

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: P214936

Luminaire Tested: **ARCH-AF16-60-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214936
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-AF16-60-D-U-T4W-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4851.9 lumens
Efficiency: N/A
Efficacy: 77.0 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

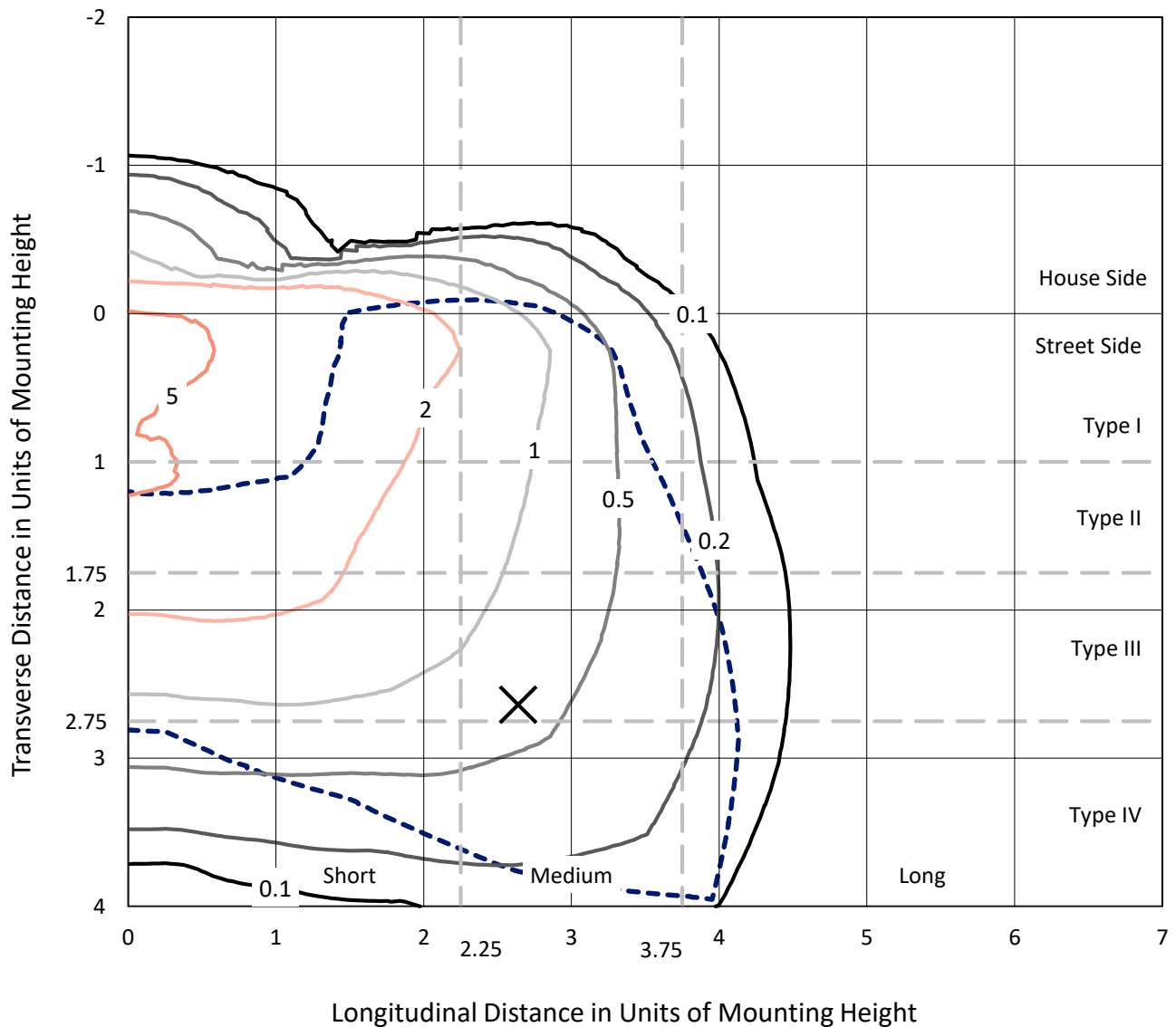
Input Watts (W): 63
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

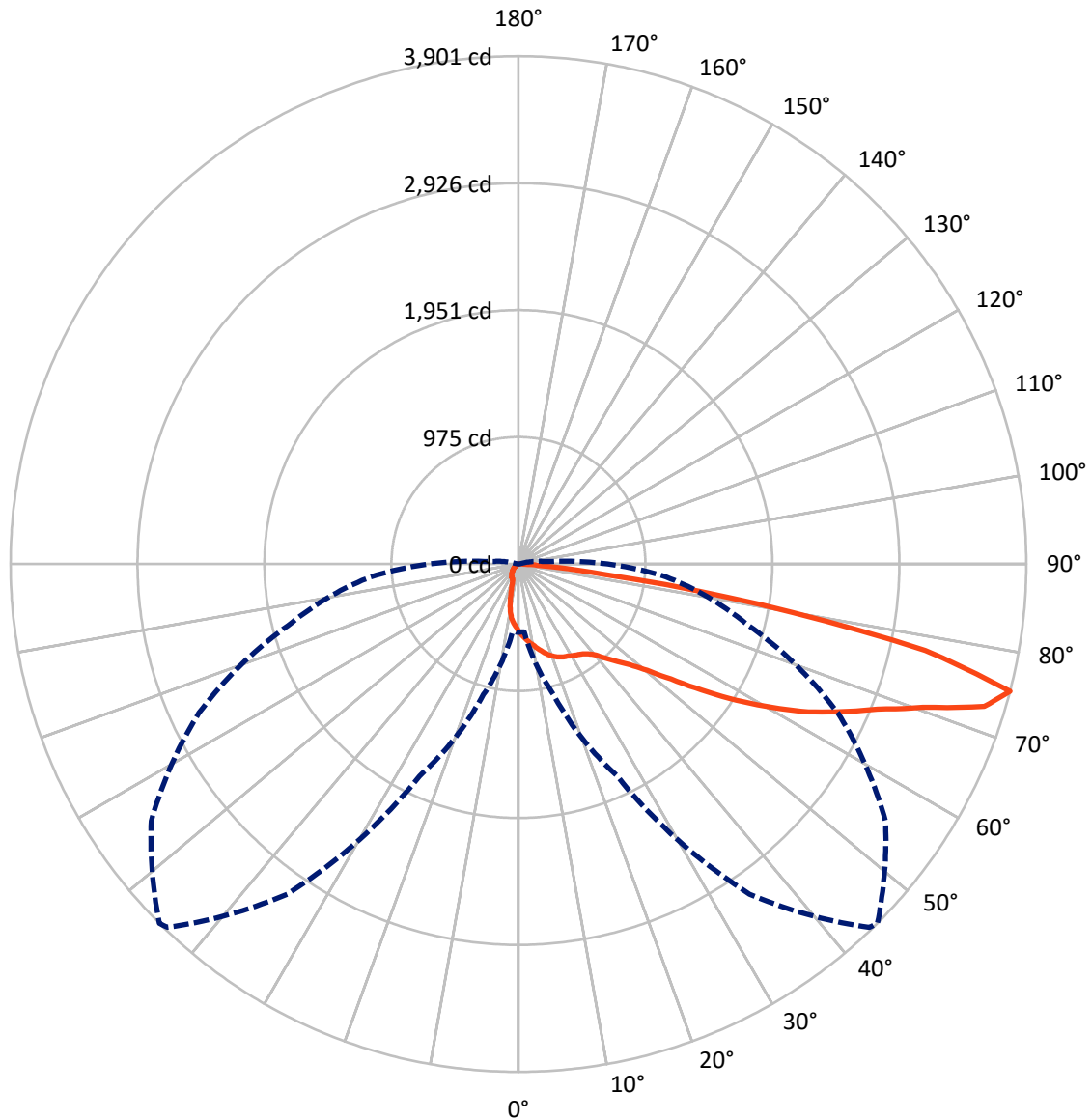
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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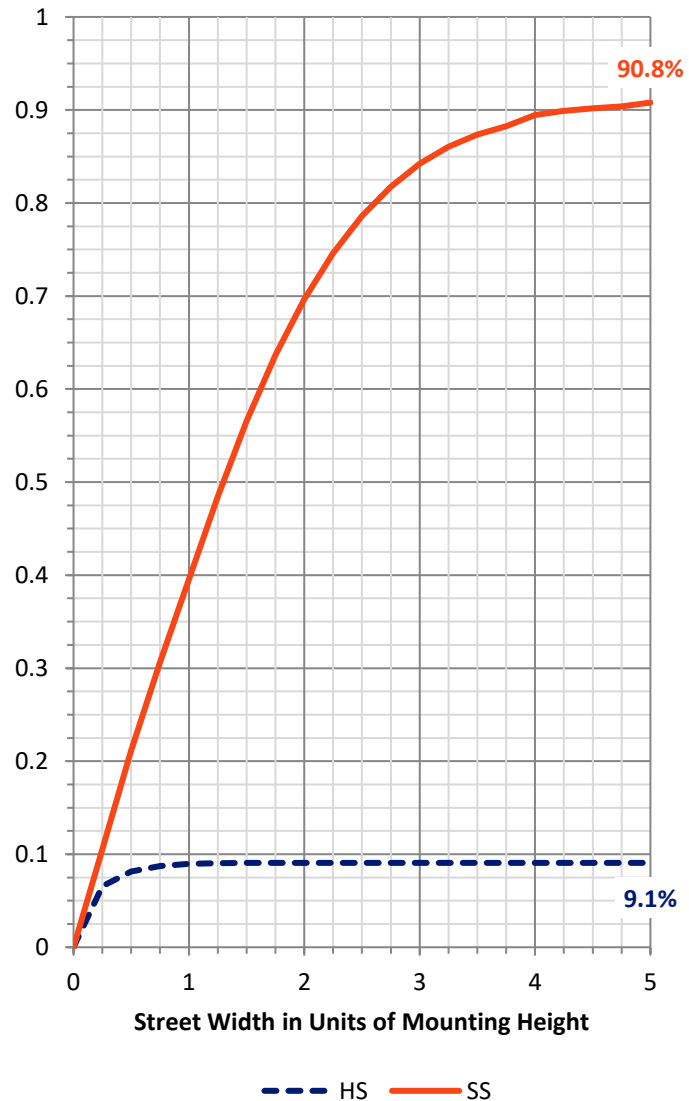
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	443.8	0.0	443.8
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	4408.1	0.0	4408.1
	% Fixture	90.9	0.0	90.9
Total	Lumens	4851.9	0.0	4851.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.0	1.0
10°-20°	138.8	2.9
20°-30°	229.8	4.7
30°-40°	332.6	6.9
40°-50°	544.5	11.2
50°-60°	970.3	20.0
60°-70°	1426.4	29.4
70°-80°	1076.1	22.2
