

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: P214943

Luminaire Tested: **ARCH-AF24-80-D-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214943  
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-AF24-80-D-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 1050mA 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: 6598 lumens  
Efficiency: N/A  
Efficacy: 79.5 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

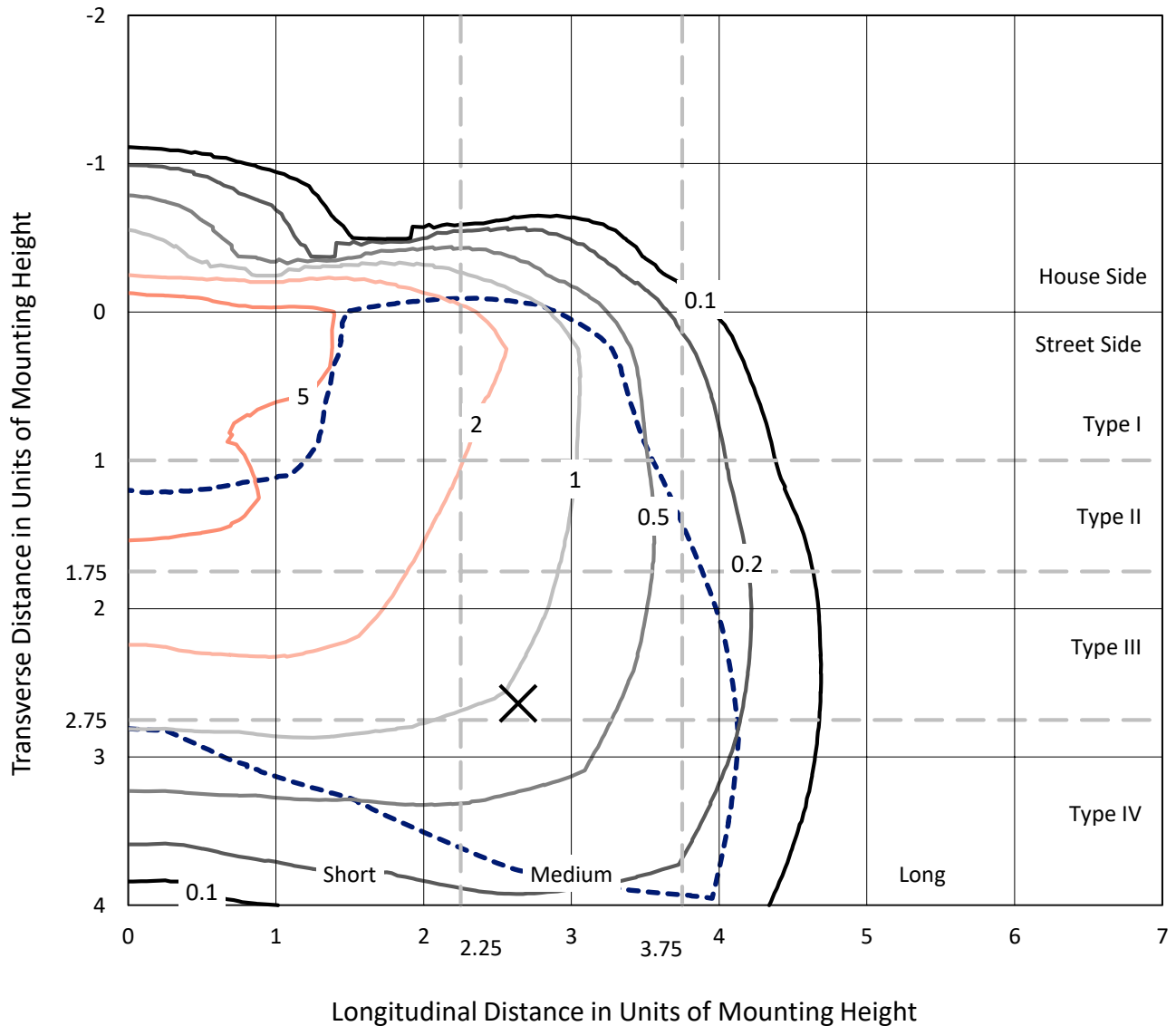
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

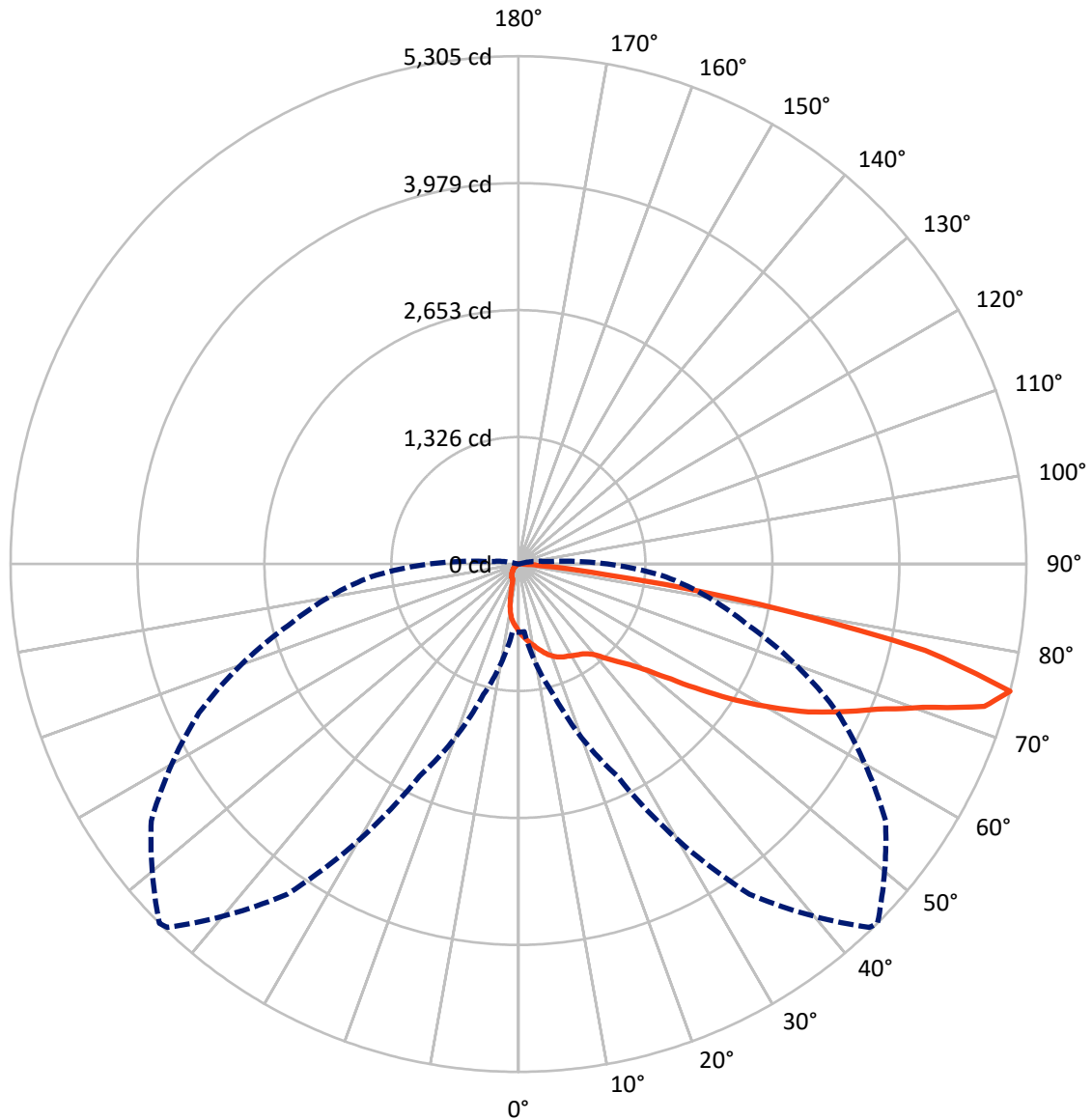
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.4 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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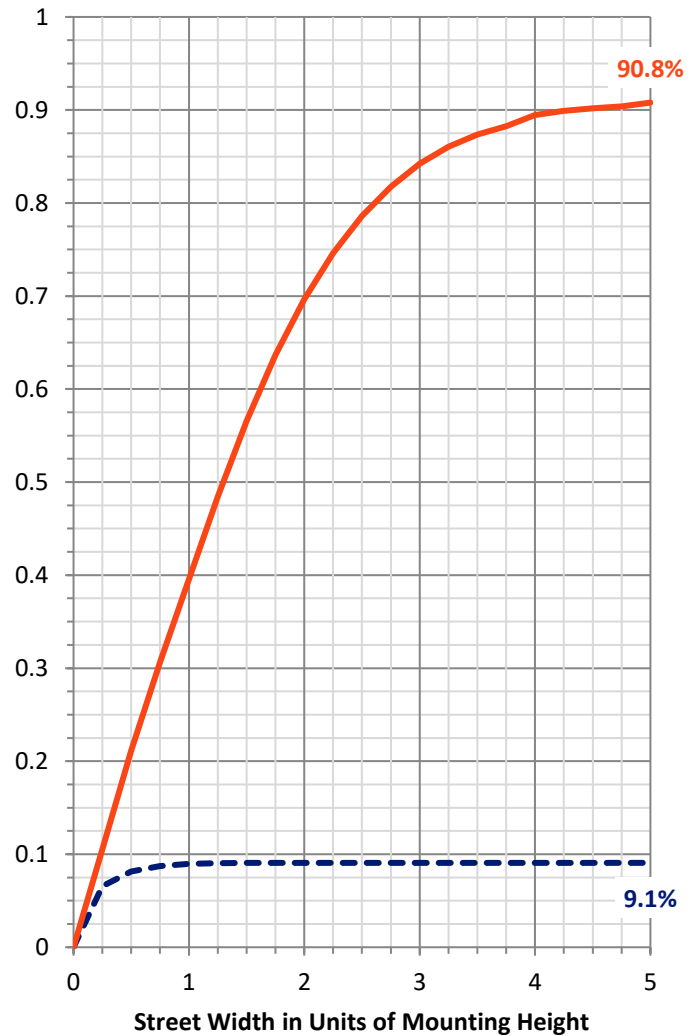
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	603.5	0.0	603.5
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	5994.5	0.0	5994.5
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	6598.0	0.0	6598.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.6	1.0
10°-20°	188.7	2.9
20°-30°	312.5	4.7
30°-40°	452.2	6.9
40°-50°	740.5	11.2
50°-60°	1319.5	20.0
