

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: P397884

Luminaire Tested: **ARCH-S-PA1-50-830-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397884  
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-PA1-50-830-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 670mA 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: 4404 lumens  
Efficiency: N/A  
Efficacy: 81.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G2

Input Watts (W): 54  
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

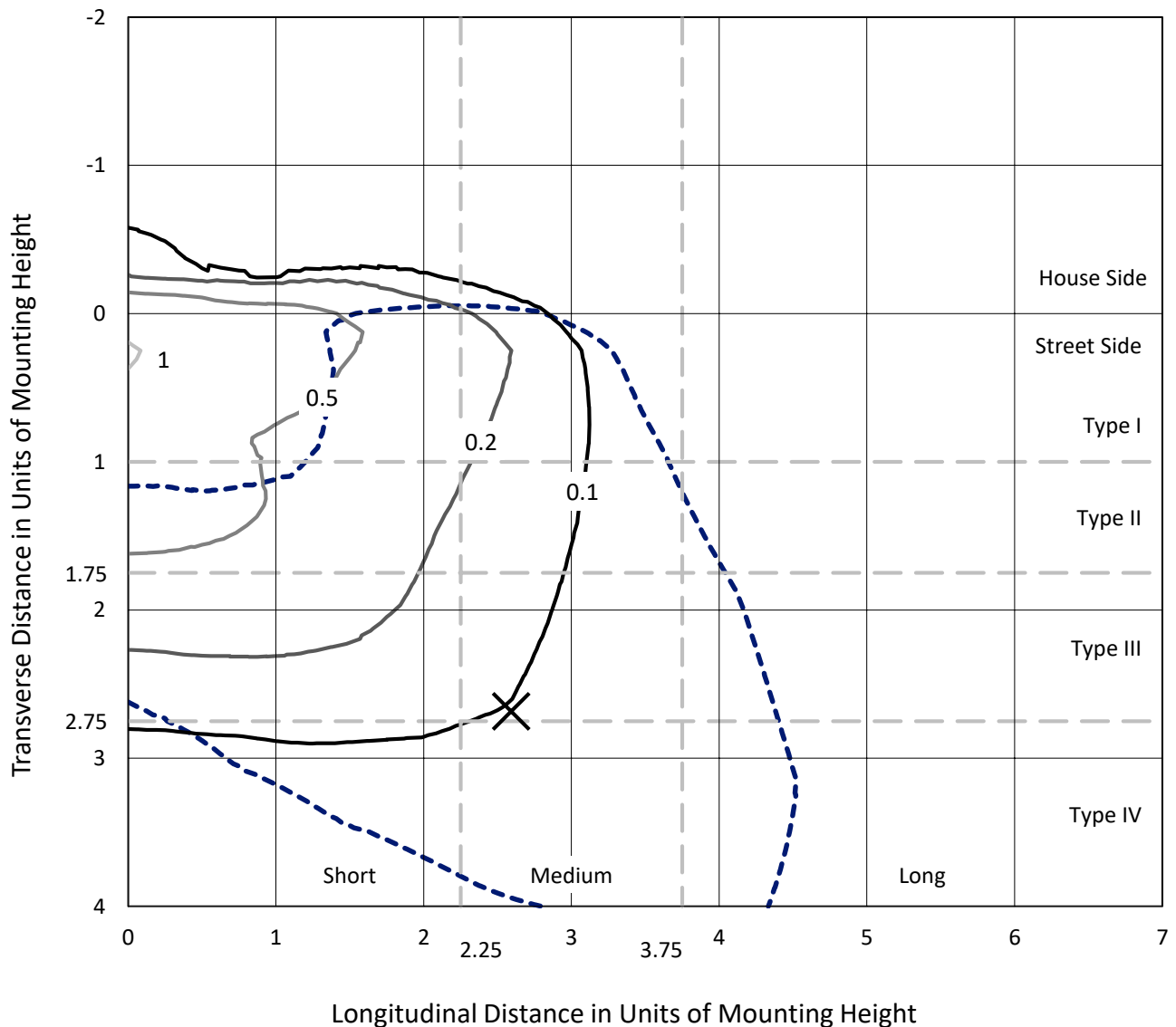


REPORT NUMBER: P397884

CATALOG NUMBER: ARCH-S-PA1-50-830-U-T4W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

