

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: P214931

Luminaire Tested: **ARCH-AF24-100-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214931  
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-AF24-100-D-U-T4W-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6183 lumens  
Efficiency: N/A  
Efficacy: 64.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 96  
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

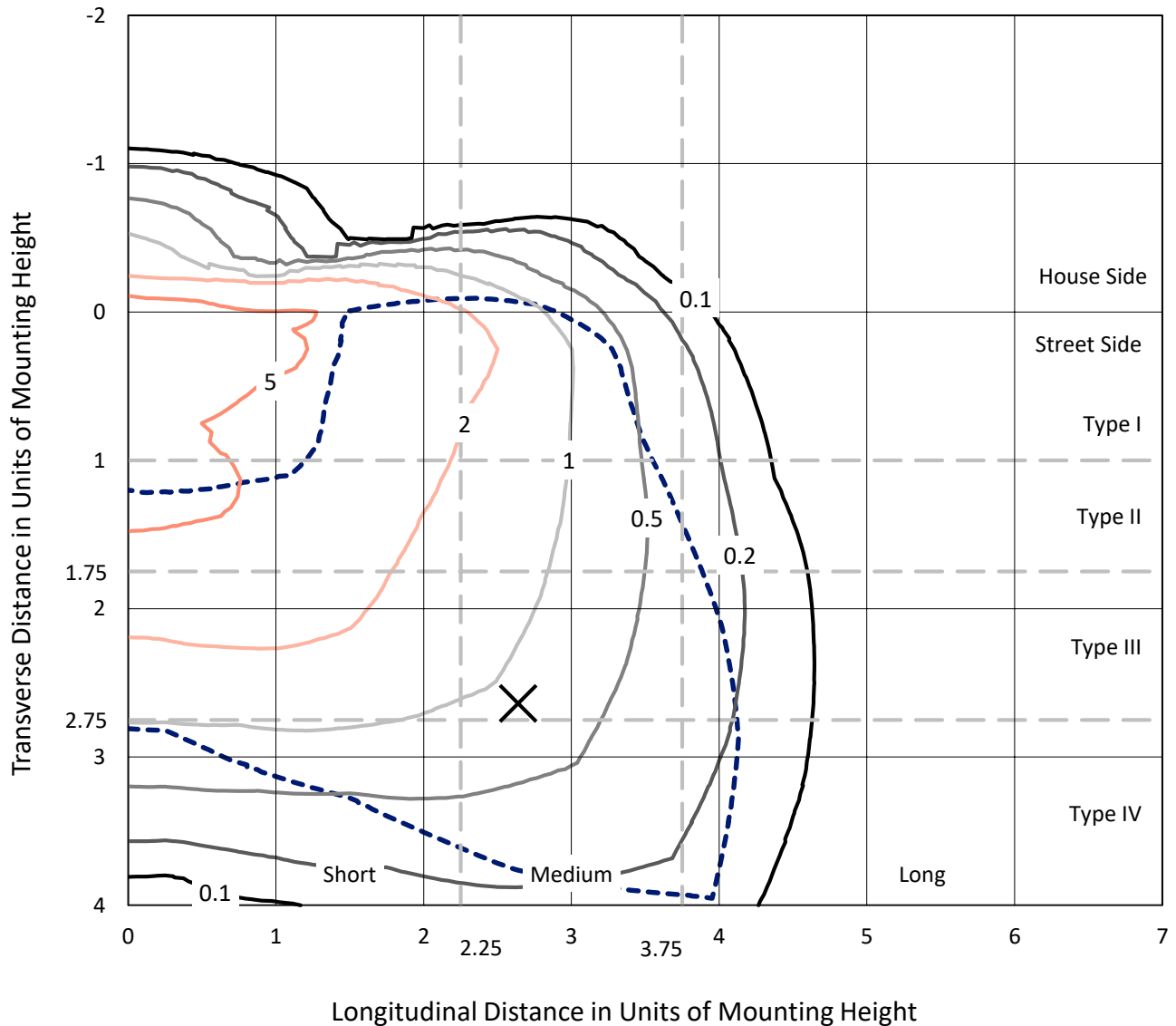


REPORT NUMBER: P214931

CATALOG NUMBER: ARCH-AF24-100-D-U-T4W-7030-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

