

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: P214930

Luminaire Tested: **ARCH-AF24-90-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214930  
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-AF24-90-D-U-T4W-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1180mA 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: 6120 lumens  
Efficiency: N/A  
Efficacy: 65.1 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): 94  
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

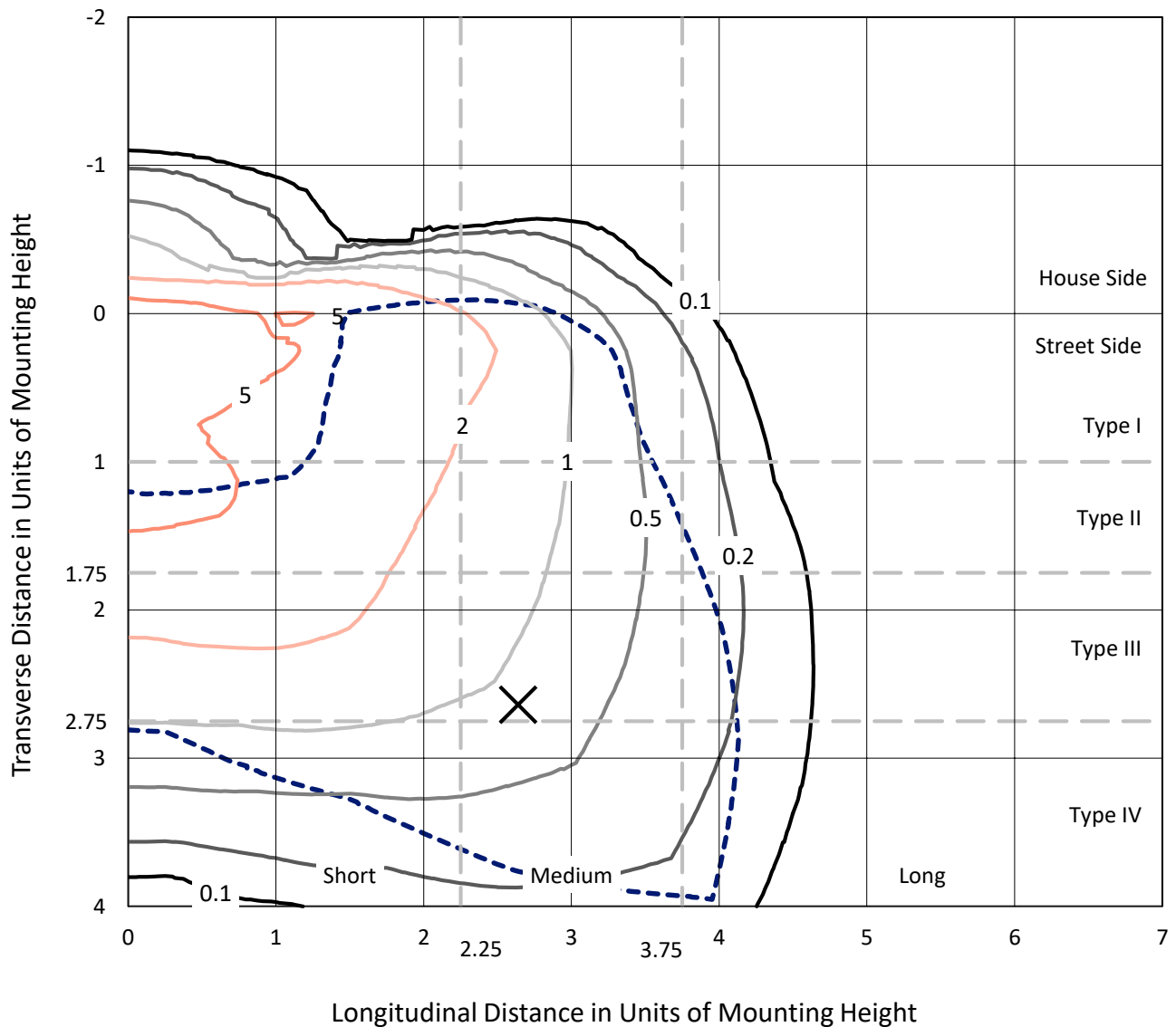


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

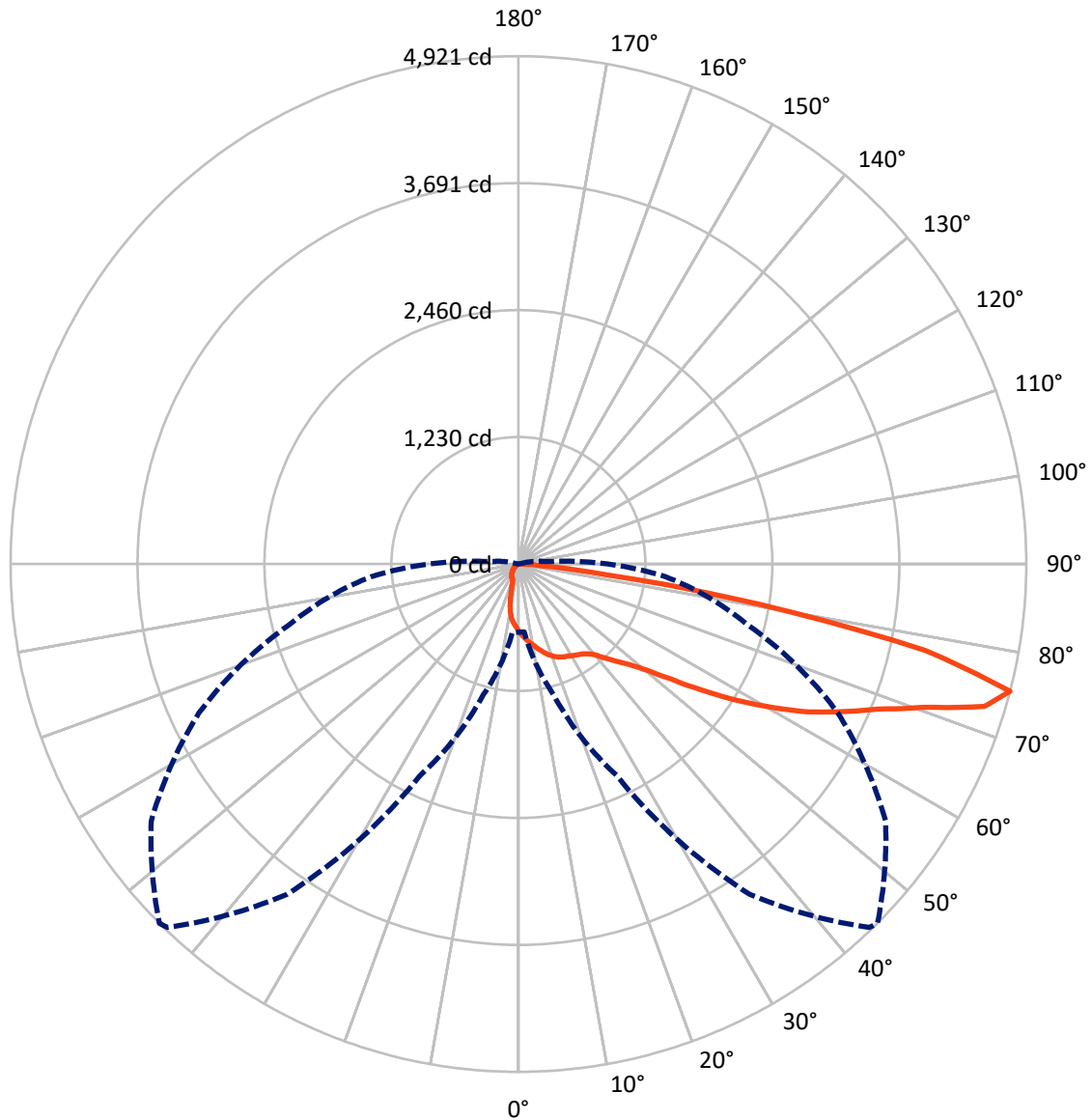


Based on 10 foot mounting height. Maximum calculated value = 8.7 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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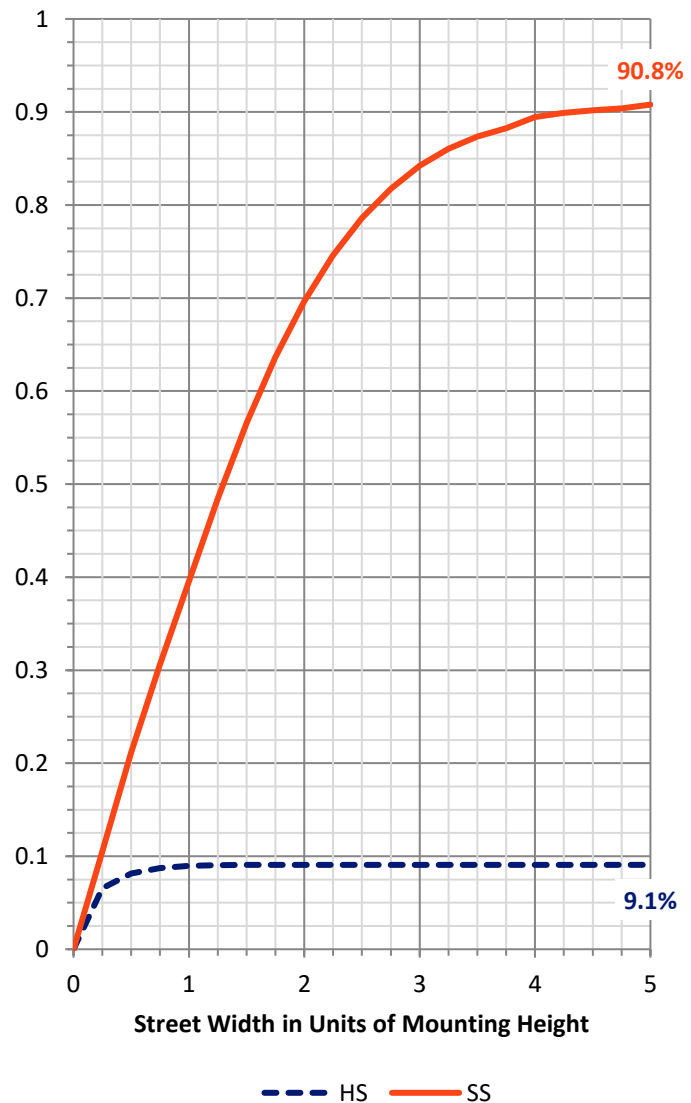
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	559.8	0.0	559.8
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	5560.2	0.0	5560.2
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	6120.0	0.0	6120.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.8	1.0