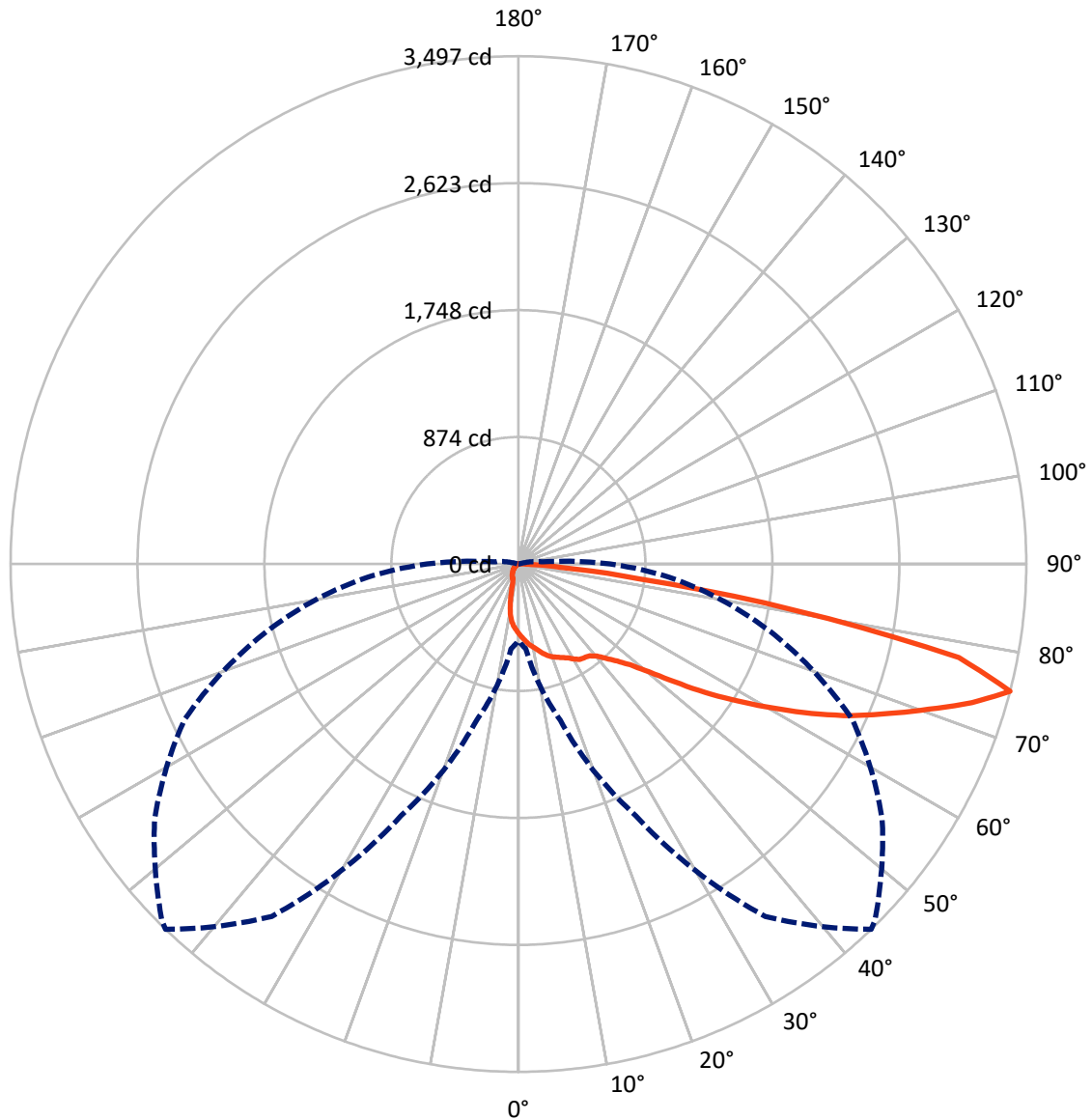


Based on 25 foot mounting height. Maximum calculated value = 1 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P397884

