

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: P214850

Luminaire Tested: **ARCH-AF16-40-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214850
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-40-D-U-T4W-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4590 lumens
Efficiency: N/A
Efficacy: 109.3 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): 42
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

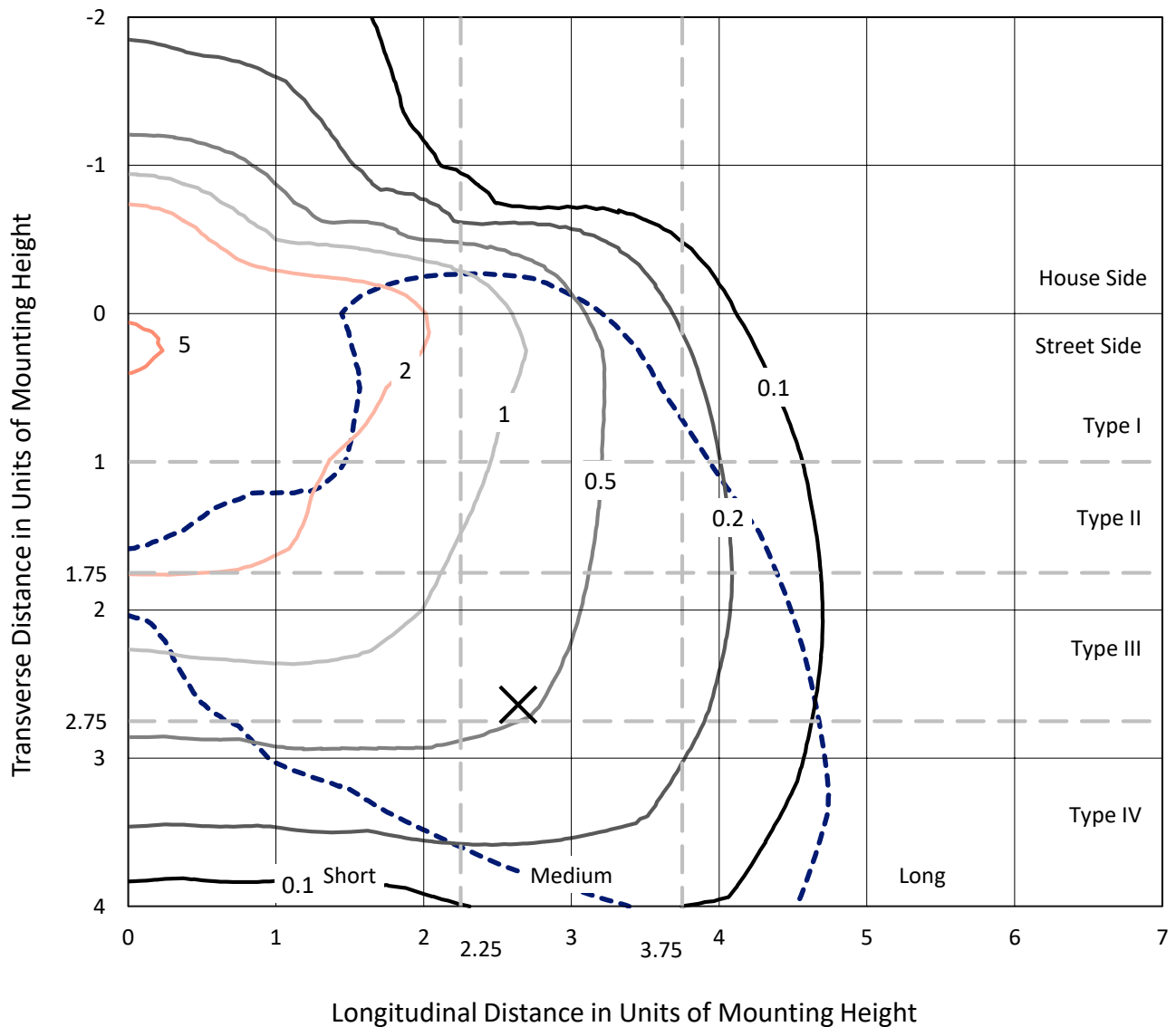


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

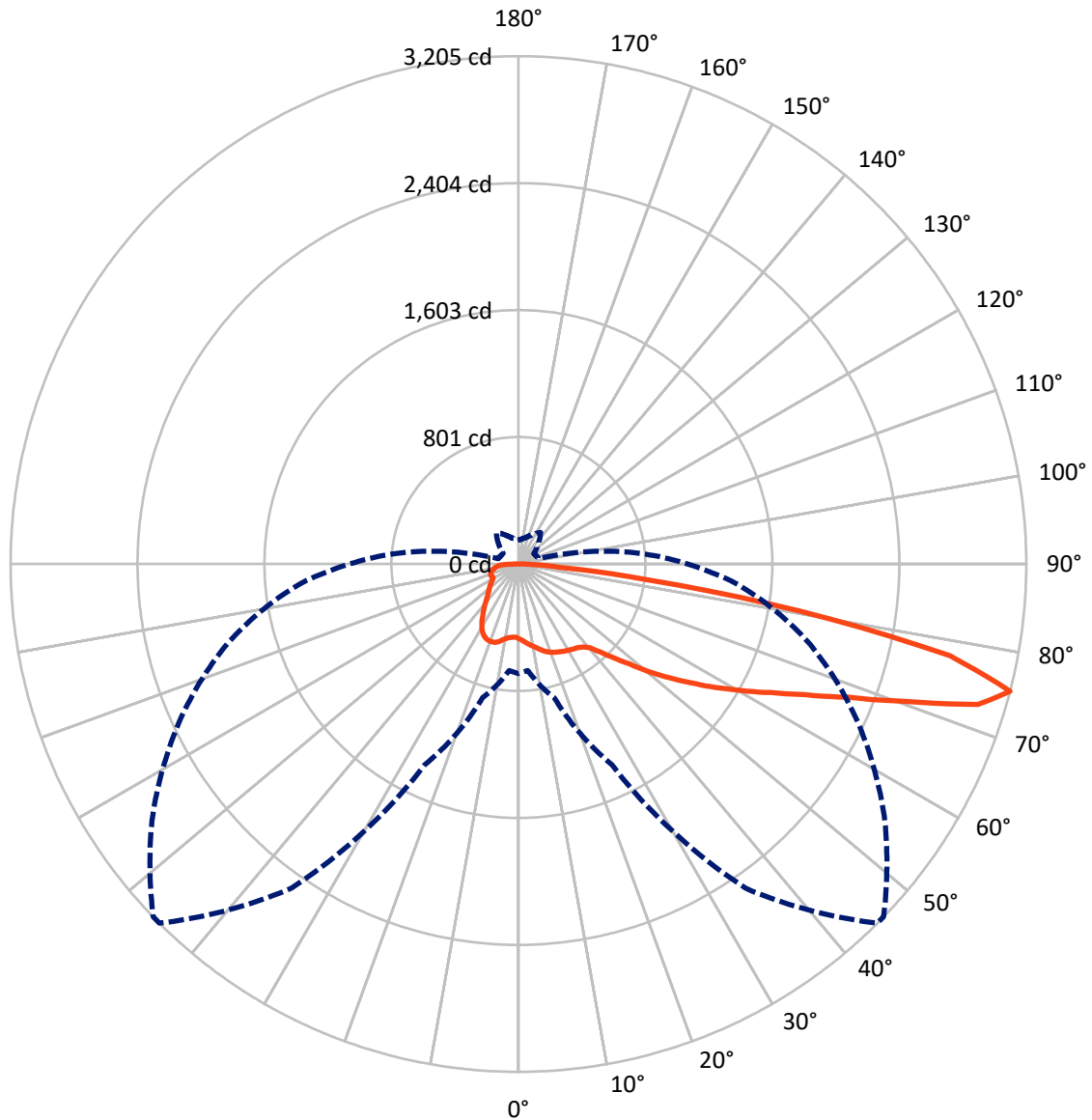


Based on 10 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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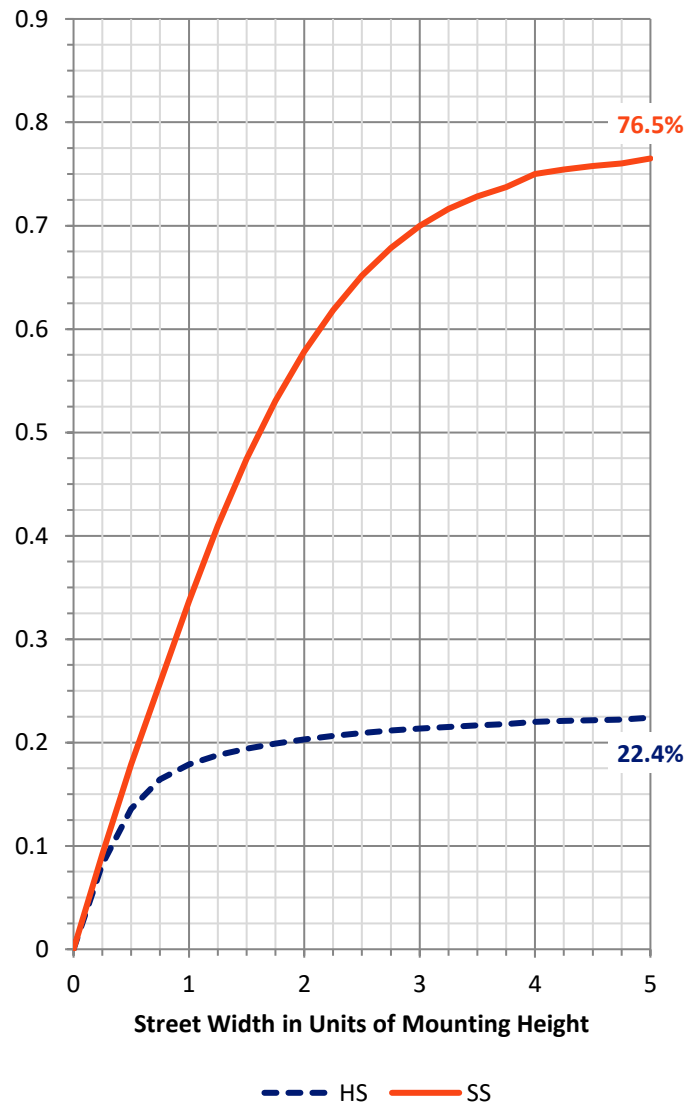
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1063.3	0.0	1063.3
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	3526.7	0.0	3526.7
	% Fixture	76.8	0.0	76.8
Total	Lumens	4590.0	0.0	4590.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.6	1.0
10°-20°	151.1	3.3
20°-30°	259.3	5.6
30°-40°	362.7	7.9
40°-50°	532.0	11.6
50°-60°	828.7	18.1
60°-70°	1192.4	26.0
70°-80°	1038.7	22.6
80°-90°	178.4	3.9