10°-20°	175.0	2.9
20°-30°	289.8	4.7
30°-40°	419.5	6.9
40°-50°	686.9	11.2
50°-60°	1223.9	20.0
60°-70°	1799.3	29.4
70°-80°	1357.4	22.2
80°-90°	106.5	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°	6120.0	100.0
0°-180°	6120.0	100.0



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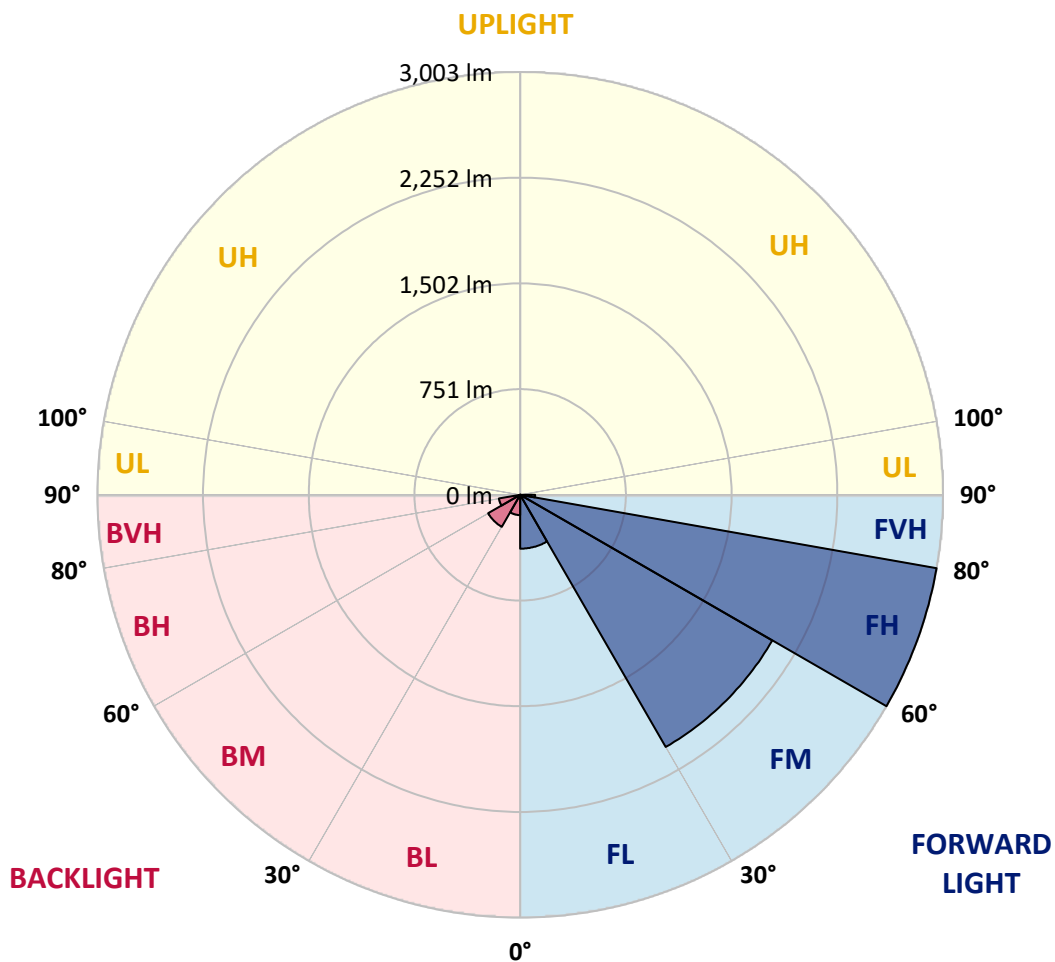
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	382.8	6.3			
FM	(30°-60°)	2067.9	33.8			
FH	(60°-80°)	3003.3	49.1			G2/5000
FVH	(80°-90°)	106.2	1.7			G2/225
BL	(0°-30°)	143.8	2.4	B1/500		
BM	(30°-60°)	262.3	4.3	B1/1000		
BH	(60°-80°)	153.3	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6
2.5°	711.0	711.0	709.6	708.1	700.9	693.7	692.2	687.9	674.8	666.2	657.5
5°	770.4	771.9	769.0	761.7	745.8	729.9	728.4	716.8	692.2	674.8	656.0
7.5°	826.9	829.8	822.6	809.5	790.7	767.5	766.1	744.4	712.5	687.9	660.4
10°	874.7	874.7	864.5	848.6	828.3	803.7	800.8	776.2	740.0	709.6	673.4
12.5°	926.8	925.4	910.9	889.2	866.0	842.8	841.4	811.0	776.2	737.1	692.2
15°	974.6	971.7	952.9	932.6	908.0	883.4	881.9	851.5	815.3	769.0	719.7
17.5°	1000.7	999.2	981.9	961.6	941.3	922.5	921.0	889.2	850.1	802.3	747.2
