

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: P398100

Luminaire Tested: **ARCH-S-PA1-80-830-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398100  
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-PA1-80-830-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 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: 6090 lumens  
Efficiency: N/A  
Efficacy: 73.4 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

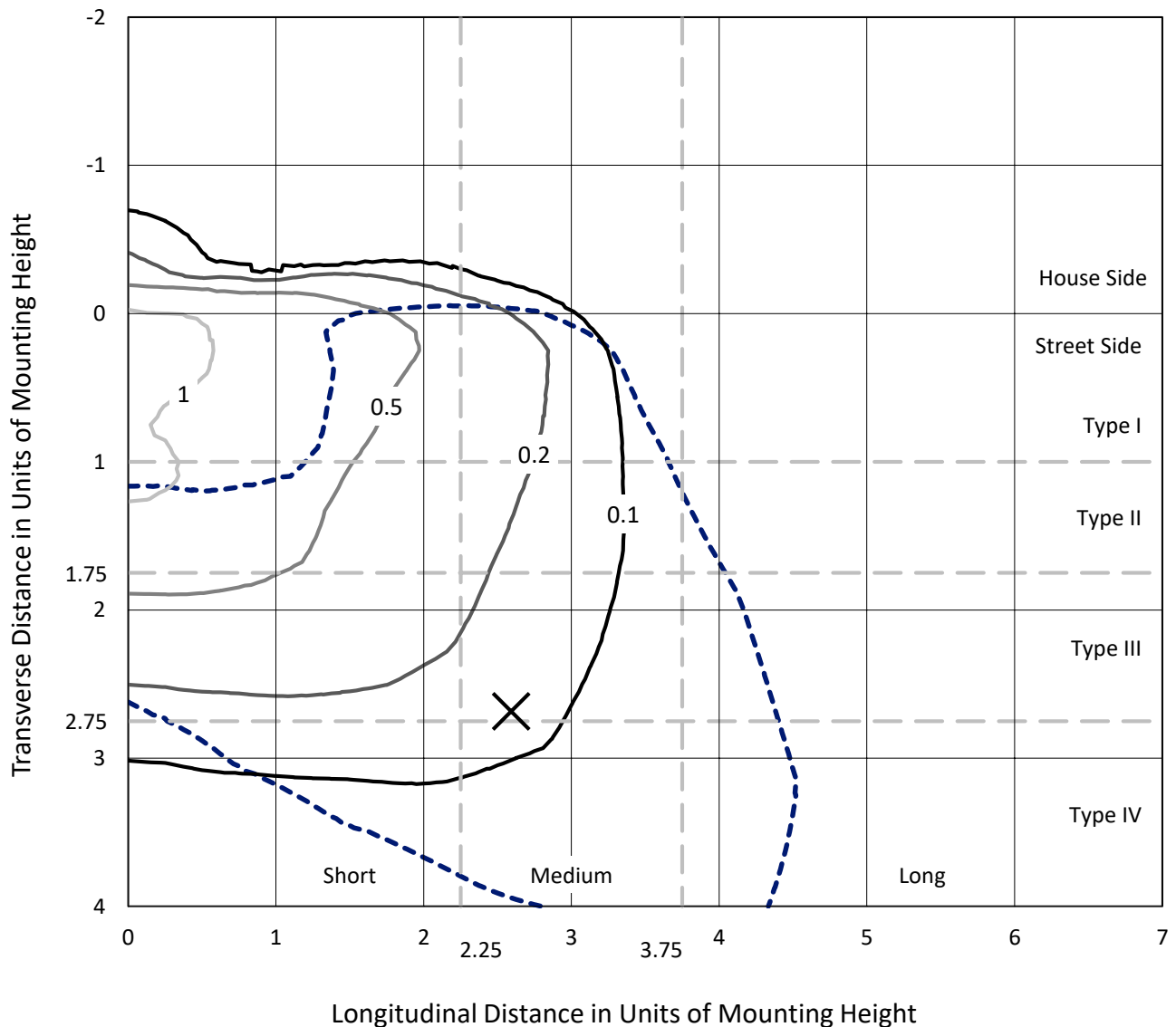
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P398100  
 CATALOG NUMBER: ARCH-S-PA1-80-830-U-T4W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

