

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: P257846

Luminaire Tested: **ARCH-M-AF48-40-D-U-T2U-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257846
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-40-D-U-T2U-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 240mA LIGHT ENGINES 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: 3864.7 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

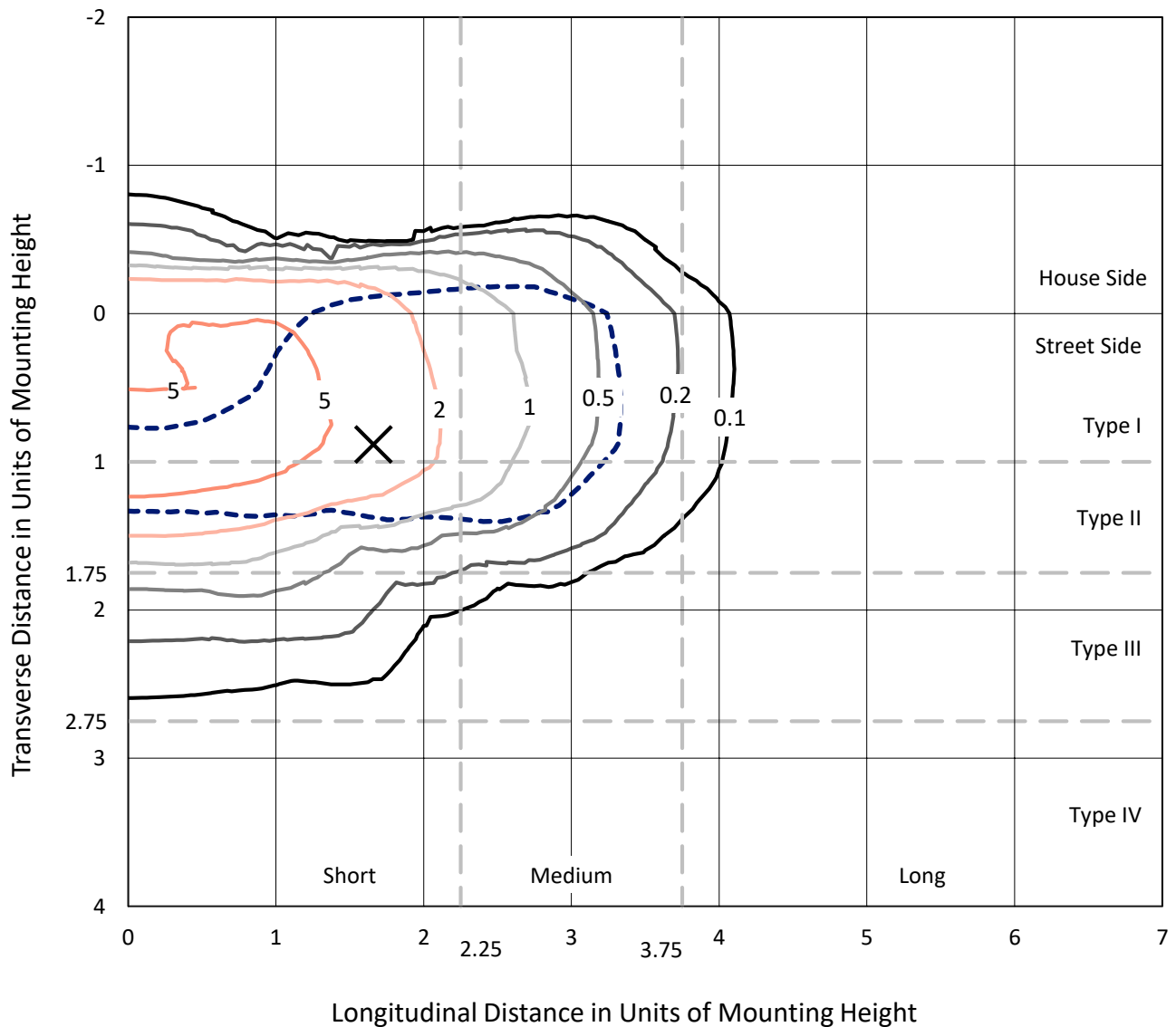
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

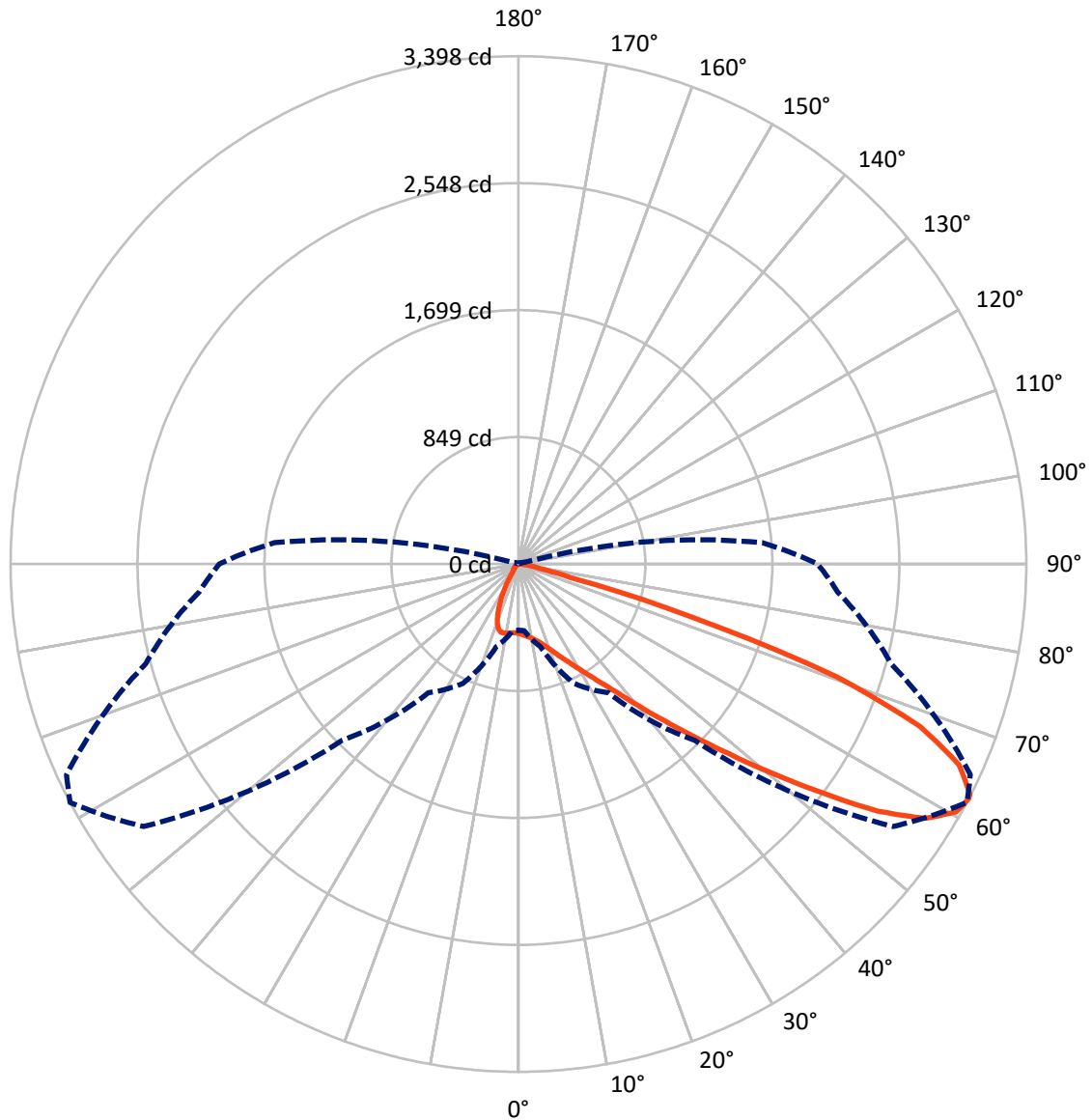
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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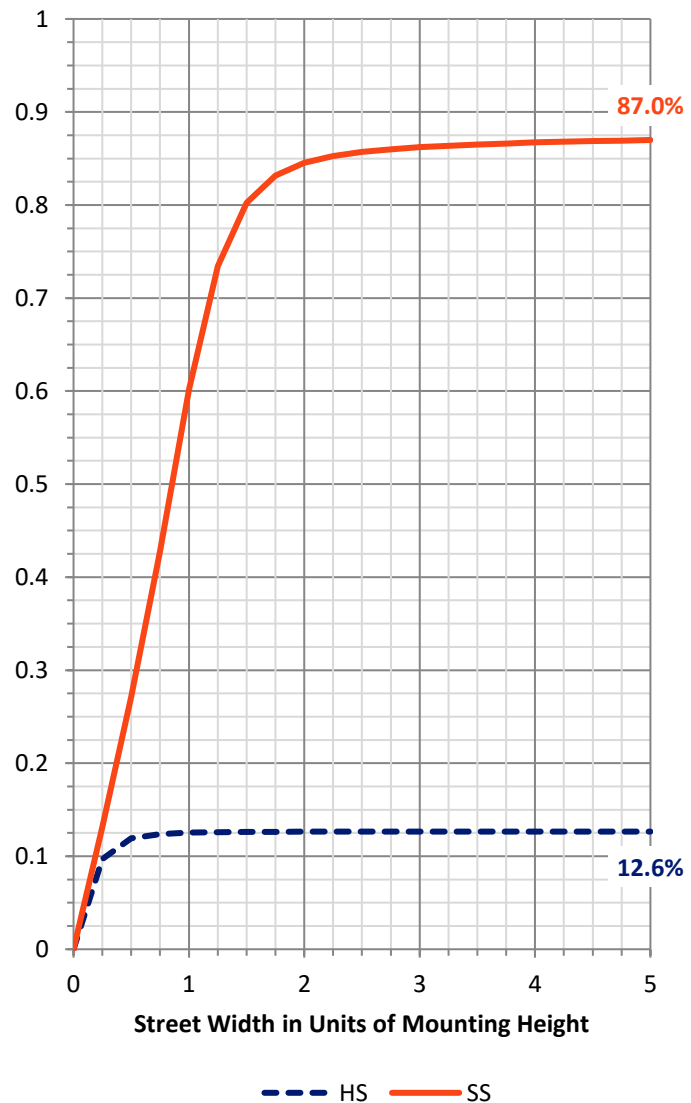
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	494.1	0.0	494.1
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	3370.6	0.0	3370.6
	% Fixture	87.2	0.0	87.2
Total	Lumens	3864.7	0.0	3864.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.8	1.2
10°-20°	125.1	3.2
20°-30°	210.1	5.4
30°-40°	402.8	10.4
40°-50°	822.7	21.3
50°-60°	1088.7	28.2
60°-70°	845.7	21.9
70°-80°	305.3	7.9
80°-90°	19.5	0.5
