

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: P397596

Luminaire Tested: **ARCH-S-PA1-100-830-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397596  
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-PA1-100-830-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 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: 6596 lumens  
Efficiency: N/A  
Efficacy: 68.7 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 (A<sub>in</sub>): 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

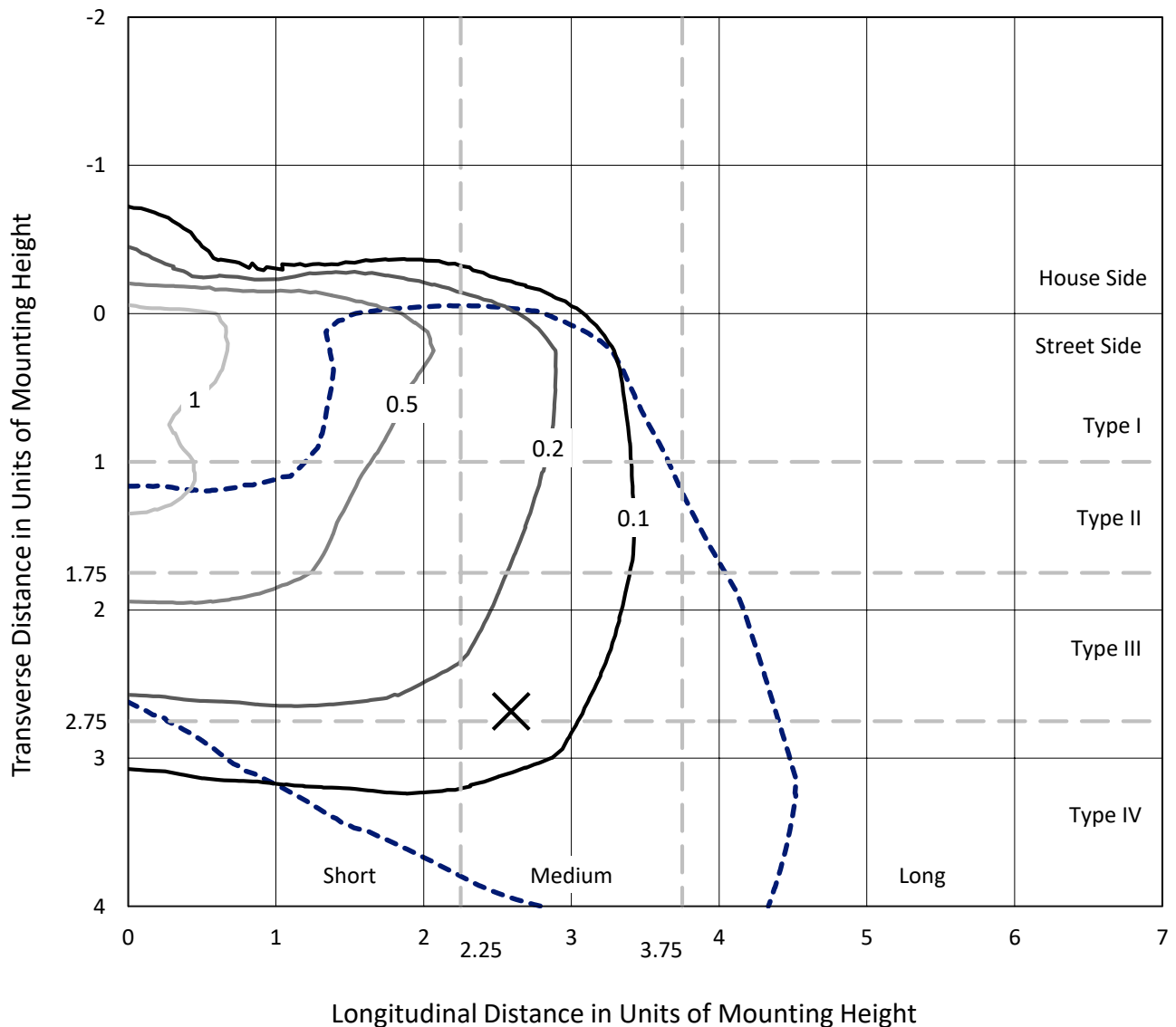


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

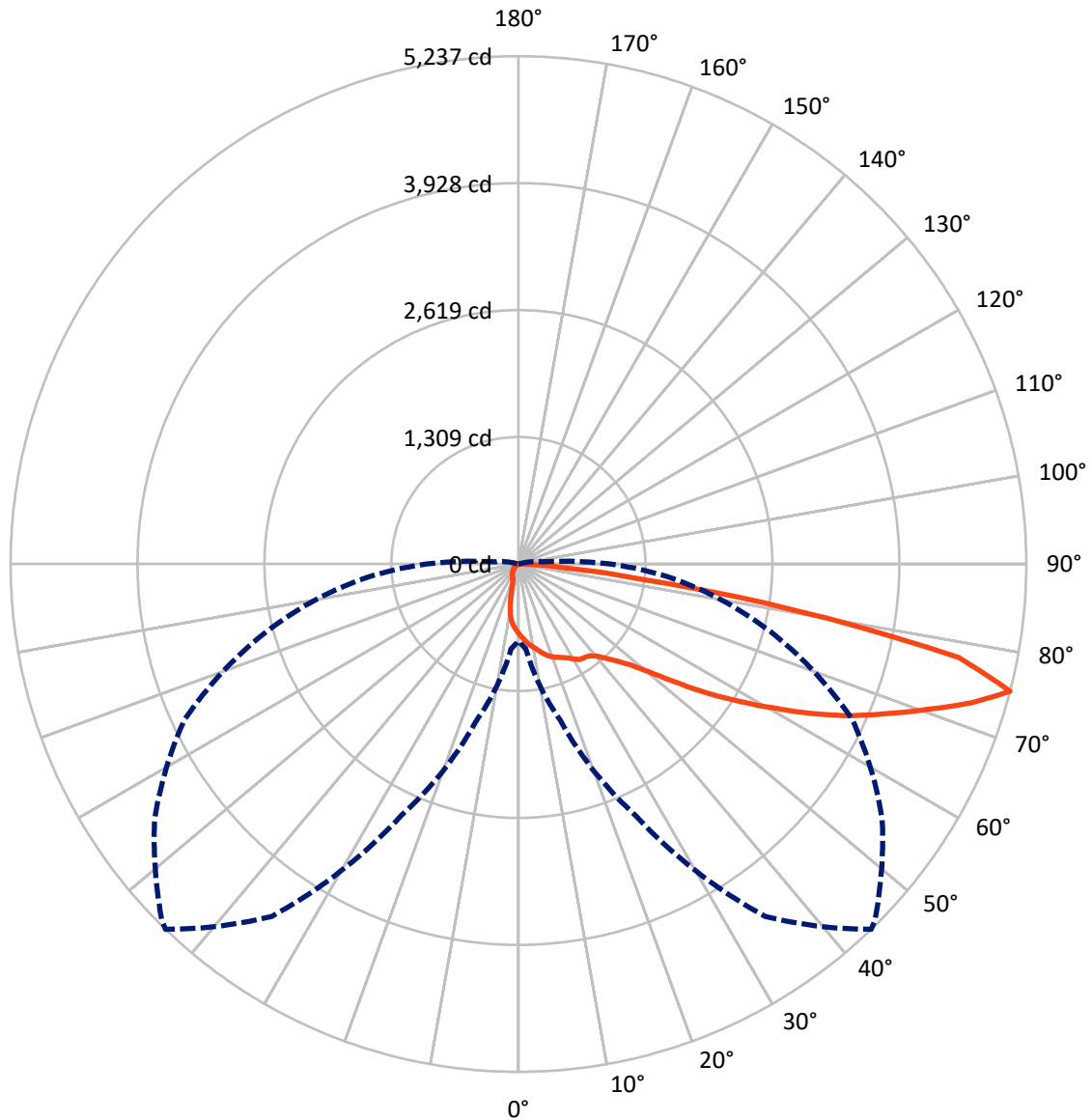


Based on 25 foot mounting height. Maximum calculated value = 1.6 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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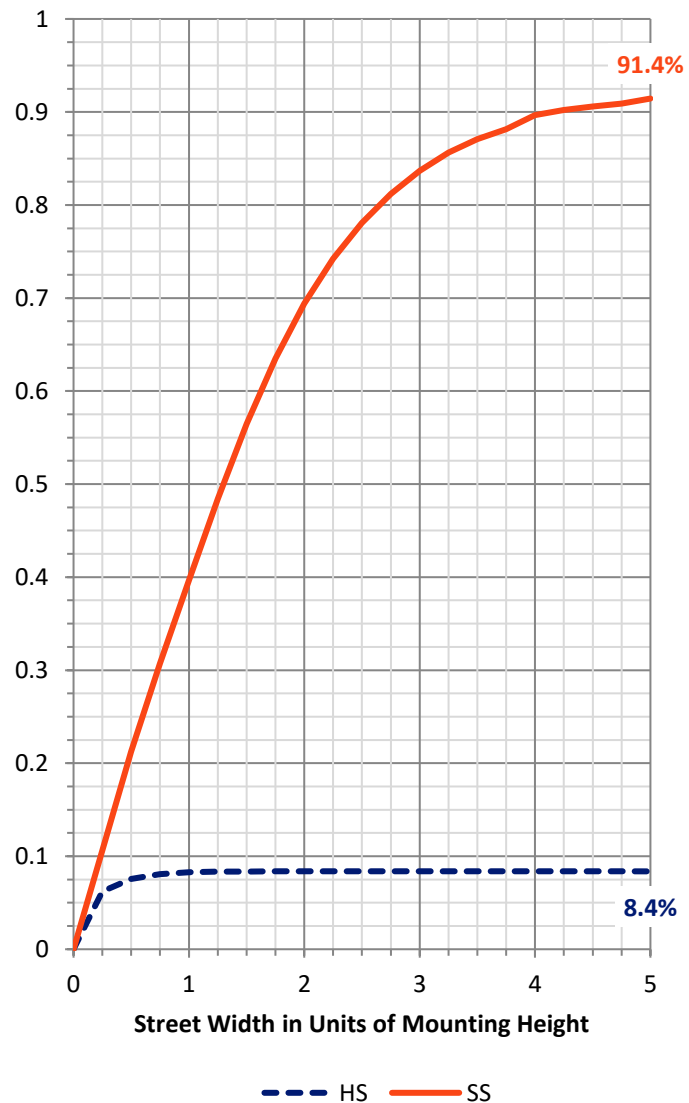
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	556.3	0.0	556.3
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	6039.7	0.0	6039.7
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	6596.0	0.0	6596.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.7	1.0
10°-20°	189.7	2.9