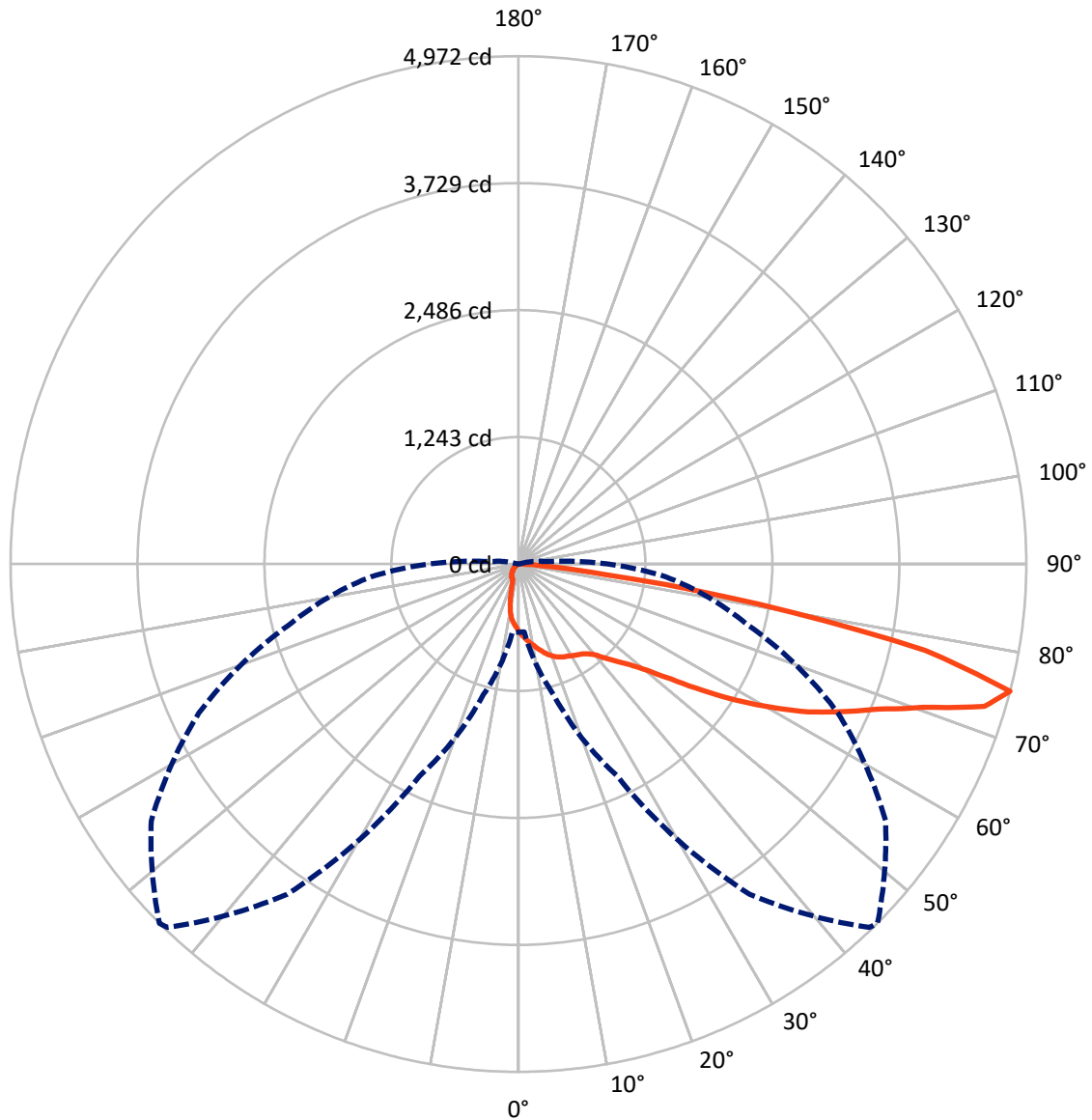


Based on 10 foot mounting height. Maximum calculated value = 8.8 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P214931

