

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: P398028

Luminaire Tested: **ARCH-S-PA1-70-830-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398028  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-70-830-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 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: 5636 lumens  
Efficiency: N/A  
Efficacy: 76.2 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

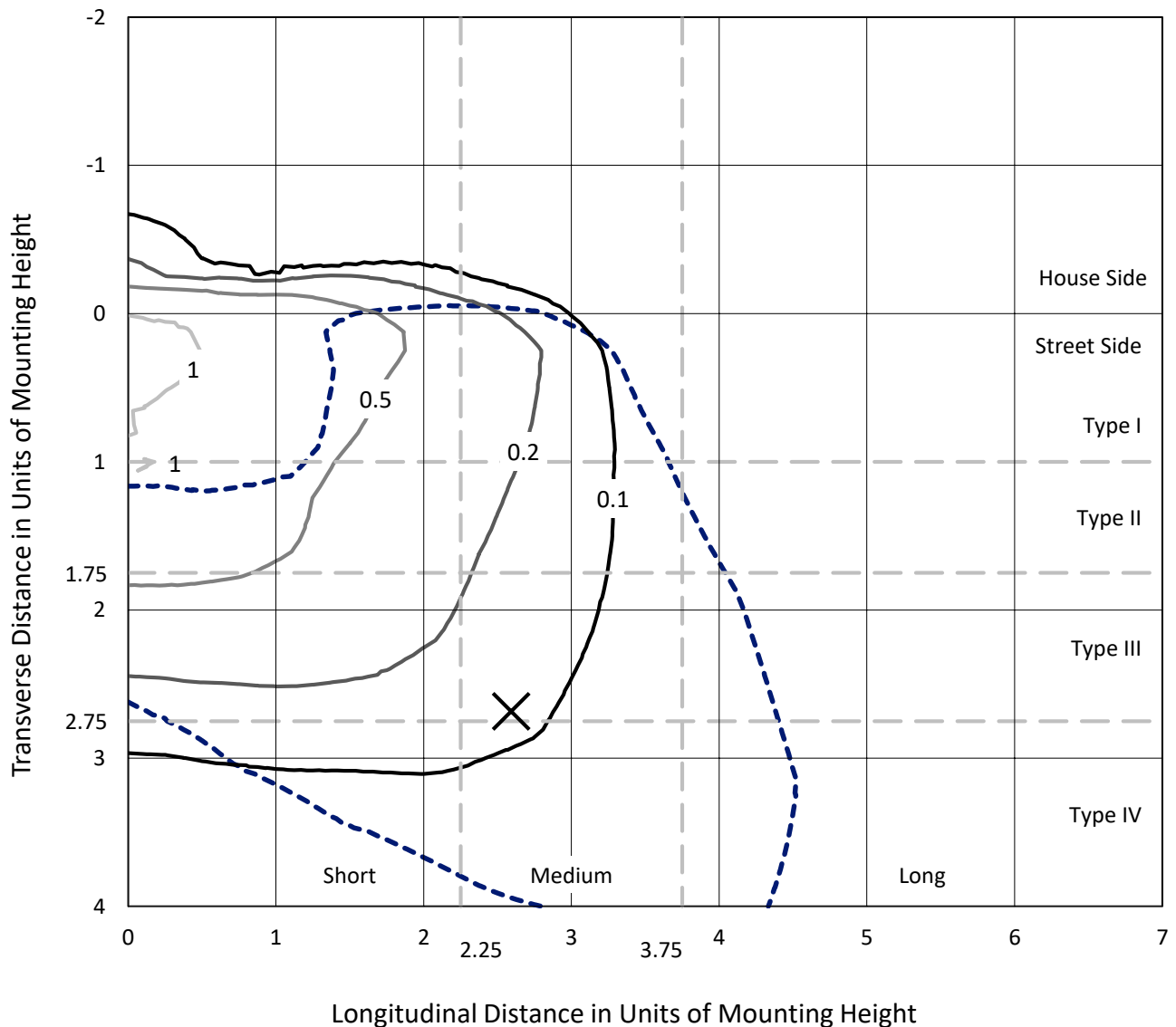
Input Watts (W): 74  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

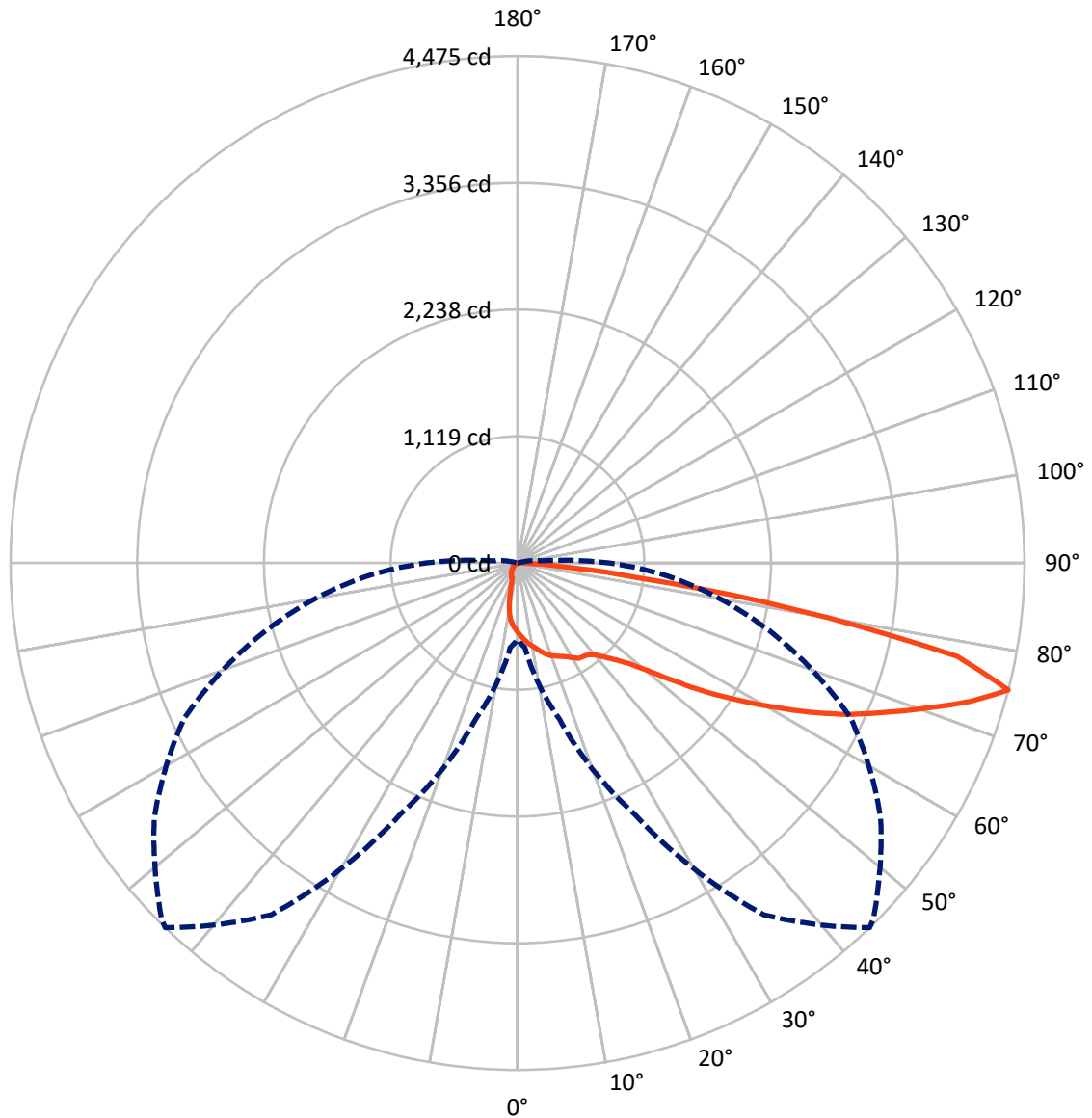


Based on 25 foot mounting height. Maximum calculated value = 1.3 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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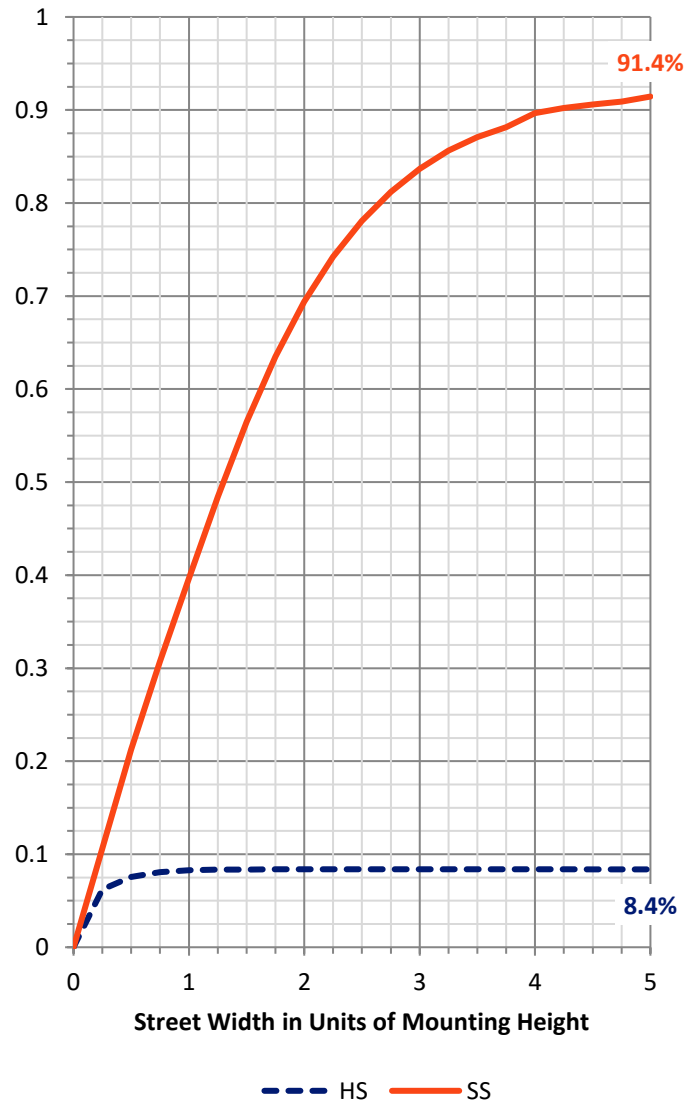
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	475.3	0.0	475.3
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	5160.7	0.0	5160.7
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	5636.0	0.0	5636.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.9	1.0
10°-20°	162.1	2.9
20°-30°	267.5	4.7
30°-40°	388.3	6.9