CATALOG NUMBER: ARCH-S-PA1-50-830-U-T4W-HSS

### Luminous Intensity Polar Plot



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



REPORT NUMBER: P397884

CATALOG NUMBER: ARCH-S-PA1-50-830-U-T4W-HSS

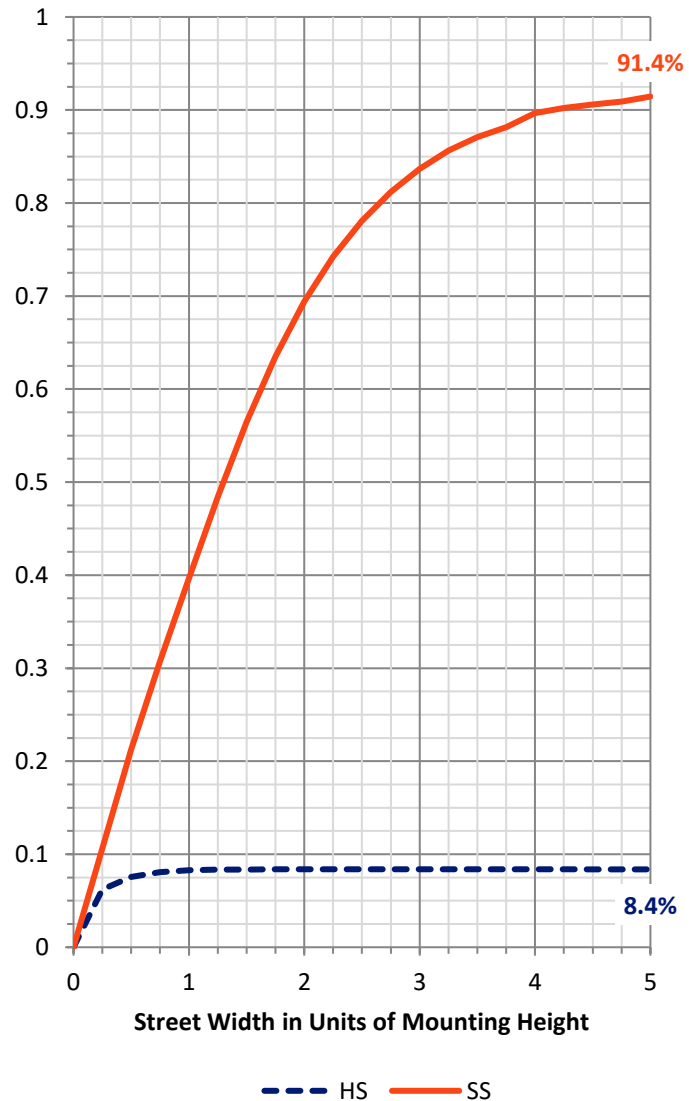
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	371.4	0.0	371.4
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	4032.6	0.0	4032.6
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	4404.0	0.0	4404.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.2	1.0
10°-20°	126.7	2.9
20°-30°	209.1	4.7
30°-40°	303.4	6.9
40°-50°	493.2	11.2
50°-60°	869.5	19.7
60°-70°	1249.6	28.4
70°-80°	1000.7	22.7
80°-90°	106.6	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°	4404.0	100.0
0°-180°	4404.0	100.0



