

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: P234762

Luminaire Tested: **ARCH-AF24-70-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234762  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-70-D-U-T4W-8027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 930mA 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: 4638 lumens  
Efficiency: N/A  
Efficacy: 62.7 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): 74  
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

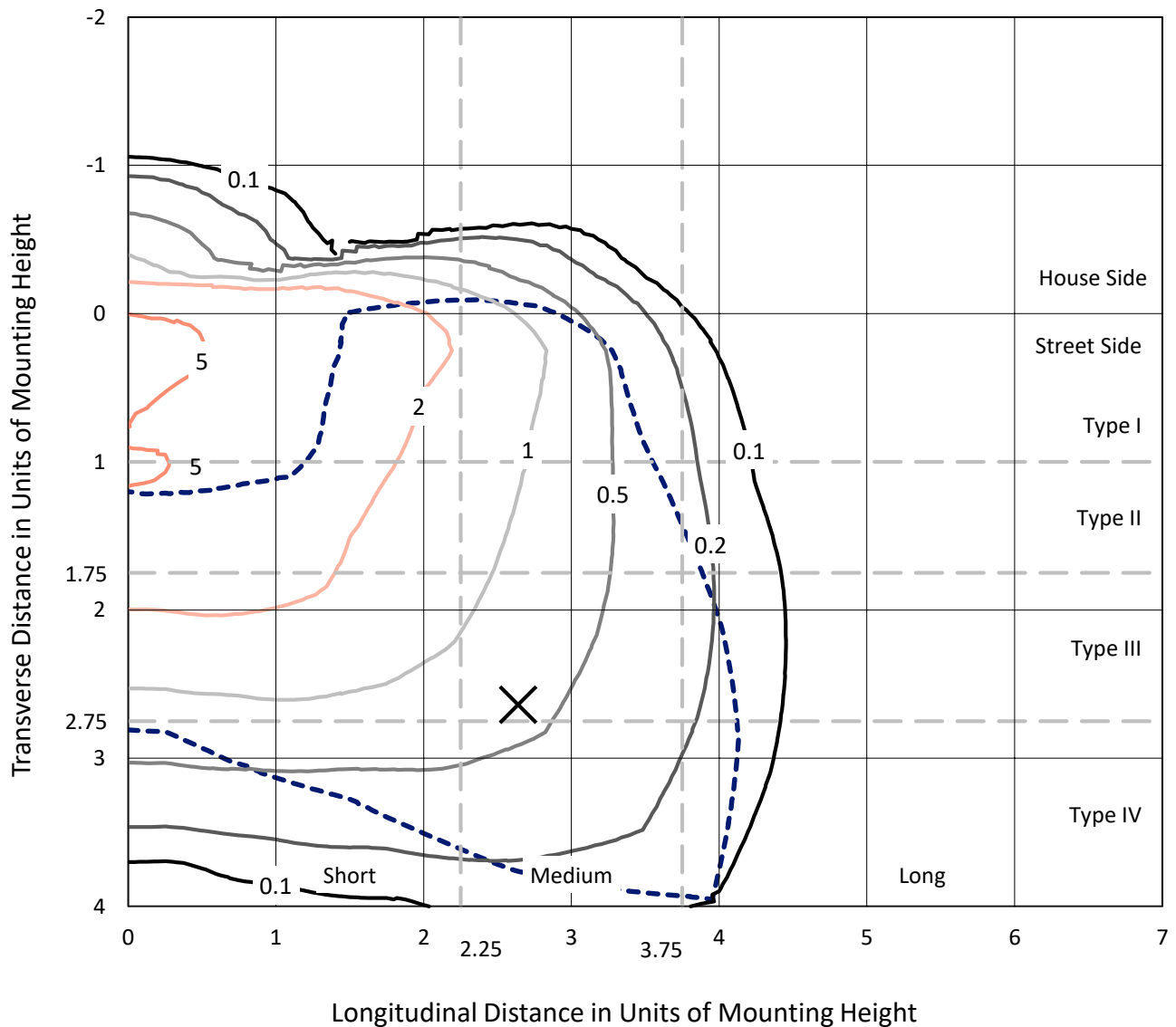


REPORT NUMBER: P234762

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

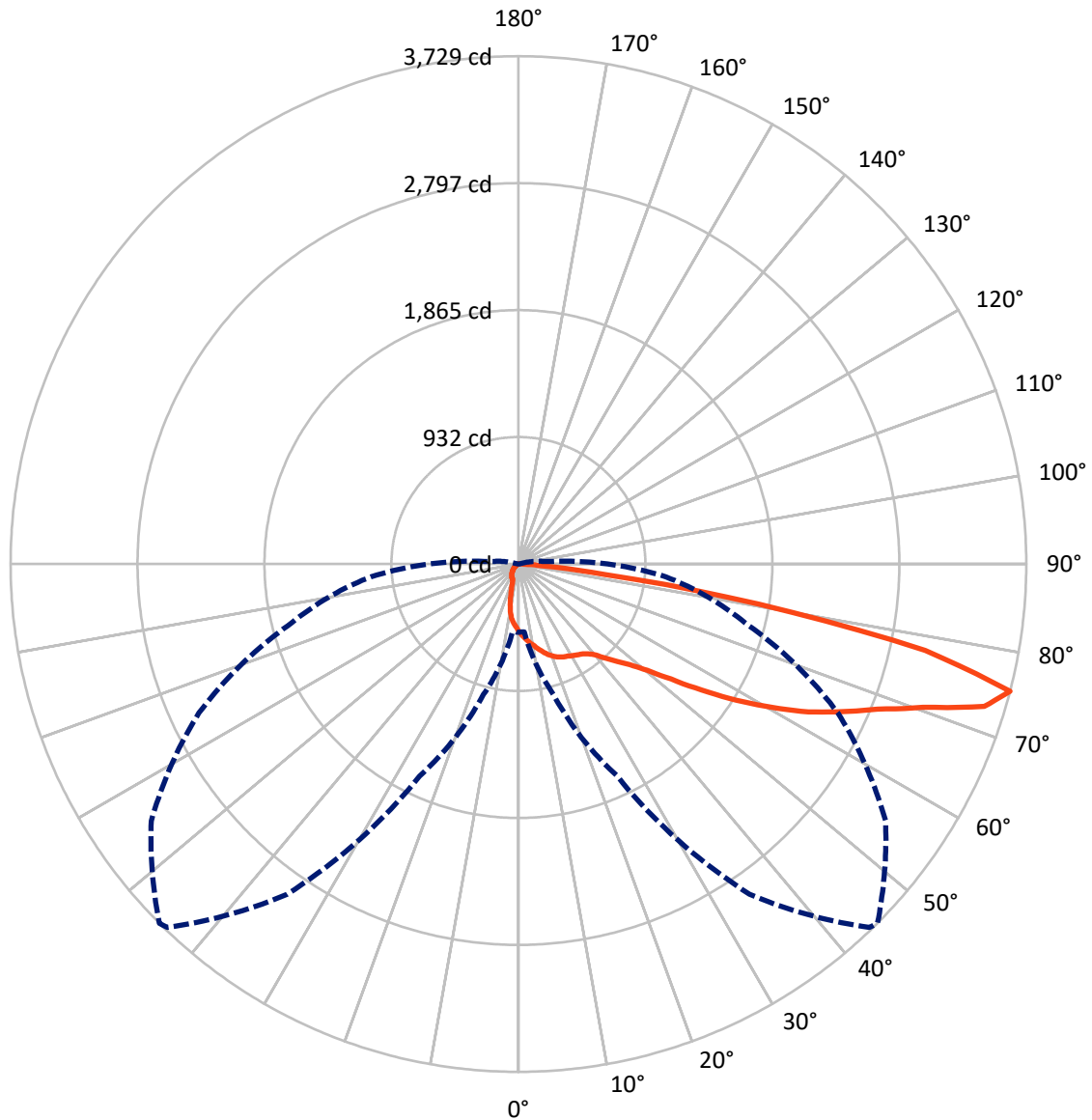


Based on 10 foot mounting height. Maximum calculated value = 6.6 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234762

