

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: P397754

Luminaire Tested: **ARCH-S-PA1-40-727-U-T2U-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397754  
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-PA1-40-727-U-T2U-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 500mA 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: 3482 lumens  
Efficiency: N/A  
Efficacy: 87.1 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

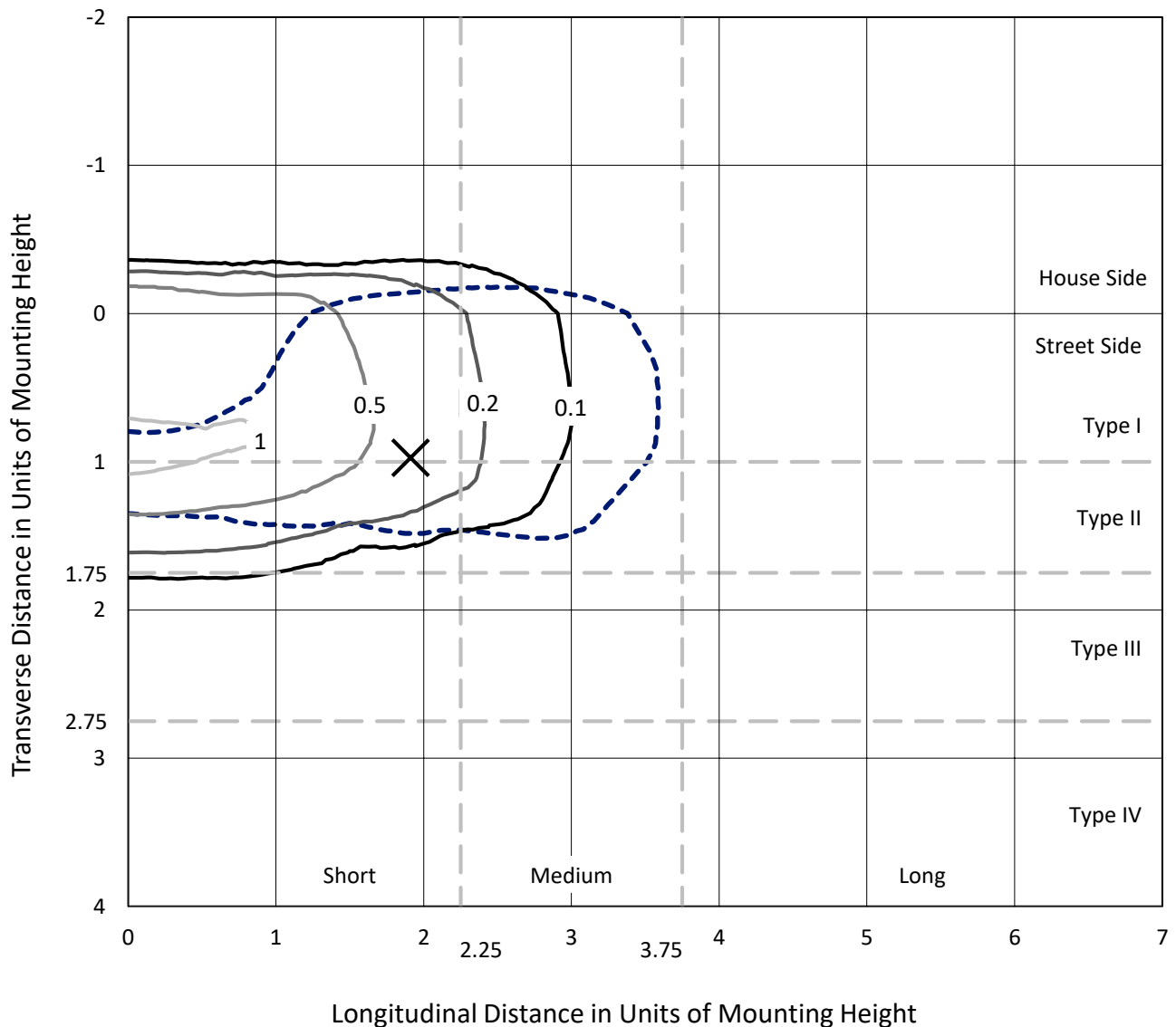
Input Watts (W): 40  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P397754  
 CATALOG NUMBER: ARCH-S-PA1-40-727-U-T2U-HSS