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°	3864.7	100.0
0°-180°	3864.7	100.0



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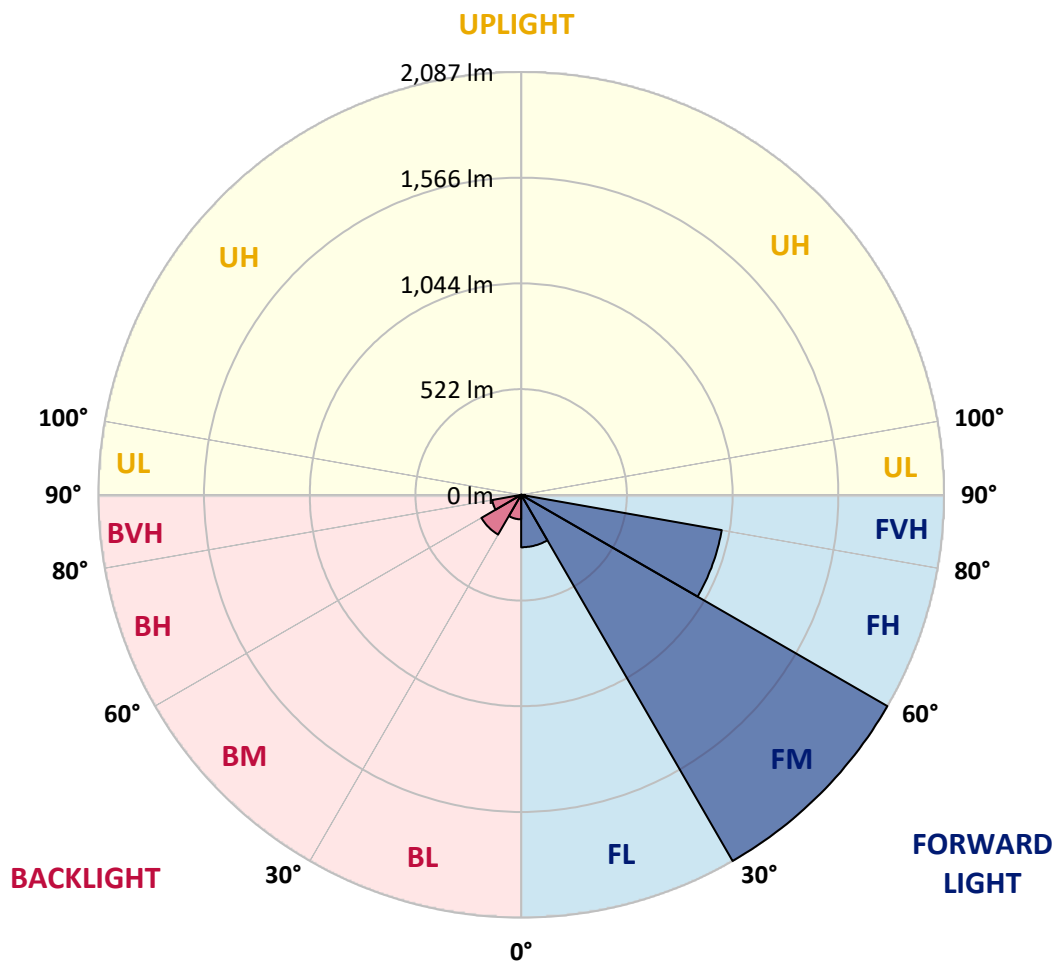
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	259.1	6.7			
FM (30°-60°)	2087.3	54.0			
FH (60°-80°)	1005.5	26.0			G1/1800
FVH (80°-90°)	18.6	0.5			G1/100
BL (0°-30°)	120.9	3.1	B1/500		
BM (30°-60°)	226.9	5.9	B1/1000		
BH (60°-80°)	145.5	3.8	B1/500		G1/500
BVH (80°-90°)	0.8	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°	62°	65°	75°	85°
0°	465.5	465.5	465.5	465.5	465.5	465.5	465.5	465.5	465.5	465.5	465.5
2.5°	477.9	477.0	476.0	475.1	475.1	474.1	473.1	471.3	469.3	467.5	466.5
5°	486.4	485.5	484.6	485.5	484.6	484.6	483.7	481.7	479.8	477.0	474.1
7.5°	493.1	492.1	491.2	492.1	493.1	494.1	495.0	493.1	492.1	488.4	485.5
10°	501.7	500.7	499.7	501.7	501.7	506.4	507.4	506.4	505.4	502.6	497.9
12.5°	514.0	515.0	515.0	516.9	518.7	524.5	526.4	523.5	523.5	519.8	514.0
15°	536.8	536.8	536.8	538.7	539.7	547.3	549.1	546.4	548.2	541.6	535.8
17.5°	558.6	559.7	561.5	565.3	565.3	571.9	575.7	575.7	579.6	571.0	563.4
20°	580.5	581.4	584.3	592.9	592.9	601.4	608.0	610.9	614.7	606.2	592.9
