

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: P214792

Luminaire Tested: **ARCH-AF16-20-D-U-T3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214792  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-20-D-U-T3-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2188.1 lumens  
Efficiency: N/A  
Efficacy: 91.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 24  
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

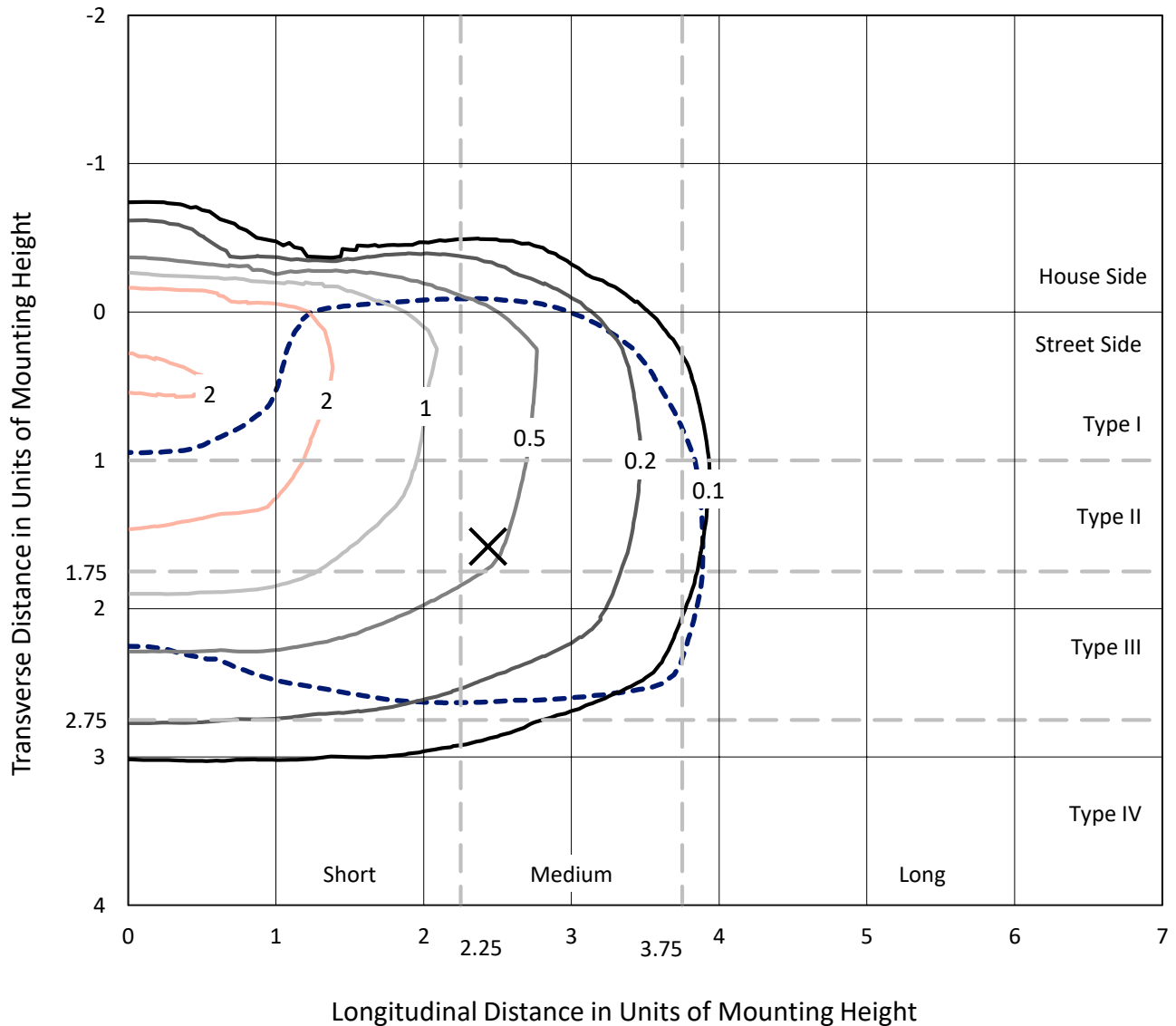


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

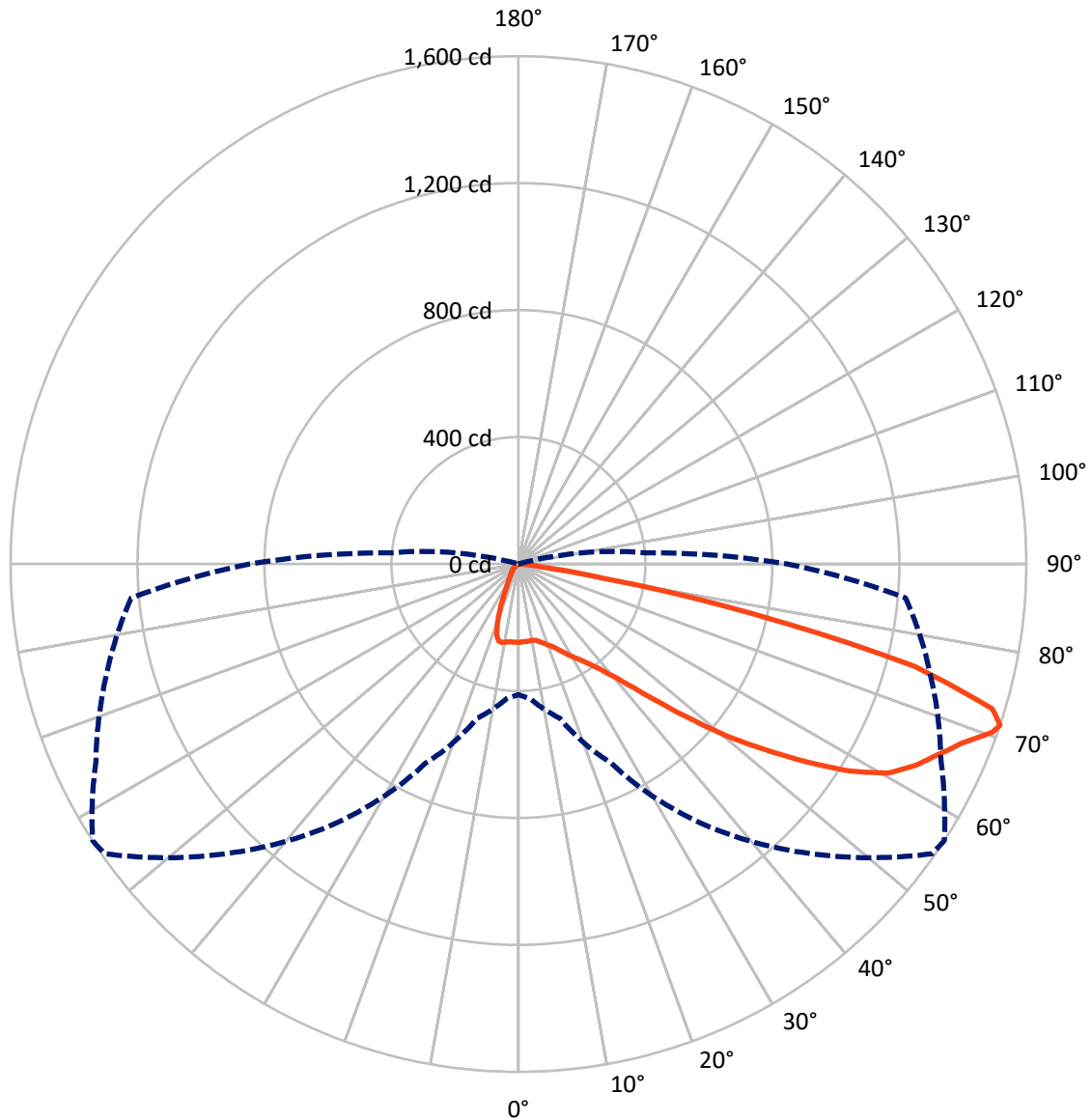


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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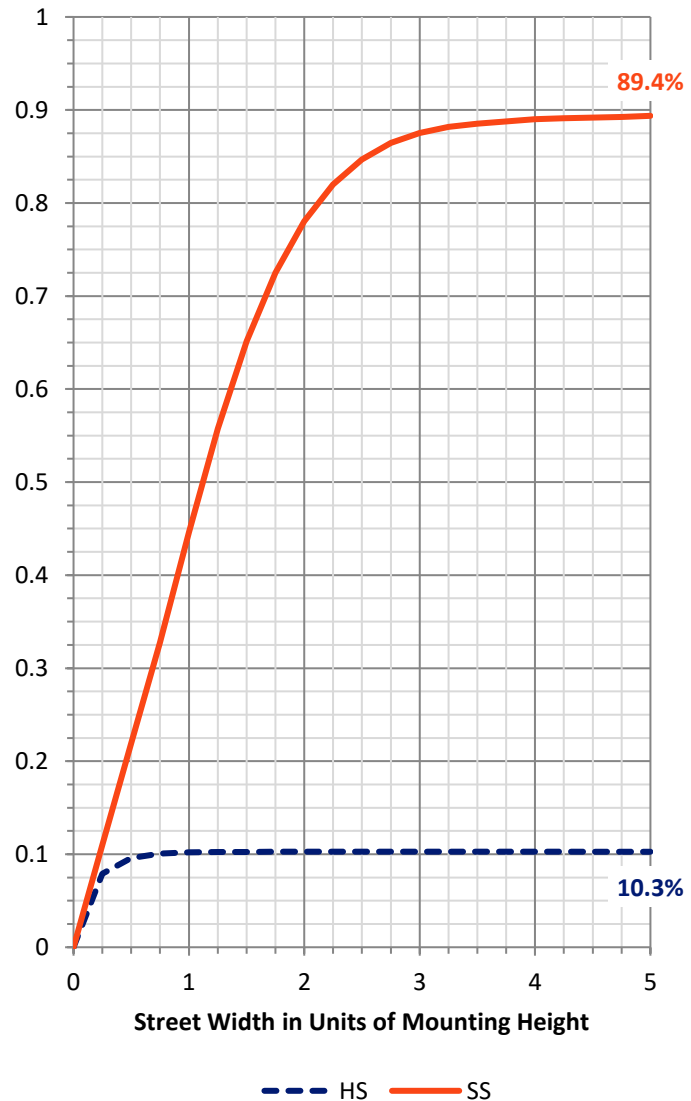
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	226.8	0.0	226.8
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	1961.3	0.0	1961.3
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	2188.1	0.0	2188.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.2	1.1
10°-20°	62.1	2.8
20°-30°	96.9	4.4
30°-40°	163.7	7.5
40°-50°	318.0	14.5
50°-60°	534.0	24.4
60°-70°	637.3	29.1
70°-80°	335.8	15.3
80°-90°	17.1	0.8
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°	2188.1	100.0
0°-180°	2188.1	100.0



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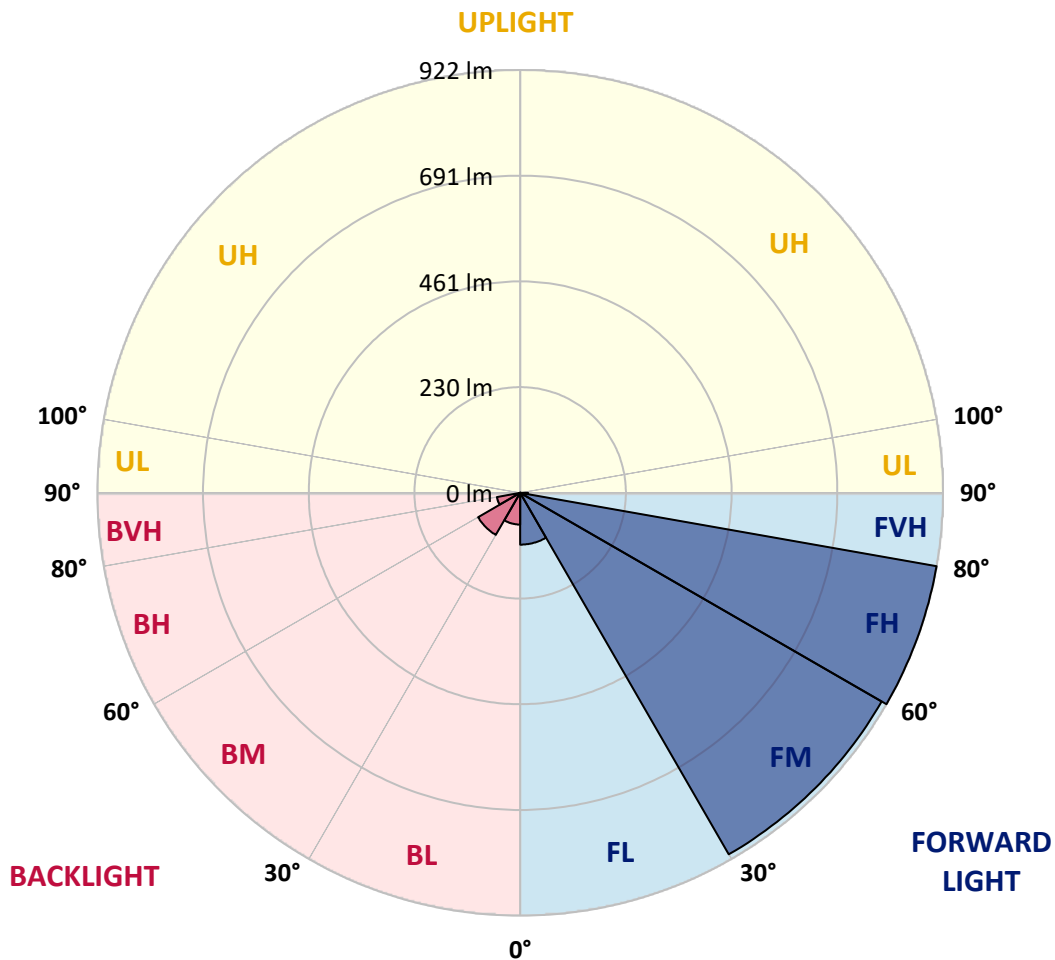
