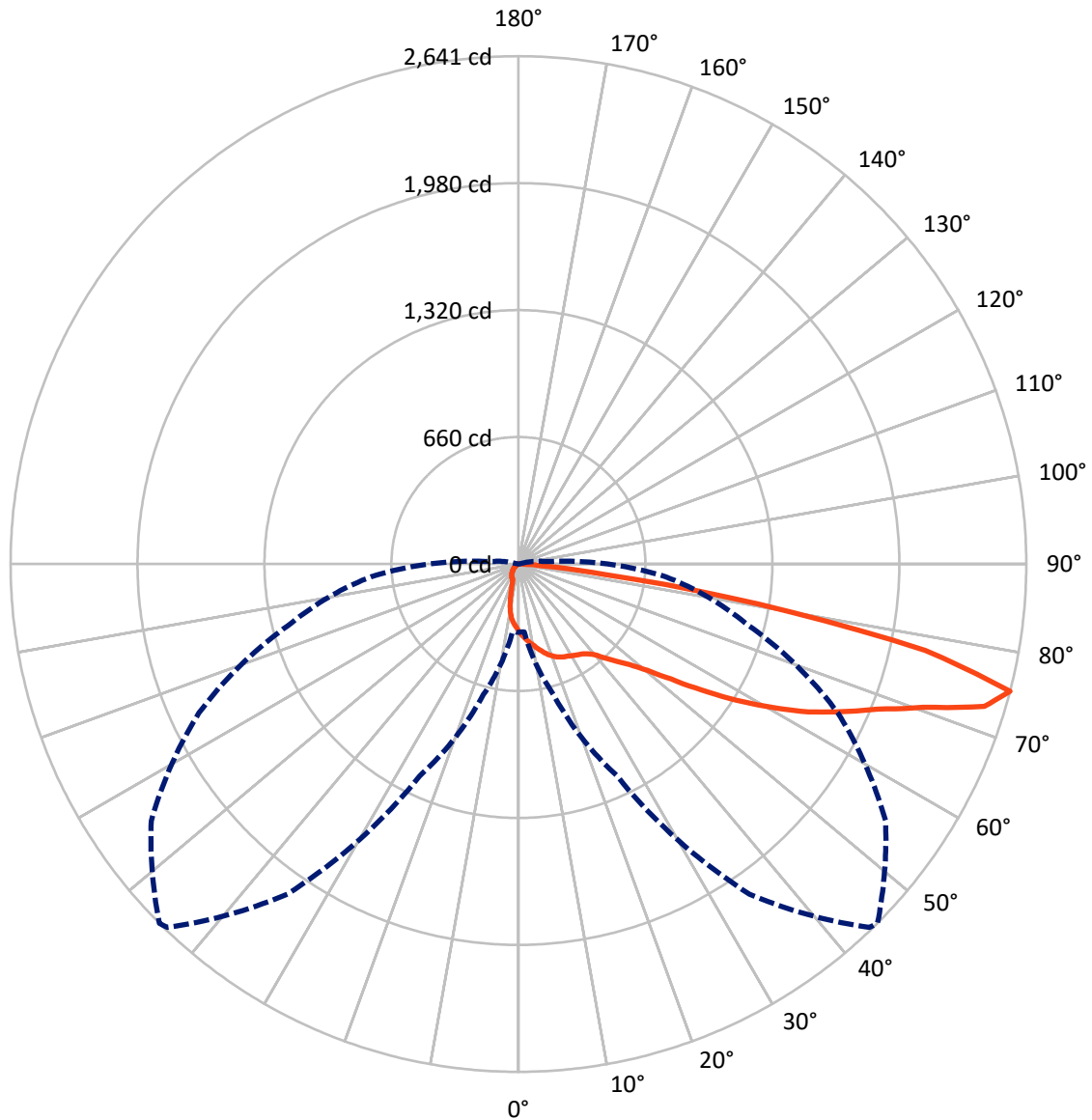


Based on 10 foot mounting height. Maximum calculated value = 4.7 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234755