20°	1005.0	1006.5	992.0	974.6	963.0	952.9	952.9	923.9	881.9	831.2	776.2
22.5°	1006.5	1010.8	1000.7	977.5	974.6	976.1	979.0	955.8	912.3	864.5	806.6
25°	1016.6	1022.4	1015.2	987.6	984.7	994.9	997.8	987.6	948.5	900.8	841.4
27.5°	1036.9	1042.7	1036.9	1002.1	997.8	1007.9	1010.8	1016.6	987.6	935.5	877.6
30°	1077.4	1078.9	1065.8	1022.4	1013.7	1026.7	1031.1	1047.0	1023.8	968.8	912.3
32.5°	1148.4	1133.9	1094.8	1036.9	1029.6	1044.1	1048.5	1065.8	1057.2	1000.7	948.5
35°	1293.2	1217.9	1128.1	1057.2	1049.9	1064.4	1070.2	1094.8	1099.2	1045.6	993.4
37.5°	1291.8	1223.7	1206.3	1096.3	1086.1	1096.3	1103.5	1133.9	1151.3	1104.9	1058.6
40°	1383.0	1354.0	1354.0	1170.1	1136.8	1151.3	1158.5	1188.9	1219.3	1183.1	1135.4
42.5°	1669.7	1650.9	1630.6	1312.0	1207.8	1248.3	1252.7	1271.5	1307.7	1296.1	1239.6
45°	1989.8	1972.4	1894.2	1552.4	1329.4	1336.6	1346.8	1377.2	1429.3	1451.1	1384.4
47.5°	2240.3	2222.9	2156.3	1842.1	1519.1	1455.4	1455.4	1514.8	1595.9	1650.9	1587.2
50°	2441.6	2421.3	2380.8	2150.5	1830.5	1626.3	1617.6	1687.1	1807.3	1892.7	1849.3
52.5°	2637.1	2577.7	2553.1	2469.1	2182.4	1873.9	1850.7	1900.0	2066.5	2172.2	2136.0