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P234762

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027-HSS

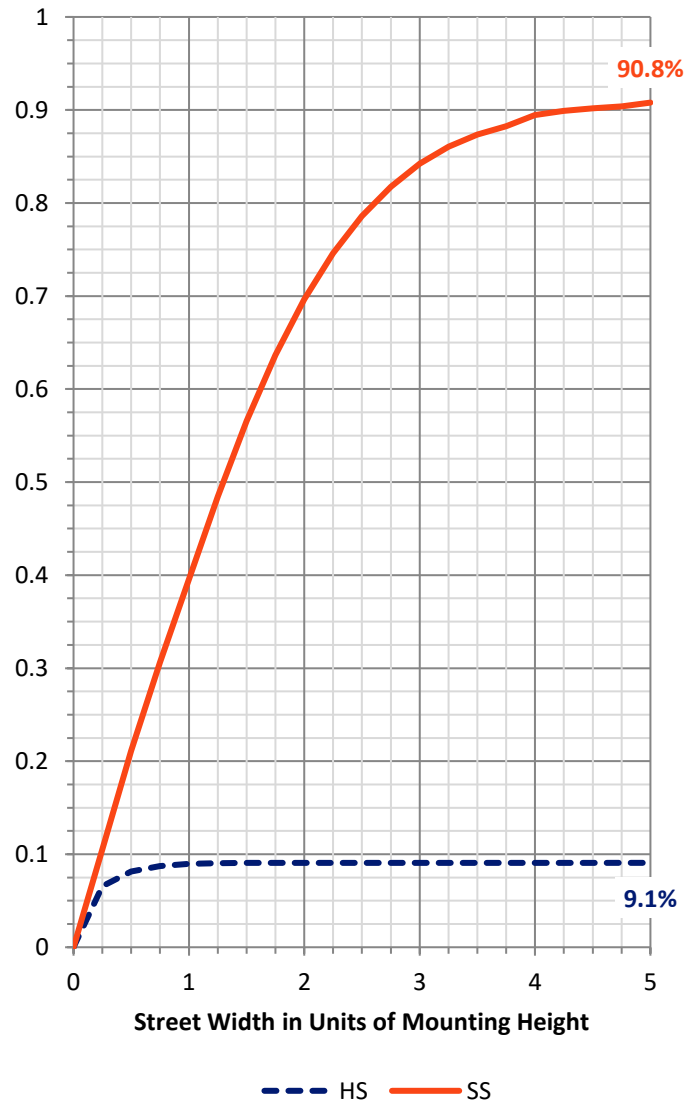
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	424.2	0.0	424.2
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	4213.8	0.0	4213.8
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	4638.0	0.0	4638.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.8	1.0
10°-20°	132.6	2.9
20°-30°	219.7	4.7
30°-40°	317.9	6.9
40°-50°	520.5	11.2
50°-60°	927.5	20.0
60°-70°	1363.5	29.4
70°-80°	1028.7	22.2
80°-90°	80.7	1.7
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°	4638.0	100.0
0°-180°	4638.0	100.0