20°-30°	313.1	4.7
30°-40°	454.4	6.9
40°-50°	738.7	11.2
50°-60°	1302.3	19.7
60°-70°	1871.6	28.4
70°-80°	1498.8	22.7
80°-90°	159.7	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°	6596.0	100.0
0°-180°	6596.0	100.0



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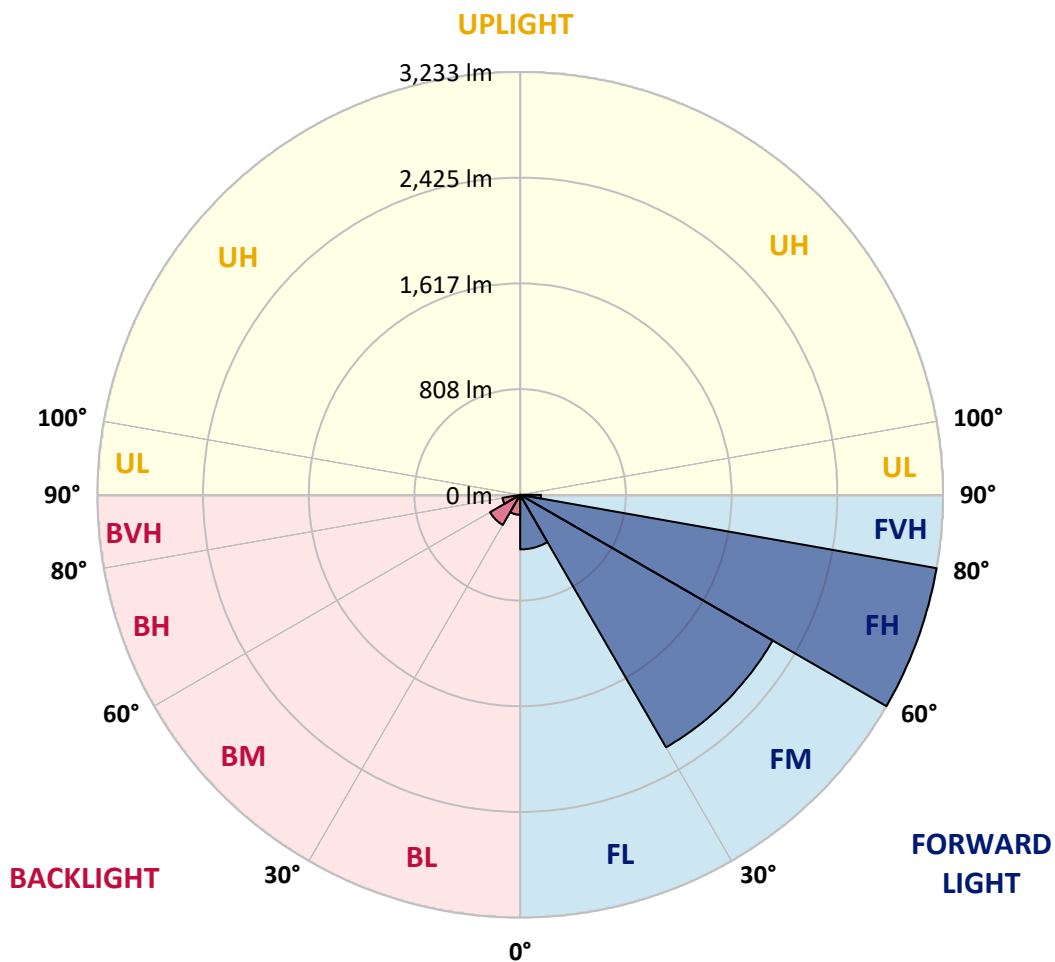
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	417.7	6.3			
FM	(30°-60°)	2229.5	33.8			
FH	(60°-80°)	3233.2	49.0			G2/5000
FVH	(80°-90°)	159.3	2.4			G2/225
BL	(0°-30°)	152.8	2.3	B1/500		
BM	(30°-60°)	265.9	4.0	B1/1000		
BH	(60°-80°)	137.1	2.1	B1/500		G1/500
BVH	(80°-90°)	0.4	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°	717.9	717.9	717.9	717.9	717.9	717.9	717.9	717.9	717.9	717.9	717.9
2.5°	782.4	781.2	777.6	771.5	765.4	759.3	758.1	748.4	737.4	728.9	721.6
5°	851.8	850.6	844.5	831.1	817.7	801.9	800.7	777.6	756.9	733.8	714.3
7.5°	923.6	921.2	910.2	889.5	866.4	842.1	839.6	805.6	775.1	744.7	716.7
10°	979.6	977.1	961.3	937.0	905.3	874.9	871.3	836.0	805.6	766.6	728.9
12.5°	1034.3	1029.5	1008.8	982.0	943.1	913.9	910.2	873.7	837.2	797.0	750.8
15°	1085.4	1079.4	1059.9	1025.8	984.4	956.5	954.0	915.1	877.4	831.1	780.0
