

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: P234846

Luminaire Tested: **ARCH-M-AF48-60-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234846
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-M-AF48-60-D-U-T4W-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 405mA LIGHT ENGINES 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: 5034 lumens
Efficiency: N/A
Efficacy: 79.9 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 63
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

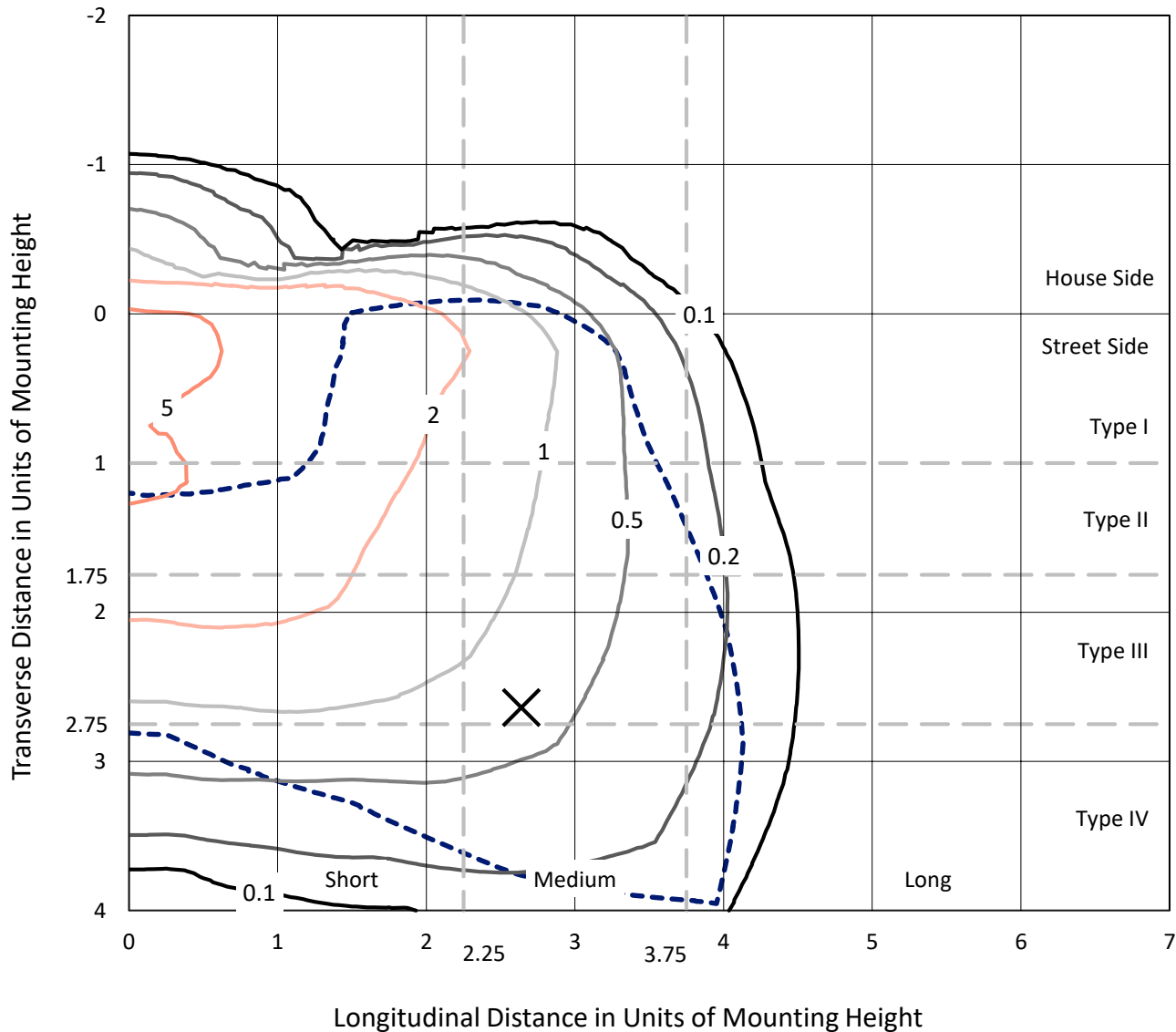


REPORT NUMBER: P234846

CATALOG NUMBER: ARCH-M-AF48-60-D-U-T4W-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