### Iso-Footcandle Lines of Horizontal Illumination

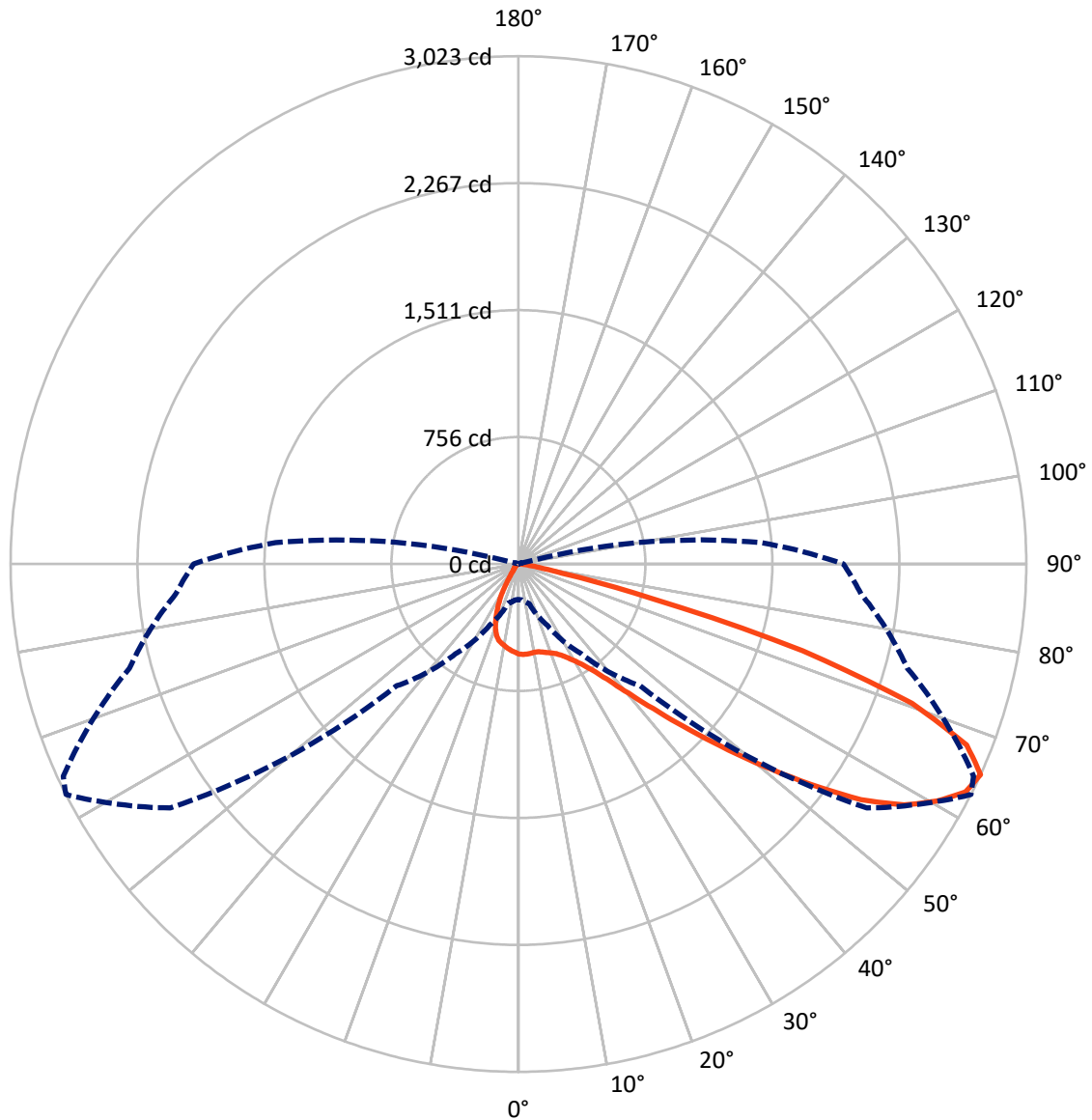
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P397754  
CATALOG NUMBER: ARCH-S-PA1-40-727-U-T2U-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P397754