55°	2767.4	2758.7	2732.7	2761.6	2551.7	2175.1	2154.9	2165.0	2373.5	2444.5	2399.6
57.5°	2889.1	2887.6	2945.6	3080.2	2954.2	2519.8	2487.9	2472.0	2670.4	2653.0	2692.1
60°	3039.7	3013.6	3148.3	3340.9	3323.5	2855.8	2819.6	2787.7	2897.8	2848.5	3042.6
62.5°	3046.9	3039.7	3313.4	3590.0	3689.9	3197.5	3155.5	3041.1	3096.2	3039.7	3377.1
65°	2770.3	2806.5	3382.9	3721.8	3996.9	3497.3	3446.6	3268.5	3272.8	3235.2	3771.0
67.5°	2708.1	2726.9	3191.7	3863.7	4218.5	3800.0	3752.2	3530.6	3478.5	3481.4	4004.2
70°	2553.1	2582.1	2954.2	3853.5	4393.7	4204.0	4156.2	3915.8	3789.8	3649.4	3824.6
72.5°	1950.7	1999.9	2489.4	3378.6	4345.9	4732.6	4719.5	4403.8	3914.4	3351.0	2893.4
75°	660.4	658.9	1307.7	2269.3	3904.2	4894.8	4920.8	4343.0	3414.8	2311.3	1436.6
77.5°	141.9	143.4	269.4	919.6	2593.6	3930.3	4030.2	3275.7	2202.6	1029.6	328.7
80°	69.5	71.0	111.5	243.3	1036.9	2204.1	2360.5	1684.2	813.9	205.6	55.0
82.5°	34.8	36.2	57.9	128.9	383.8	783.5	837.0	619.8	233.2	115.9	27.5
85°	13.0	13.0	29.0	76.8	175.2	183.9	225.9	179.6	140.5	94.1	7.2
87.5°	2.9	2.9	15.9	37.7	78.2	57.9	57.9	55.0	85.4	63.7	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6
