

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: P397871

Luminaire Tested: **ARCH-S-PA1-50-827-U-T2U-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397871  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-50-827-U-T2U-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3947 lumens  
Efficiency: N/A  
Efficacy: 73.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

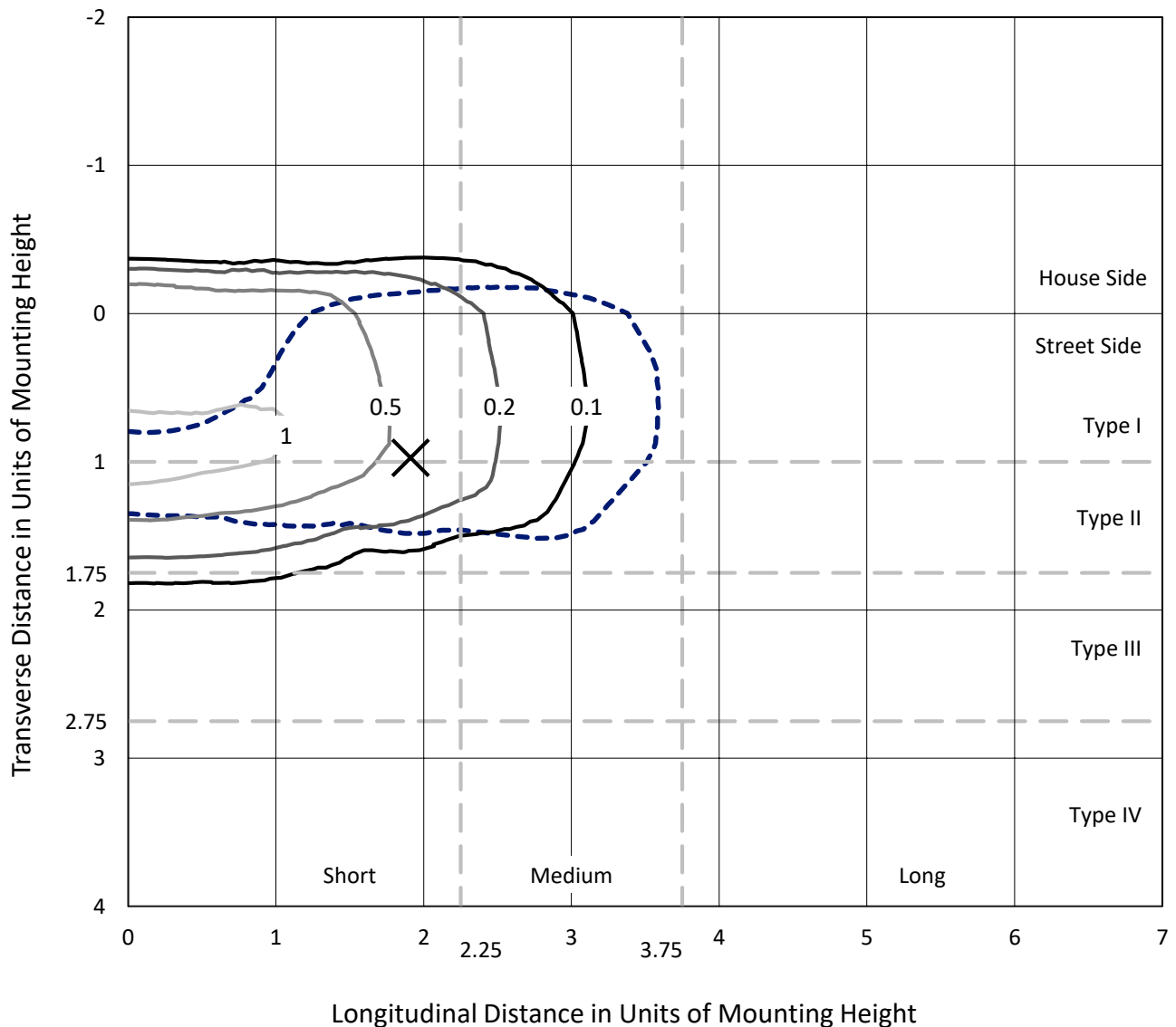
Input Watts (W): 54  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

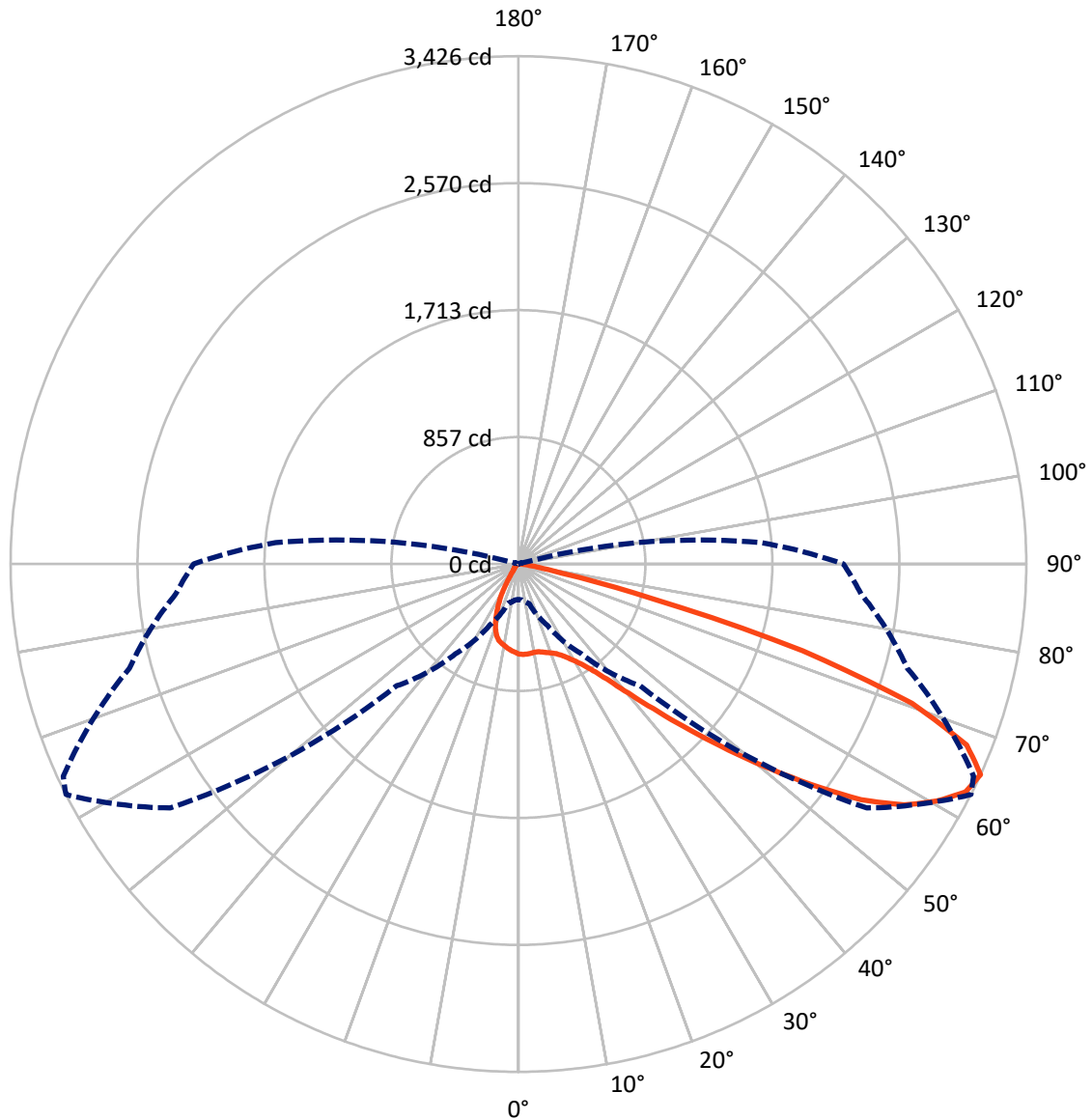
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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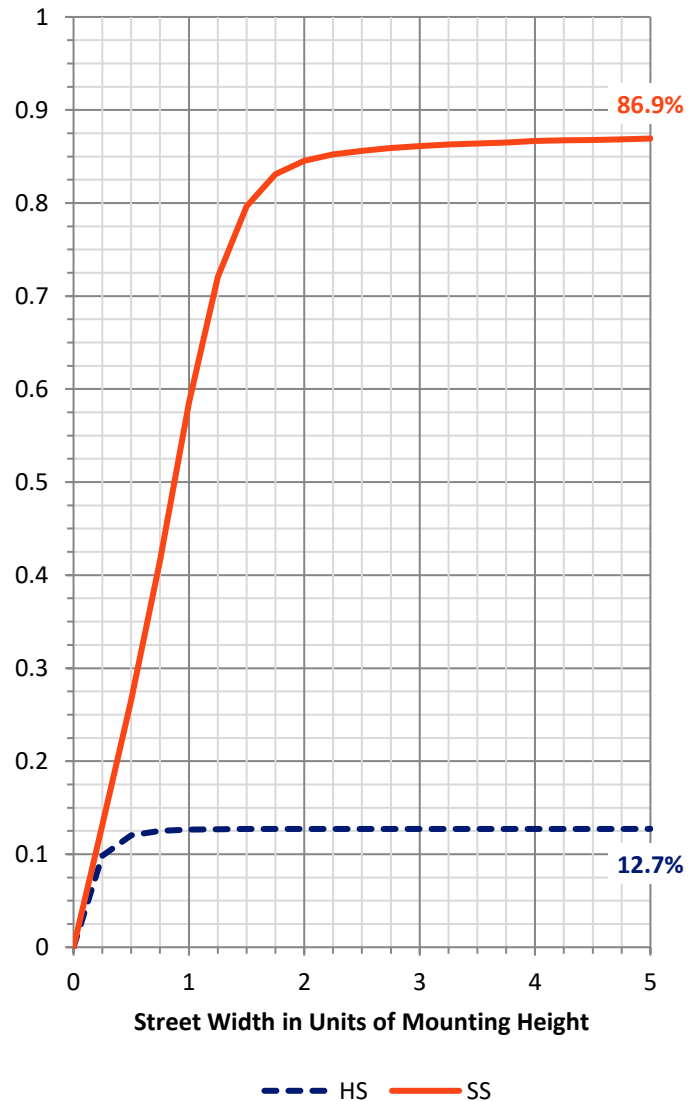
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	508.0	0.0	508.0
	% Fixture	12.9	0.0	12.9
<b>Street Side</b>	Lumens	3439.0	0.0	3439.0
	% Fixture	87.1	0.0	87.1
<b>Total</b>	Lumens	3947.0	0.0	3947.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.5	1.4
10°-20°	136.9	3.5
20°-30°	202.9	5.1
30°-40°	376.7	9.5
40°-50°	797.9	20.2
50°-60°	1103.4	28.0
60°-70°	883.3	22.4
70°-80°	367.0	9.3
80°-90°	23.6	0.6