40°-50°	631.2	11.2
50°-60°	1112.7	19.7
60°-70°	1599.2	28.4
70°-80°	1280.6	22.7
80°-90°	136.4	2.4
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°	5636.0	100.0
0°-180°	5636.0	100.0



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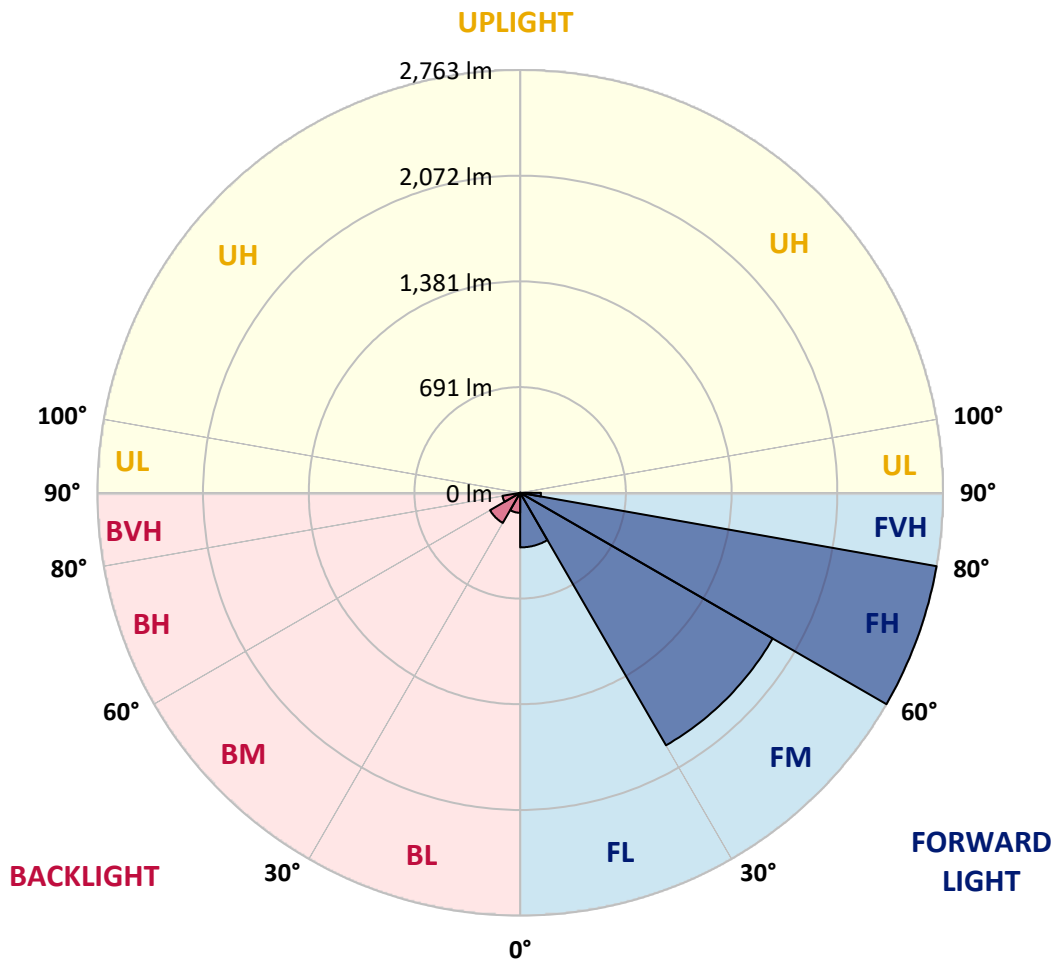
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	356.9	6.3			
FM	(30°-60°)	1905.0	33.8			
FH	(60°-80°)	2762.7	49.0			G2/5000
FVH	(80°-90°)	136.1	2.4			G2/225
BL	(0°-30°)	130.6	2.3	B1/500		
BM	(30°-60°)	227.2	4.0	B1/1000		
BH	(60°-80°)	117.2	2.1	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°	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5
2.5°	668.6	667.5	664.4	659.2	654.0	648.8	647.8	639.5	630.1	622.8	616.6
5°	727.8	726.8	721.6	710.2	698.7	685.2	684.2	664.4	646.7	627.0	610.3
7.5°	789.2	787.1	777.7	760.1	740.3	719.5	717.4	688.3	662.3	636.3	612.4
10°	837.0	834.9	821.4	800.6	773.6	747.6	744.5	714.3	688.3	655.0	622.8
12.5°	883.8	879.6	862.0	839.1	805.8	780.9	777.7	746.5	715.4	681.0	641.5
15°	927.5	922.3	905.6	876.5	841.2	817.2	815.2	781.9	749.7	710.2	666.5
17.5°	957.6	955.5	935.8	903.5	869.2	849.5	847.4	813.1	780.9	739.3	692.5