CATALOG NUMBER: ARCH-AF24-100-D-U-T4W-7030-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P214931

CATALOG NUMBER: ARCH-AF24-100-D-U-T4W-7030-HSS

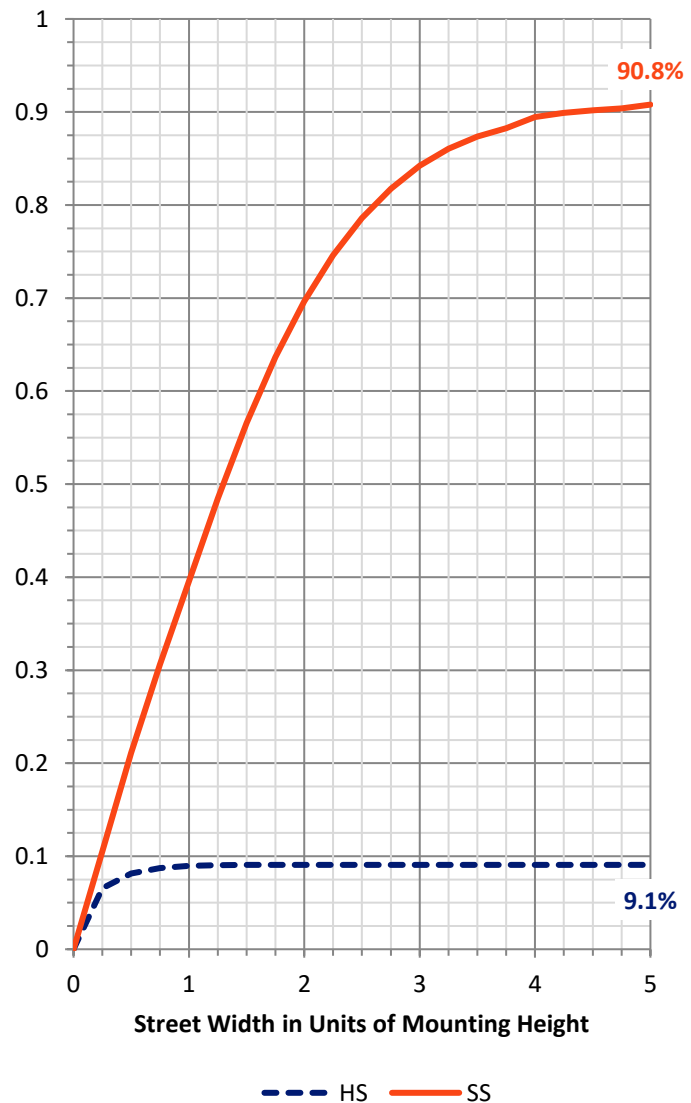
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	565.6	0.0	565.6
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	5617.4	0.0	5617.4
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	6183.0	0.0	6183.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.4	1.0
10°-20°	176.8	2.9
20°-30°	292.8	4.7
30°-40°	423.8	6.9
40°-50°	694.0	11.2
50°-60°	1236.5	20.0
60°-70°	1817.8	29.4
70°-80°	1371.3	22.2
80°-90°	107.6	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°	6183.0	100.0
0°-180°	6183.0	100.0