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°	3947.0	100.0
0°-180°	3947.0	100.0



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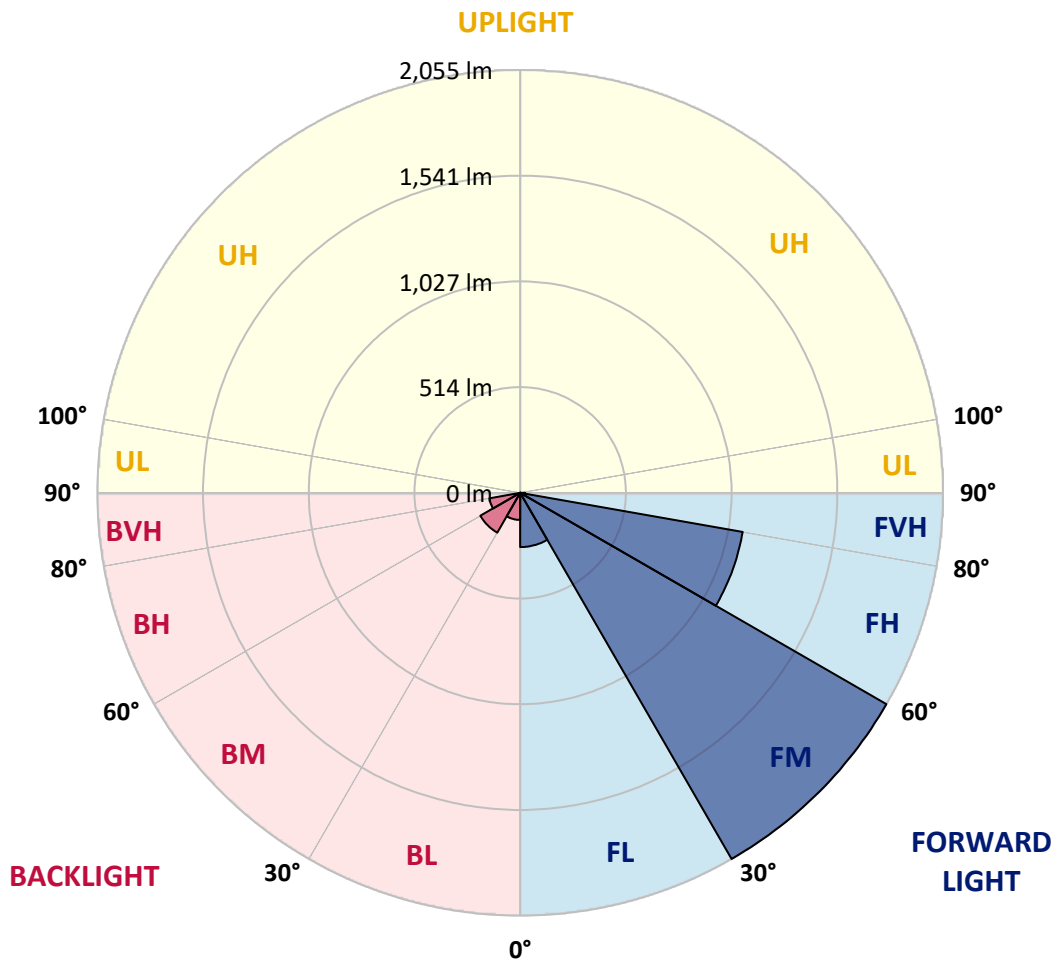
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	263.6	6.7			
FM (30°-60°)	2054.8	52.1			
FH (60°-80°)	1098.2	27.8			G1/1800
FVH (80°-90°)	22.5	0.6			G1/100
BL (0°-30°)	131.6	3.3	B1/500		
BM (30°-60°)	223.1	5.7	B1/1000		
BH (60°-80°)	152.1	3.9	B1/500		G1/500
BVH (80°-90°)	1.1	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-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0
2.5°	618.5	617.0	615.5	614.7	614.7	614.0	611.0	610.3	608.8	607.3	605.8
5°	612.5	610.3	609.5	610.3	611.0	612.5	611.0	611.0	609.5	608.0	605.1
7.5°	597.6	596.1	596.9	599.1	599.8	605.1	605.8	608.0	608.0	606.5	604.3
10°	579.7	579.0	579.0	582.7	586.4	593.9	599.1	605.1	605.8	605.8	602.1
12.5°	566.3	565.6	567.8	572.3	579.7	589.4	598.4	607.3	608.8	609.5	603.6
15°	558.1	558.1	561.1	570.0	580.5	593.9	604.3	616.2	617.7	617.0	608.8
17.5°	550.7	551.4	557.4	572.3	584.2	602.1	614.7	628.2	628.9	628.2	614.7