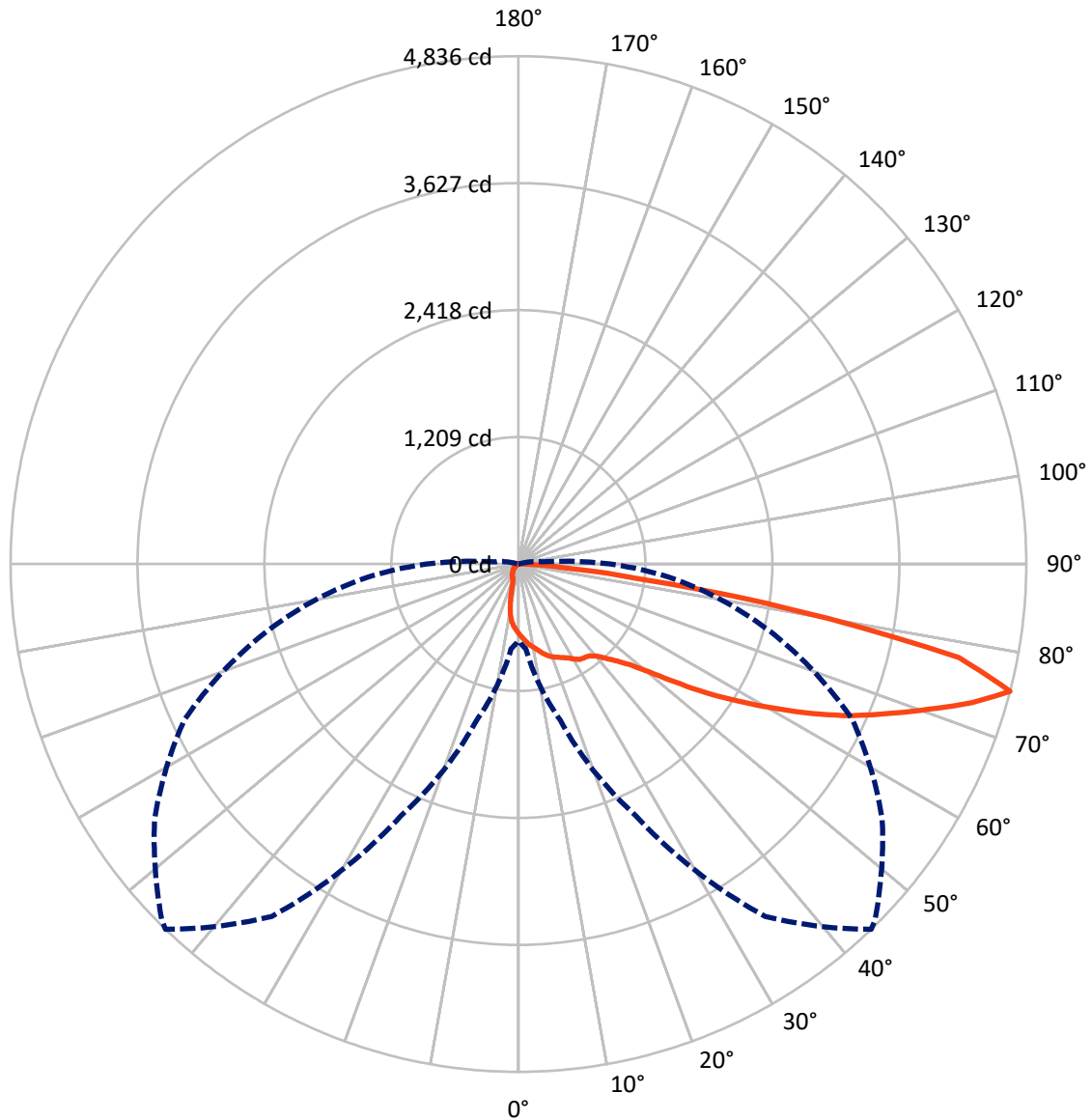


Based on 25 foot mounting height. Maximum calculated value = 1.4 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P398100

