

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: P398046

Luminaire Tested: **ARCH-S-PA1-80-727-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398046  
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-PA1-80-727-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 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: 6411 lumens  
Efficiency: N/A  
Efficacy: 77.2 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

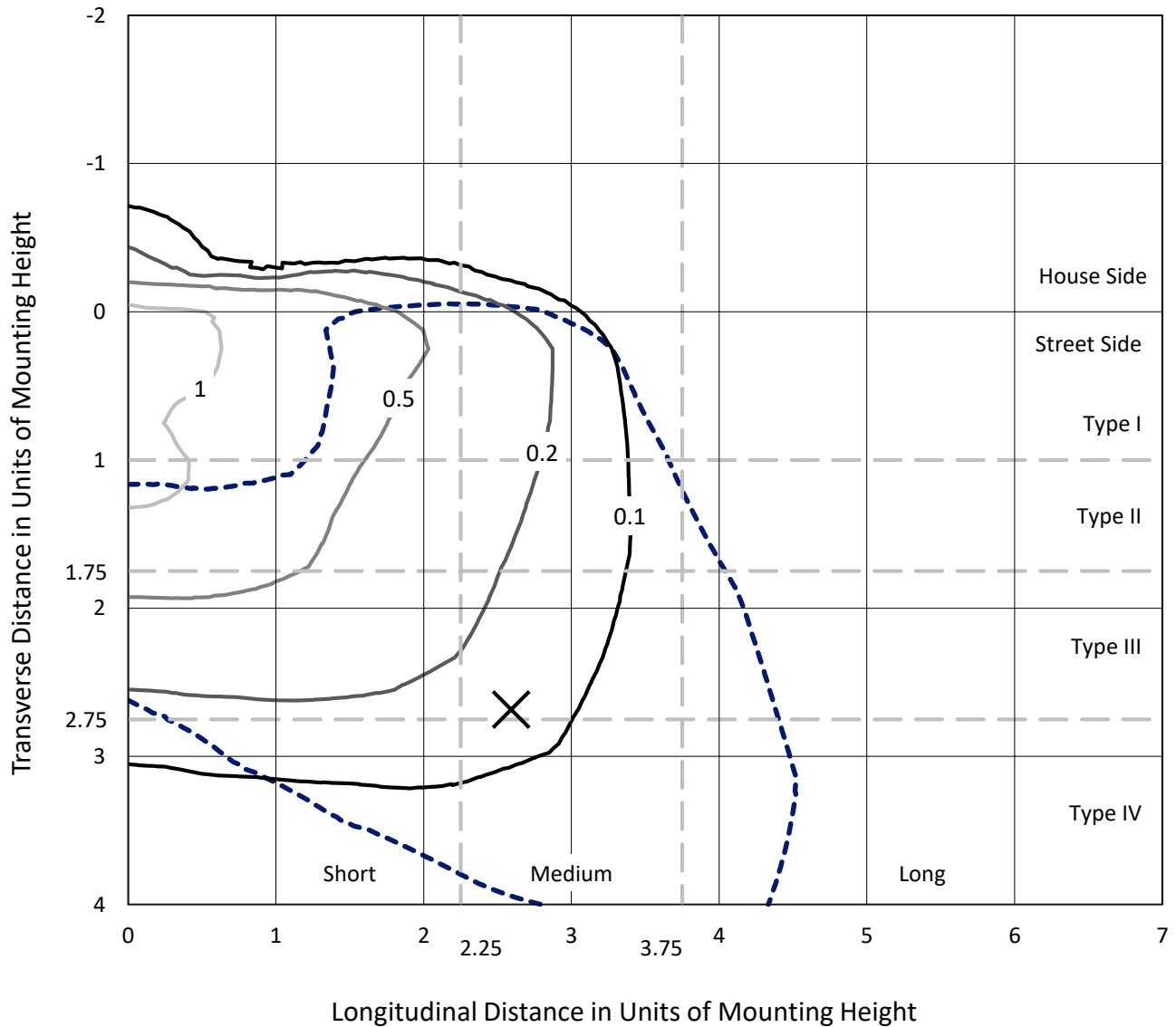
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

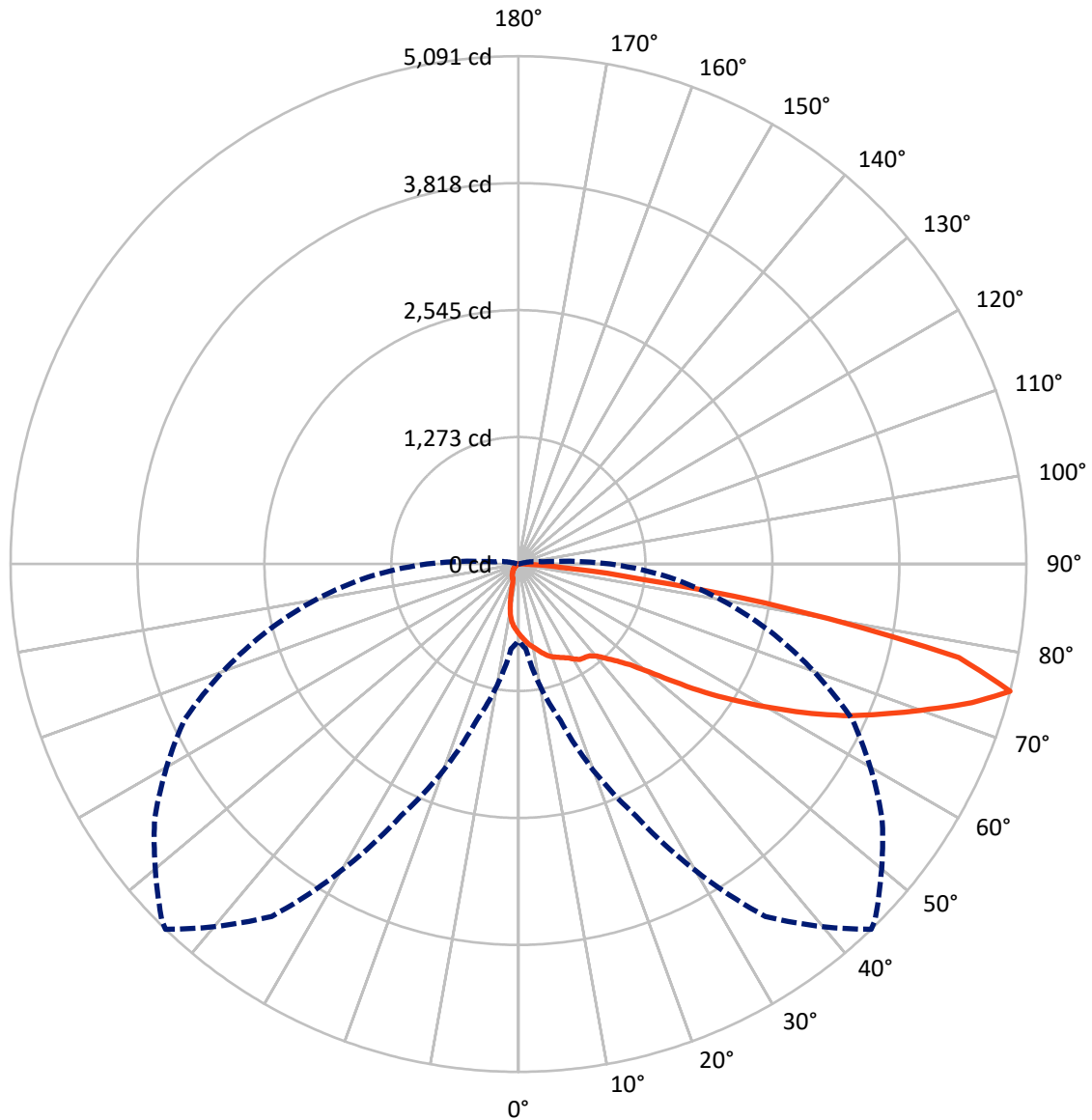


Based on 25 foot mounting height. Maximum calculated value = 1.5 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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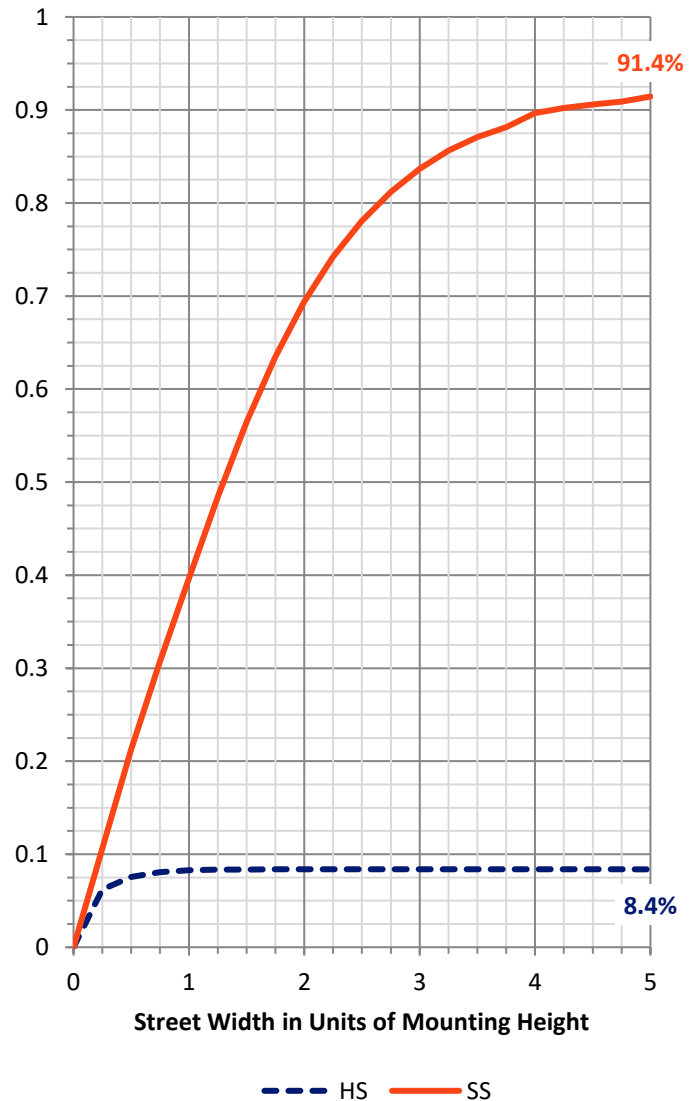
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	540.7	0.0	540.7
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	5870.3	0.0	5870.3
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	6411.0	0.0	6411.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.8	1.0
10°-20°	184.4	2.9
20°-30°	304.3	4.7
30°-40°	441.7	6.9
40°-50°	718.0	11.2