20°	547.7	549.2	558.1	577.5	590.9	611.0	627.4	640.8	641.6	638.6	620.7
22.5°	555.9	556.6	567.8	588.7	601.3	623.7	644.5	657.2	658.0	653.5	629.6
25°	584.2	584.2	593.9	611.8	622.9	645.3	667.6	682.6	682.6	677.3	649.8
27.5°	650.5	644.5	642.3	647.5	651.3	675.1	698.9	717.6	716.8	709.4	675.8
30°	778.7	763.8	739.9	713.1	699.7	716.1	738.4	762.3	761.5	749.6	707.9
32.5°	994.0	972.4	915.8	845.0	787.6	769.0	789.9	815.9	816.7	802.5	759.3
35°	1295.8	1261.5	1160.2	1061.8	930.7	859.9	865.9	894.2	903.1	895.7	845.7
37.5°	1586.4	1555.1	1458.2	1321.9	1143.8	999.2	973.9	998.5	1008.9	1008.9	956.0
40°	1879.3	1842.7	1757.0	1619.9	1432.2	1216.8	1125.9	1146.0	1157.2	1159.4	1090.1
42.5°	2114.0	2090.1	2024.6	1918.0	1742.1	1598.3	1345.0	1333.8	1344.2	1336.0	1245.9
45°	2276.4	2257.8	2212.3	2172.1	2086.4	2014.1	1637.8	1562.6	1569.3	1541.0	1421.0
47.5°	2309.9	2289.1	2279.4	2335.3	2396.4	2414.3	1997.7	1834.5	1827.8	1765.2	1602.8
50°	2163.9	2166.1	2201.9	2361.4	2616.2	2777.2	2415.0	2141.5	2117.0	1977.6	1772.0
52.5°	1848.7	1884.5	1974.6	2233.2	2683.3	3040.9	2832.3	2467.2	2429.2	2184.0	1898.6
55°	1446.3	1492.5	1640.8	1938.1	2543.2	3158.7	3184.0	2805.5	2719.0	2339.0	1997.0