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234755

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-8027-HSS

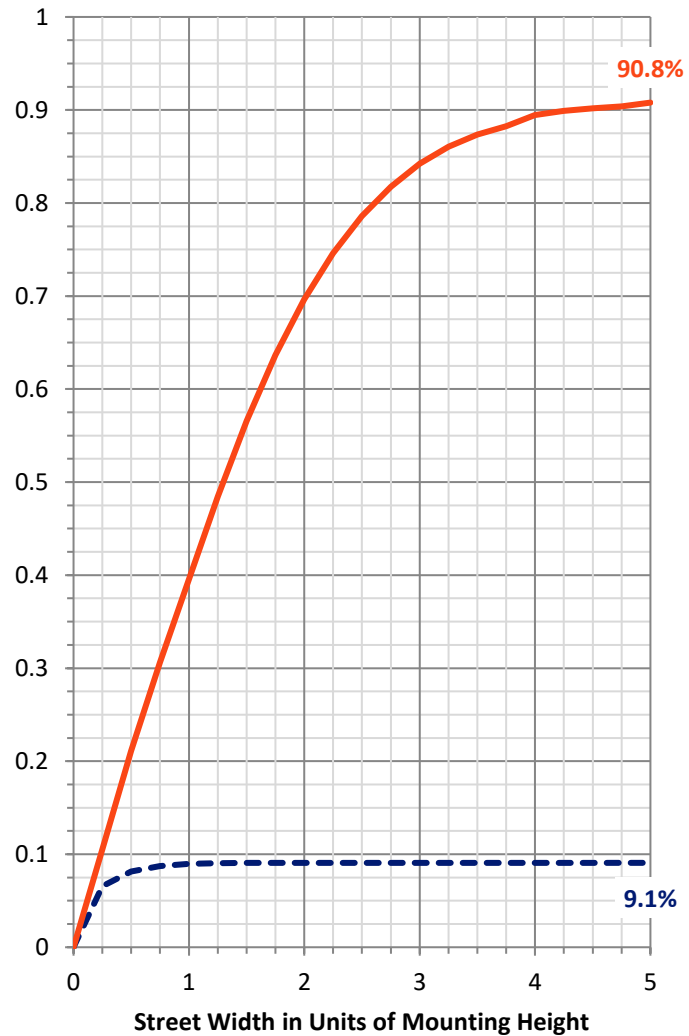
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	300.4	0.0	300.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	2983.6	0.0	2983.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	3284.0	0.0	3284.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.1	1.0
10°-20°	93.9	2.9
20°-30°	155.5	4.7
30°-40°	225.1	6.9
40°-50°	368.6	11.2
50°-60°	656.7	20.0
60°-70°	965.5	29.4
70°-80°	728.4	22.2
80°-90°	57.1	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°	3284.0	100.0
0°-180°	3284.0	100.0



--- HS — SS

REPORT NUMBER: P234755

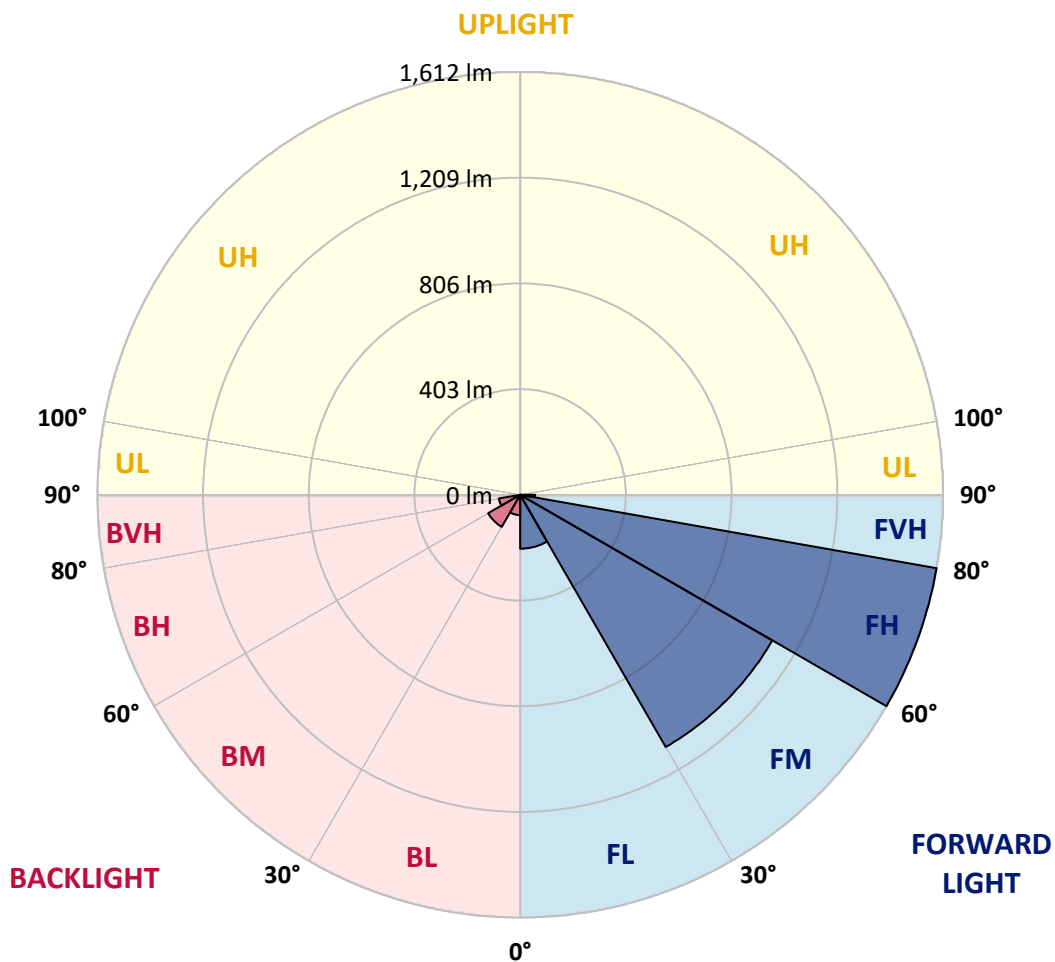
CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	205.4	6.3			
FM	(30°-60°)	1109.6	33.8			
FH	(60°-80°)	1611.6	49.1			G1/1800
FVH	(80°-90°)	57.0	1.7			G1/100
BL	(0°-30°)	77.2	2.4	B0/110		
BM	(30°-60°)	140.8	4.3	B0/220		
BH	(60°-80°)	82.3	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-G1

