

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: P265890

Luminaire Tested: **ARCH-AF16-40-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265890
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-40-D-U-T2U-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2813.9 lumens
Efficiency: N/A
Efficacy: 67.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B0 - 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

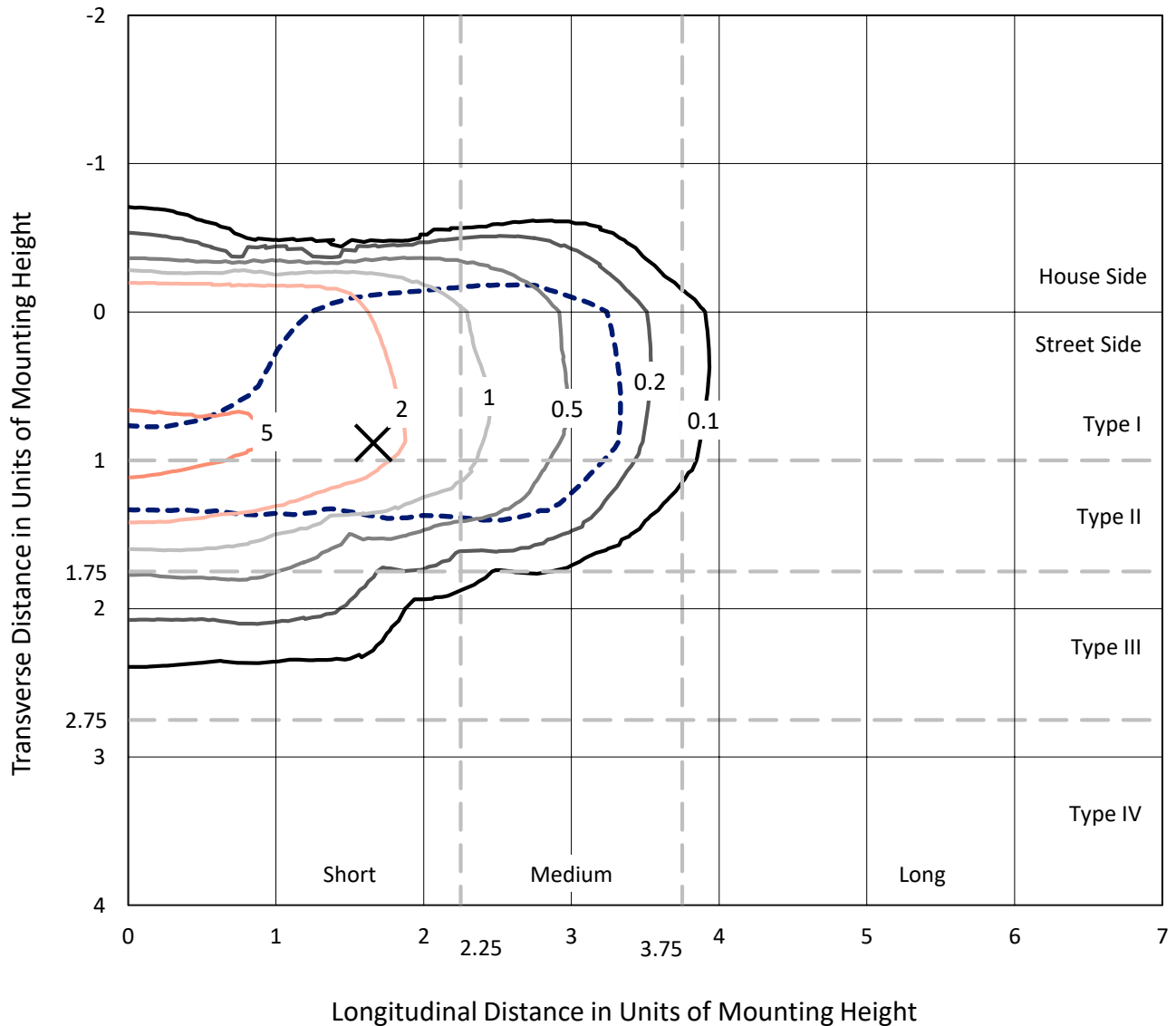


REPORT NUMBER: P265890

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

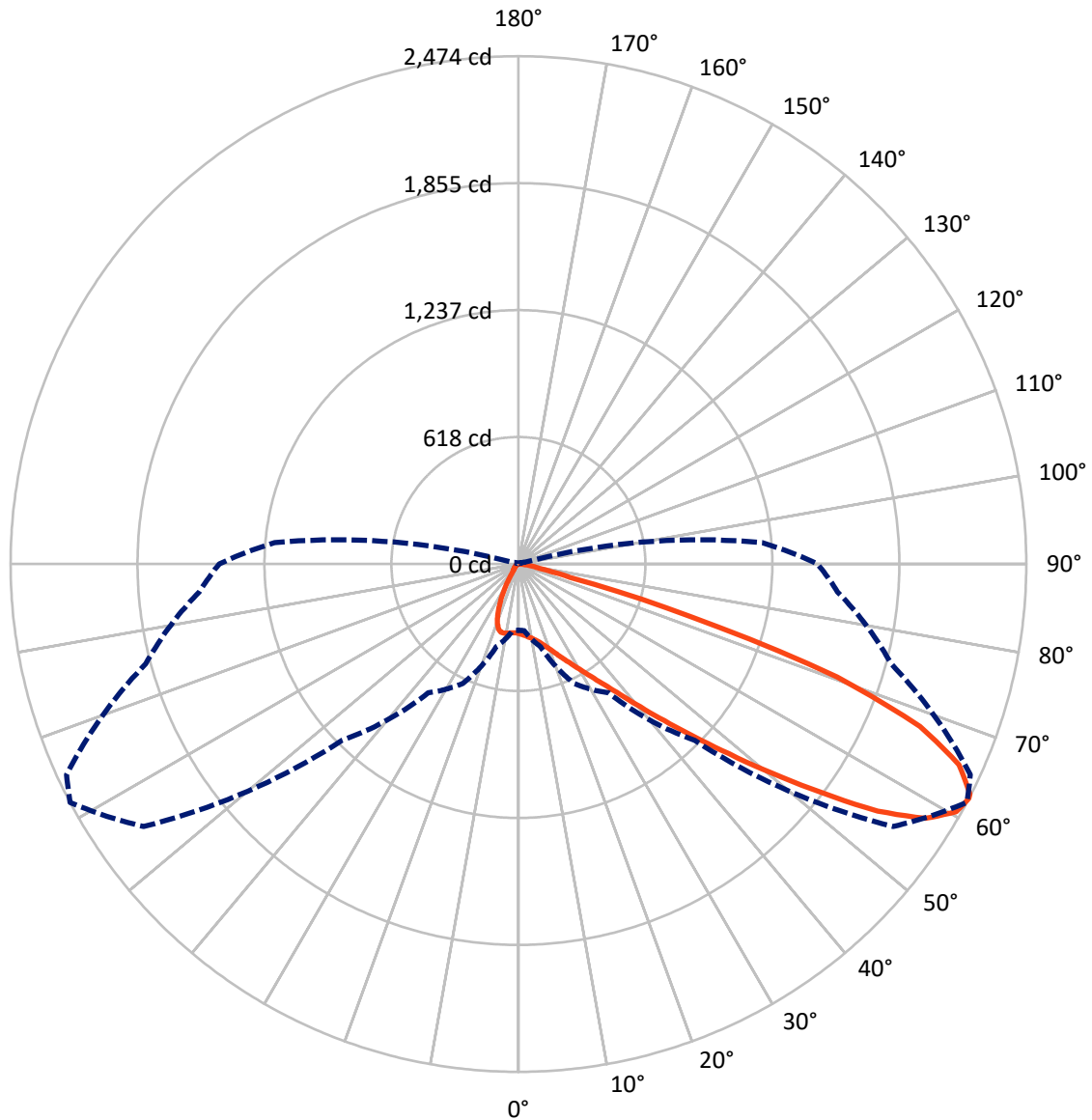


Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P265890

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7027-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