REPORT NUMBER: P214931

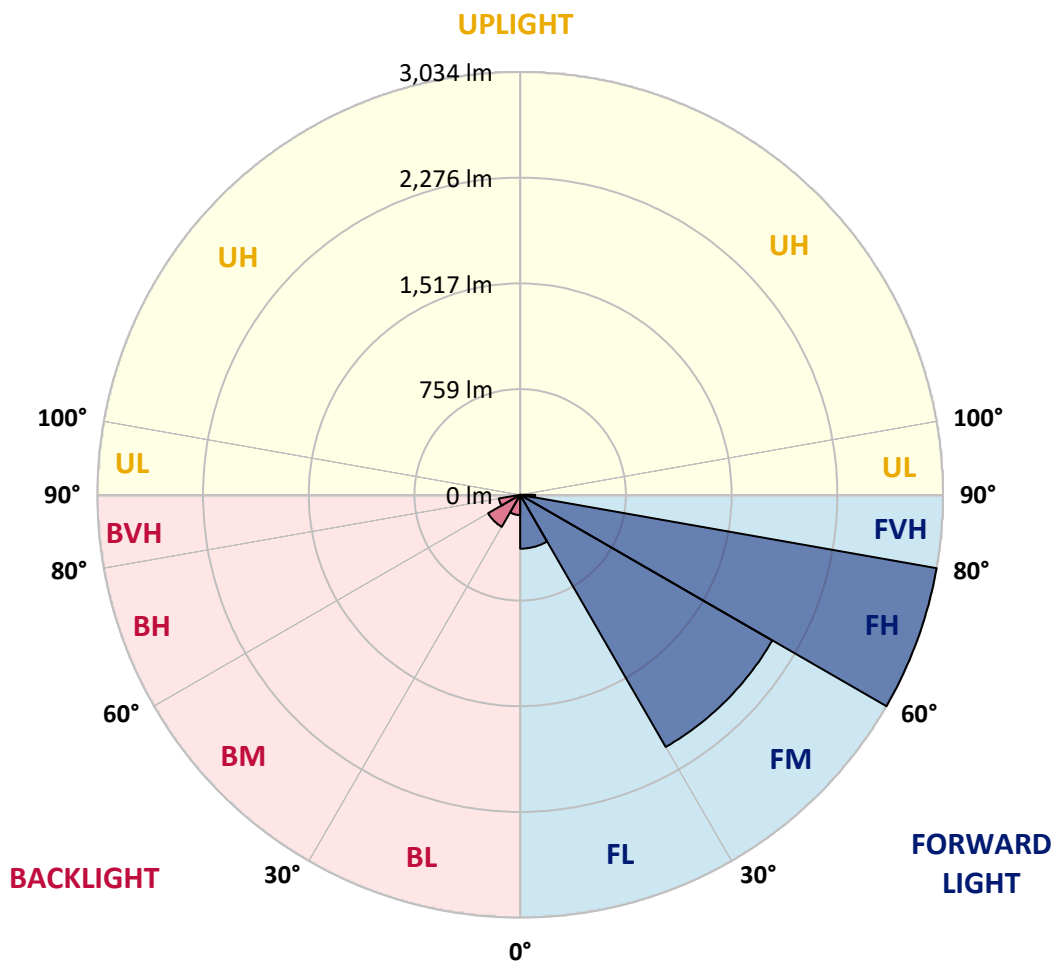
CATALOG NUMBER: ARCH-AF24-100-D-U-T4W-7030-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	386.7	6.3			
FM	(30°-60°)	2089.2	33.8			
FH	(60°-80°)	3034.2	49.1			G2/5000
FVH	(80°-90°)	107.3	1.7			G2/225
BL	(0°-30°)	145.3	2.4	B1/500		
BM	(30°-60°)	265.0	4.3	B1/1000		
BH	(60°-80°)	154.9	2.5	B1/500		G1/500
BVH	(80°-90°)	0.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Medium