CATALOG NUMBER: ARCH-S-PA1-40-727-U-T2U-HSS

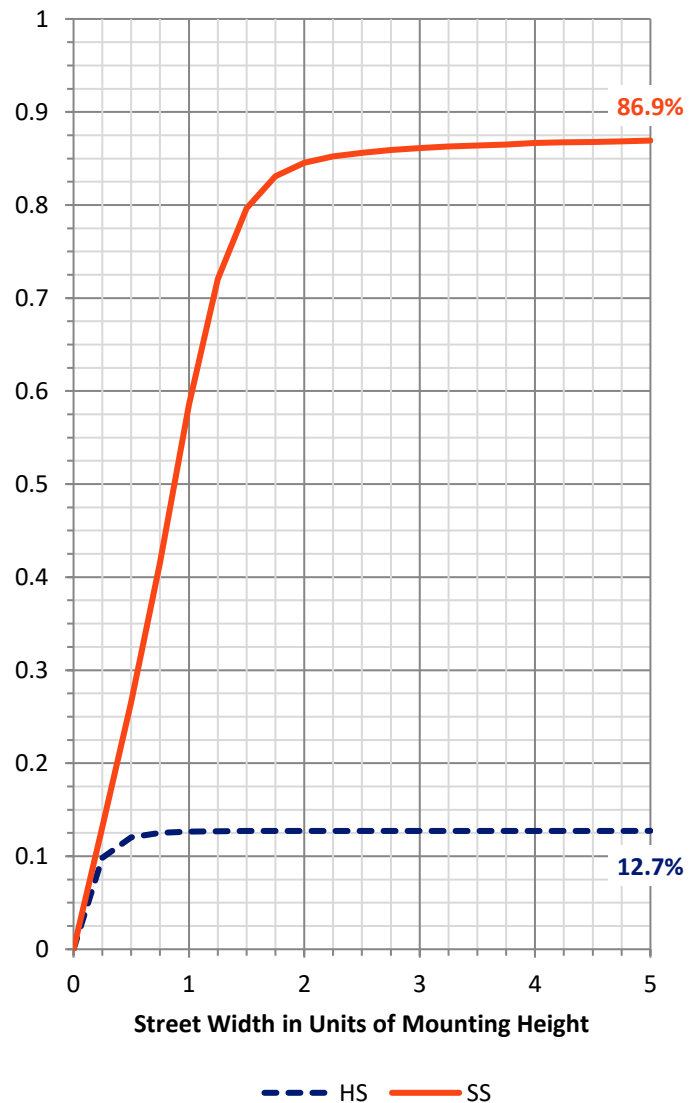
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	448.1	0.0	448.1
	% Fixture	12.9	0.0	12.9
<b>Street Side</b>	Lumens	3033.9	0.0	3033.9
	% Fixture	87.1	0.0	87.1
<b>Total</b>	Lumens	3482.0	0.0	3482.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.9	1.4
10°-20°	120.7	3.5
20°-30°	179.0	5.1
30°-40°	332.3	9.5
40°-50°	703.9	20.2
50°-60°	973.4	28.0
60°-70°	779.2	22.4
70°-80°	323.7	9.3
80°-90°	20.8	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°	3482.0	100.0
0°-180°	3482.0	100.0