50°-60°	1265.7	19.7
60°-70°	1819.1	28.4
70°-80°	1456.7	22.7
80°-90°	155.2	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°	6411.0	100.0
0°-180°	6411.0	100.0



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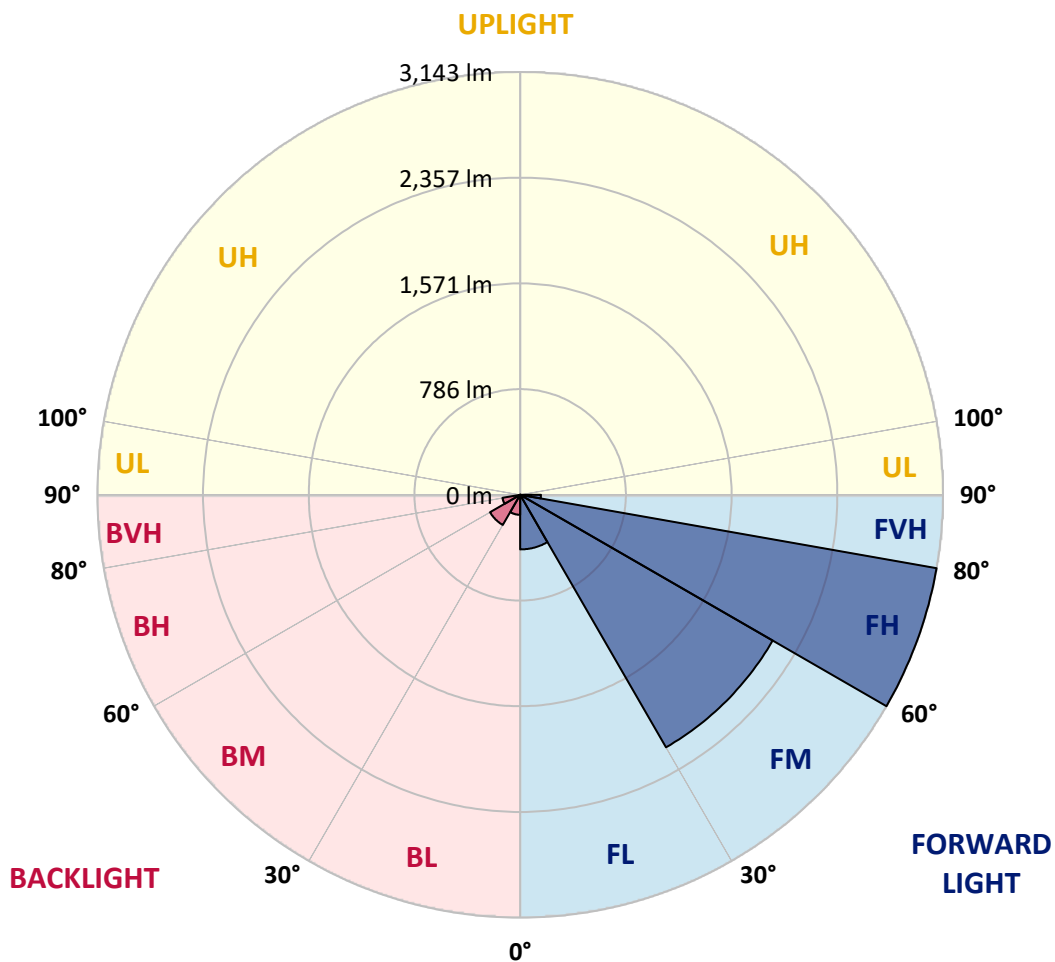
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	406.0	6.3			
FM	(30°-60°)	2167.0	33.8			
FH	(60°-80°)	3142.6	49.0			G2/5000
FVH	(80°-90°)	154.8	2.4			G2/225
BL	(0°-30°)	148.5	2.3	B1/500		
BM	(30°-60°)	258.4	4.0	B1/1000		
BH	(60°-80°)	133.3	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°	697.8	697.8	697.8	697.8	697.8	697.8	697.8	697.8	697.8	697.8	697.8
2.5°	760.5	759.3	755.8	749.9	743.9	738.0	736.8	727.4	716.7	708.5	701.4
5°	827.9	826.7	820.8	807.8	794.8	779.4	778.2	755.8	735.7	713.2	694.3
7.5°	897.7	895.3	884.7	864.6	842.1	818.5	816.1	783.0	753.4	723.8	696.6
10°	952.1	949.7	934.4	910.7	880.0	850.4	846.8	812.5	783.0	745.1	708.5
12.5°	1005.3	1000.6	980.5	954.5	916.6	888.2	884.7	849.2	813.7	774.7	729.7
15°	1055.0	1049.1	1030.2	997.0	956.8	929.6	927.3	889.4	852.8	807.8	758.1
17.5°	1089.3	1086.9	1064.5	1027.8	988.8	966.3	963.9	924.9	888.2	840.9	787.7