60°-70°	1939.8	29.4
70°-80°	1463.4	22.2
80°-90°	114.8	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°	6598.0	100.0
0°-180°	6598.0	100.0



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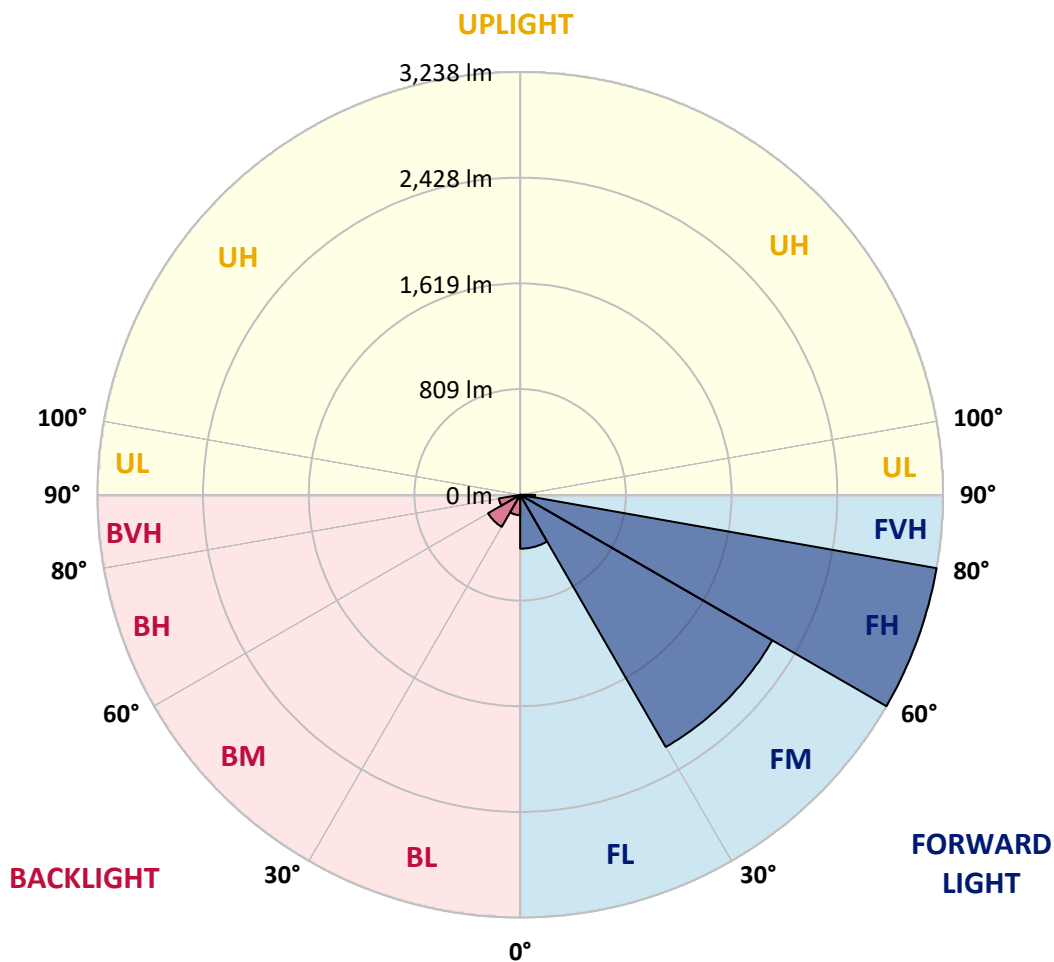
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	412.7	6.3			
FM	(30°-60°)	2229.4	33.8			
FH	(60°-80°)	3237.9	49.1			G2/5000
FVH	(80°-90°)	114.5	1.7			G2/225
BL	(0°-30°)	155.1	2.4	B1/500		
BM	(30°-60°)	282.8	4.3	B1/1000		
BH	(60°-80°)	165.3	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°	705.7	705.7	705.7	705.7	705.7	705.7	705.7	705.7	705.7	705.7	705.7
2.5°	766.6	766.6	765.1	763.4	755.7	747.9	746.2	741.6	727.5	718.2	708.8
5°	830.6	832.2	829.0	821.2	804.0	786.9	785.3	772.8	746.2	727.5	707.3
7.5°	891.5	894.6	886.8	872.8	852.4	827.5	825.9	802.5	768.1	741.6	712.0
10°	943.1	943.1	932.1	914.9	893.0	866.5	863.4	836.9	797.8	765.1	726.0
12.5°	999.2	997.7	982.0	958.6	933.6	908.7	907.1	874.3	836.9	794.7	746.2
15°	1050.8	1047.6	1027.3	1005.5	979.0	952.4	950.8	918.0	879.0	829.0	775.9
17.5°	1078.8	1077.3	1058.5	1036.7	1014.9	994.5	993.0	958.6	916.5	864.9	805.6
20°	1083.5	1085.0	1069.5	1050.8	1038.3	1027.3	1027.3	996.0	950.8	896.2	836.9