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°	4590.0	100.0
0°-180°	4590.0	100.0



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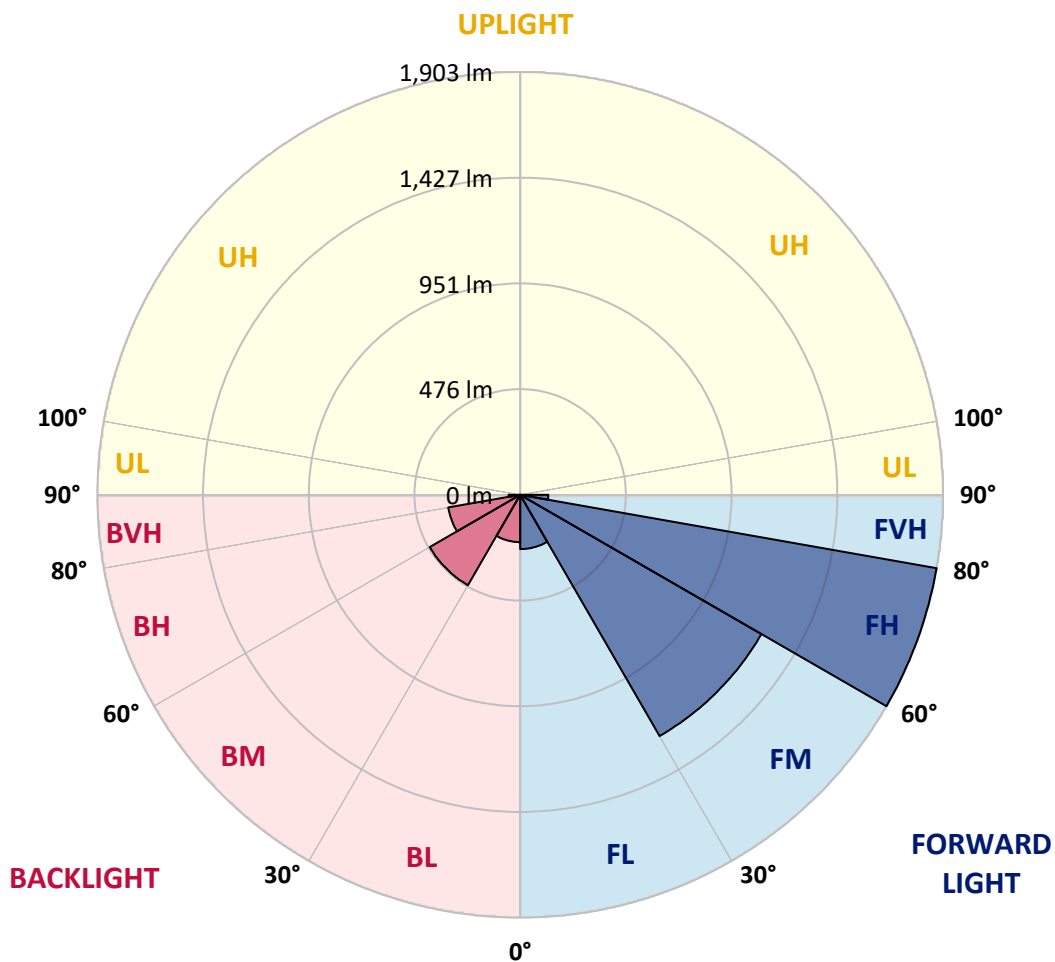
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	244.1	5.3			
FM	(30°-60°)	1253.4	27.3			
FH	(60°-80°)	1902.6	41.5			G2/5000
FVH	(80°-90°)	126.6	2.8			G2/225
BL	(0°-30°)	213.0	4.6	B1/500		
BM	(30°-60°)	469.9	10.2	B1/1000		
BH	(60°-80°)	328.6	7.2	B1/500		G1/500
BVH	(80°-90°)	51.8	1.1			G1/100
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°	45°	46°	55°	65°	75°	85°
0°	470.6	470.6	470.6	470.6	470.6	470.6	470.6	470.6	470.6	470.6	470.6
2.5°	493.8	490.1	490.1	487.6	487.6	483.0	481.3	480.4	476.0	473.2	470.6
5°	522.4	517.9	517.1	510.7	508.0	498.2	497.3	491.1	483.0	474.9	468.7
7.5°	548.3	545.5	541.1	534.9	526.7	514.3	513.4	503.5	490.1	479.4	470.6
10°	566.9	565.2	559.0	550.8	541.9	529.5	528.6	517.9	501.8	489.3	476.8
12.5°	589.2	586.6	578.5	567.8	558.0	546.4	545.5	536.6	518.8	502.7	486.6
15°	610.8	607.2	597.3	586.6	575.9	566.1	566.1	556.2	537.5	518.8	500.0
17.5°	621.4	619.6	609.7	598.2	589.2	582.2	581.3	572.3	553.6	533.9	513.4