22.5°	604.3	604.3	609.1	622.4	619.5	636.6	649.0	653.7	657.5	646.1	625.1
25°	640.4	636.6	640.4	652.7	650.8	674.5	697.3	702.2	706.9	693.6	662.3
27.5°	708.8	703.1	689.8	690.7	690.7	718.3	750.5	757.2	760.1	748.7	709.7
30°	845.6	845.6	796.2	762.9	741.1	765.8	811.4	822.8	826.6	809.5	758.2
32.5°	1084.1	1084.1	992.9	908.3	825.6	825.6	877.9	898.8	902.7	882.7	822.8
35°	1388.1	1386.2	1249.4	1133.5	972.0	911.1	955.8	990.9	1002.4	975.8	906.4
37.5°	1711.2	1698.8	1551.5	1418.5	1197.2	1048.0	1061.3	1107.9	1118.3	1096.4	1014.8
40°	1973.4	1959.2	1840.4	1729.2	1487.9	1266.5	1213.3	1256.1	1268.4	1238.0	1144.0
42.5°	2210.9	2175.7	2094.1	2014.2	1822.3	1644.6	1415.7	1432.7	1446.0	1413.7	1289.3
45°	2382.9	2328.7	2286.9	2262.3	2160.6	2059.8	1677.9	1643.7	1648.5	1608.5	1448.0
47.5°	2387.7	2349.6	2353.4	2418.1	2459.8	2456.0	2019.0	1897.4	1879.4	1812.8	1617.1
50°	2159.7	2181.4	2250.8	2435.1	2661.3	2798.1	2424.7	2197.6	2143.5	2023.7	1785.3
52.5°	1779.5	1813.8	1943.9	2254.6	2690.7	3023.2	2845.5	2540.6	2443.7	2232.8	1914.5
55°	1393.8	1395.7	1532.5	1848.9	2494.1	3064.1	3181.9	2917.8	2769.5	2391.5	2000.0