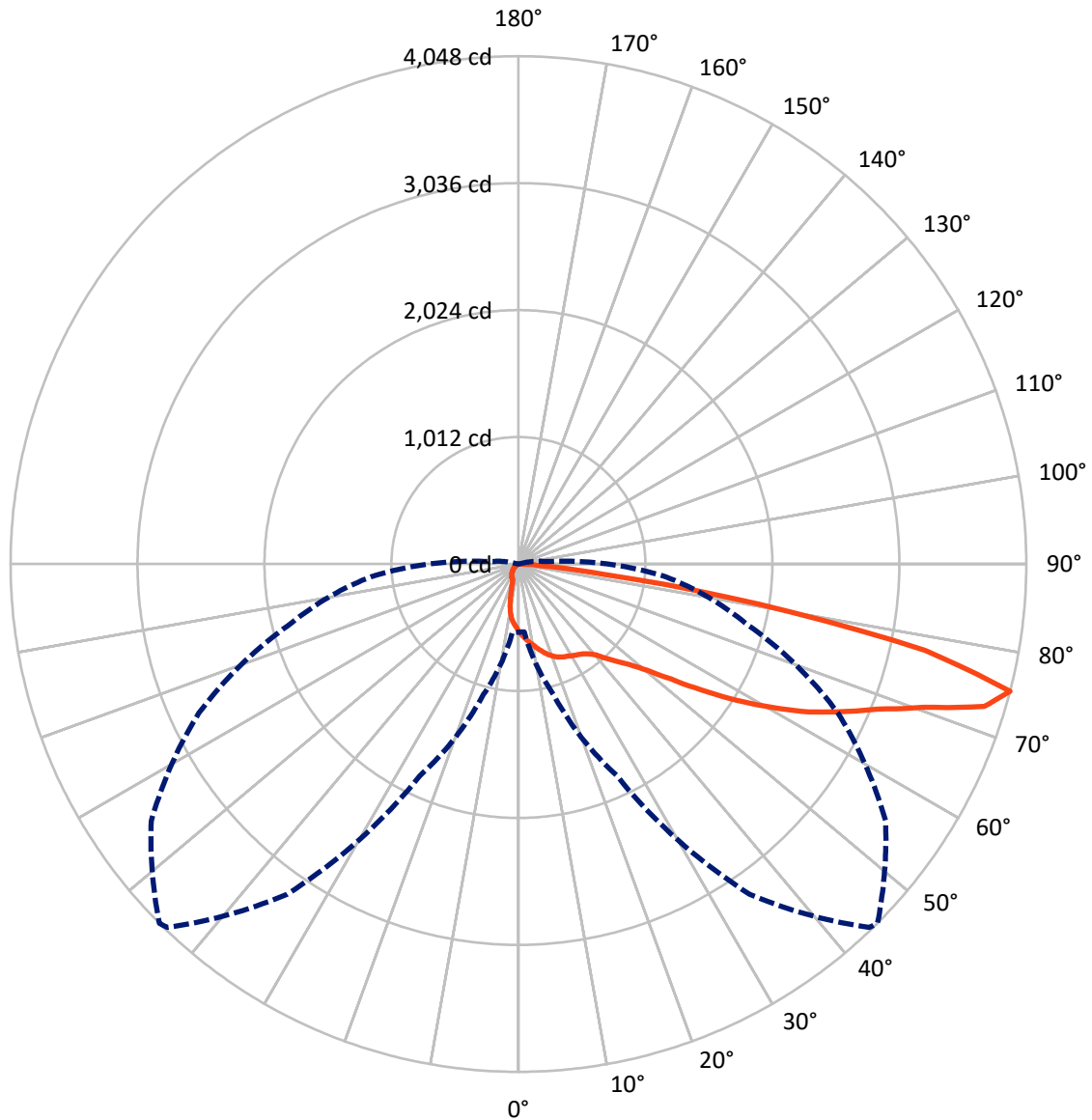


Based on 10 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234846

CATALOG NUMBER: ARCH-M-AF48-60-D-U-T4W-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234846