REPORT NUMBER: P214931

CATALOG NUMBER: ARCH-AF24-100-D-U-T4W-7030-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3
2.5°	718.4	718.4	716.9	715.4	708.1	700.8	699.3	695.0	681.8	673.0	664.2
5°	778.4	779.8	776.9	769.6	753.5	737.4	735.9	724.2	699.3	681.8	662.8
7.5°	835.4	838.3	831.0	817.9	798.8	775.4	774.0	752.0	719.8	695.0	667.2
10°	883.7	883.7	873.4	857.4	836.9	812.0	809.1	784.2	747.6	716.9	680.3
12.5°	936.4	934.9	920.3	898.3	874.9	851.5	850.0	819.3	784.2	744.7	699.3
15°	984.6	981.7	962.7	942.2	917.3	892.5	891.0	860.3	823.7	776.9	727.1
17.5°	1011.0	1009.5	992.0	971.5	951.0	932.0	930.5	898.3	858.8	810.5	754.9
20°	1015.4	1016.8	1002.2	984.6	972.9	962.7	962.7	933.4	891.0	839.8	784.2
22.5°	1016.8	1021.2	1011.0	987.6	984.6	986.1	989.0	965.6	921.7	873.4	814.9
25°	1027.1	1032.9	1025.6	997.8	994.9	1005.1	1008.1	997.8	958.3	910.0	850.0
27.5°	1047.6	1053.4	1047.6	1012.4	1008.1	1018.3	1021.2	1027.1	997.8	945.1	886.6
30°	1088.5	1090.0	1076.8	1032.9	1024.1	1037.3	1041.7	1057.8	1034.4	978.8	921.7
32.5°	1160.2	1145.6	1106.1	1047.6	1040.2	1054.9	1059.3	1076.8	1068.0	1011.0	958.3
35°	1306.5	1230.4	1139.7	1068.0	1060.7	1075.4	1081.2	1106.1	1110.5	1056.3	1003.7
37.5°	1305.1	1236.3	1218.7	1107.5	1097.3	1107.5	1114.9	1145.6	1163.1	1116.3	1069.5
40°	1397.2	1368.0	1368.0	1182.2	1148.5	1163.1	1170.5	1201.2	1231.9	1195.3	1147.0
42.5°	1686.9	1667.9	1647.4	1325.5	1220.2	1261.2	1265.6	1284.6	1321.1	1309.4	1252.4
45°	2010.3	1992.7	1913.7	1568.4	1343.1	1350.4	1360.7	1391.4	1444.0	1466.0	1398.7
47.5°	2263.4	2245.8	2178.5	1861.0	1534.8	1470.4	1470.4	1530.4	1612.3	1667.9	1603.5
50°	2466.7	2446.2	2405.3	2172.7	1849.3	1643.0	1634.2	1704.5	1825.9	1912.2	1868.3
52.5°	2664.2	2604.3	2579.4	2494.5	2204.8	1893.2	1869.8	1919.5	2087.8	2194.6	2158.0
55°	2795.9	2787.1	2760.8	2790.1	2577.9	2197.5	2177.0	2187.3	2398.0	2469.7	2424.3
57.5°	2918.8	2917.4	2975.9	3111.9	2984.7	2545.7	2513.5	2497.5	2697.9	2680.3	2719.8
60°	3071.0	3044.6	3180.7	3375.3	3357.7	2885.2	2848.6	2816.4	2927.6	2877.8	3073.9
62.5°	3078.3	3071.0	3347.5	3626.9	3727.9	3230.4	3188.0	3072.4	3128.0	3071.0	3411.9
65°	2798.8	2835.4	3417.7	3760.1	4038.1	3533.3	3482.1	3302.1	3306.5	3268.5	3809.8
67.5°	2735.9	2755.0	3224.6	3903.5	4261.9	3839.1	3790.8	3567.0	3514.3	3517.2	4045.4
70°	2579.4	2608.6	2984.7	3893.2	4438.9	4247.3	4199.0	3956.1	3828.8	3686.9	3864.0
72.5°	1970.7	2020.5	2515.0	3413.3	4390.7	4781.3	4768.1	4449.2	3954.7	3385.5	2923.2
75°	667.2	665.7	1321.1	2292.6	3944.4	4945.2	4971.5	4387.7	3449.9	2335.1	1451.4
77.5°	143.4	144.8	272.1	929.0	2620.3	3970.8	4071.7	3309.5	2225.3	1040.2	332.1
80°	70.2	71.7	112.7	245.8	1047.6	2226.8	2384.8	1701.5	822.2	207.8	55.6
82.5°	35.1	36.6	58.5	130.2	387.7	791.5	845.7	626.2	235.6	117.0	27.8
85°	13.2	13.2	29.3	77.5	177.0	185.8	228.2	181.4	141.9	95.1	7.3
87.5°	2.9	2.9	16.1	38.0	79.0	58.5	58.5	55.6	86.3	64.4	2.9
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: P214931