80°-90°	84.4	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°	4851.9	100.0
0°-180°	4851.9	100.0



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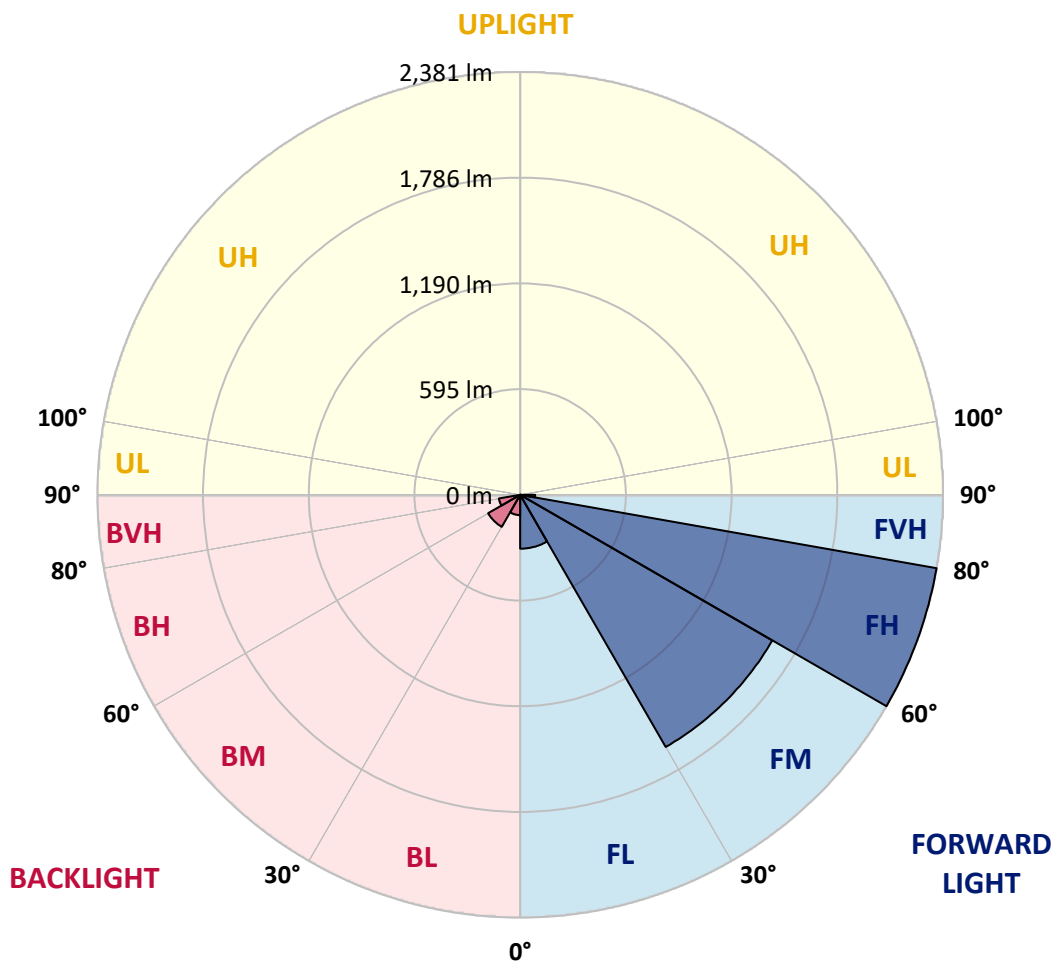
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	303.5	6.3			
FM	(30°-60°)	1639.4	33.8			
FH	(60°-80°)	2381.0	49.1			G2/5000
FVH	(80°-90°)	84.2	1.7			G1/100
BL	(0°-30°)	114.0	2.4	B1/500		
BM	(30°-60°)	208.0	4.3	B0/220		
BH	(60°-80°)	121.6	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	518.9	518.9	518.9	518.9	518.9	518.9	518.9	518.9	518.9	518.9	518.9
2.5°	563.7	563.7	562.5	561.4	555.7	549.9	548.8	545.3	535.0	528.1	521.2
5°	610.8	611.9	609.7	603.8	591.3	578.7	577.5	568.2	548.8	535.0	520.1
7.5°	655.5	657.9	652.1	641.8	626.9	608.5	607.3	590.1	564.9	545.3	523.5
10°	693.5	693.5	685.4	672.8	656.7	637.2	634.8	615.4	586.7	562.5	533.9
12.5°	734.8	733.7	722.1	704.9	686.5	668.2	667.1	642.9	615.4	584.4	548.8
15°	772.6	770.4	755.4	739.4	719.9	700.3	699.2	675.0	646.4	609.7	570.6
17.5°	793.3	792.2	778.4	762.3	746.2	731.3	730.2	704.9	673.9	636.1	592.4
20°	796.8	797.9	786.4	772.6	763.4	755.4	755.4	732.4	699.2	659.0	615.4
