

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: P214942

Luminaire Tested: **ARCH-AF24-70-D-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214942  
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-AF24-70-D-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 930mA 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: 6106 lumens  
Efficiency: N/A  
Efficacy: 82.5 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

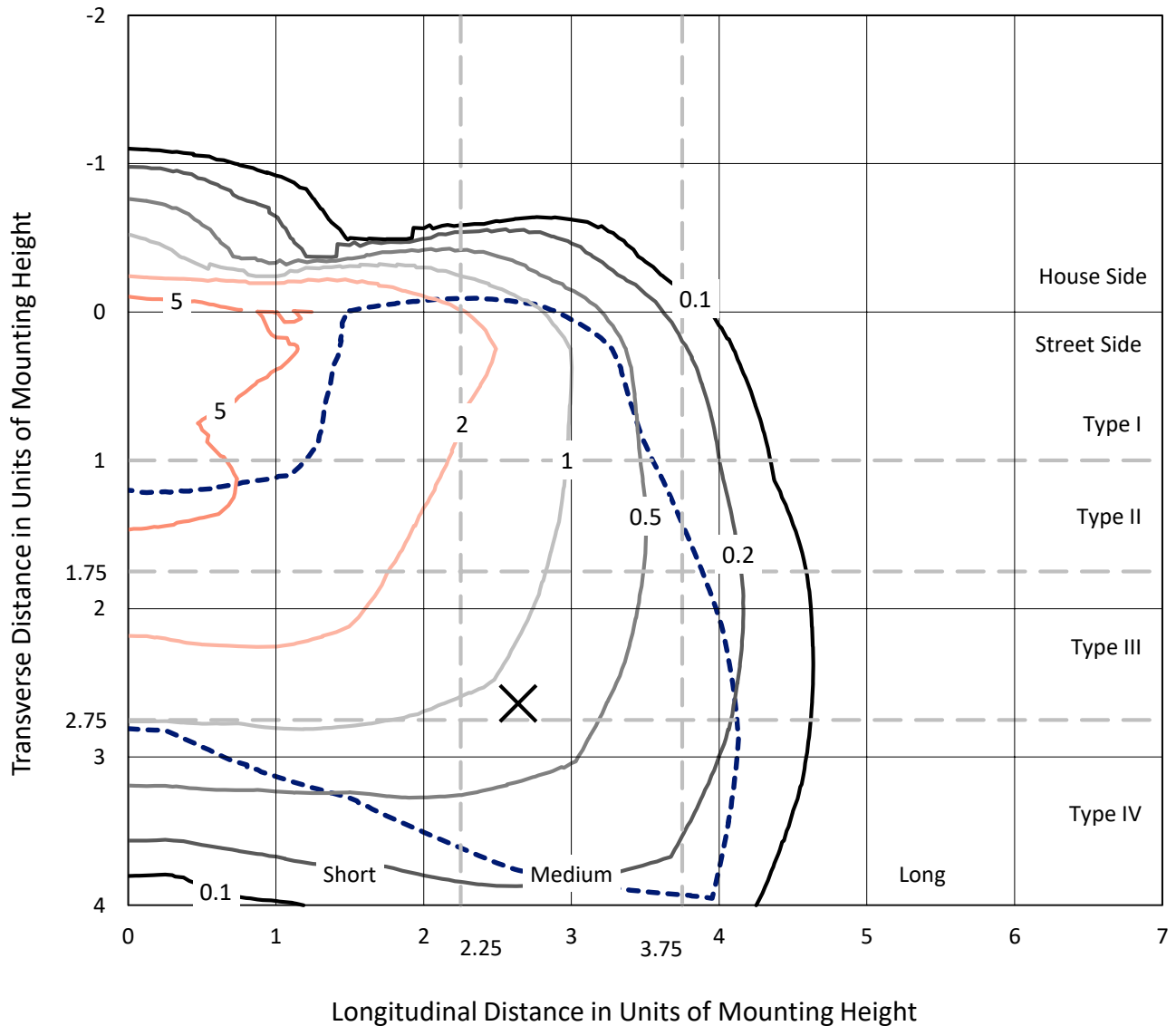
Input Watts (W): 74  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

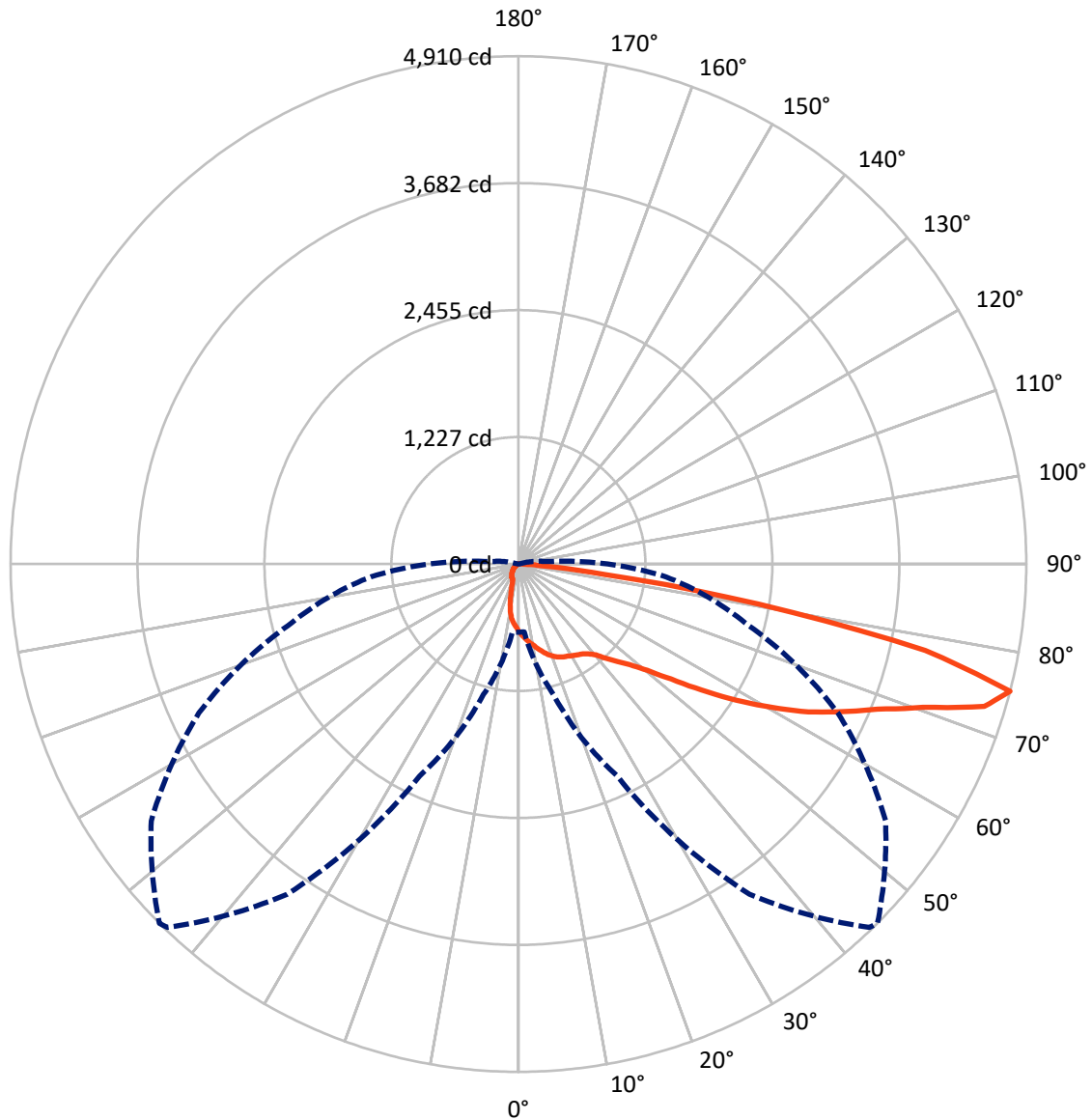
× Max cd  
 - - - 1/2 Max cd



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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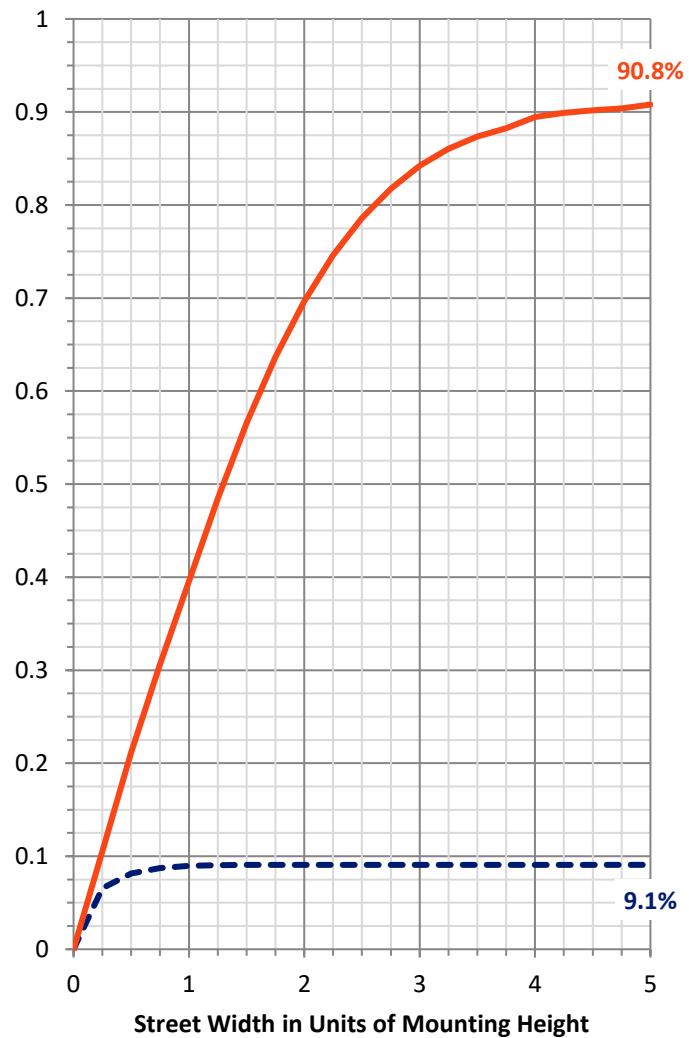
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	558.5	0.0	558.5
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	5547.5	0.0	5547.5
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	6106.0	0.0	6106.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.6	1.0
10°-20°	174.6	2.9
20°-30°	289.2	4.7
30°-40°	418.5	6.9
40°-50°	685.3	11.2
50°-60°	1221.1	20.0
60°-70°	1795.1	29.4
70°-80°	1354.3	22.2
80°-90°	106.2	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°	6106.0	100.0
0°-180°	6106.0	100.0



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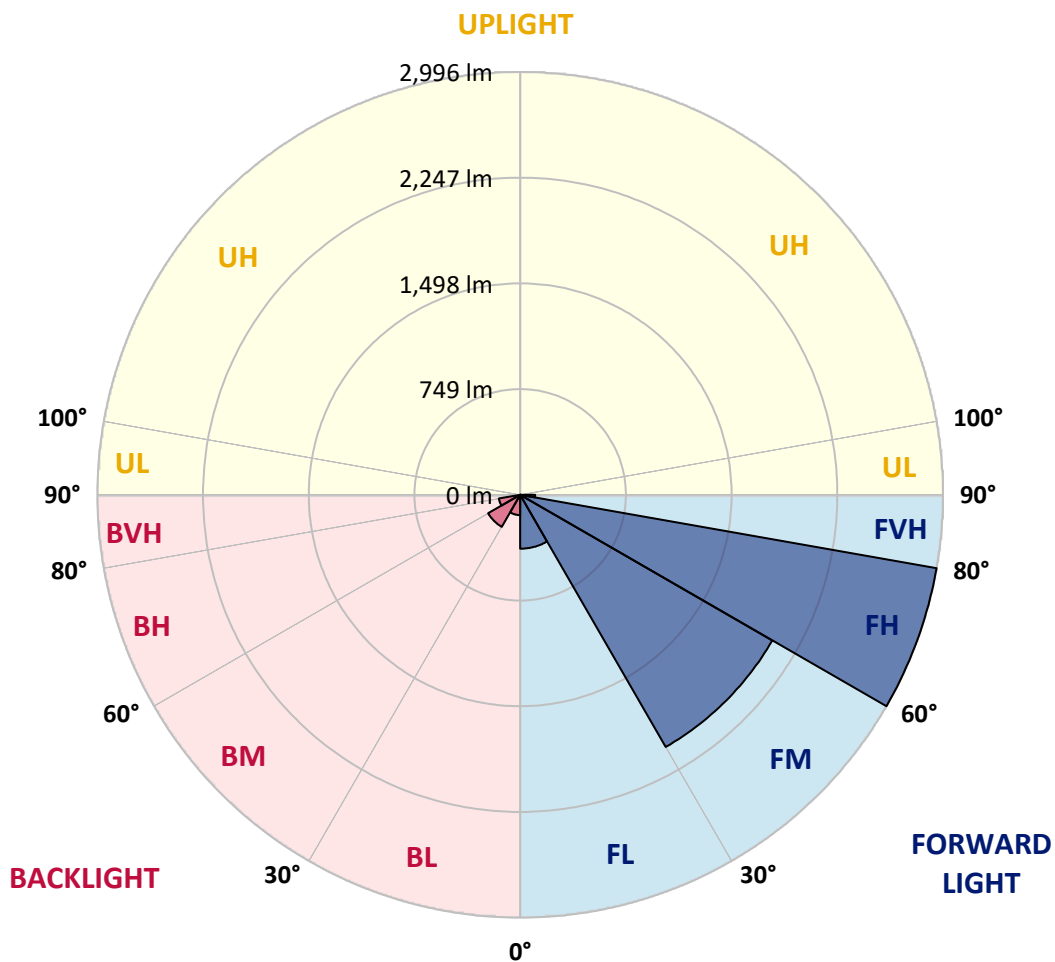