22.5°	1085.0	1089.7	1078.8	1053.8	1050.8	1052.3	1055.4	1030.4	983.6	932.1	869.6
25°	1096.0	1102.2	1094.5	1064.8	1061.6	1072.6	1075.7	1064.8	1022.6	971.1	907.1
27.5°	1117.9	1124.1	1117.9	1080.4	1075.7	1086.7	1089.7	1096.0	1064.8	1008.6	946.1
30°	1161.6	1163.2	1149.1	1102.2	1092.9	1106.9	1111.6	1128.8	1103.9	1044.5	983.6
32.5°	1238.1	1222.4	1180.3	1117.9	1110.1	1125.7	1130.4	1149.1	1139.8	1078.8	1022.6
35°	1394.2	1313.1	1216.2	1139.8	1131.9	1147.5	1153.8	1180.3	1185.0	1127.2	1071.0
37.5°	1392.6	1319.3	1300.6	1181.9	1171.0	1181.9	1189.7	1222.4	1241.2	1191.2	1141.3
40°	1491.1	1459.8	1459.8	1261.5	1225.6	1241.2	1249.0	1281.8	1314.6	1275.5	1224.1
42.5°	1800.2	1779.8	1758.0	1414.5	1302.1	1345.8	1350.5	1370.8	1409.8	1397.4	1336.5
45°	2145.2	2126.4	2042.1	1673.6	1433.3	1441.0	1452.0	1484.8	1541.0	1564.4	1492.6
47.5°	2415.3	2396.6	2324.8	1986.0	1637.7	1569.1	1569.1	1633.1	1720.5	1779.8	1711.2
50°	2632.3	2610.5	2566.7	2318.5	1973.5	1753.3	1743.9	1818.9	1948.5	2040.6	1993.7
52.5°	2843.1	2779.1	2752.6	2661.9	2352.9	2020.3	1995.3	2048.4	2228.0	2341.9	2302.9
55°	2983.6	2974.2	2946.1	2977.3	2750.9	2345.0	2323.2	2334.1	2558.9	2635.4	2587.0