Type IV Medium





REPORT NUMBER: P234755

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	351.2	351.2	351.2	351.2	351.2	351.2	351.2	351.2	351.2	351.2	351.2
2.5°	381.5	381.5	380.8	380.0	376.1	372.2	371.4	369.1	362.1	357.5	352.8
5°	413.4	414.2	412.6	408.7	400.2	391.6	390.9	384.7	371.4	362.1	352.0
7.5°	443.7	445.3	441.4	434.4	424.3	411.9	411.1	399.4	382.3	369.1	354.3
10°	469.4	469.4	463.9	455.4	444.5	431.3	429.7	416.5	397.1	380.8	361.3
12.5°	497.3	496.6	488.8	477.1	464.7	452.3	451.5	435.2	416.5	395.5	371.4
15°	523.0	521.4	511.3	500.4	487.2	474.0	473.2	456.9	437.5	412.6	386.2
17.5°	537.0	536.2	526.9	516.0	505.1	495.0	494.2	477.1	456.1	430.5	401.0
20°	539.3	540.1	532.3	523.0	516.8	511.3	511.3	495.8	473.2	446.0	416.5
22.5°	540.1	542.4	537.0	524.5	523.0	523.8	525.3	512.9	489.6	463.9	432.8
25°	545.5	548.6	544.7	530.0	528.4	533.9	535.4	530.0	509.0	483.3	451.5
27.5°	556.4	559.5	556.4	537.7	535.4	540.8	542.4	545.5	530.0	502.0	470.9
30°	578.1	578.9	571.9	548.6	544.0	551.0	553.3	561.8	549.4	519.9	489.6
32.5°	616.2	608.5	587.5	556.4	552.5	560.3	562.6	571.9	567.3	537.0	509.0
35°	693.9	653.5	605.3	567.3	563.4	571.2	574.3	587.5	589.8	561.1	533.1
37.5°	693.2	656.6	647.3	588.3	582.8	588.3	592.1	608.5	617.8	592.9	568.0
40°	742.1	726.6	726.6	627.9	610.0	617.8	621.7	638.0	654.3	634.9	609.2
42.5°	896.0	885.9	875.0	704.0	648.1	669.8	672.2	682.3	701.7	695.5	665.2
45°	1067.7	1058.4	1016.4	833.0	713.4	717.2	722.7	739.0	767.0	778.6	742.9
47.5°	1202.1	1192.8	1157.1	988.4	815.2	781.0	781.0	812.8	856.3	885.9	851.7
50°	1310.2	1299.3	1277.5	1154.0	982.2	872.7	868.0	905.3	969.8	1015.6	992.3
52.5°	1415.1	1383.2	1370.0	1324.9	1171.1	1005.5	993.1	1019.5	1108.9	1165.6	1146.2
55°	1485.0	1480.3	1466.4	1481.9	1369.2	1167.2	1156.3	1161.7	1273.6	1311.7	1287.6
57.5°	1550.3	1549.5	1580.6	1652.9	1585.2	1352.1	1335.0	1326.5	1432.9	1423.6	1444.6
60°	1631.1	1617.1	1689.4	1792.7	1783.4	1532.4	1513.0	1495.9	1554.9	1528.5	1632.7
62.5°	1635.0	1631.1	1778.0	1926.4	1980.0	1715.8	1693.3	1631.9	1661.4	1631.1	1812.2
65°	1486.6	1506.0	1815.3	1997.1	2144.7	1876.7	1849.5	1753.9	1756.2	1736.0	2023.5
67.5°	1453.1	1463.2	1712.7	2073.3	2263.6	2039.1	2013.4	1894.5	1866.6	1868.1	2148.6
70°	1370.0	1385.5	1585.2	2067.8	2357.7	2255.9	2230.2	2101.2	2033.6	1958.2	2052.3
72.5°	1046.7	1073.2	1335.8	1812.9	2332.0	2539.5	2532.5	2363.1	2100.5	1798.2	1552.6
75°	354.3	353.6	701.7	1217.7	2095.0	2626.5	2640.5	2330.5	1832.4	1240.2	770.9
77.5°	76.2	76.9	144.5	493.4	1391.8	2109.0	2162.6	1757.8	1181.9	552.5	176.4
80°	37.3	38.1	59.8	130.5	556.4	1182.7	1266.6	903.7	436.7	110.3	29.5
82.5°	18.6	19.4	31.1	69.2	205.9	420.4	449.2	332.6	125.1	62.2	14.8
85°	7.0	7.0	15.5	41.2	94.0	98.7	121.2	96.4	75.4	50.5	3.9
87.5°	1.6	1.6	8.5	20.2	42.0	31.1	31.1	29.5	45.8	34.2	1.6
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: P234755