17.5°	1120.7	1118.3	1095.2	1057.5	1017.3	994.2	991.7	951.6	913.9	865.2	810.4
20°	1139.0	1139.0	1117.1	1075.7	1039.2	1023.4	1019.7	982.0	945.5	899.3	842.1
22.5°	1142.6	1146.3	1129.2	1084.2	1057.5	1044.1	1041.6	1008.8	973.5	930.9	877.4
25°	1149.9	1149.9	1141.4	1092.7	1073.3	1069.6	1068.4	1039.2	1007.6	965.0	912.6
27.5°	1158.5	1158.5	1152.4	1104.9	1097.6	1096.4	1095.2	1081.8	1056.2	1006.3	954.0
30°	1180.4	1181.6	1176.7	1129.2	1124.4	1137.8	1140.2	1132.9	1101.3	1039.2	996.6
32.5°	1235.1	1224.2	1210.8	1146.3	1154.8	1171.8	1173.1	1158.5	1124.4	1074.5	1047.7
35°	1372.6	1308.1	1247.3	1160.9	1164.5	1181.6	1184.0	1182.8	1162.1	1119.5	1106.1
37.5°	1500.4	1409.1	1322.7	1195.0	1182.8	1201.0	1205.9	1226.6	1210.8	1181.6	1185.2
40°	1574.6	1539.3	1478.5	1288.7	1219.3	1247.3	1252.2	1283.8	1277.7	1265.5	1288.7
42.5°	1803.4	1805.8	1740.1	1428.6	1286.2	1331.2	1337.3	1362.9	1371.4	1377.5	1433.5
45°	2068.7	2077.2	2061.4	1680.5	1412.8	1427.4	1435.9	1470.0	1501.6	1540.5	1642.8
47.5°	2387.5	2380.2	2321.8	1988.4	1633.0	1551.5	1557.6	1623.3	1678.1	1763.2	1909.3
50°	2669.8	2688.1	2577.3	2275.5	1943.3	1747.4	1741.3	1805.8	1904.4	2023.6	2207.4
52.5°	2954.5	2927.8	2778.1	2560.3	2310.8	2013.9	1995.7	2030.9	2169.7	2310.8	2499.4