20°	1107.0	1107.0	1085.7	1045.5	1010.1	994.7	991.1	954.5	919.0	874.0	818.5
22.5°	1110.6	1114.1	1097.6	1053.8	1027.8	1014.8	1012.4	980.5	946.2	904.8	852.8
25°	1117.7	1117.7	1109.4	1062.1	1043.2	1039.6	1038.4	1010.1	979.3	937.9	887.1
27.5°	1126.0	1126.0	1120.0	1073.9	1066.8	1065.6	1064.5	1051.5	1026.6	978.1	927.3
30°	1147.3	1148.4	1143.7	1097.6	1092.8	1105.9	1108.2	1101.1	1070.4	1010.1	968.7
32.5°	1200.5	1189.8	1176.8	1114.1	1122.4	1139.0	1140.2	1126.0	1092.8	1044.4	1018.3
35°	1334.1	1271.4	1212.3	1128.3	1131.9	1148.4	1150.8	1149.6	1129.5	1088.1	1075.1
37.5°	1458.3	1369.6	1285.6	1161.4	1149.6	1167.4	1172.1	1192.2	1176.8	1148.4	1152.0
40°	1530.5	1496.2	1437.0	1252.5	1185.1	1212.3	1217.0	1247.8	1241.9	1230.0	1252.5
42.5°	1752.8	1755.2	1691.3	1388.5	1250.1	1293.9	1299.8	1324.7	1332.9	1338.9	1393.3
45°	2010.6	2018.9	2003.6	1633.4	1373.2	1387.3	1395.6	1428.7	1459.5	1497.3	1596.7
47.5°	2320.5	2313.4	2256.7	1932.6	1587.2	1508.0	1513.9	1577.8	1631.0	1713.8	1855.7
50°	2594.9	2612.7	2505.0	2211.7	1888.8	1698.4	1692.5	1755.2	1851.0	1966.9	2145.5
52.5°	2871.7	2845.7	2700.2	2488.5	2246.0	1957.4	1939.7	1974.0	2108.8	2246.0	2429.3