REPORT NUMBER: P265890

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7027-HSS

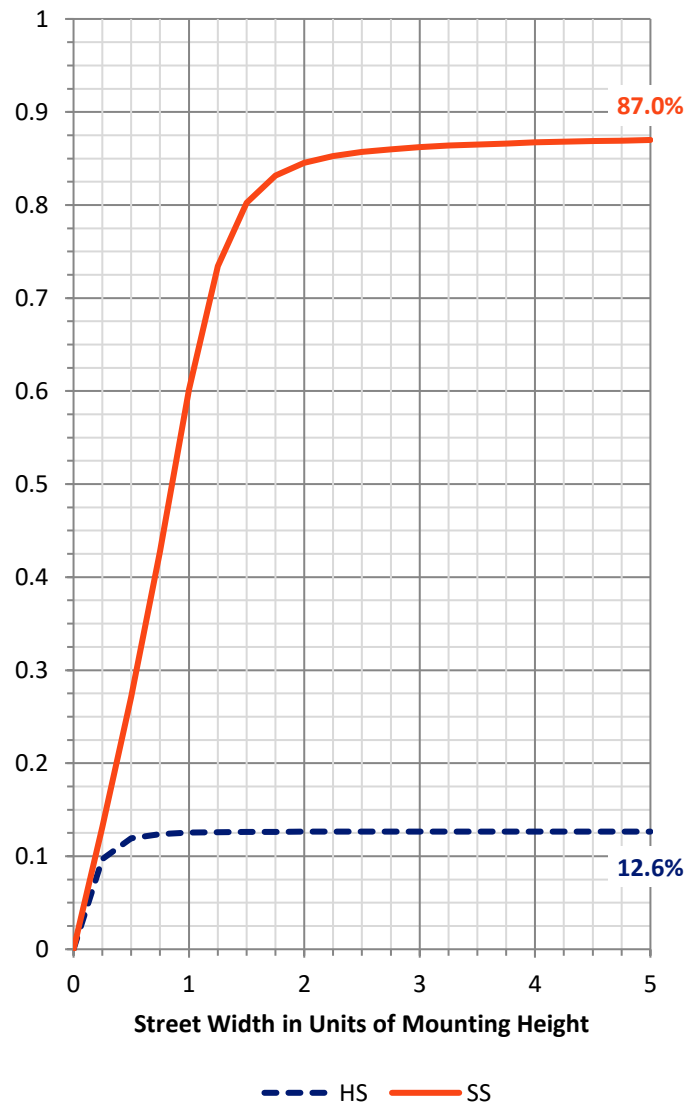
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	359.8	0.0	359.8
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	2454.1	0.0	2454.1
	% Fixture	87.2	0.0	87.2
Total	Lumens	2813.9	0.0	2813.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.6	1.2
10°-20°	91.1	3.2
20°-30°	153.0	5.4
30°-40°	293.3	10.4
40°-50°	599.0	21.3
50°-60°	792.7	28.2
60°-70°	615.8	21.9
70°-80°	222.3	7.9
80°-90°	14.2	0.5
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°	2813.9	100.0
0°-180°	2813.9	100.0