57.5°	1075.2	1089.4	1262.3	1533.5	2211.6	3043.2	3364.3	3066.3	2955.2	2462.7	2094.6
60°	669.9	678.8	861.4	1167.6	1675.1	2616.2	3364.3	3245.8	3140.0	2573.7	2184.0
62.5°	416.5	419.5	488.1	800.3	1138.6	1940.4	3225.0	3385.2	3300.2	2653.5	2260.8
65°	239.9	242.9	275.0	452.3	740.7	1161.7	2868.8	3426.2	3388.2	2716.8	2320.4
67.5°	175.1	176.6	189.3	254.1	484.3	596.9	2155.0	3261.5	3309.2	2748.1	2318.9
70°	152.0	154.2	170.6	198.2	349.5	366.6	1096.9	2816.6	2950.0	2703.4	2249.6
72.5°	117.0	120.0	144.6	186.3	256.3	263.8	397.2	2004.4	2206.4	2424.0	2059.6
75°	80.5	83.5	108.0	153.5	211.6	197.5	218.3	922.5	1163.9	1625.9	1567.8
77.5°	51.4	52.2	67.8	111.8	182.6	140.1	149.8	301.0	422.5	735.5	739.9
80°	34.3	35.0	41.7	72.3	125.2	129.7	92.4	139.3	152.8	214.6	149.0
82.5°	20.9	20.9	28.3	45.5	76.0	107.3	60.4	73.0	78.2	82.7	38.7
85°	8.2	8.2	17.1	29.8	47.7	49.9	38.0	42.5	44.7	48.4	17.9
87.5°	2.2	2.2	9.7	16.4	20.9	23.1	23.1	20.9	22.4	27.6	8.9
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°	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0