CATALOG NUMBER: ARCH-AF24-100-D-U-T4W-7030-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3	661.3
2.5°	659.8	654.0	643.7	633.5	626.2	617.4	613.0	608.6	607.2	605.7	608.6
5°	652.5	643.7	624.7	608.6	594.0	582.3	573.5	564.7	560.4	557.4	558.9
7.5°	652.5	639.4	611.6	586.7	563.3	538.4	513.5	494.5	479.9	471.1	472.6
10°	659.8	642.3	605.7	572.1	528.2	475.5	421.4	380.4	352.6	336.5	336.5
12.5°	675.9	652.5	607.2	554.5	479.9	387.7	305.8	256.0	235.6	223.8	225.3
15°	697.9	670.1	614.5	531.1	412.6	288.2	213.6	181.4	181.4	184.3	185.8
17.5°	722.8	692.0	620.3	496.0	326.3	206.3	168.3	165.3	169.7	177.0	177.0
20°	747.6	714.0	623.3	440.4	244.3	163.9	159.5	159.5	162.4	169.7	171.2
22.5°	778.4	741.8	620.3	371.6	182.9	155.1	153.6	153.6	153.6	162.4	162.4
25°	810.5	774.0	608.6	298.5	155.1	149.2	147.8	146.3	146.3	153.6	155.1
27.5°	847.1	807.6	580.8	228.2	146.3	143.4	141.9	139.0	139.0	144.8	144.8
30°	883.7	845.7	538.4	172.6	139.0	137.5	134.6	131.7	128.7	134.6	134.6
32.5°	923.2	885.2	482.8	137.5	128.7	128.7	127.3	122.9	120.0	122.9	124.4
35°	975.9	930.5	419.9	120.0	115.6	115.6	115.6	114.1	108.3	111.2	111.2
37.5°	1046.1	993.4	346.7	111.2	105.3	102.4	102.4	102.4	98.0	99.5	99.5
40°	1135.3	1066.6	276.5	103.9	98.0	90.7	87.8	89.2	86.3	86.3	84.9
42.5°	1256.8	1145.6	207.8	98.0	92.2	81.9	76.1	74.6	71.7	70.2	70.2
45°	1430.9	1242.1	149.2	92.2	87.8	71.7	65.8	61.4	54.1	49.7	49.7
47.5°	1656.2	1351.9	111.2	86.3	83.4	62.9	55.6	46.8	36.6	33.7	33.7
50°	1931.2	1474.8	93.6	77.5	76.1	55.6	43.9	30.7	20.5	17.6	19.0
52.5°	2199.0	1590.4	83.4	68.8	67.3	48.3	32.2	16.1	8.8	8.8	8.8
55°	2424.3	1672.3	76.1	61.4	58.5	38.0	17.6	7.3	4.4	4.4	4.4
57.5°	2627.7	1719.1	68.8	54.1	46.8	26.3	7.3	2.9	2.9	1.5	1.5
60°	2813.5	1746.9	60.0	46.8	36.6	14.6	2.9	1.5	1.5	0.0	0.0
62.5°	2996.4	1767.4	51.2	38.0	27.8	5.9	1.5	1.5	0.0	0.0	0.0
65°	3135.3	1760.1	41.0	30.7	17.6	2.9	1.5	0.0	0.0	0.0	0.0
67.5°	3131.0	1660.6	30.7	23.4	8.8	1.5	0.0	0.0	0.0	0.0	0.0
70°	2800.3	1398.7	20.5	14.6	2.9	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	1986.8	896.9	13.2	8.8	1.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	874.9	272.1	7.3	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	171.2	62.9	4.4	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	41.0	7.3	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.6	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	1.5	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)