REPORT NUMBER: P234762

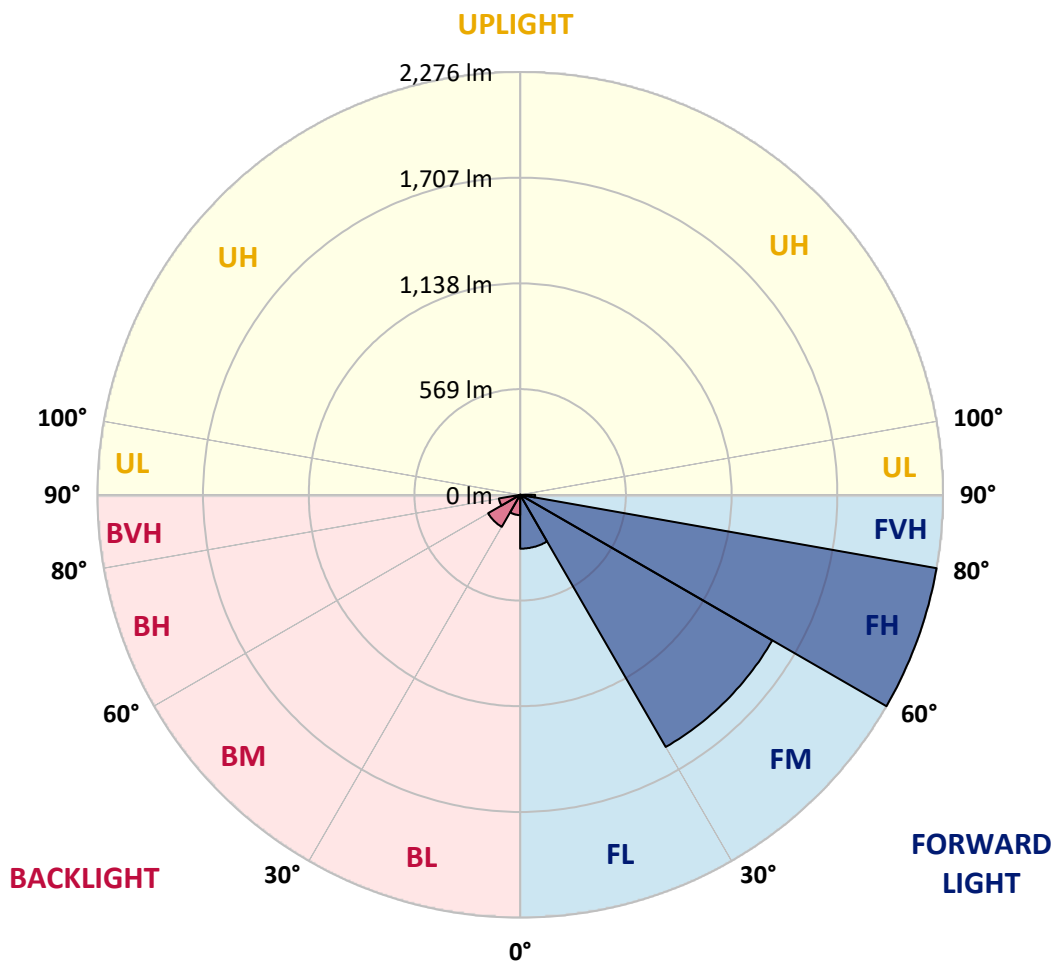
CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	290.1	6.3			
FM	(30°-60°)	1567.2	33.8			
FH	(60°-80°)	2276.0	49.1			G2/5000
FVH	(80°-90°)	80.5	1.7			G1/100
BL	(0°-30°)	109.0	2.4	B0/110		
BM	(30°-60°)	198.8	4.3	B0/220		
BH	(60°-80°)	116.2	2.5	B1/500		G1/500
BVH	(80°-90°)	0.2	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: P234762