2.5°	605.1	602.8	599.8	596.9	593.9	591.6	589.4	589.4	587.9	585.7	584.2
5°	603.6	599.8	593.1	587.9	579.7	573.8	569.3	565.6	563.3	558.1	557.4
7.5°	601.3	596.9	587.2	576.7	563.3	552.9	542.5	535.0	527.6	521.6	520.1
10°	597.6	592.4	578.2	563.3	544.7	525.3	500.7	472.4	446.3	431.4	427.0
12.5°	597.6	590.9	572.3	552.2	525.3	477.6	415.0	352.5	304.0	282.4	276.4
15°	601.3	592.4	567.8	540.2	490.3	393.4	292.1	209.4	156.5	140.1	136.4
17.5°	605.1	592.4	561.1	523.8	426.2	285.4	166.2	110.3	93.1	89.4	89.4
20°	606.5	590.9	552.2	493.3	340.5	177.3	99.1	82.7	76.0	73.8	73.8
22.5°	612.5	591.6	545.4	449.3	247.4	104.3	78.2	69.3	62.6	60.4	60.4
25°	627.4	600.6	546.9	393.4	158.7	79.0	66.3	57.4	50.7	47.7	47.7
27.5°	651.3	620.7	555.1	328.6	99.8	67.8	55.9	46.2	41.0	38.0	38.0
30°	678.1	643.1	558.9	254.1	74.5	57.4	45.5	36.5	32.8	30.6	29.8
32.5°	725.0	681.8	555.9	174.4	61.1	48.4	36.5	29.1	26.1	25.3	25.3
35°	800.3	749.6	549.9	109.5	50.7	38.7	29.1	23.8	21.6	20.9	20.1
37.5°	902.4	848.7	532.0	72.3	41.7	30.6	23.8	20.1	17.9	17.1	17.1
40°	1026.8	962.0	497.8	55.1	35.8	24.6	20.1	17.1	15.6	14.9	14.9
42.5°	1169.1	1087.9	443.4	47.7	29.8	20.9	17.1	14.2	13.4	12.7	12.7