57.5°	3114.8	3113.1	3175.6	3320.8	3185.0	2716.7	2682.3	2665.1	2879.0	2860.3	2902.4
60°	3277.1	3249.0	3394.3	3601.8	3583.1	3078.9	3039.8	3005.4	3124.1	3071.0	3280.2
62.5°	3284.9	3277.1	3572.1	3870.4	3978.2	3447.2	3402.0	3278.7	3338.0	3277.1	3640.9
65°	2986.7	3025.8	3647.1	4012.4	4309.1	3770.5	3715.9	3523.8	3528.5	3487.9	4065.5
67.5°	2919.6	2939.9	3441.0	4165.5	4547.9	4096.8	4045.3	3806.4	3750.1	3753.3	4317.0
70°	2752.6	2783.8	3185.0	4154.5	4736.9	4532.4	4480.8	4221.7	4085.9	3934.4	4123.3
72.5°	2103.1	2156.1	2683.8	3642.4	4685.4	5102.3	5088.2	4747.8	4220.1	3612.8	3119.4
75°	712.0	710.3	1409.8	2446.5	4209.2	5277.1	5305.2	4682.3	3681.5	2491.8	1548.7
77.5°	153.0	154.6	290.4	991.4	2796.2	4237.3	4345.0	3531.6	2374.7	1110.1	354.5
80°	75.0	76.5	120.2	262.3	1117.9	2376.2	2544.9	1815.7	877.4	221.7	59.3
82.5°	37.4	39.1	62.4	138.9	413.8	844.7	902.4	668.2	251.3	124.9	29.7
85°	14.0	14.0	31.2	82.8	188.9	198.2	243.6	193.6	151.4	101.5	7.8
87.5°	3.2	3.2	17.2	40.6	84.3	62.4	62.4	59.3	92.1	68.7	3.2
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°	705.7	705.7	705.7	705.7	705.7	705.7	705.7	705.7	705.7	705.7	705.7