22.5°	797.9	801.4	793.3	775.0	772.6	773.8	776.1	757.7	723.3	685.4	639.4
25°	806.0	810.6	804.8	783.0	780.7	788.7	791.0	783.0	752.0	714.1	667.1
27.5°	822.0	826.6	822.0	794.4	791.0	799.0	801.4	806.0	783.0	741.6	695.7
30°	854.2	855.3	845.0	810.6	803.6	814.0	817.4	830.0	811.7	768.0	723.3
32.5°	910.4	899.0	868.0	822.0	816.3	827.8	831.2	845.0	838.1	793.3	752.0
35°	1025.2	965.6	894.4	838.1	832.4	843.8	848.4	868.0	871.3	828.9	787.6
37.5°	1024.1	970.2	956.4	869.1	861.0	869.1	874.8	899.0	912.7	876.0	839.2
40°	1096.4	1073.5	1073.5	927.6	901.2	912.7	918.5	942.5	966.7	937.9	900.1
42.5°	1323.7	1308.8	1292.7	1040.1	957.5	989.6	993.1	1008.0	1036.8	1027.6	982.7
45°	1577.5	1563.7	1501.7	1230.7	1053.9	1059.7	1067.8	1091.8	1133.1	1150.4	1097.5
47.5°	1776.0	1762.3	1709.5	1460.4	1204.3	1153.8	1153.8	1200.8	1265.2	1308.8	1258.3
50°	1935.6	1919.6	1887.4	1704.8	1451.2	1289.3	1282.4	1337.5	1432.8	1500.6	1466.1
52.5°	2090.6	2043.5	2024.1	1957.5	1730.1	1485.6	1467.2	1506.3	1638.4	1722.1	1693.4
55°	2194.0	2187.1	2166.4	2189.4	2022.9	1724.4	1708.3	1716.4	1881.7	1938.0	1902.4