55°	3030.0	3032.4	2981.3	2871.8	2617.5	2337.6	2307.2	2304.7	2477.5	2573.7	2806.1
57.5°	3178.4	3184.5	3196.7	3218.6	3098.1	2661.3	2629.6	2595.6	2763.5	2819.5	3114.0
60°	3329.3	3336.6	3410.9	3528.9	3448.6	3010.5	2976.4	2896.1	2989.8	3065.3	3437.6
62.5°	3309.9	3361.0	3576.4	3811.2	3801.5	3393.8	3351.2	3157.8	3217.4	3283.1	3734.6
65°	2988.6	3043.4	3527.7	3889.1	4155.6	3772.3	3702.9	3427.9	3431.6	3510.7	4020.5
67.5°	2701.4	2761.1	3223.5	3856.2	4389.2	4111.8	4040.0	3699.3	3642.1	3773.5	4173.8
70°	2535.9	2595.6	2981.3	3754.0	4454.9	4487.8	4425.7	4009.6	3892.7	4013.2	4002.3
72.5°	1984.7	2078.4	2672.2	3559.3	4525.5	4890.6	4841.9	4402.6	4105.7	3762.5	3047.0
75°	791.0	877.4	1668.3	2864.5	4436.7	5237.4	5199.7	4579.1	3800.3	2686.8	1560.0
77.5°	238.5	255.5	463.6	1416.4	3252.7	4643.6	4631.4	3850.2	2689.3	1247.3	425.9
80°	79.1	87.6	142.4	390.6	1484.6	2901.0	2955.8	2453.2	1221.7	286.0	86.4
82.5°	32.9	36.5	71.8	157.0	525.7	1249.7	1231.5	1098.8	425.9	177.7	31.6
85°	8.5	11.0	32.9	90.0	192.3	430.8	452.7	368.7	240.9	147.2	9.7
87.5°	0.0	0.0	15.8	36.5	86.4	130.2	136.3	112.0	136.3	110.7	4.9