REPORT NUMBER: P265890

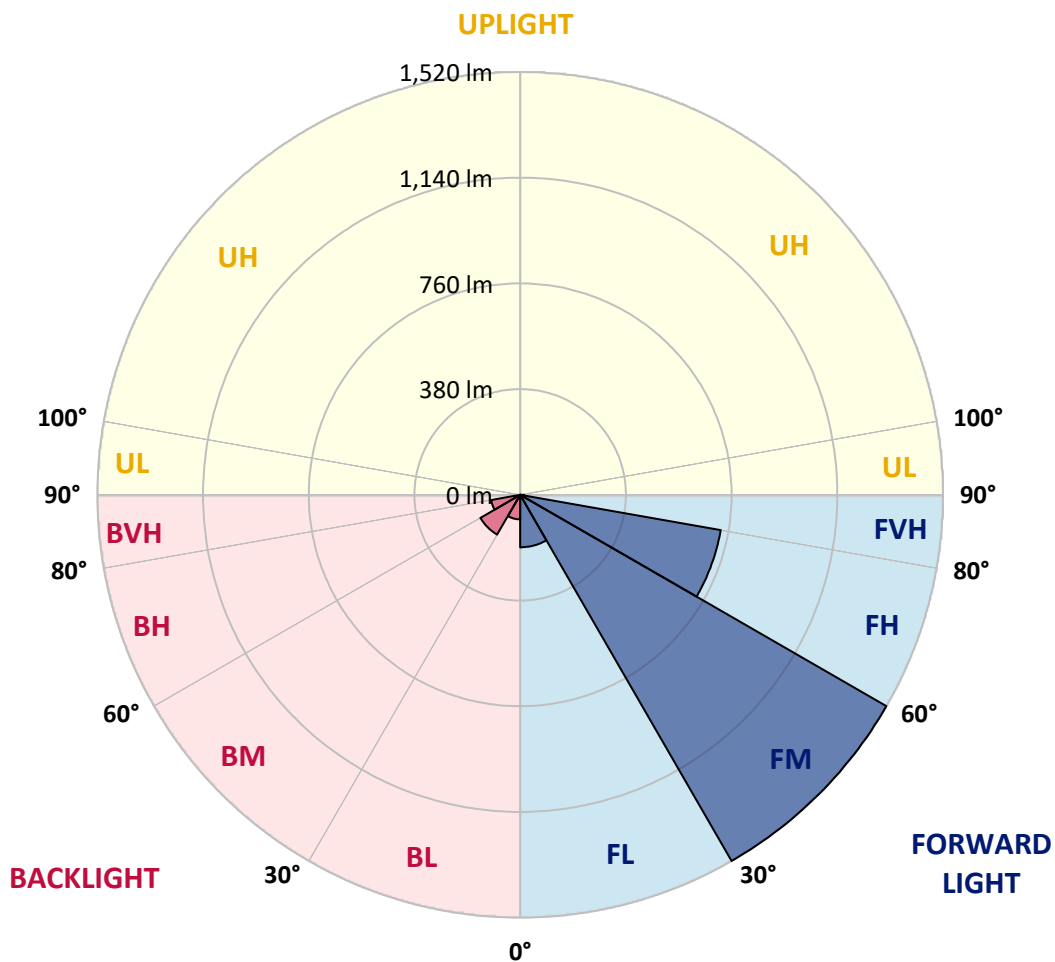
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	188.6	6.7			
FM	(30°-60°)	1519.8	54.0			
FH	(60°-80°)	732.1	26.0			G1/1800
FVH	(80°-90°)	13.6	0.5			G1/100
BL	(0°-30°)	88.1	3.1	B0/110		
BM	(30°-60°)	165.2	5.9	B0/220		
BH	(60°-80°)	105.9	3.8	B0/110		G0/110
BVH	(80°-90°)	0.6	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 II Short