REPORT NUMBER: P397884

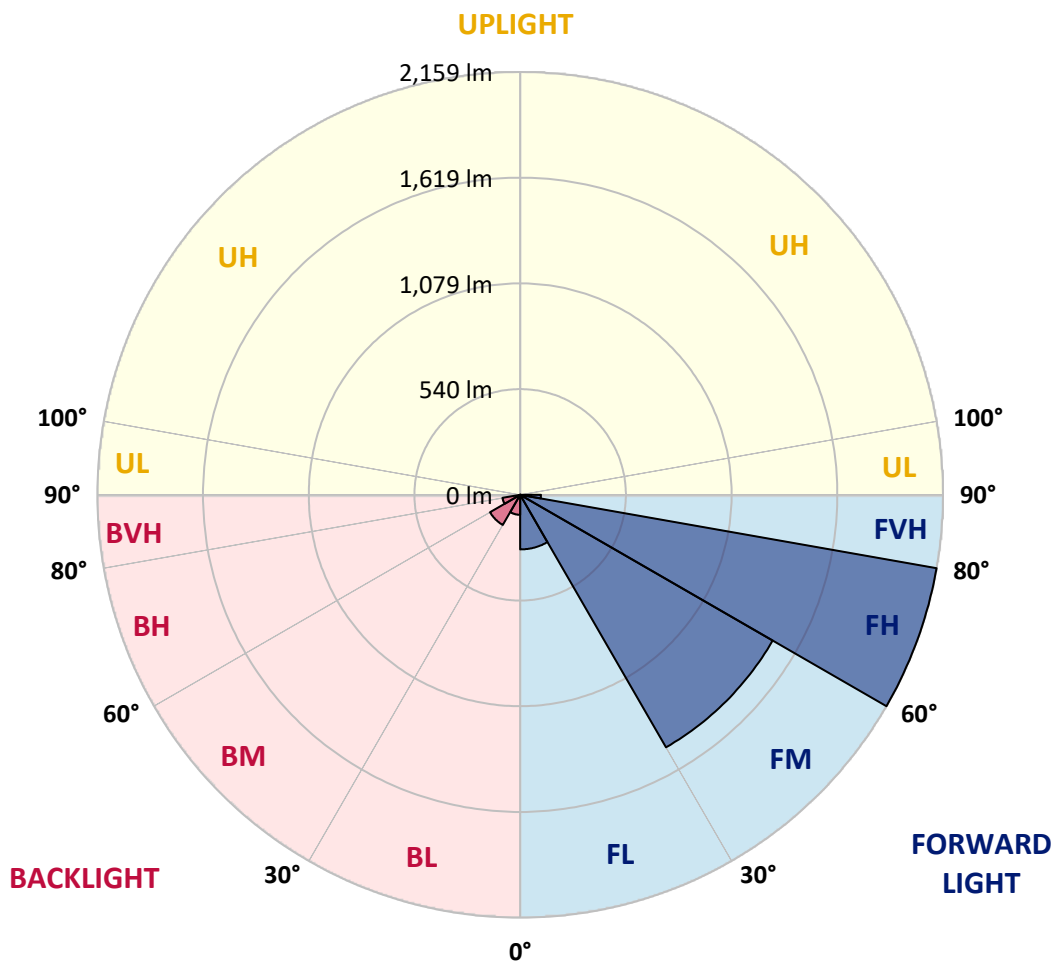
CATALOG NUMBER: ARCH-S-PA1-50-830-U-T4W-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	278.9	6.3			
FM	(30°-60°)	1488.6	33.8			
FH	(60°-80°)	2158.8	49.0			G2/5000
FVH	(80°-90°)	106.3	2.4			G2/225
BL	(0°-30°)	102.0	2.3	B0/110		
BM	(30°-60°)	177.5	4.0	B0/220		
BH	(60°-80°)	91.6	2.1	B0/110		G0/110
BVH	(80°-90°)	0.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G2**