2.5°	704.1	697.9	686.9	676.1	668.2	658.9	654.2	649.5	647.9	646.4	649.5
5°	696.3	686.9	666.7	649.5	633.9	621.3	612.0	602.6	598.0	594.8	596.4
7.5°	696.3	682.3	652.6	626.0	601.1	574.6	548.0	527.7	512.1	502.8	504.3
10°	704.1	685.4	646.4	610.5	563.6	507.4	449.7	405.9	376.2	359.1	359.1
12.5°	721.3	696.3	647.9	591.7	512.1	413.8	326.3	273.2	251.3	238.9	240.4
15°	744.7	715.0	655.7	566.7	440.3	307.6	227.9	193.6	193.6	196.7	198.2
17.5°	771.3	738.5	662.0	529.3	348.2	220.1	179.5	176.5	181.1	188.9	188.9
20°	797.8	761.9	665.1	469.9	260.8	174.8	170.2	170.2	173.3	181.1	182.7
22.5°	830.6	791.6	662.0	396.6	195.2	165.5	164.0	164.0	164.0	173.3	173.3
25°	864.9	825.9	649.5	318.5	165.5	159.3	157.7	156.1	156.1	164.0	165.5
27.5°	904.0	861.8	619.8	243.6	156.1	153.0	151.4	148.3	148.3	154.6	154.6
30°	943.1	902.4	574.6	184.2	148.3	146.8	143.6	140.6	137.4	143.6	143.6
32.5°	985.2	944.6	515.3	146.8	137.4	137.4	135.8	131.1	128.1	131.1	132.7
35°	1041.4	993.0	448.1	128.1	123.4	123.4	123.4	121.7	115.5	118.7	118.7
37.5°	1116.3	1060.1	370.0	118.7	112.4	109.3	109.3	109.3	104.6	106.2	106.2
40°	1211.6	1138.1	295.1	110.9	104.6	96.8	93.7	95.2	92.1	92.1	90.5
42.5°	1341.1	1222.4	221.7	104.6	98.4	87.5	81.2	79.6	76.5	75.0	75.0