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°	717.9	717.9	717.9	717.9	717.9	717.9	717.9	717.9	717.9	717.9	717.9
2.5°	715.5	709.4	698.5	691.2	681.4	679.0	674.1	668.1	666.8	660.8	662.0
5°	703.3	693.6	674.1	660.8	644.9	640.1	631.6	625.5	620.6	612.1	613.3
7.5°	700.9	686.3	659.5	634.0	608.4	590.2	564.6	543.9	526.9	508.6	512.3
10°	709.4	691.2	653.5	618.2	571.9	513.5	446.6	402.8	380.9	359.0	361.4
12.5°	726.5	704.6	655.9	602.3	508.6	408.9	316.4	256.8	240.9	231.2	232.4
15°	752.0	725.3	663.2	571.9	423.5	295.7	210.5	185.0	191.0	194.7	194.7
17.5°	778.8	748.4	669.3	517.2	327.3	206.9	171.6	169.1	177.7	186.2	186.2
20°	811.6	772.7	670.5	447.8	236.1	167.9	161.8	161.8	167.9	177.7	177.7
22.5°	843.3	799.5	659.5	368.7	180.1	155.8	155.8	155.8	159.4	169.1	170.4
25°	881.0	832.3	636.4	284.7	154.5	148.5	148.5	149.7	152.1	160.6	161.8
27.5°	921.2	866.4	597.5	208.1	141.2	139.9	141.2	142.4	143.6	152.1	154.5
30°	967.4	904.1	547.6	155.8	129.0	129.0	132.6	135.1	135.1	142.4	144.8
32.5°	1020.9	954.0	488.0	129.0	116.8	115.6	121.7	125.3	125.3	131.4	133.9
35°	1087.9	1005.1	416.2	114.4	107.1	104.7	107.1	113.2	115.6	120.5	121.7
37.5°	1176.7	1066.0	339.5	105.9	99.8	94.9	94.9	96.1	101.0	105.9	107.1