20°	625.0	625.9	617.0	604.4	598.2	594.7	593.8	587.5	566.9	548.3	528.6
22.5°	624.1	626.8	619.6	606.3	604.4	604.4	604.4	597.3	581.3	562.4	542.9
25°	627.7	631.3	625.9	609.7	609.7	613.4	613.4	609.7	595.6	579.5	559.9
27.5°	640.1	642.9	638.4	616.1	617.0	622.3	621.4	622.3	613.4	598.2	578.5
30°	655.3	659.0	653.6	625.9	625.0	630.3	630.3	634.8	628.6	612.5	596.4
32.5°	696.4	695.6	678.6	636.7	633.9	639.2	639.2	643.7	640.1	627.7	612.5
35°	818.8	805.4	767.9	671.4	644.6	647.4	647.4	655.3	657.2	647.4	633.9
37.5°	943.8	939.3	910.6	764.3	684.0	664.3	663.4	675.0	683.1	675.0	666.1
40°	1069.6	1066.1	1059.9	888.4	766.1	694.7	691.9	701.8	716.0	710.7	705.4
42.5°	1186.7	1184.8	1191.0	1010.7	870.6	759.8	751.8	740.2	760.8	759.0	759.0
45°	1278.6	1283.0	1286.6	1125.1	983.9	843.7	833.9	794.7	822.2	829.5	834.8
47.5°	1330.3	1333.9	1346.4	1236.6	1097.3	941.0	933.9	869.6	906.3	927.7	942.9
50°	1404.4	1394.7	1405.4	1345.5	1234.0	1067.9	1048.3	970.6	1016.9	1054.5	1090.2
52.5°	1475.9	1459.8	1468.8	1471.4	1389.3	1192.0	1171.5	1089.4	1147.3	1206.2	1269.7
55°	1540.2	1539.3	1548.2	1593.8	1539.3	1325.0	1301.9	1220.5	1304.4	1367.8	1475.0
57.5°	1592.0	1600.8	1640.2	1735.7	1712.5	1469.6	1443.8	1373.2	1472.4	1535.7	1713.4