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	381.9	6.3			
FM (30°-60°)	2063.2	33.8			
FH (60°-80°)	2996.4	49.1			G2/5000
FVH (80°-90°)	105.9	1.7			G2/225
BL (0°-30°)	143.5	2.4	B1/500		
BM (30°-60°)	261.7	4.3	B1/1000		
BH (60°-80°)	153.0	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°	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1
2.5°	709.4	709.4	708.0	706.6	699.3	692.1	690.6	686.3	673.3	664.6	655.9
5°	768.6	770.1	767.2	760.0	744.1	728.2	726.8	715.2	690.6	673.3	654.5
7.5°	825.0	827.9	820.7	807.6	788.9	765.8	764.3	742.7	710.8	686.3	658.9
10°	872.7	872.7	862.6	846.7	826.4	801.9	799.0	774.5	738.4	708.0	671.9
12.5°	924.7	923.2	908.8	887.1	864.0	840.9	839.4	809.2	774.5	735.4	690.6
15°	972.4	969.5	950.7	930.5	905.9	881.4	879.9	849.6	813.5	767.2	718.1
17.5°	998.4	997.0	979.6	959.4	939.2	920.3	918.9	887.1	848.1	800.5	745.5
20°	1002.7	1004.1	989.7	972.4	960.9	950.7	950.7	921.8	879.9	829.3	774.5
22.5°	1004.1	1008.5	998.4	975.3	972.4	973.8	976.7	953.6	910.2	862.6	804.8
25°	1014.3	1020.1	1012.8	985.4	982.5	992.6	995.5	985.4	946.3	898.7	839.4
27.5°	1034.5	1040.2	1034.5	999.8	995.5	1005.6	1008.5	1014.3	985.4	933.3	875.5
30°	1074.9	1076.5	1063.4	1020.1	1011.4	1024.4	1028.7	1044.6	1021.5	966.6	910.2
32.5°	1145.8	1131.3	1092.3	1034.5	1027.2	1041.8	1046.1	1063.4	1054.8	998.4	946.3