CATALOG NUMBER: ARCH-S-PA1-80-830-U-T4W-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P398100

CATALOG NUMBER: ARCH-S-PA1-80-830-U-T4W-HSS

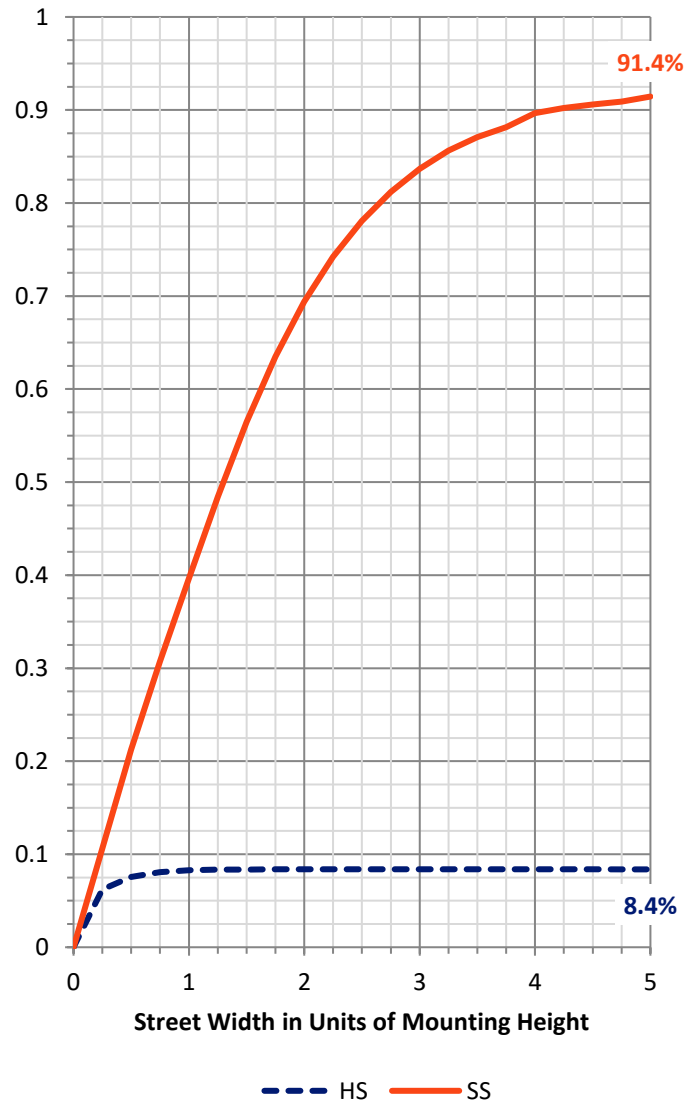
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	513.6	0.0	513.6
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	5576.4	0.0	5576.4
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	6090.0	0.0	6090.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	1.0
10°-20°	175.2	2.9
20°-30°	289.1	4.7
30°-40°	419.6	6.9
40°-50°	682.0	11.2
50°-60°	1202.4	19.7
60°-70°	1728.0	28.4
70°-80°	1383.8	22.7
80°-90°	147.4	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°	6090.0	100.0
0°-180°	6090.0	100.0