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	113.0	5.2			
FM	(30°-60°)	909.8	41.6			
FH	(60°-80°)	921.6	42.1			G1/1800
FVH	(80°-90°)	16.9	0.8			G1/100
BL	(0°-30°)	69.2	3.2	B0/110		
BM	(30°-60°)	105.9	4.8	B0/220		
BH	(60°-80°)	51.5	2.4	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	247.2	247.2	247.2	247.2	247.2	247.2	247.2	247.2	247.2	247.2	247.2
2.5°	243.8	243.8	243.8	244.2	244.7	244.7	245.7	245.2	245.2	245.2	246.2
5°	237.1	237.6	238.1	239.2	241.2	242.7	245.2	245.2	245.7	246.7	247.2
7.5°	227.9	228.4	230.0	232.0	236.1	239.7	243.8	244.7	246.2	248.8	249.8
10°	222.3	223.3	225.4	227.9	232.5	237.1	242.2	243.8	248.3	252.9	255.4
12.5°	220.8	221.3	223.3	227.4	233.0	238.7	245.2	246.7	253.4	260.5	264.6
15°	223.3	223.8	224.8	229.4	236.1	243.3	251.9	253.9	262.1	270.3	275.4
17.5°	227.9	227.9	228.9	233.0	240.2	248.3	259.5	262.6	271.8	280.9	286.5
20°	231.0	231.0	232.5	236.6	244.7	255.4	268.7	272.8	282.9	293.2	298.3
22.5°	234.1	234.6	236.1	240.7	249.8	264.6	279.9	284.0	295.7	306.5	311.5
25°	242.7	242.2	242.7	246.7	257.5	275.9	295.2	300.3	312.5	324.3	326.8
27.5°	266.7	265.7	259.0	256.5	264.6	287.6	314.6	319.7	334.0	345.7	345.7
30°	321.7	319.7	303.4	282.4	275.9	298.3	333.0	340.1	358.4	368.7	365.6
32.5°	391.6	387.0	366.1	330.4	303.9	312.5	352.3	360.5	383.9	392.6	386.0