CATALOG NUMBER: ARCH-M-AF48-60-D-U-T4W-8027-HSS

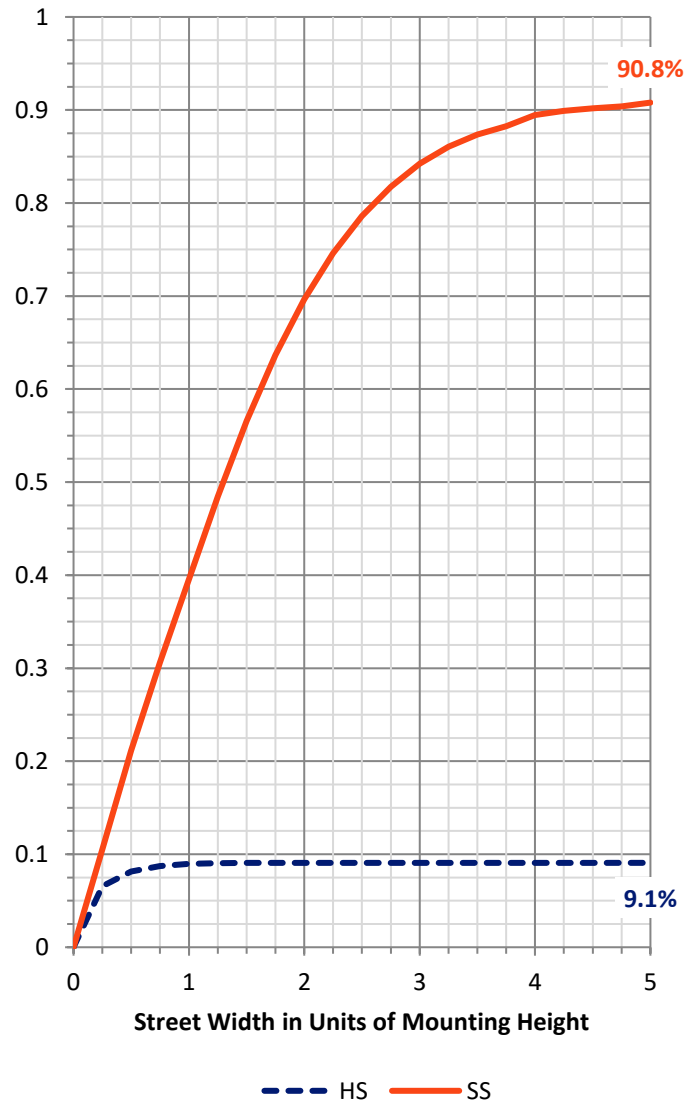
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	460.5	0.0	460.5
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	4573.5	0.0	4573.5
	% Fixture	90.9	0.0	90.9
Total	Lumens	5034.0	0.0	5034.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	1.0
10°-20°	144.0	2.9
20°-30°	238.4	4.7
30°-40°	345.0	6.9
40°-50°	565.0	11.2
50°-60°	1006.7	20.0
60°-70°	1480.0	29.4
70°-80°	1116.5	22.2
80°-90°	87.6	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°	5034.0	100.0
0°-180°	5034.0	100.0