REPORT NUMBER: P398100

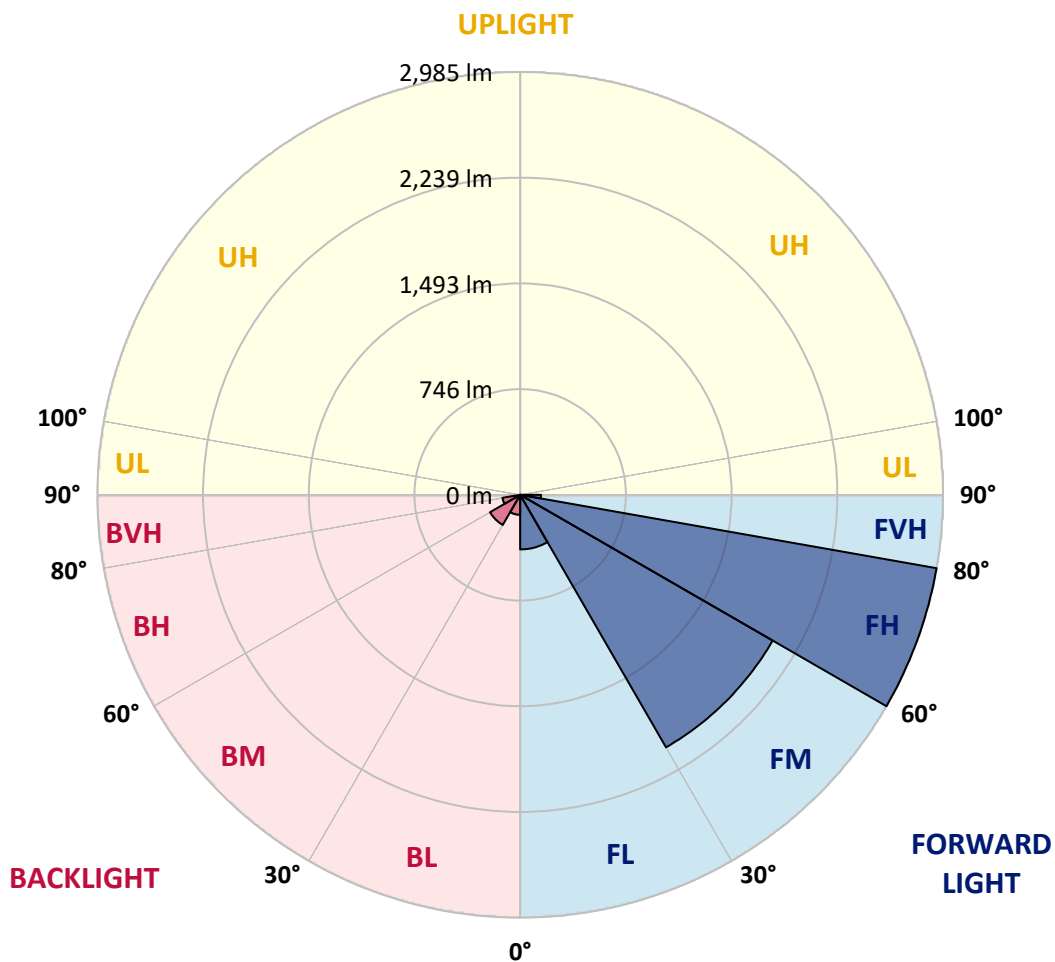
CATALOG NUMBER: ARCH-S-PA1-80-830-U-T4W-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	385.7	6.3			
FM	(30°-60°)	2058.5	33.8			
FH	(60°-80°)	2985.2	49.0			G2/5000
FVH	(80°-90°)	147.1	2.4			G2/225
BL	(0°-30°)	141.1	2.3	B1/500		
BM	(30°-60°)	245.5	4.0	B1/1000		
BH	(60°-80°)	126.6	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