40°	1289.9	1132.9	264.1	99.8	92.5	87.6	84.0	82.7	81.5	85.2	87.6
42.5°	1432.2	1208.3	197.1	93.7	86.4	79.1	74.2	69.4	63.3	62.1	63.3
45°	1614.8	1300.8	146.0	88.8	82.7	71.8	63.3	54.8	43.8	40.2	41.4
47.5°	1830.2	1397.0	114.4	84.0	80.3	63.3	52.3	37.7	26.8	24.3	25.6
50°	2058.9	1489.4	97.3	77.9	75.4	54.8	37.7	23.1	15.8	15.8	17.0
52.5°	2253.6	1541.8	88.8	73.0	68.1	45.0	24.3	13.4	9.7	9.7	11.0
55°	2442.2	1569.8	82.7	68.1	58.4	31.6	13.4	8.5	6.1	6.1	6.1
57.5°	2636.9	1581.9	75.4	62.1	46.2	19.5	7.3	4.9	3.7	3.7	3.7
60°	2809.7	1558.8	64.5	51.1	30.4	9.7	3.7	3.7	2.4	1.2	1.2
62.5°	2954.5	1515.0	45.0	36.5	18.3	4.9	2.4	1.2	0.0	0.0	0.0
65°	3043.4	1444.4	29.2	24.3	11.0	3.7	1.2	0.0	0.0	0.0	0.0
67.5°	3017.8	1311.8	18.3	15.8	4.9	2.4	1.2	0.0	0.0	0.0	0.0
70°	2723.3	1075.7	13.4	9.7	3.7	1.2	0.0	0.0	0.0	0.0	0.0
72.5°	1962.8	727.7	9.7	6.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	944.3	259.2	6.1	4.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	231.2	57.2	3.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	51.1	11.0	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.0	4.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.7	1.2	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)