Type IV Medium





REPORT NUMBER: P397884

CATALOG NUMBER: ARCH-S-PA1-50-830-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4
2.5°	522.4	521.6	519.2	515.1	511.0	507.0	506.2	499.7	492.4	486.7	481.8
5°	568.7	567.9	563.9	554.9	546.0	535.4	534.6	519.2	505.4	489.9	476.9
7.5°	616.7	615.0	607.7	593.9	578.5	562.2	560.6	537.9	517.5	497.2	478.5
10°	654.0	652.4	641.9	625.6	604.5	584.2	581.7	558.2	537.9	511.9	486.7
12.5°	690.6	687.4	673.5	655.7	629.7	610.2	607.7	583.4	559.0	532.2	501.3
15°	724.7	720.7	707.7	684.9	657.3	638.6	637.0	611.0	585.8	554.9	520.8
17.5°	748.3	746.7	731.2	706.0	679.2	663.8	662.2	635.4	610.2	577.7	541.1
20°	760.5	760.5	745.8	718.2	693.9	683.3	680.9	655.7	631.3	600.4	562.2
22.5°	762.9	765.3	754.0	723.9	706.0	697.1	695.5	673.5	650.0	621.5	585.8
25°	767.8	767.8	762.1	729.6	716.6	714.2	713.4	693.9	672.7	644.3	609.4
27.5°	773.5	773.5	769.4	737.7	732.9	732.0	731.2	722.3	705.2	671.9	637.0
30°	788.1	788.9	785.7	754.0	750.7	759.7	761.3	756.4	735.3	693.9	665.4
32.5°	824.7	817.3	808.4	765.3	771.0	782.4	783.2	773.5	750.7	717.4	699.5
35°	916.5	873.4	832.8	775.1	777.5	788.9	790.5	789.7	775.9	747.5	738.5
37.5°	1001.8	940.8	883.2	797.8	789.7	801.9	805.2	819.0	808.4	788.9	791.3
40°	1051.3	1027.8	987.2	860.4	814.1	832.8	836.0	857.2	853.1	845.0	860.4
42.5°	1204.1	1205.7	1161.8	953.8	858.8	888.8	892.9	910.0	915.7	919.7	957.1
45°	1381.2	1386.9	1376.3	1122.0	943.3	953.0	958.7	981.5	1002.6	1028.6	1096.8
47.5°	1594.1	1589.2	1550.2	1327.6	1090.3	1035.9	1040.0	1083.8	1120.4	1177.3	1274.8
50°	1782.6	1794.8	1720.8	1519.3	1297.5	1166.7	1162.6	1205.7	1271.5	1351.1	1473.8
52.5°	1972.7	1954.8	1854.9	1709.4	1542.9	1344.6	1332.5	1356.0	1448.6	1542.9	1668.8
55°	2023.1	2024.7	1990.6	1917.4	1747.6	1560.8	1540.4	1538.8	1654.2	1718.4	1873.6
57.5°	2122.2	2126.2	2134.4	2149.0	2068.6	1776.9	1755.8	1733.0	1845.1	1882.5	2079.1
60°	2222.9	2227.8	2277.4	2356.2	2302.5	2010.1	1987.3	1933.7	1996.2	2046.6	2295.2
62.5°	2209.9	2244.0	2387.9	2544.7	2538.2	2266.0	2237.5	2108.4	2148.2	2192.1	2493.5
65°	1995.4	2032.0	2355.4	2596.7	2774.6	2518.7	2472.4	2288.7	2291.2	2344.0	2684.4
67.5°	1803.7	1843.5	2152.2	2574.7	2930.6	2745.3	2697.4	2469.9	2431.7	2519.5	2786.8
70°	1693.2	1733.0	1990.6	2506.5	2974.5	2996.4	2955.0	2677.1	2599.1	2679.5	2672.2
72.5°	1325.1	1387.7	1784.2	2376.5	3021.6	3265.3	3232.8	2939.5	2741.3	2512.2	2034.4
75°	528.1	585.8	1113.9	1912.6	2962.3	3496.9	3471.7	3057.3	2537.4	1793.9	1041.6
77.5°	159.2	170.6	309.6	945.7	2171.7	3100.4	3092.3	2570.7	1795.6	832.8	284.4
80°	52.8	58.5	95.1	260.8	991.2	1936.9	1973.5	1637.9	815.7	190.9	57.7
82.5°	21.9	24.4	47.9	104.8	351.0	834.4	822.2	733.7	284.4	118.6	21.1
85°	5.7	7.3	21.9	60.1	128.4	287.6	302.2	246.2	160.9	98.3	6.5
87.5°	0.0	0.0	10.6	24.4	57.7	86.9	91.0	74.7	91.0	73.9	3.2
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: P397884