REPORT NUMBER: P398100

CATALOG NUMBER: ARCH-S-PA1-80-830-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	662.9	662.9	662.9	662.9	662.9	662.9	662.9	662.9	662.9	662.9	662.9
2.5°	722.4	721.3	717.9	712.3	706.7	701.1	699.9	691.0	680.8	673.0	666.2
5°	786.5	785.3	779.7	767.4	755.0	740.4	739.3	717.9	698.8	677.5	659.5
7.5°	852.7	850.5	840.4	821.3	799.9	777.5	775.2	743.8	715.7	687.6	661.7
10°	904.4	902.2	887.6	865.1	835.9	807.8	804.4	771.9	743.8	707.8	673.0
12.5°	955.0	950.5	931.4	906.7	870.7	843.8	840.4	806.7	773.0	735.9	693.2
15°	1002.2	996.6	978.6	947.1	908.9	883.1	880.8	844.9	810.1	767.4	720.2
17.5°	1034.8	1032.5	1011.2	976.3	939.3	917.9	915.7	878.6	843.8	798.8	748.3
20°	1051.6	1051.6	1031.4	993.2	959.5	944.9	941.5	906.7	873.0	830.3	777.5
22.5°	1055.0	1058.4	1042.6	1001.1	976.3	964.0	961.7	931.4	898.8	859.5	810.1
25°	1061.7	1061.7	1053.9	1008.9	990.9	987.6	986.4	959.5	930.3	890.9	842.6
27.5°	1069.6	1069.6	1064.0	1020.2	1013.4	1012.3	1011.2	998.8	975.2	929.1	880.8
30°	1089.8	1090.9	1086.4	1042.6	1038.1	1050.5	1052.7	1046.0	1016.8	959.5	920.2
32.5°	1140.4	1130.3	1117.9	1058.4	1066.2	1081.9	1083.1	1069.6	1038.1	992.1	967.3
35°	1267.3	1207.8	1151.6	1071.8	1075.2	1090.9	1093.2	1092.1	1073.0	1033.6	1021.3
37.5°	1385.3	1301.0	1221.3	1103.3	1092.1	1108.9	1113.4	1132.5	1117.9	1090.9	1094.3
40°	1453.8	1421.2	1365.1	1189.8	1125.8	1151.6	1156.1	1185.3	1179.7	1168.5	1189.8
42.5°	1665.0	1667.3	1606.6	1319.0	1187.6	1229.1	1234.7	1258.3	1266.2	1271.8	1323.5
45°	1910.0	1917.8	1903.2	1551.6	1304.4	1317.9	1325.7	1357.2	1386.4	1422.4	1516.7
47.5°	2204.3	2197.6	2143.7	1835.8	1507.8	1432.5	1438.1	1498.8	1549.3	1628.0	1762.8
50°	2465.0	2481.8	2379.6	2101.0	1794.3	1613.4	1607.7	1667.3	1758.3	1868.4	2038.1
52.5°	2727.9	2703.2	2565.0	2363.9	2133.6	1859.4	1842.6	1875.1	2003.2	2133.6	2307.7
55°	2797.6	2799.8	2752.6	2651.5	2416.7	2158.3	2130.2	2127.9	2287.5	2376.2	2590.8
57.5°	2934.6	2940.2	2951.5	2971.7	2860.5	2457.1	2427.9	2396.5	2551.5	2603.2	2875.1
60°	3073.9	3080.7	3149.2	3258.2	3184.0	2779.6	2748.1	2674.0	2760.5	2830.1	3173.9
62.5°	3056.0	3103.1	3302.0	3518.8	3509.9	3133.5	3094.2	2915.5	2970.6	3031.2	3448.1
65°	2759.4	2809.9	3257.1	3590.8	3836.8	3482.9	3418.9	3164.9	3168.3	3241.3	3712.1
67.5°	2494.2	2549.3	2976.2	3560.4	4052.5	3796.4	3730.1	3415.5	3362.7	3484.0	3853.7
70°	2341.4	2396.5	2752.6	3466.0	4113.2	4143.5	4086.2	3702.0	3594.1	3705.4	3695.2
72.5°	1832.5	1919.0	2467.2	3286.3	4178.3	4515.4	4470.5	4064.9	3790.7	3473.9	2813.3
75°	730.3	810.1	1540.3	2644.8	4096.3	4835.6	4800.8	4227.8	3508.7	2480.7	1440.3
77.5°	220.2	235.9	428.1	1307.8	3003.2	4287.3	4276.1	3554.8	2483.0	1151.6	393.2
80°	73.0	80.9	131.5	360.6	1370.7	2678.5	2729.0	2265.0	1128.0	264.0	79.8
82.5°	30.3	33.7	66.3	144.9	485.4	1153.8	1137.0	1014.5	393.2	164.0	29.2
85°	7.9	10.1	30.3	83.1	177.5	397.7	417.9	340.4	222.5	135.9	9.0
87.5°	0.0	0.0	14.6	33.7	79.8	120.2	125.8	103.4	125.8	102.2	4.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P398100