55°	2945.0	2947.4	2897.7	2791.3	2544.1	2272.0	2242.5	2240.1	2408.0	2501.5	2727.4
57.5°	3089.3	3095.2	3107.0	3128.3	3011.2	2586.6	2555.9	2522.8	2686.0	2740.4	3026.6
60°	3236.0	3243.1	3315.2	3429.9	3351.9	2926.1	2893.0	2814.9	2906.0	2979.3	3341.2
62.5°	3217.0	3266.7	3476.1	3704.3	3694.9	3298.6	3257.2	3069.2	3127.1	3191.0	3629.8
65°	2904.8	2958.0	3428.7	3780.0	4039.0	3666.5	3599.1	3331.8	3335.3	3412.2	3907.8
67.5°	2625.7	2683.6	3133.1	3748.1	4266.1	3996.5	3926.7	3595.5	3539.9	3667.7	4056.8
70°	2464.8	2522.8	2897.7	3648.7	4330.0	4361.9	4301.6	3897.1	3783.6	3900.7	3890.0
72.5°	1929.0	2020.1	2597.3	3459.5	4398.6	4753.4	4706.1	4279.1	3990.5	3657.0	2961.6
75°	768.8	852.8	1621.5	2784.2	4312.2	5090.5	5053.8	4450.6	3693.7	2611.5	1516.3
77.5°	231.8	248.4	450.6	1376.7	3161.4	4513.3	4501.5	3742.2	2613.8	1212.3	414.0
80°	76.9	85.2	138.4	379.7	1442.9	2819.6	2872.9	2384.4	1187.5	277.9	84.0
82.5°	31.9	35.5	69.8	152.6	510.9	1214.7	1196.9	1068.0	414.0	172.7	30.8
85°	8.3	10.6	31.9	87.5	186.9	418.7	440.0	358.4	234.2	143.1	9.5
87.5°	0.0	0.0	15.4	35.5	84.0	126.6	132.5	108.8	132.5	107.6	4.7
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°	697.8	697.8	697.8	697.8	697.8	697.8	697.8	697.8	697.8	697.8	697.8