CATALOG NUMBER: ARCH-S-PA1-50-830-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4	479.4
2.5°	477.7	473.7	466.4	461.5	455.0	453.4	450.1	446.0	445.2	441.2	442.0
5°	469.6	463.1	450.1	441.2	430.6	427.4	421.7	417.6	414.4	408.7	409.5
7.5°	468.0	458.2	440.4	423.3	406.2	394.0	377.0	363.2	351.8	339.6	342.1
10°	473.7	461.5	436.3	412.7	381.9	342.9	298.2	268.9	254.3	239.7	241.3
12.5°	485.0	470.4	437.9	402.2	339.6	273.0	211.2	171.4	160.9	154.4	155.2
15°	502.1	484.2	442.8	381.9	282.7	197.4	140.6	123.5	127.6	130.0	130.0
17.5°	520.0	499.7	446.9	345.3	218.6	138.1	114.6	112.9	118.6	124.3	124.3
20°	541.9	515.9	447.7	299.0	157.6	112.1	108.1	108.1	112.1	118.6	118.6
22.5°	563.0	533.8	440.4	246.2	120.2	104.0	104.0	104.0	106.4	112.9	113.7
25°	588.2	555.7	424.9	190.1	103.2	99.1	99.1	99.9	101.6	107.2	108.1
27.5°	615.0	578.5	398.9	138.9	94.2	93.4	94.2	95.1	95.9	101.6	103.2
30°	645.9	603.7	365.6	104.0	86.1	86.1	88.6	90.2	90.2	95.1	96.7
32.5°	681.7	637.0	325.8	86.1	78.0	77.2	81.2	83.7	83.7	87.7	89.4
35°	726.4	671.1	277.9	76.4	71.5	69.9	71.5	75.6	77.2	80.4	81.2
37.5°	785.7	711.7	226.7	70.7	66.6	63.4	63.4	64.2	67.4	70.7	71.5
40°	861.2	756.4	176.3	66.6	61.7	58.5	56.1	55.2	54.4	56.9	58.5
42.5°	956.3	806.8	131.6	62.6	57.7	52.8	49.6	46.3	42.2	41.4	42.2
45°	1078.2	868.5	97.5	59.3	55.2	47.9	42.2	36.6	29.2	26.8	27.6
47.5°	1222.0	932.7	76.4	56.1	53.6	42.2	34.9	25.2	17.9	16.2	17.1
50°	1374.7	994.5	65.0	52.0	50.4	36.6	25.2	15.4	10.6	10.6	11.4
52.5°	1504.7	1029.4	59.3	48.7	45.5	30.1	16.2	8.9	6.5	6.5	7.3
55°	1630.6	1048.1	55.2	45.5	39.0	21.1	8.9	5.7	4.1	4.1	4.1
57.5°	1760.6	1056.2	50.4	41.4	30.9	13.0	4.9	3.2	2.4	2.4	2.4
60°	1876.0	1040.8	43.1	34.1	20.3	6.5	2.4	2.4	1.6	0.8	0.8
62.5°	1972.7	1011.5	30.1	24.4	12.2	3.2	1.6	0.8	0.0	0.0	0.0
65°	2032.0	964.4	19.5	16.2	7.3	2.4	0.8	0.0	0.0	0.0	0.0
67.5°	2014.9	875.8	12.2	10.6	3.2	1.6	0.8	0.0	0.0	0.0	0.0
70°	1818.3	718.2	8.9	6.5	2.4	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1310.5	485.9	6.5	4.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	630.5	173.1	4.1	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	154.4	38.2	2.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	34.1	7.3	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.4	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	0.8	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)