35°	1290.2	1215.2	1125.6	1054.8	1047.5	1061.9	1067.8	1092.3	1096.6	1043.2	991.1
37.5°	1288.8	1220.9	1203.6	1093.7	1083.6	1093.7	1101.0	1131.3	1148.7	1102.4	1056.2
40°	1379.9	1350.9	1350.9	1167.4	1134.2	1148.7	1155.8	1186.2	1216.6	1180.5	1132.7
42.5°	1665.9	1647.2	1626.9	1309.1	1205.0	1245.4	1249.7	1268.6	1304.7	1293.1	1236.7
45°	1985.2	1967.9	1889.9	1548.8	1326.4	1333.6	1343.7	1374.0	1426.1	1447.8	1381.3
47.5°	2235.1	2217.9	2151.4	1837.8	1515.6	1452.1	1452.1	1511.3	1592.2	1647.2	1583.5
50°	2436.1	2415.8	2375.3	2145.6	1826.3	1622.6	1613.9	1683.3	1803.2	1888.4	1845.1
52.5°	2631.0	2571.8	2547.2	2463.5	2177.4	1869.6	1846.5	1895.6	2061.8	2167.2	2131.1
55°	2761.0	2752.5	2726.4	2755.3	2545.8	2170.2	2149.9	2160.1	2368.1	2438.9	2394.1
57.5°	2882.5	2881.0	2938.8	3073.1	2947.5	2514.0	2482.2	2466.3	2664.3	2647.0	2686.0
60°	3032.7	3006.8	3141.1	3333.3	3315.9	2849.2	2813.1	2781.3	2891.2	2842.0	3035.6
62.5°	3039.9	3032.7	3305.8	3581.8	3681.5	3190.2	3148.3	3034.2	3089.1	3032.7	3369.4
65°	2764.0	2800.1	3375.1	3713.2	3987.8	3489.3	3438.8	3261.0	3265.4	3227.8	3762.4
67.5°	2701.8	2720.6	3184.4	3854.9	4208.8	3791.3	3743.6	3522.5	3470.5	3473.4	3995.0
70°	2547.2	2576.2	2947.5	3844.8	4383.7	4194.4	4146.7	3906.9	3781.1	3641.0	3815.8
72.5°	1946.2	1995.4	2483.7	3370.8	4336.0	4721.7	4708.7	4393.8	3905.4	3343.4	2886.8
75°	658.9	657.5	1304.7	2264.1	3895.3	4883.6	4909.6	4333.1	3406.9	2305.9	1433.3