20°	973.2	973.2	954.5	919.1	888.0	874.4	871.3	839.1	807.9	768.4	719.5
22.5°	976.3	979.5	964.9	926.4	903.5	892.1	890.0	862.0	831.8	795.4	749.7
25°	982.6	982.6	975.3	933.7	917.1	913.9	912.9	888.0	860.9	824.5	779.8
27.5°	989.8	989.8	984.7	944.1	937.9	936.8	935.8	924.3	902.5	859.9	815.2
30°	1008.6	1009.6	1005.4	964.9	960.7	972.2	974.3	968.0	941.0	888.0	851.6
32.5°	1055.4	1046.0	1034.6	979.5	986.7	1001.3	1002.3	989.8	960.7	918.1	895.2
35°	1172.8	1117.7	1065.8	991.9	995.0	1009.6	1011.7	1010.6	993.0	956.6	945.1
37.5°	1282.0	1204.0	1130.2	1021.0	1010.6	1026.2	1030.4	1048.1	1034.6	1009.6	1012.7
40°	1345.4	1315.3	1263.3	1101.1	1041.8	1065.8	1069.9	1096.9	1091.7	1081.3	1101.1
42.5°	1540.9	1543.0	1486.9	1220.7	1099.0	1137.5	1142.7	1164.5	1171.8	1177.0	1224.8
45°	1767.6	1774.9	1761.4	1435.9	1207.2	1219.6	1226.9	1256.0	1283.1	1316.3	1403.7
47.5°	2040.0	2033.8	1983.9	1699.0	1395.4	1325.7	1330.9	1387.0	1433.8	1506.6	1631.4
50°	2281.2	2296.8	2202.2	1944.3	1660.5	1493.1	1487.9	1543.0	1627.2	1729.1	1886.1
52.5°	2524.5	2501.7	2373.8	2187.7	1974.5	1720.8	1705.2	1735.4	1853.9	1974.5	2135.7
55°	2589.0	2591.1	2547.4	2453.8	2236.5	1997.4	1971.4	1969.3	2116.9	2199.1	2397.7