REPORT NUMBER: P397754

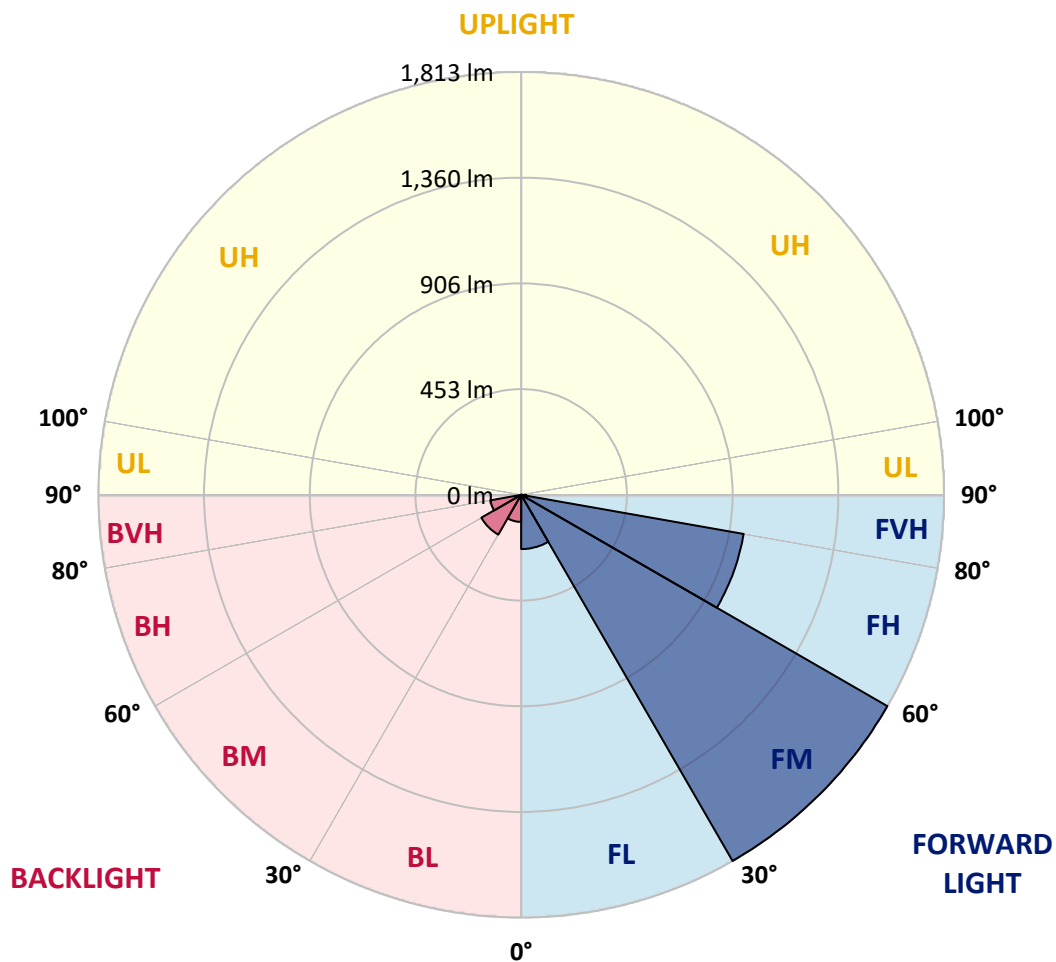
CATALOG NUMBER: ARCH-S-PA1-40-727-U-T2U-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	232.5	6.7			
FM (30°-60°)	1812.7	52.1			
FH (60°-80°)	968.8	27.8			G1/1800
FVH (80°-90°)	19.8	0.6			G1/100
BL (0°-30°)	116.1	3.3	B1/500		
BM (30°-60°)	196.9	5.7	B0/220		
BH (60°-80°)	134.2	3.9	B1/500		G1/500
BVH (80°-90°)	1.0	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