CATALOG NUMBER: ARCH-S-PA1-80-830-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	662.9	662.9	662.9	662.9	662.9	662.9	662.9	662.9	662.9	662.9	662.9
2.5°	660.6	655.0	644.9	638.2	629.2	626.9	622.4	616.8	615.7	610.1	611.2
5°	649.4	640.4	622.4	610.1	595.5	591.0	583.1	577.5	573.0	565.1	566.3
7.5°	647.1	633.7	608.9	585.4	561.8	544.9	521.3	502.2	486.5	469.6	473.0
10°	655.0	638.2	603.3	570.7	528.1	474.1	412.3	371.9	351.7	331.4	333.7
12.5°	670.7	650.5	605.6	556.1	469.6	377.5	292.1	237.1	222.5	213.5	214.6
15°	694.3	669.6	612.3	528.1	391.0	273.0	194.4	170.8	176.4	179.8	179.8
17.5°	719.0	691.0	617.9	477.5	302.2	191.0	158.4	156.2	164.0	171.9	171.9
20°	749.4	713.4	619.1	413.5	218.0	155.0	149.4	149.4	155.0	164.0	164.0
22.5°	778.6	738.1	608.9	340.4	166.3	143.8	143.8	143.8	147.2	156.2	157.3
25°	813.4	768.5	587.6	262.9	142.7	137.1	137.1	138.2	140.4	148.3	149.4
27.5°	850.5	799.9	551.6	192.1	130.3	129.2	130.3	131.5	132.6	140.4	142.7
30°	893.2	834.8	505.6	143.8	119.1	119.1	122.5	124.7	124.7	131.5	133.7
32.5°	942.6	880.8	450.5	119.1	107.9	106.7	112.4	115.7	115.7	121.3	123.6
35°	1004.4	928.0	384.2	105.6	98.9	96.6	98.9	104.5	106.7	111.2	112.4
37.5°	1086.4	984.2	313.5	97.7	92.1	87.6	87.6	88.8	93.3	97.7	98.9
40°	1190.9	1046.0	243.8	92.1	85.4	80.9	77.5	76.4	75.3	78.6	80.9
42.5°	1322.4	1115.6	182.0	86.5	79.8	73.0	68.5	64.0	58.4	57.3	58.4
45°	1490.9	1201.0	134.8	82.0	76.4	66.3	58.4	50.6	40.4	37.1	38.2
47.5°	1689.8	1289.8	105.6	77.5	74.2	58.4	48.3	34.8	24.7	22.5	23.6
50°	1901.0	1375.2	89.9	71.9	69.7	50.6	34.8	21.3	14.6	14.6	15.7
52.5°	2080.7	1423.5	82.0	67.4	62.9	41.6	22.5	12.4	9.0	9.0	10.1
55°	2254.9	1449.3	76.4	62.9	53.9	29.2	12.4	7.9	5.6	5.6	5.6
57.5°	2434.7	1460.6	69.7	57.3	42.7	18.0	6.7	4.5	3.4	3.4	3.4
60°	2594.2	1439.2	59.5	47.2	28.1	9.0	3.4	3.4	2.2	1.1	1.1
62.5°	2727.9	1398.8	41.6	33.7	16.9	4.5	2.2	1.1	0.0	0.0	0.0
65°	2809.9	1333.6	27.0	22.5	10.1	3.4	1.1	0.0	0.0	0.0	0.0
67.5°	2786.3	1211.1	16.9	14.6	4.5	2.2	1.1	0.0	0.0	0.0	0.0
70°	2514.4	993.2	12.4	9.0	3.4	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1812.2	671.9	9.0	5.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	871.8	239.3	5.6	4.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	213.5	52.8	3.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	47.2	10.1	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.7	4.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	1.1	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)