57.5°	2715.8	2721.0	2731.4	2750.2	2647.2	2274.0	2246.9	2217.8	2361.3	2409.1	2660.7
60°	2844.8	2851.0	2914.4	3015.3	2946.7	2572.4	2543.2	2474.6	2554.7	2619.2	2937.3
62.5°	2828.1	2871.8	3055.8	3256.5	3248.2	2899.9	2863.5	2698.2	2749.1	2805.3	3191.0
65°	2553.6	2600.4	3014.3	3323.1	3550.8	3223.2	3164.0	2929.0	2932.1	2999.7	3435.4
67.5°	2308.3	2359.2	2754.3	3295.0	3750.4	3513.3	3452.0	3160.9	3112.0	3224.3	3566.4
70°	2166.9	2217.8	2547.4	3207.7	3806.6	3834.6	3781.6	3426.0	3326.2	3429.1	3419.8
72.5°	1695.8	1775.9	2283.3	3041.3	3866.9	4178.8	4137.2	3761.8	3508.1	3214.9	2603.6
75°	675.8	749.7	1425.5	2447.6	3791.0	4475.1	4442.9	3912.6	3247.2	2295.8	1333.0
77.5°	203.8	218.3	396.1	1210.3	2779.3	3967.7	3957.3	3289.8	2297.9	1065.8	363.9
80°	67.6	74.9	121.7	333.8	1268.5	2478.8	2525.6	2096.2	1043.9	244.3	73.8
82.5°	28.1	31.2	61.3	134.1	449.2	1067.8	1052.2	938.9	363.9	151.8	27.0
85°	7.3	9.4	28.1	76.9	164.3	368.1	386.8	315.0	205.9	125.8	8.3
87.5°	0.0	0.0	13.5	31.2	73.8	111.3	116.5	95.7	116.5	94.6	4.2
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°	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5