77.5°	141.6	143.0	268.7	917.5	2587.8	3921.3	4021.0	3268.2	2197.6	1027.2	328.0
80°	69.4	70.8	111.3	242.7	1034.5	2199.0	2355.1	1680.4	812.0	205.2	54.9
82.5°	34.7	36.1	57.8	128.6	382.9	781.6	835.1	618.4	232.6	115.6	27.4
85°	13.0	13.0	28.8	76.6	174.8	183.5	225.4	179.1	140.1	93.9	7.3
87.5°	2.9	2.9	15.9	37.5	78.1	57.8	57.8	54.9	85.2	63.5	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°	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1
2.5°	651.6	645.9	635.8	625.6	618.4	609.7	605.4	601.1	599.7	598.1	601.1
5°	644.4	635.8	616.9	601.1	586.6	575.0	566.4	557.7	553.4	550.4	551.9
7.5°	644.4	631.4	604.0	579.4	556.3	531.7	507.2	488.4	473.9	465.2	466.7
10°	651.6	634.3	598.1	565.0	521.6	469.5	416.1	375.6	348.2	332.4	332.4
12.5°	667.5	644.4	599.7	547.6	473.9	382.9	302.0	252.9	232.6	221.1	222.5
15°	689.2	661.7	606.8	524.5	407.4	284.6	210.9	179.1	179.1	182.1	183.5
17.5°	713.7	683.4	612.6	489.8	322.2	203.8	166.1	163.3	167.6	174.8	174.8
20°	738.4	705.1	615.5	434.9	241.3	161.8	157.5	157.5	160.4	167.6	169.1
22.5°	768.6	732.5	612.6	367.0	180.7	153.1	151.7	151.7	151.7	160.4	160.4
25°	800.5	764.3	601.1	294.7	153.1	147.4	146.0	144.4	144.4	151.7	153.1
27.5°	836.6	797.6	573.6	225.4	144.4	141.6	140.1	137.3	137.3	143.0	143.0
30°	872.7	835.1	531.7	170.5	137.3	135.8	132.9	130.0	127.2	132.9	132.9