60°	1652.6	1667.0	1732.2	1856.2	1870.5	1621.4	1594.6	1543.8	1644.7	1709.0	1989.3
62.5°	1673.2	1693.7	1827.7	1983.0	2035.7	1787.5	1763.5	1729.5	1825.9	1883.9	2264.3
65°	1536.6	1575.9	1880.4	2048.2	2213.4	1987.5	1967.0	1937.5	2006.2	2044.7	2450.9
67.5°	1499.1	1516.9	1777.6	2142.0	2380.3	2244.6	2224.1	2173.2	2175.1	2159.0	2511.7
70°	1446.5	1466.0	1672.3	2212.5	2619.7	2596.4	2571.4	2421.4	2329.5	2232.1	2392.0
72.5°	1232.1	1225.9	1441.1	2022.3	2734.9	3032.2	3002.7	2688.5	2443.8	2168.8	2018.8
75°	691.9	674.1	874.1	1399.1	2497.3	3205.3	3204.5	2823.3	2363.4	1889.3	1374.2
77.5°	200.9	195.6	288.5	586.6	1681.3	2784.8	2818.8	2546.4	1972.3	1357.1	754.4
80°	94.6	96.4	124.1	193.7	717.9	1797.4	1894.7	1676.8	1178.6	625.9	311.6
82.5°	59.9	60.7	84.7	125.0	303.5	816.0	896.5	754.4	467.0	270.5	137.4
85°	37.4	37.4	56.3	82.2	181.3	260.7	283.1	257.2	200.1	147.3	75.0
87.5°	20.5	20.5	34.0	47.3	99.1	83.9	86.7	102.7	125.0	90.1	37.4
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°	470.6	470.6	470.6	470.6	470.6	470.6	470.6	470.6	470.6	470.6	470.6
2.5°	469.6	467.8	465.2	464.3	463.4	462.5	463.4	465.2	463.4	463.4	464.3