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	496.1	496.1	496.1	496.1	496.1	496.1	496.1	496.1	496.1	496.1	496.1
2.5°	538.9	538.9	537.8	536.7	531.2	525.7	524.6	521.3	511.4	504.8	498.3
5°	583.9	585.0	582.8	577.3	565.2	553.1	552.0	543.3	524.6	511.4	497.2
7.5°	626.7	628.9	623.4	613.5	599.2	581.7	580.6	564.1	540.0	521.3	500.4
10°	662.9	662.9	655.2	643.1	627.8	609.1	606.9	588.2	560.8	537.8	510.3
12.5°	702.4	701.3	690.3	673.9	656.3	638.7	637.6	614.6	588.2	558.6	524.6
15°	738.6	736.4	722.1	706.8	688.1	669.5	668.4	645.3	617.9	582.8	545.4
17.5°	758.4	757.3	744.1	728.7	713.4	699.1	698.0	673.9	644.2	608.0	566.3
20°	761.6	762.7	751.8	738.6	729.8	722.1	722.1	700.2	668.4	630.0	588.2
22.5°	762.7	766.0	758.4	740.8	738.6	739.7	741.9	724.3	691.4	655.2	611.3
25°	770.4	774.8	769.3	748.5	746.3	754.0	756.2	748.5	718.8	682.6	637.6
27.5°	785.8	790.2	785.8	759.5	756.2	763.8	766.0	770.4	748.5	709.0	665.1
30°	816.5	817.6	807.7	774.8	768.2	778.1	781.4	793.5	775.9	734.2	691.4
32.5°	870.3	859.3	829.7	785.8	780.3	791.3	794.6	807.7	801.2	758.4	718.8
35°	980.0	923.0	854.9	801.2	795.7	806.6	811.0	829.7	833.0	792.4	752.9
37.5°	978.9	927.4	914.2	830.8	823.1	830.8	836.3	859.3	872.5	837.4	802.3
40°	1048.1	1026.1	1026.1	886.8	861.5	872.5	878.0	901.0	924.1	896.6	860.4
42.5°	1265.4	1251.1	1235.8	994.3	915.3	946.0	949.3	963.6	991.0	982.2	939.4
45°	1507.9	1494.8	1435.5	1176.5	1007.5	1013.0	1020.7	1043.7	1083.2	1099.7	1049.2
47.5°	1697.8	1684.6	1634.1	1396.0	1151.3	1103.0	1103.0	1148.0	1209.4	1251.1	1202.8
50°	1850.3	1835.0	1804.3	1629.8	1387.2	1232.5	1225.9	1278.6	1369.7	1434.4	1401.5
52.5°	1998.5	1953.5	1934.9	1871.2	1653.9	1420.1	1402.6	1439.9	1566.1	1646.2	1618.8
55°	2097.3	2090.7	2070.9	2092.9	1933.8	1648.4	1633.0	1640.7	1798.8	1852.5	1818.5
57.5°	2189.5	2188.4	2232.3	2334.3	2238.9	1909.6	1885.5	1873.4	2023.7	2010.6	2040.2
60°	2303.6	2283.8	2385.9	2531.9	2518.7	2164.2	2136.8	2112.6	2196.0	2158.7	2305.8
62.5°	2309.1	2303.6	2511.0	2720.6	2796.4	2423.2	2391.4	2304.7	2346.4	2303.6	2559.3
65°	2099.5	2126.9	2563.7	2820.5	3029.0	2650.4	2612.0	2477.0	2480.3	2451.8	2857.8
67.5°	2052.3	2066.5	2418.8	2928.1	3196.9	2879.8	2843.6	2675.6	2636.1	2638.3	3034.5
70°	1934.9	1956.8	2238.9	2920.4	3329.7	3186.0	3149.8	2967.6	2872.1	2765.6	2898.4
72.5°	1478.3	1515.6	1886.6	2560.4	3293.5	3586.6	3576.7	3337.4	2966.5	2539.6	2192.8
75°	500.4	499.4	991.0	1719.7	2958.8	3709.5	3729.2	3291.3	2587.8	1751.6	1088.7
77.5°	107.6	108.7	204.1	696.9	1965.6	2978.6	3054.3	2482.5	1669.3	780.3	249.1
80°	52.7	53.8	84.5	184.4	785.8	1670.4	1788.9	1276.4	616.8	155.8	41.7
82.5°	26.3	27.4	43.9	97.7	290.8	593.7	634.3	469.7	176.7	87.8	20.9
85°	9.9	9.9	21.9	58.2	132.8	139.4	171.2	136.1	106.5	71.3	5.5
87.5°	2.2	2.2	12.1	28.5	59.3	43.9	43.9	41.7	64.8	48.3	2.2
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: P234762