35°	468.1	467.6	441.5	395.7	357.9	342.1	377.3	387.0	416.5	424.2	413.5
37.5°	549.1	551.2	533.9	470.7	426.3	390.6	410.4	421.7	457.9	467.1	456.8
40°	639.3	638.8	632.3	557.3	508.3	459.4	458.4	468.6	512.4	526.7	512.4
42.5°	753.6	752.6	728.6	661.3	607.7	549.1	528.3	531.8	580.7	604.2	583.3
45°	869.8	862.7	835.1	777.0	729.7	660.3	620.5	620.5	662.4	694.5	661.8
47.5°	934.6	927.4	916.3	884.1	869.8	792.4	733.7	726.6	759.2	791.9	745.9
50°	1019.8	1019.8	991.6	979.5	1003.9	949.4	858.7	851.5	867.3	893.3	833.1
52.5°	1087.1	1074.8	1055.0	1065.6	1135.5	1110.5	983.6	969.8	982.0	988.7	909.1
55°	1115.1	1103.4	1101.8	1141.1	1249.2	1214.5	1111.5	1099.3	1098.2	1065.6	975.4
57.5°	1120.7	1110.5	1129.8	1198.7	1359.8	1299.7	1239.0	1229.8	1201.3	1119.7	1043.2
60°	1073.3	1078.4	1125.2	1230.3	1425.1	1373.6	1346.6	1336.9	1271.1	1165.6	1118.7
62.5°	975.9	988.2	1075.8	1233.4	1401.1	1403.7	1406.3	1399.6	1325.1	1207.4	1194.6
65°	860.7	864.2	969.8	1191.0	1359.3	1394.5	1450.0	1449.5	1366.5	1254.2	1280.3
67.5°	709.2	715.3	806.6	1048.3	1275.7	1390.4	1507.7	1506.2	1413.4	1307.8	1331.3
70°	527.7	535.4	609.3	815.3	1089.1	1339.5	1583.1	1584.1	1462.8	1348.7	1296.1
71°	411.4	425.2	502.8	692.4	993.7	1287.9	1590.3	1599.5	1468.4	1343.0	1223.7
72.5°	201.9	218.2	315.6	487.4	817.8	1172.7	1543.4	1561.2	1433.3	1273.2	1046.3
75°	52.5	55.5	94.3	199.4	438.5	777.0	1244.6	1289.9	1171.7	969.2	639.3