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	351.2	351.2	351.2	351.2	351.2	351.2	351.2	351.2	351.2	351.2	351.2
2.5°	350.5	347.4	341.9	336.5	332.6	327.9	325.6	323.3	322.5	321.7	323.3
5°	346.6	341.9	331.8	323.3	315.5	309.3	304.6	300.0	297.6	296.1	296.8
7.5°	346.6	339.6	324.8	311.6	299.2	286.0	272.8	262.7	254.9	250.2	251.0
10°	350.5	341.1	321.7	303.8	280.5	252.6	223.8	202.0	187.3	178.7	178.7
12.5°	359.0	346.6	322.5	294.5	254.9	205.9	162.4	136.0	125.1	118.9	119.7
15°	370.7	355.9	326.4	282.1	219.1	153.1	113.5	96.4	96.4	97.9	98.7
17.5°	383.9	367.6	329.5	263.4	173.3	109.6	89.4	87.8	90.1	94.0	94.0
20°	397.1	379.2	331.0	233.9	129.8	87.0	84.7	84.7	86.3	90.1	90.9
22.5°	413.4	394.0	329.5	197.4	97.1	82.4	81.6	81.6	81.6	86.3	86.3
25°	430.5	411.1	323.3	158.5	82.4	79.3	78.5	77.7	77.7	81.6	82.4
27.5°	449.9	428.9	308.5	121.2	77.7	76.2	75.4	73.8	73.8	76.9	76.9
30°	469.4	449.2	286.0	91.7	73.8	73.0	71.5	69.9	68.4	71.5	71.5
32.5°	490.3	470.1	256.4	73.0	68.4	68.4	67.6	65.3	63.7	65.3	66.1
35°	518.3	494.2	223.0	63.7	61.4	61.4	61.4	60.6	57.5	59.1	59.1
37.5°	555.6	527.6	184.2	59.1	55.9	54.4	54.4	54.4	52.1	52.8	52.8
40°	603.0	566.5	146.9	55.2	52.1	48.2	46.6	47.4	45.8	45.8	45.1
42.5°	667.5	608.5	110.3	52.1	49.0	43.5	40.4	39.6	38.1	37.3	37.3
45°	760.0	659.7	79.3	49.0	46.6	38.1	35.0	32.6	28.8	26.4	26.4
47.5°	879.7	718.0	59.1	45.8	44.3	33.4	29.5	24.9	19.4	17.9	17.9
50°	1025.7	783.3	49.7	41.2	40.4	29.5	23.3	16.3	10.9	9.3	10.1
52.5°	1168.0	844.7	44.3	36.5	35.7	25.6	17.1	8.5	4.7	4.7	4.7
55°	1287.6	888.2	40.4	32.6	31.1	20.2	9.3	3.9	2.3	2.3	2.3
57.5°	1395.6	913.1	36.5	28.8	24.9	14.0	3.9	1.6	1.6	0.8	0.8
60°	1494.3	927.8	31.9	24.9	19.4	7.8	1.6	0.8	0.8	0.0	0.0
62.5°	1591.5	938.7	27.2	20.2	14.8	3.1	0.8	0.8	0.0	0.0	0.0
65°	1665.3	934.8	21.8	16.3	9.3	1.6	0.8	0.0	0.0	0.0	0.0
67.5°	1663.0	882.0	16.3	12.4	4.7	0.8	0.0	0.0	0.0	0.0	0.0
70°	1487.3	742.9	10.9	7.8	1.6	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1055.3	476.4	7.0	4.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	464.7	144.5	3.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	90.9	33.4	2.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	21.8	3.9	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	9.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	0.8	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)