57.5°	958.7	1010.9	1184.8	1397.7	2050.3	2860.8	3308.3	3210.4	3019.4	2489.2	2059.8
60°	628.0	630.9	833.3	1079.3	1395.7	2327.7	3231.3	3365.3	3221.8	2547.2	2100.7
62°	442.7	447.5	573.0	881.7	1051.8	1668.4	3061.3	3397.6	3335.8	2581.4	2143.5
62.5°	410.4	414.3	519.8	832.3	988.1	1496.5	3000.4	3390.0	3352.9	2592.9	2158.6
65°	301.2	301.2	340.1	571.9	723.9	808.5	2542.5	3239.0	3330.1	2684.0	2215.6
67.5°	232.8	234.7	248.0	352.5	546.4	490.3	1622.8	2898.8	3092.6	2818.9	2247.9
70°	200.5	199.5	209.0	233.7	394.2	325.9	714.5	2262.3	2590.0	2784.8	2218.5
72.5°	148.2	149.1	171.0	205.2	274.6	211.9	323.0	1200.9	1679.8	2179.6	1901.2
75°	95.0	96.0	120.7	161.5	197.6	138.7	186.2	358.2	687.8	1208.5	1162.9
77.5°	63.6	65.6	78.9	113.0	172.9	86.4	116.8	150.1	207.1	453.2	417.1
80°	42.8	42.8	50.3	76.0	109.3	72.2	62.7	99.7	107.4	140.7	70.3
82.5°	28.5	28.5	33.2	50.3	71.3	64.7	38.1	54.1	62.7	70.3	24.7
85°	17.1	17.1	22.8	31.4	46.5	36.1	24.7	30.4	32.3	44.7	13.3
87.5°	10.4	9.5	15.2	21.9	24.7	21.9	16.2	16.2	17.1	24.7	6.6
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°	465.5	465.5	465.5	465.5	465.5	465.5	465.5	465.5	465.5	465.5	465.5