REPORT NUMBER: P397754

CATALOG NUMBER: ARCH-S-PA1-40-727-U-T2U-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4
2.5°	545.6	544.3	543.0	542.3	542.3	541.7	539.0	538.4	537.1	535.7	534.4
5°	540.3	538.4	537.7	538.4	539.0	540.3	539.0	539.0	537.7	536.4	533.8
7.5°	527.2	525.9	526.5	528.5	529.2	533.8	534.4	536.4	536.4	535.1	533.1
10°	511.4	510.8	510.8	514.1	517.3	523.9	528.5	533.8	534.4	534.4	531.1
12.5°	499.6	498.9	500.9	504.9	511.4	520.0	527.9	535.7	537.1	537.7	532.5
15°	492.4	492.4	495.0	502.9	512.1	523.9	533.1	543.6	544.9	544.3	537.1
17.5°	485.8	486.4	491.7	504.9	515.4	531.1	542.3	554.2	554.8	554.2	542.3
20°	483.2	484.5	492.4	509.5	521.3	539.0	553.5	565.3	566.0	563.4	547.6
22.5°	490.4	491.0	500.9	519.3	530.5	550.2	568.6	579.8	580.4	576.5	555.5
25°	515.4	515.4	523.9	539.7	549.6	569.3	589.0	602.1	602.1	597.5	573.2
27.5°	573.9	568.6	566.6	571.2	574.5	595.6	616.6	633.0	632.4	625.8	596.2
30°	686.9	673.8	652.8	629.1	617.3	631.7	651.4	672.5	671.8	661.3	624.5
32.5°	876.9	857.9	807.9	745.4	694.8	678.4	696.8	719.8	720.5	708.0	669.8
35°	1143.1	1112.9	1023.5	936.7	821.0	758.6	763.8	788.8	796.7	790.1	746.1
37.5°	1399.5	1371.9	1286.4	1166.2	1009.0	881.5	859.2	880.9	890.1	890.1	843.4
40°	1657.9	1625.6	1550.0	1429.1	1263.4	1073.5	993.3	1011.0	1020.9	1022.8	961.7
42.5°	1864.9	1843.9	1786.0	1692.0	1536.9	1410.0	1186.5	1176.7	1185.9	1178.6	1099.1
45°	2008.2	1991.8	1951.7	1916.2	1840.6	1776.8	1444.9	1378.5	1384.4	1359.4	1253.6
47.5°	2037.8	2019.4	2010.9	2060.2	2114.1	2129.8	1762.4	1618.4	1612.5	1557.3	1414.0
50°	1909.0	1910.9	1942.5	2083.2	2308.0	2450.0	2130.5	1889.2	1867.6	1744.6	1563.2
52.5°	1630.9	1662.5	1742.0	1970.1	2367.1	2682.7	2498.6	2176.5	2143.0	1926.7	1674.9
55°	1275.9	1316.7	1447.5	1709.8	2243.6	2786.5	2808.9	2475.0	2398.7	2063.4	1761.7
57.5°	948.6	961.1	1113.6	1352.8	1951.0	2684.6	2968.0	2705.0	2607.1	2172.6	1847.8
60°	591.0	598.9	759.9	1030.1	1477.7	2308.0	2968.0	2863.5	2770.1	2270.5	1926.7
62.5°	367.5	370.1	430.6	706.0	1004.4	1711.8	2845.0	2986.4	2911.4	2340.9	1994.4
65°	211.7	214.3	242.6	399.0	653.4	1024.8	2530.8	3022.5	2989.0	2396.7	2047.0
67.5°	154.5	155.8	167.0	224.2	427.3	526.5	1901.1	2877.3	2919.3	2424.3	2045.7
70°	134.1	136.1	150.5	174.9	308.3	323.4	967.6	2484.8	2602.5	2384.9	1984.6
72.5°	103.2	105.8	127.5	164.3	226.1	232.7	350.4	1768.3	1946.4	2138.4	1816.9
75°	71.0	73.6	95.3	135.4	186.7	174.2	192.6	813.8	1026.8	1434.4	1383.1
77.5°	45.4	46.0	59.8	98.6	161.1	123.6	132.1	265.6	372.7	648.8	652.8
80°	30.2	30.9	36.8	63.8	110.4	114.4	81.5	122.9	134.8	189.3	131.5
82.5°	18.4	18.4	25.0	40.1	67.1	94.7	53.2	64.4	69.0	73.0	34.2
85°	7.2	7.2	15.1	26.3	42.1	44.0	33.5	37.5	39.4	42.7	15.8
87.5°	2.0	2.0	8.5	14.5	18.4	20.4	20.4	18.4	19.7	24.3	7.9
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: P397754