2.5°	653.1	647.3	637.2	627.1	619.8	611.1	606.8	602.4	601.0	599.5	602.4
5°	645.9	637.2	618.4	602.4	588.0	576.4	567.7	559.0	554.6	551.7	553.2
7.5°	645.9	632.8	605.3	580.7	557.5	532.9	508.3	489.5	475.0	466.3	467.8
10°	653.1	635.7	599.5	566.2	522.8	470.7	417.1	376.5	349.0	333.1	333.1
12.5°	669.0	645.9	601.0	548.9	475.0	383.8	302.7	253.4	233.2	221.6	223.0
15°	690.8	663.3	608.2	525.7	408.4	285.3	211.4	179.6	179.6	182.5	183.9
17.5°	715.4	685.0	614.0	490.9	322.9	204.2	166.5	163.6	168.0	175.2	175.2
20°	740.0	706.7	616.9	435.9	241.8	162.2	157.8	157.8	160.7	168.0	169.4
22.5°	770.4	734.2	614.0	367.8	181.0	153.5	152.1	152.1	152.1	160.7	160.7
25°	802.3	766.1	602.4	295.4	153.5	147.7	146.3	144.8	144.8	152.1	153.5
27.5°	838.5	799.4	574.9	225.9	144.8	141.9	140.5	137.6	137.6	143.4	143.4
30°	874.7	837.0	532.9	170.9	137.6	136.1	133.2	130.3	127.4	133.2	133.2
32.5°	913.8	876.1	477.9	136.1	127.4	127.4	126.0	121.6	118.7	121.6	123.1
35°	965.9	921.0	415.6	118.7	114.4	114.4	114.4	113.0	107.2	110.1	110.1
37.5°	1035.4	983.3	343.2	110.1	104.3	101.4	101.4	101.4	97.0	98.5	98.5
40°	1123.8	1055.7	273.7	102.8	97.0	89.8	86.9	88.3	85.4	85.4	84.0