45°	1527.0	1325.5	159.3	98.4	93.7	76.5	70.3	65.6	57.8	53.1	53.1
47.5°	1767.4	1442.6	118.7	92.1	89.0	67.1	59.3	49.9	39.1	35.9	35.9
50°	2060.8	1573.8	99.9	82.8	81.2	59.3	46.9	32.8	21.9	18.7	20.3
52.5°	2346.5	1697.1	89.0	73.3	71.8	51.6	34.4	17.2	9.4	9.4	9.4
55°	2587.0	1784.5	81.2	65.6	62.4	40.6	18.7	7.8	4.7	4.7	4.7
57.5°	2804.0	1834.5	73.3	57.8	49.9	28.1	7.8	3.2	3.2	1.5	1.5
60°	3002.4	1864.1	64.0	49.9	39.1	15.7	3.2	1.5	1.5	0.0	0.0
62.5°	3197.4	1886.0	54.6	40.6	29.7	6.2	1.5	1.5	0.0	0.0	0.0
65°	3345.8	1878.2	43.7	32.8	18.7	3.2	1.5	0.0	0.0	0.0	0.0
67.5°	3341.2	1772.1	32.8	25.0	9.4	1.5	0.0	0.0	0.0	0.0	0.0
70°	2988.2	1492.6	21.9	15.7	3.2	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2120.2	957.1	14.0	9.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	933.6	290.4	7.8	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	182.7	67.1	4.7	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	43.7	7.8	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.7	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.7	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.2	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)