REPORT NUMBER: P234846

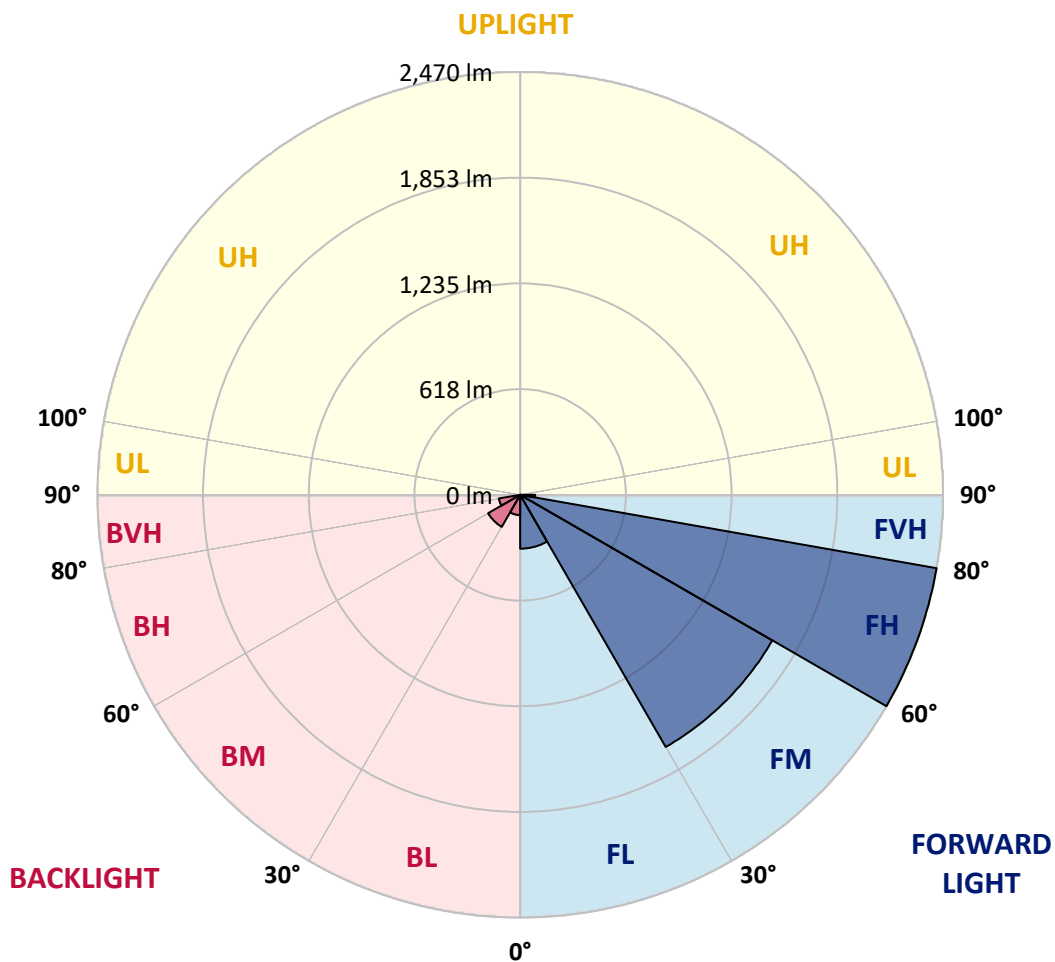
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	314.9	6.3			
FM	(30°-60°)	1701.0	33.8			
FH	(60°-80°)	2470.4	49.1			G2/5000
FVH	(80°-90°)	87.3	1.7			G1/100
BL	(0°-30°)	118.3	2.4	B1/500		
BM	(30°-60°)	215.8	4.3	B0/220		
BH	(60°-80°)	126.1	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: P234846