REPORT NUMBER: P265890

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	339.0	339.0	339.0	339.0	339.0	339.0	339.0	339.0	339.0	339.0	339.0
2.5°	348.0	347.3	346.6	345.8	345.8	345.2	344.5	343.2	341.7	340.4	339.6
5°	354.2	353.6	352.9	353.6	352.9	352.9	352.1	350.7	349.4	347.3	345.2
7.5°	359.1	358.3	357.6	358.3	359.1	359.7	360.4	359.1	358.3	355.5	353.6
10°	365.3	364.5	363.9	365.3	365.3	368.8	369.5	368.8	368.0	366.0	362.5
12.5°	374.2	375.0	375.0	376.3	377.6	381.9	383.2	381.2	381.2	378.4	374.2
15°	390.9	390.9	390.9	392.2	392.9	398.5	399.8	397.8	399.1	394.4	390.1
17.5°	406.8	407.4	408.9	411.7	411.7	416.5	419.1	419.1	421.9	415.7	410.3
20°	422.7	423.5	425.4	431.6	431.6	438.0	442.8	444.8	447.5	441.3	431.6
22.5°	440.0	440.0	443.5	453.1	451.0	463.4	472.5	475.9	478.6	470.4	455.3
25°	466.3	463.4	466.3	475.3	473.9	491.2	507.7	511.2	514.6	504.9	482.2
27.5°	516.0	511.9	502.2	503.0	503.0	523.1	546.4	551.4	553.4	545.1	516.7
30°	615.7	615.7	579.6	555.5	539.6	557.6	590.7	599.1	601.9	589.4	552.1
32.5°	789.3	789.3	722.9	661.3	601.1	601.1	639.2	654.4	657.2	642.6	599.1
35°	1010.8	1009.2	909.8	825.4	707.7	663.4	695.9	721.5	729.9	710.5	660.0
37.5°	1245.9	1236.8	1129.7	1032.8	871.6	763.0	772.7	806.6	814.3	798.4	738.9
40°	1436.7	1426.5	1340.0	1259.1	1083.4	922.1	883.5	914.6	923.5	901.4	832.9
42.5°	1609.8	1584.3	1524.7	1466.6	1326.8	1197.5	1030.7	1043.2	1053.0	1029.4	938.8
45°	1734.9	1695.6	1665.1	1647.1	1573.1	1499.8	1221.7	1196.8	1200.2	1171.2	1054.3
47.5°	1738.4	1710.7	1713.5	1760.6	1791.0	1788.3	1470.0	1381.5	1368.4	1319.9	1177.4
50°	1572.5	1588.4	1638.8	1773.1	1937.6	2037.3	1765.3	1600.2	1560.6	1473.5	1299.8
52.5°	1295.6	1320.6	1415.4	1641.7	1959.2	2201.2	2071.9	1849.8	1779.3	1625.8	1393.9
55°	1014.8	1016.3	1115.9	1346.2	1816.0	2231.0	2316.8	2124.4	2016.5	1741.3	1456.2
57.5°	698.1	736.0	862.6	1017.6	1492.9	2082.9	2408.7	2337.5	2198.5	1812.5	1499.8
60°	457.2	459.4	606.6	785.8	1016.3	1694.8	2352.8	2450.2	2345.8	1854.7	1529.5
62°	322.4	325.8	417.2	642.0	765.7	1214.8	2229.0	2473.8	2428.8	1879.6	1560.6
62.5°	298.9	301.7	378.4	605.9	719.5	1089.6	2184.7	2468.3	2441.4	1887.9	1571.8
65°	219.2	219.2	247.7	416.5	527.1	588.7	1851.1	2358.3	2424.6	1954.3	1613.3
67.5°	169.5	170.9	180.6	256.6	397.8	356.9	1181.6	2110.6	2251.7	2052.4	1636.7
70°	146.0	145.3	152.3	170.1	287.1	237.3	520.2	1647.1	1885.8	2027.7	1615.3
72.5°	107.9	108.7	124.5	149.4	200.0	154.2	235.1	874.4	1223.0	1586.9	1384.3
75°	69.2	69.9	87.9	117.6	143.9	101.0	135.6	260.8	500.9	879.9	846.7
77.5°	46.4	47.7	57.4	82.4	125.9	62.9	85.1	109.4	150.8	329.9	303.6
80°	31.1	31.1	36.7	55.3	79.6	52.6	45.6	72.7	78.2	102.3	51.3
82.5°	20.8	20.8	24.3	36.7	51.9	47.0	27.7	39.4	45.6	51.3	18.0
85°	12.4	12.4	16.6	22.8	33.9	26.3	18.0	22.2	23.5	32.5	9.7
87.5°	7.6	6.8	11.0	15.9	18.0	15.9	11.8	11.8	12.4	18.0	4.9
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: P265890