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	496.1	496.1	496.1	496.1	496.1	496.1	496.1	496.1	496.1	496.1	496.1
2.5°	495.0	490.6	482.9	475.2	469.7	463.1	459.8	456.6	455.5	454.4	456.6
5°	489.5	482.9	468.6	456.6	445.6	436.8	430.2	423.6	420.3	418.1	419.2
7.5°	489.5	479.6	458.7	440.1	422.5	403.9	385.2	370.9	360.0	353.4	354.5
10°	495.0	481.8	454.4	429.1	396.2	356.7	316.1	285.3	264.5	252.4	252.4
12.5°	507.0	489.5	455.5	415.9	360.0	290.8	229.4	192.1	176.7	167.9	169.0
15°	523.5	502.6	460.9	398.4	309.5	216.2	160.2	136.1	136.1	138.3	139.4
17.5°	542.2	519.1	465.3	372.0	244.7	154.7	126.2	124.0	127.3	132.8	132.8
20°	560.8	535.6	467.5	330.3	183.3	122.9	119.6	119.6	121.8	127.3	128.4
22.5°	583.9	556.4	465.3	278.8	137.2	116.3	115.2	115.2	115.2	121.8	121.8
25°	608.0	580.6	456.6	223.9	116.3	111.9	110.8	109.7	109.7	115.2	116.3
27.5°	635.4	605.8	435.7	171.2	109.7	107.6	106.5	104.3	104.3	108.7	108.7
30°	662.9	634.3	403.9	129.5	104.3	103.2	101.0	98.8	96.6	101.0	101.0
32.5°	692.5	664.0	362.2	103.2	96.6	96.6	95.5	92.2	90.0	92.2	93.3
35°	732.0	698.0	315.0	90.0	86.7	86.7	86.7	85.6	81.2	83.4	83.4
37.5°	784.7	745.2	260.1	83.4	79.0	76.8	76.8	76.8	73.5	74.6	74.6
40°	851.6	800.1	207.4	77.9	73.5	68.0	65.8	66.9	64.8	64.8	63.7
42.5°	942.7	859.3	155.8	73.5	69.1	61.5	57.1	56.0	53.8	52.7	52.7
45°	1073.3	931.8	111.9	69.1	65.8	53.8	49.4	46.1	40.6	37.3	37.3
47.5°	1242.3	1014.1	83.4	64.8	62.6	47.2	41.7	35.1	27.4	25.2	25.2
50°	1448.7	1106.3	70.2	58.2	57.1	41.7	32.9	23.0	15.4	13.2	14.3
52.5°	1649.5	1193.0	62.6	51.6	50.5	36.2	24.1	12.1	6.6	6.6	6.6
55°	1818.5	1254.4	57.1	46.1	43.9	28.5	13.2	5.5	3.3	3.3	3.3
57.5°	1971.1	1289.5	51.6	40.6	35.1	19.8	5.5	2.2	2.2	1.1	1.1
60°	2110.4	1310.4	45.0	35.1	27.4	11.0	2.2	1.1	1.1	0.0	0.0
62.5°	2247.6	1325.8	38.4	28.5	20.9	4.4	1.1	1.1	0.0	0.0	0.0
65°	2351.9	1320.3	30.7	23.0	13.2	2.2	1.1	0.0	0.0	0.0	0.0
67.5°	2348.6	1245.6	23.0	17.6	6.6	1.1	0.0	0.0	0.0	0.0	0.0
70°	2100.6	1049.2	15.4	11.0	2.2	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1490.4	672.8	9.9	6.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	656.3	204.1	5.5	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	128.4	47.2	3.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	30.7	5.5	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	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)