57.5°	2290.4	2289.3	2335.2	2442.0	2342.0	1997.6	1972.4	1959.8	2117.1	2103.3	2134.3
60°	2409.9	2389.2	2495.9	2648.6	2634.8	2264.0	2235.4	2210.1	2297.3	2258.3	2412.1
62.5°	2415.6	2409.9	2626.8	2846.1	2925.3	2535.0	2501.6	2411.0	2454.6	2409.9	2677.4
65°	2196.3	2225.0	2681.9	2950.6	3168.7	2772.6	2732.4	2591.2	2594.6	2564.8	2989.6
67.5°	2146.9	2161.8	2530.4	3063.1	3344.3	3012.6	2974.6	2799.0	2757.7	2760.0	3174.4
70°	2024.1	2047.0	2342.0	3055.0	3483.2	3332.9	3295.0	3104.5	3004.5	2893.2	3032.1
72.5°	1546.5	1585.5	1973.6	2678.5	3445.4	3751.9	3741.5	3491.3	3103.2	2656.7	2293.9
75°	523.5	522.4	1036.8	1799.1	3095.2	3880.5	3901.2	3443.0	2707.1	1832.3	1138.9
77.5°	112.5	113.6	213.6	729.1	2056.2	3115.9	3195.1	2597.0	1746.3	816.3	260.6
80°	55.1	56.3	88.4	192.9	822.0	1747.4	1871.4	1335.3	645.2	163.1	43.6
82.5°	27.5	28.7	45.9	102.2	304.2	621.1	663.6	491.4	184.8	91.9	21.8
85°	10.3	10.3	22.9	60.9	138.9	145.8	179.1	142.4	111.4	74.7	5.7
87.5°	2.3	2.3	12.6	29.9	62.0	45.9	45.9	43.6	67.7	50.5	2.3
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°	518.9	518.9	518.9	518.9	518.9	518.9	518.9	518.9	518.9	518.9	518.9