2.5°	611.4	606.2	596.8	590.6	582.3	580.2	576.0	570.8	569.8	564.6	565.6
5°	601.0	592.7	576.0	564.6	551.1	546.9	539.6	534.4	530.3	523.0	524.0
7.5°	598.9	586.4	563.5	541.7	519.9	504.3	482.4	464.8	450.2	434.6	437.7
10°	606.2	590.6	558.4	528.2	488.7	438.8	381.6	344.2	325.4	306.7	308.8
12.5°	620.7	602.0	560.4	514.7	434.6	349.4	270.3	219.4	205.9	197.6	198.6
15°	642.6	619.7	566.7	488.7	361.8	252.7	179.9	158.0	163.2	166.4	166.4
17.5°	665.4	639.5	571.9	441.9	279.7	176.8	146.6	144.5	151.8	159.1	159.1
20°	693.5	660.2	572.9	382.6	201.7	143.5	138.3	138.3	143.5	151.8	151.8
22.5°	720.6	683.1	563.5	315.0	153.9	133.1	133.1	133.1	136.2	144.5	145.6
25°	752.8	711.2	543.8	243.3	132.0	126.9	126.9	127.9	130.0	137.2	138.3
27.5°	787.1	740.3	510.5	177.8	120.6	119.6	120.6	121.7	122.7	130.0	132.0
30°	826.6	772.5	467.9	133.1	110.2	110.2	113.3	115.4	115.4	121.7	123.7
32.5°	872.4	815.2	416.9	110.2	99.8	98.8	104.0	107.1	107.1	112.3	114.4
35°	929.5	858.8	355.6	97.7	91.5	89.4	91.5	96.7	98.8	102.9	104.0
37.5°	1005.4	910.8	290.1	90.5	85.3	81.1	81.1	82.1	86.3	90.5	91.5
40°	1102.1	968.0	225.6	85.3	79.0	74.9	71.7	70.7	69.7	72.8	74.9