2.5°	464.6	463.7	462.7	460.8	458.0	456.0	454.2	452.2	450.3	450.3	453.2
5°	473.1	470.4	466.5	462.7	457.1	453.2	450.3	446.5	444.7	444.7	445.6
7.5°	483.7	480.8	474.1	467.5	458.9	452.2	445.6	437.0	430.4	427.6	430.4
10°	495.0	491.2	481.7	471.3	461.8	444.7	422.8	396.2	373.4	362.9	367.6
12.5°	509.2	504.5	493.1	478.8	457.1	415.2	361.0	299.3	260.3	242.2	246.1
15°	530.2	523.5	507.4	485.5	437.0	346.8	258.4	187.2	151.1	135.8	137.8
17.5°	554.8	546.4	524.5	483.7	385.8	249.9	154.0	109.3	94.1	90.2	90.2
20°	581.4	570.1	541.6	469.3	307.8	156.8	96.0	83.6	77.9	75.1	75.1
22.5°	609.1	593.8	555.8	436.1	219.5	97.9	78.9	70.3	63.6	60.8	60.8
25°	642.3	622.4	570.1	378.2	139.6	78.9	67.4	58.9	52.3	48.5	49.4
27.5°	681.2	655.6	582.5	306.0	90.2	68.4	56.1	47.5	41.8	39.9	39.9
30°	722.1	691.7	585.2	228.9	73.1	58.9	46.5	39.0	35.2	33.2	33.2
32.5°	778.2	738.3	576.7	152.0	61.8	49.4	39.0	32.3	29.5	28.5	28.5
35°	852.2	799.0	556.8	94.1	52.3	40.8	32.3	28.5	25.7	24.7	24.7
37.5°	946.3	883.6	521.6	64.7	44.7	33.2	27.5	24.7	22.8	21.9	21.9
40°	1071.7	986.2	476.0	56.1	38.1	28.5	23.7	21.9	19.9	19.9	19.9
42.5°	1204.7	1110.7	417.1	49.4	32.3	24.7	20.9	19.0	18.0	17.1	17.1