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	339.0	339.0	339.0	339.0	339.0	339.0	339.0	339.0	339.0	339.0	339.0
2.5°	338.3	337.7	337.0	335.4	333.5	332.1	330.7	329.3	327.9	327.9	329.9
5°	344.5	342.4	339.6	337.0	332.7	329.9	327.9	325.1	323.7	323.7	324.5
7.5°	352.1	350.0	345.2	340.4	334.1	329.3	324.5	318.2	313.4	311.4	313.4
10°	360.4	357.6	350.7	343.2	336.1	323.7	307.8	288.4	271.8	264.2	267.8
12.5°	370.8	367.3	359.1	348.6	332.7	302.3	262.8	217.8	189.5	176.3	179.2
15°	386.0	381.2	369.5	353.6	318.2	252.6	188.1	136.4	110.0	99.0	100.3
17.5°	404.0	397.8	381.9	352.1	280.9	181.9	112.1	79.6	68.5	65.8	65.8
20°	423.5	415.0	394.4	341.7	224.1	114.2	69.9	60.8	56.8	54.6	54.6
22.5°	443.5	432.4	404.6	317.6	159.8	71.2	57.4	51.3	46.4	44.2	44.2
25°	467.7	453.1	415.0	275.3	101.7	57.4	49.0	42.8	38.1	35.3	36.0
27.5°	496.0	477.3	424.1	222.8	65.8	49.8	40.9	34.6	30.5	29.0	29.0
30°	525.8	503.6	426.2	166.7	53.3	42.8	33.9	28.3	25.6	24.3	24.3
32.5°	566.7	537.5	419.9	110.8	44.9	36.0	28.3	23.5	21.4	20.8	20.8
35°	620.5	581.8	405.3	68.5	38.1	29.7	23.5	20.8	18.7	18.0	18.0
37.5°	689.0	643.4	379.9	47.0	32.5	24.3	20.0	18.0	16.6	15.9	15.9
40°	780.4	718.0	346.6	40.9	27.7	20.8	17.2	15.9	14.6	14.6	14.6
42.5°	877.1	808.7	303.6	36.0	23.5	18.0	15.2	13.8	13.1	12.4	12.4
45°	983.0	901.4	250.4	31.8	20.0	15.9	13.8	11.8	11.0	11.0	11.0
47.5°	1088.1	996.8	192.2	27.7	17.2	13.8	11.8	10.4	9.7	9.1	9.1
50°	1196.2	1083.4	141.2	24.3	15.2	12.4	10.4	9.1	7.6	6.8	6.8
52.5°	1274.2	1135.2	103.0	20.8	13.1	10.4	8.4	6.8	5.5	4.9	4.9
55°	1331.6	1167.1	75.4	17.2	11.8	9.1	6.8	5.5	4.1	4.1	3.5
57.5°	1376.7	1182.3	56.8	15.2	10.4	7.6	5.5	4.1	3.5	2.8	2.8
60°	1411.2	1183.0	42.2	12.4	9.1	6.2	4.1	2.8	2.1	2.1	2.1
62°	1457.0	1192.0	34.6	10.4	8.4	5.5	3.5	2.1	1.3	0.7	0.7
62.5°	1470.0	1195.4	33.1	10.4	7.6	4.9	2.8	2.1	1.3	0.7	0.7
65°	1530.9	1201.7	25.6	8.4	6.2	4.1	2.1	1.3	0.0	0.0	0.0
67.5°	1586.2	1192.0	18.7	6.2	4.9	2.8	2.1	0.7	0.0	0.0	0.0
70°	1580.7	1125.5	13.1	4.1	3.5	2.1	1.3	0.0	0.0	0.0	0.0
72.5°	1302.6	842.6	9.1	3.5	2.1	1.3	0.7	0.0	0.0	0.0	0.0
75°	786.6	368.8	6.2	2.1	2.1	1.3	0.7	0.0	0.0	0.0	0.0
77.5°	258.1	133.5	4.1	1.3	1.3	0.7	0.7	0.0	0.0	0.0	0.0
80°	42.2	22.2	2.1	1.3	1.3	0.7	0.7	0.0	0.0	0.0	0.0
82.5°	13.1	5.5	1.3	1.3	0.7	0.7	0.0	0.0	0.0	0.0	0.0
85°	4.9	2.1	1.3	1.3	0.7	0.7	0.0	0.0	0.0	0.0	0.0
87.5°	2.1	1.3	1.3	1.3	0.7	0.7	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)