42.5°	1223.8	1032.5	168.4	80.1	73.8	67.6	63.4	59.3	54.1	53.0	54.1
45°	1379.8	1111.5	124.8	75.9	70.7	61.3	54.1	46.8	37.4	34.3	35.4
47.5°	1563.8	1193.6	97.7	71.7	68.6	54.1	44.7	32.2	22.9	20.8	21.8
50°	1759.3	1272.7	83.2	66.5	64.5	46.8	32.2	19.8	13.5	13.5	14.6
52.5°	1925.6	1317.4	75.9	62.4	58.2	38.5	20.8	11.4	8.3	8.3	9.4
55°	2086.8	1341.3	70.7	58.2	49.9	27.0	11.4	7.3	5.2	5.2	5.2
57.5°	2253.2	1351.7	64.5	53.0	39.5	16.6	6.2	4.2	3.1	3.1	3.1
60°	2400.8	1331.9	55.1	43.7	26.0	8.3	3.1	3.1	2.1	1.0	1.0
62.5°	2524.5	1294.5	38.5	31.2	15.6	4.2	2.1	1.0	0.0	0.0	0.0
65°	2600.4	1234.2	25.0	20.8	9.4	3.1	1.0	0.0	0.0	0.0	0.0
67.5°	2578.6	1120.9	15.6	13.5	4.2	2.1	1.0	0.0	0.0	0.0	0.0
70°	2327.0	919.1	11.4	8.3	3.1	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1677.1	621.8	8.3	5.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	806.9	221.5	5.2	4.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	197.6	48.9	3.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	43.7	9.4	2.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.6	4.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	1.0	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)