2.5°	517.8	513.2	505.1	497.2	491.4	484.5	481.1	477.6	476.5	475.3	477.6
5°	512.1	505.1	490.2	477.6	466.2	457.0	450.1	443.1	439.7	437.4	438.5
7.5°	512.1	501.8	479.9	460.4	442.0	422.5	402.9	388.0	376.5	369.7	370.8
10°	517.8	504.0	475.3	448.9	414.5	373.2	330.6	298.5	276.7	264.0	264.0
12.5°	530.4	512.1	476.5	435.2	376.5	304.2	240.0	200.9	184.8	175.6	176.8
15°	547.6	525.8	482.2	416.8	323.8	226.2	167.7	142.4	142.4	144.6	145.8
17.5°	567.1	543.1	486.8	389.2	256.0	161.8	132.1	129.7	133.2	138.9	138.9
20°	586.7	560.3	489.1	345.6	191.7	128.6	125.1	125.1	127.5	133.2	134.3
22.5°	610.8	582.1	486.8	291.6	143.5	121.7	120.5	120.5	120.5	127.5	127.5
25°	636.1	607.3	477.6	234.3	121.7	117.1	116.0	114.8	114.8	120.5	121.7
27.5°	664.7	633.7	455.8	179.1	114.8	112.5	111.4	109.0	109.0	113.6	113.6
30°	693.5	663.6	422.5	135.4	109.0	107.9	105.7	103.3	101.1	105.7	105.7
32.5°	724.5	694.6	378.9	107.9	101.1	101.1	99.8	96.5	94.1	96.5	97.6
35°	765.8	730.2	329.5	94.1	90.7	90.7	90.7	89.5	85.0	87.3	87.3
37.5°	820.9	779.6	272.1	87.3	82.7	80.4	80.4	80.4	76.9	78.1	78.1
40°	890.9	837.0	217.0	81.5	76.9	71.2	68.8	70.1	67.7	67.7	66.6