CATALOG NUMBER: ARCH-M-AF48-60-D-U-T4W-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4
2.5°	584.9	584.9	583.7	582.5	576.5	570.6	569.4	565.8	555.1	547.9	540.8
5°	633.7	634.9	632.5	626.6	613.5	600.4	599.2	589.6	569.4	555.1	539.6
7.5°	680.2	682.5	676.6	665.9	650.4	631.3	630.1	612.3	586.1	565.8	543.2
10°	719.5	719.5	711.1	698.0	681.4	661.1	658.7	638.5	608.7	583.7	553.9
12.5°	762.4	761.2	749.3	731.4	712.3	693.3	692.1	667.1	638.5	606.3	569.4
15°	801.7	799.3	783.8	767.1	746.9	726.6	725.4	700.4	670.6	632.5	592.0
17.5°	823.1	821.9	807.6	790.9	774.3	758.8	757.6	731.4	699.2	659.9	614.6
20°	826.7	827.9	816.0	801.7	792.1	783.8	783.8	760.0	725.4	683.7	638.5
22.5°	827.9	831.4	823.1	804.0	801.7	802.9	805.2	786.2	750.4	711.1	663.5
25°	836.2	841.0	835.0	812.4	810.0	818.3	820.7	812.4	780.2	740.9	692.1
27.5°	852.9	857.6	852.9	824.3	820.7	829.1	831.4	836.2	812.4	769.5	721.9
30°	886.2	887.4	876.7	841.0	833.8	844.5	848.1	861.2	842.2	796.9	750.4
32.5°	944.6	932.7	900.5	852.9	846.9	858.8	862.4	876.7	869.6	823.1	780.2
35°	1063.7	1001.8	927.9	869.6	863.6	875.5	880.3	900.5	904.1	860.0	817.1
37.5°	1062.5	1006.5	992.3	901.7	893.4	901.7	907.7	932.7	947.0	908.9	870.8
40°	1137.6	1113.8	1113.8	962.5	935.1	947.0	952.9	978.0	1003.0	973.2	933.9
42.5°	1373.4	1357.9	1341.3	1079.2	993.4	1026.8	1030.4	1045.9	1075.6	1066.1	1019.7
45°	1636.7	1622.4	1558.1	1276.9	1093.5	1099.5	1107.8	1132.8	1175.7	1193.6	1138.8
47.5°	1842.8	1828.5	1773.7	1515.2	1249.5	1197.1	1197.1	1246.0	1312.7	1357.9	1305.5
50°	2008.3	1991.7	1958.3	1768.9	1505.7	1337.7	1330.5	1387.7	1486.6	1556.9	1521.1
52.5°	2169.1	2120.3	2100.1	2031.0	1795.1	1541.4	1522.3	1562.8	1699.8	1786.8	1757.0
55°	2276.3	2269.2	2247.8	2271.6	2098.9	1789.2	1772.5	1780.8	1952.3	2010.7	1973.8
57.5°	2376.4	2375.2	2422.9	2533.6	2430.0	2072.7	2046.4	2033.3	2196.5	2182.2	2214.4
60°	2500.3	2478.8	2589.6	2748.1	2733.8	2349.0	2319.2	2293.0	2383.6	2343.1	2502.7
62.5°	2506.2	2500.3	2725.4	2952.9	3035.1	2630.1	2595.6	2501.5	2546.7	2500.3	2777.8
65°	2278.7	2308.5	2782.6	3061.3	3287.7	2876.7	2835.0	2688.5	2692.1	2661.1	3101.8
67.5°	2227.5	2243.0	2625.4	3178.1	3469.9	3125.7	3086.3	2904.1	2861.2	2863.6	3293.6
70°	2100.1	2123.9	2430.0	3169.7	3614.0	3458.0	3418.7	3221.0	3117.3	3001.8	3145.9
72.5°	1604.5	1645.0	2047.6	2779.0	3574.7	3892.8	3882.1	3622.4	3219.8	2756.4	2380.0
75°	543.2	542.0	1075.6	1866.6	3211.4	4026.2	4047.6	3572.4	2808.8	1901.1	1181.7
77.5°	116.7	117.9	221.6	756.4	2133.4	3232.9	3315.1	2694.5	1811.8	846.9	270.4
80°	57.2	58.4	91.7	200.1	852.9	1813.0	1941.6	1385.3	669.4	169.1	45.3
82.5°	28.6	29.8	47.6	106.0	315.7	644.4	688.5	509.8	191.8	95.3	22.6
85°	10.7	10.7	23.8	63.1	144.1	151.3	185.8	147.7	115.5	77.4	6.0
87.5°	2.4	2.4	13.1	31.0	64.3	47.6	47.6	45.3	70.3	52.4	2.4
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: P234846