45°	1350.1	1238.0	343.9	43.7	27.5	21.9	19.0	16.2	15.2	15.2	15.2
47.5°	1494.5	1369.1	264.1	38.1	23.7	19.0	16.2	14.2	13.3	12.4	12.4
50°	1642.8	1487.9	193.8	33.2	20.9	17.1	14.2	12.4	10.4	9.5	9.5
52.5°	1750.1	1559.2	141.6	28.5	18.0	14.2	11.4	9.5	7.6	6.6	6.6
55°	1828.9	1602.9	103.5	23.7	16.2	12.4	9.5	7.6	5.7	5.7	4.7
57.5°	1890.7	1623.7	77.9	20.9	14.2	10.4	7.6	5.7	4.7	3.8	3.8
60°	1938.2	1624.7	58.0	17.1	12.4	8.6	5.7	3.8	2.9	2.9	2.9
62°	2000.9	1637.0	47.5	14.2	11.4	7.6	4.7	2.9	1.9	0.9	0.9
62.5°	2019.0	1641.8	45.6	14.2	10.4	6.6	3.8	2.9	1.9	0.9	0.9
65°	2102.6	1650.3	35.2	11.4	8.6	5.7	2.9	1.9	0.0	0.0	0.0
67.5°	2178.6	1637.0	25.7	8.6	6.6	3.8	2.9	0.9	0.0	0.0	0.0
70°	2171.0	1545.8	18.0	5.7	4.7	2.9	1.9	0.0	0.0	0.0	0.0
72.5°	1789.0	1157.3	12.4	4.7	2.9	1.9	0.9	0.0	0.0	0.0	0.0
75°	1080.2	506.4	8.6	2.9	2.9	1.9	0.9	0.0	0.0	0.0	0.0
77.5°	354.4	183.4	5.7	1.9	1.9	0.9	0.9	0.0	0.0	0.0	0.0
80°	58.0	30.4	2.9	1.9	1.9	0.9	0.9	0.0	0.0	0.0	0.0
82.5°	18.0	7.6	1.9	1.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
85°	6.6	2.9	1.9	1.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	1.9	1.9	1.9	0.9	0.9	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)