2.5°	695.4	689.5	678.9	671.8	662.3	660.0	655.2	649.3	648.1	642.2	643.4
5°	683.6	674.2	655.2	642.2	626.8	622.1	613.8	607.9	603.2	594.9	596.1
7.5°	681.3	667.1	641.0	616.2	591.4	573.6	548.8	528.7	512.1	494.4	497.9
10°	689.5	671.8	635.1	600.8	555.9	499.1	434.1	391.5	370.2	348.9	351.3
12.5°	706.1	684.8	637.5	585.5	494.4	397.4	307.5	249.6	234.2	224.7	225.9
15°	730.9	704.9	644.6	555.9	411.6	287.4	204.6	179.8	185.7	189.2	189.2
17.5°	756.9	727.4	650.5	502.7	318.2	201.1	166.8	164.4	172.7	181.0	181.0
20°	788.9	751.0	651.7	435.2	229.5	163.2	157.3	157.3	163.2	172.7	172.7
22.5°	819.6	777.1	641.0	358.4	175.0	151.4	151.4	151.4	154.9	164.4	165.6
25°	856.3	809.0	618.6	276.8	150.2	144.3	144.3	145.5	147.8	156.1	157.3
27.5°	895.3	842.1	580.7	202.2	137.2	136.0	137.2	138.4	139.6	147.8	150.2
30°	940.3	878.8	532.2	151.4	125.4	125.4	128.9	131.3	131.3	138.4	140.7
32.5°	992.3	927.3	474.3	125.4	113.5	112.4	118.3	121.8	121.8	127.7	130.1
35°	1057.4	976.9	404.5	111.2	104.1	101.7	104.1	110.0	112.4	117.1	118.3
37.5°	1143.7	1036.1	330.0	102.9	97.0	92.3	92.3	93.4	98.2	102.9	104.1
40°	1253.7	1101.1	256.7	97.0	89.9	85.2	81.6	80.4	79.2	82.8	85.2