CATALOG NUMBER: ARCH-M-AF48-60-D-U-T4W-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4
2.5°	537.2	532.5	524.1	515.8	509.8	502.7	499.1	495.5	494.3	493.1	495.5
5°	531.3	524.1	508.6	495.5	483.6	474.1	466.9	459.8	456.2	453.8	455.0
7.5°	531.3	520.5	497.9	477.7	458.6	438.4	418.1	402.6	390.7	383.6	384.8
10°	537.2	522.9	493.1	465.8	430.0	387.1	343.1	309.7	287.1	274.0	274.0
12.5°	550.3	531.3	494.3	451.5	390.7	315.7	249.0	208.5	191.8	182.3	183.4
15°	568.2	545.6	500.3	432.4	335.9	234.7	173.9	147.7	147.7	150.1	151.3
17.5°	588.4	563.4	505.1	403.8	265.6	168.0	137.0	134.6	138.2	144.1	144.1
20°	608.7	581.3	507.4	358.5	198.9	133.4	129.8	129.8	132.2	138.2	139.4
22.5°	633.7	603.9	505.1	302.6	148.9	126.3	125.1	125.1	125.1	132.2	132.2
25°	659.9	630.1	495.5	243.0	126.3	121.5	120.3	119.1	119.1	125.1	126.3
27.5°	689.7	657.5	472.9	185.8	119.1	116.7	115.5	113.2	113.2	117.9	117.9
30°	719.5	688.5	438.4	140.6	113.2	112.0	109.6	107.2	104.8	109.6	109.6
32.5°	751.6	720.7	393.1	112.0	104.8	104.8	103.6	100.1	97.7	100.1	101.3
35°	794.5	757.6	341.9	97.7	94.1	94.1	94.1	92.9	88.1	90.5	90.5
37.5°	851.7	808.8	282.3	90.5	85.8	83.4	83.4	83.4	79.8	81.0	81.0
40°	924.4	868.4	225.1	84.6	79.8	73.9	71.5	72.7	70.3	70.3	69.1
42.5°	1023.2	932.7	169.1	79.8	75.0	66.7	61.9	60.8	58.4	57.2	57.2
45°	1165.0	1011.3	121.5	75.0	71.5	58.4	53.6	50.0	44.1	40.5	40.5
47.5°	1348.4	1100.7	90.5	70.3	67.9	51.2	45.3	38.1	29.8	27.4	27.4
50°	1572.4	1200.7	76.2	63.1	61.9	45.3	35.7	25.0	16.7	14.3	15.5
52.5°	1790.3	1294.8	67.9	56.0	54.8	39.3	26.2	13.1	7.1	7.1	7.1
55°	1973.8	1361.5	61.9	50.0	47.6	31.0	14.3	6.0	3.6	3.6	3.6
57.5°	2139.4	1399.6	56.0	44.1	38.1	21.4	6.0	2.4	2.4	1.2	1.2
60°	2290.6	1422.3	48.8	38.1	29.8	11.9	2.4	1.2	1.2	0.0	0.0
62.5°	2439.5	1438.9	41.7	31.0	22.6	4.8	1.2	1.2	0.0	0.0	0.0
65°	2552.7	1433.0	33.4	25.0	14.3	2.4	1.2	0.0	0.0	0.0	0.0
67.5°	2549.1	1352.0	25.0	19.1	7.1	1.2	0.0	0.0	0.0	0.0	0.0
70°	2279.9	1138.8	16.7	11.9	2.4	1.2	0.0	0.0	0.0	0.0	0.0
72.5°	1617.6	730.2	10.7	7.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	712.3	221.6	6.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	139.4	51.2	3.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	33.4	6.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.3	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	1.2	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)