77.5°	33.1	34.2	44.4	77.5	164.2	295.2	731.2	753.6	669.4	491.0	225.4
80°	23.4	23.9	28.0	49.9	95.9	86.1	263.1	272.8	242.2	130.0	40.3
82.5°	14.3	14.3	20.4	32.1	59.1	47.0	69.4	74.0	65.3	36.2	13.3
85°	8.2	8.7	12.8	21.9	28.0	22.9	26.0	27.5	28.0	23.9	5.6
87.5°	6.6	7.2	11.3	18.3	15.3	11.3	11.3	11.8	12.3	14.3	2.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	247.2	247.2	247.2	247.2	247.2	247.2	247.2	247.2	247.2	247.2	247.2
2.5°	246.2	246.2	246.7	246.2	246.2	246.2	246.7	246.7	246.7	247.8	248.3
5°	247.2	247.2	247.2	246.7	246.2	246.2	247.2	247.8	247.8	249.3	249.3
7.5°	249.8	249.8	248.8	247.8	246.7	245.2	245.7	246.2	245.7	246.2	246.2
10°	255.4	255.4	253.9	251.9	248.8	244.2	238.1	230.5	223.3	220.8	219.7
12.5°	264.6	264.1	261.1	257.5	250.8	235.1	212.1	185.1	162.6	156.5	154.5
15°	274.9	273.8	270.3	264.1	246.2	204.5	156.5	121.8	100.5	95.3	94.3
17.5°	285.5	284.0	278.9	266.7	225.4	151.9	101.0	76.5	64.8	63.7	64.2
20°	296.8	294.7	287.6	261.6	182.0	101.5	65.3	59.1	58.1	58.1	58.6
22.5°	309.4	307.0	297.3	243.3	132.6	67.3	56.1	55.5	55.0	54.5	54.5
25°	324.3	321.2	306.5	210.1	91.2	55.0	53.5	52.0	50.9	49.9	49.4
27.5°	342.1	338.1	313.5	169.3	62.7	51.5	50.4	48.0	45.9	43.9	43.9
30°	360.0	354.9	311.5	127.5	50.9	48.0	45.9	42.9	39.8	37.7	37.2
32.5°	378.8	373.8	298.3	85.6	46.4	43.9	41.3	36.7	33.1	30.6	30.1