42.5°	986.2	899.0	163.1	76.9	72.3	64.3	59.7	58.5	56.3	55.1	55.1
45°	1122.8	974.8	117.1	72.3	68.8	56.3	51.7	48.2	42.5	39.1	39.1
47.5°	1299.7	1060.8	87.3	67.7	65.5	49.4	43.6	36.7	28.7	26.4	26.4
50°	1515.5	1157.3	73.4	60.9	59.7	43.6	34.5	24.1	16.1	13.8	14.9
52.5°	1725.5	1248.0	65.5	53.9	52.8	37.8	25.3	12.6	6.9	6.9	6.9
55°	1902.4	1312.2	59.7	48.2	45.9	29.9	13.8	5.7	3.5	3.5	3.5
57.5°	2062.0	1349.0	53.9	42.5	36.7	20.7	5.7	2.3	2.3	1.1	1.1
60°	2207.7	1370.9	47.1	36.7	28.7	11.5	2.3	1.1	1.1	0.0	0.0
62.5°	2351.3	1386.9	40.2	29.9	21.8	4.6	1.1	1.1	0.0	0.0	0.0
65°	2460.3	1381.2	32.1	24.1	13.8	2.3	1.1	0.0	0.0	0.0	0.0
67.5°	2456.9	1303.0	24.1	18.4	6.9	1.1	0.0	0.0	0.0	0.0	0.0
70°	2197.4	1097.5	16.1	11.5	2.3	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1559.1	703.8	10.3	6.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	686.5	213.6	5.7	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	134.3	49.4	3.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	32.1	5.7	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.3	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)