45°	1324.9	1219.8	368.1	42.5	25.3	17.1	14.2	12.7	11.2	11.2	10.4
47.5°	1490.3	1352.4	283.2	37.3	21.6	14.9	12.7	10.4	9.7	8.9	8.9
50°	1649.7	1470.9	199.0	32.0	17.9	12.7	10.4	8.9	8.2	7.5	7.5
52.5°	1762.3	1542.4	140.8	27.6	14.9	11.2	8.2	6.7	6.0	6.0	6.0
55°	1852.4	1587.2	98.4	23.1	12.7	9.7	6.7	5.2	5.2	4.5	4.5
57.5°	1937.4	1616.2	72.3	19.4	10.4	7.5	5.2	3.7	3.7	3.0	3.0
60°	2025.3	1631.9	55.1	15.6	8.9	6.0	3.7	3.0	2.2	2.2	2.2
62.5°	2114.0	1641.6	42.5	12.7	7.5	4.5	3.0	2.2	1.5	0.7	0.7
65°	2191.5	1644.5	32.8	9.7	6.0	3.0	2.2	0.7	0.0	0.0	0.0
67.5°	2214.6	1610.3	25.3	7.5	4.5	2.2	1.5	0.0	0.0	0.0	0.0
70°	2152.0	1519.3	19.4	6.0	3.7	1.5	0.7	0.0	0.0	0.0	0.0
72.5°	1909.8	1274.2	14.9	3.7	3.0	1.5	0.7	0.0	0.0	0.0	0.0
75°	1366.6	679.6	10.4	3.0	2.2	0.7	0.0	0.0	0.0	0.0	0.0
77.5°	628.9	263.0	7.5	2.2	1.5	0.7	0.0	0.0	0.0	0.0	0.0
80°	122.9	65.6	3.0	1.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	28.3	11.2	1.5	1.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.7	3.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.7	1.5	0.7	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)