35°	406.8	402.8	272.3	56.6	41.8	38.8	35.2	30.6	26.0	23.4	22.9
37.5°	448.7	443.6	240.2	43.4	36.7	32.1	29.1	23.9	19.3	16.8	16.3
40°	504.7	489.5	201.9	38.3	32.1	26.5	22.4	17.3	13.8	12.3	12.3
42.5°	570.0	533.9	160.6	34.7	28.5	21.9	16.3	11.8	9.7	9.2	9.2
45°	639.3	575.1	119.3	32.1	25.0	17.3	11.8	8.2	7.2	6.6	6.6
47.5°	710.7	608.8	83.1	29.1	20.9	13.3	8.2	6.1	5.1	4.6	4.6
50°	777.5	630.8	58.6	26.0	17.8	9.7	6.1	4.6	3.6	3.6	3.6
52.5°	824.0	628.7	42.4	22.4	13.8	6.6	4.1	3.1	3.1	3.1	3.1
55°	864.7	621.0	33.1	19.3	10.7	4.6	3.1	2.6	2.6	2.0	2.0
57.5°	899.4	608.8	28.0	15.9	7.7	3.6	2.0	2.0	1.5	1.5	1.5
60°	928.9	593.5	23.4	13.3	5.1	2.6	1.5	1.0	1.0	0.5	1.0
62.5°	969.2	583.8	20.4	10.2	3.6	1.5	1.0	0.5	0.5	0.0	0.0
65°	998.8	565.5	17.3	7.2	2.0	1.0	0.5	0.5	0.0	0.0	0.0
67.5°	999.8	532.3	12.8	4.1	1.5	1.0	0.5	0.0	0.0	0.0	0.0
70°	919.3	453.8	8.2	2.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0
71°	845.4	401.8	6.6	1.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0
72.5°	696.5	295.2	5.1	1.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
75°	383.9	107.1	2.6	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	122.9	32.6	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	20.9	5.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.2	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.5	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)