42.5°	1244.0	1133.9	205.6	97.0	91.2	81.1	75.3	73.9	71.0	69.5	69.5
45°	1416.3	1229.5	147.7	91.2	86.9	71.0	65.2	60.8	53.6	49.2	49.2
47.5°	1639.3	1338.1	110.1	85.4	82.5	62.3	55.0	46.3	36.2	33.3	33.3
50°	1911.6	1459.7	92.7	76.8	75.3	55.0	43.4	30.4	20.3	17.4	18.8
52.5°	2176.6	1574.1	82.5	68.1	66.6	47.8	31.9	15.9	8.7	8.7	8.7
55°	2399.6	1655.2	75.3	60.8	57.9	37.7	17.4	7.2	4.3	4.3	4.3
57.5°	2600.9	1701.6	68.1	53.6	46.3	26.1	7.2	2.9	2.9	1.4	1.4
60°	2784.8	1729.1	59.4	46.3	36.2	14.5	2.9	1.4	1.4	0.0	0.0
62.5°	2965.8	1749.4	50.7	37.7	27.5	5.8	1.4	1.4	0.0	0.0	0.0
65°	3103.4	1742.1	40.5	30.4	17.4	2.9	1.4	0.0	0.0	0.0	0.0
67.5°	3099.1	1643.7	30.4	23.2	8.7	1.4	0.0	0.0	0.0	0.0	0.0
70°	2771.8	1384.4	20.3	14.5	2.9	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	1966.6	887.7	13.0	8.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	866.0	269.4	7.2	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	169.4	62.3	4.3	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	40.5	7.2	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.4	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	1.4	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)