32.5°	911.7	874.1	476.8	135.8	127.2	127.2	125.7	121.3	118.5	121.3	122.9
35°	963.7	918.9	414.7	118.5	114.2	114.2	114.2	112.7	106.9	109.8	109.8
37.5°	1033.1	981.0	342.4	109.8	104.0	101.2	101.2	101.2	96.8	98.2	98.2
40°	1121.2	1053.3	273.0	102.6	96.8	89.6	86.6	88.2	85.2	85.2	83.8
42.5°	1241.1	1131.3	205.2	96.8	91.0	80.9	75.1	73.7	70.8	69.4	69.4
45°	1413.1	1226.7	147.4	91.0	86.6	70.8	65.1	60.7	53.5	49.1	49.1
47.5°	1635.6	1335.1	109.8	85.2	82.3	62.1	54.9	46.2	36.1	33.2	33.2
50°	1907.2	1456.4	92.5	76.6	75.1	54.9	43.4	30.4	20.3	17.3	18.8
52.5°	2171.6	1570.5	82.3	67.9	66.5	47.7	31.8	15.9	8.7	8.7	8.7
55°	2394.1	1651.5	75.1	60.7	57.8	37.5	17.3	7.3	4.3	4.3	4.3
57.5°	2594.9	1697.7	67.9	53.5	46.2	26.0	7.3	2.9	2.9	1.4	1.4
60°	2778.4	1725.1	59.2	46.2	36.1	14.4	2.9	1.4	1.4	0.0	0.0
62.5°	2959.1	1745.4	50.5	37.5	27.4	5.7	1.4	1.4	0.0	0.0	0.0
65°	3096.3	1738.1	40.4	30.4	17.3	2.9	1.4	0.0	0.0	0.0	0.0
67.5°	3092.0	1639.9	30.4	23.1	8.7	1.4	0.0	0.0	0.0	0.0	0.0
70°	2765.4	1381.3	20.3	14.4	2.9	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	1962.1	885.7	13.0	8.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	864.0	268.7	7.3	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	169.1	62.1	4.3	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	40.4	7.3	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.3	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)