42.5°	1392.1	1174.5	191.6	91.1	84.0	76.9	72.1	67.4	61.5	60.3	61.5
45°	1569.5	1264.3	141.9	86.3	80.4	69.8	61.5	53.2	42.6	39.0	40.2
47.5°	1778.8	1357.8	111.2	81.6	78.1	61.5	50.9	36.7	26.0	23.7	24.8
50°	2001.2	1447.7	94.6	75.7	73.3	53.2	36.7	22.5	15.4	15.4	16.6
52.5°	2190.4	1498.5	86.3	71.0	66.2	43.8	23.7	13.0	9.5	9.5	10.6
55°	2373.7	1525.7	80.4	66.2	56.8	30.8	13.0	8.3	5.9	5.9	5.9
57.5°	2563.0	1537.6	73.3	60.3	44.9	18.9	7.1	4.7	3.5	3.5	3.5
60°	2730.9	1515.1	62.7	49.7	29.6	9.5	3.5	3.5	2.4	1.2	1.2
62.5°	2871.7	1472.5	43.8	35.5	17.7	4.7	2.4	1.2	0.0	0.0	0.0
65°	2958.0	1403.9	28.4	23.7	10.6	3.5	1.2	0.0	0.0	0.0	0.0
67.5°	2933.2	1275.0	17.7	15.4	4.7	2.4	1.2	0.0	0.0	0.0	0.0
70°	2647.0	1045.5	13.0	9.5	3.5	1.2	0.0	0.0	0.0	0.0	0.0
72.5°	1907.7	707.3	9.5	5.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	917.8	251.9	5.9	4.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	224.7	55.6	3.5	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	49.7	10.6	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	16.6	4.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.5	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)