CATALOG NUMBER: ARCH-S-PA1-40-727-U-T2U-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4
2.5°	533.8	531.8	529.2	526.5	523.9	521.9	520.0	520.0	518.7	516.7	515.4
5°	532.5	529.2	523.3	518.7	511.4	506.2	502.2	498.9	497.0	492.4	491.7
7.5°	530.5	526.5	518.0	508.8	497.0	487.8	478.6	472.0	465.4	460.2	458.8
10°	527.2	522.6	510.1	497.0	480.5	463.4	441.7	416.8	393.8	380.6	376.7
12.5°	527.2	521.3	504.9	487.1	463.4	421.4	366.1	310.9	268.2	249.1	243.9
15°	530.5	522.6	500.9	476.6	432.5	347.1	257.7	184.7	138.0	123.6	120.3
17.5°	533.8	522.6	495.0	462.1	376.0	251.8	146.6	97.3	82.2	78.9	78.9
20°	535.1	521.3	487.1	435.2	300.4	156.5	87.4	73.0	67.1	65.1	65.1
22.5°	540.3	521.9	481.2	396.4	218.2	92.0	69.0	61.1	55.2	53.2	53.2
25°	553.5	529.8	482.5	347.1	140.0	69.7	58.5	50.6	44.7	42.1	42.1
27.5°	574.5	547.6	489.7	289.9	88.1	59.8	49.3	40.8	36.2	33.5	33.5
30°	598.2	567.3	493.0	224.2	65.7	50.6	40.1	32.2	28.9	27.0	26.3
32.5°	639.6	601.5	490.4	153.8	53.9	42.7	32.2	25.6	23.0	22.4	22.4
35°	706.0	661.3	485.1	96.6	44.7	34.2	25.6	21.0	19.1	18.4	17.7
37.5°	796.1	748.7	469.4	63.8	36.8	27.0	21.0	17.7	15.8	15.1	15.1
40°	905.8	848.6	439.1	48.6	31.6	21.7	17.7	15.1	13.8	13.1	13.1
42.5°	1031.4	959.7	391.1	42.1	26.3	18.4	15.1	12.5	11.8	11.2	11.2
45°	1168.8	1076.1	324.7	37.5	22.4	15.1	12.5	11.2	9.9	9.9	9.2
47.5°	1314.7	1193.1	249.8	32.9	19.1	13.1	11.2	9.2	8.5	7.9	7.9
50°	1455.4	1297.6	175.5	28.3	15.8	11.2	9.2	7.9	7.2	6.6	6.6
52.5°	1554.7	1360.7	124.2	24.3	13.1	9.9	7.2	5.9	5.3	5.3	5.3
55°	1634.2	1400.2	86.8	20.4	11.2	8.5	5.9	4.6	4.6	3.9	3.9
57.5°	1709.1	1425.8	63.8	17.1	9.2	6.6	4.6	3.3	3.3	2.6	2.6
60°	1786.7	1439.6	48.6	13.8	7.9	5.3	3.3	2.6	2.0	2.0	2.0
62.5°	1864.9	1448.2	37.5	11.2	6.6	3.9	2.6	2.0	1.3	0.7	0.7
65°	1933.3	1450.8	28.9	8.5	5.3	2.6	2.0	0.7	0.0	0.0	0.0
67.5°	1953.7	1420.6	22.4	6.6	3.9	2.0	1.3	0.0	0.0	0.0	0.0
70°	1898.4	1340.4	17.1	5.3	3.3	1.3	0.7	0.0	0.0	0.0	0.0
72.5°	1684.8	1124.1	13.1	3.3	2.6	1.3	0.7	0.0	0.0	0.0	0.0
75°	1205.6	599.5	9.2	2.6	2.0	0.7	0.0	0.0	0.0	0.0	0.0
77.5°	554.8	232.0	6.6	2.0	1.3	0.7	0.0	0.0	0.0	0.0	0.0
80°	108.5	57.8	2.6	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	25.0	9.9	1.3	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.5	3.3	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.3	1.3	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)