5°	467.0	465.2	461.6	461.6	462.5	463.4	467.8	470.6	471.5	471.5	471.5
7.5°	467.0	464.3	461.6	462.5	464.3	467.8	474.9	479.4	483.0	483.9	483.9
10°	471.5	467.8	466.1	467.8	473.2	476.0	483.0	490.1	494.6	496.5	496.5
12.5°	479.4	476.0	476.0	479.4	486.6	490.1	496.5	501.8	507.2	509.8	509.8
15°	492.9	488.4	489.3	495.5	503.5	507.2	511.7	513.4	517.9	521.3	521.3
17.5°	505.4	500.9	502.7	509.8	515.1	517.1	519.6	518.8	520.5	523.3	524.1
20°	519.6	515.1	516.0	520.5	521.3	519.6	519.6	517.1	516.0	520.5	522.4
22.5°	533.9	529.5	528.6	525.9	521.3	517.1	514.3	511.7	509.8	514.3	516.0
25°	550.8	544.6	540.2	528.6	517.1	508.9	505.4	503.5	502.7	507.2	508.9
27.5°	569.7	563.4	550.0	525.0	506.2	492.9	490.1	490.1	492.0	494.6	496.5
30°	587.5	581.3	557.1	517.1	487.6	467.8	465.2	467.8	472.3	474.9	477.7
32.5°	605.4	599.1	561.6	504.4	459.9	434.9	433.0	437.5	444.6	446.5	448.2
35°	629.5	623.3	566.9	486.6	425.0	398.2	396.4	399.2	405.4	408.1	410.7
37.5°	663.4	659.8	575.0	467.0	392.9	363.4	358.1	356.3	359.8	358.9	362.5
40°	708.0	710.7	589.2	441.1	361.6	331.3	319.7	314.3	310.8	303.5	307.1
42.5°	773.2	774.9	605.4	411.6	334.8	300.9	285.7	275.9	268.8	257.2	259.0
45°	868.7	853.6	624.1	380.3	310.8	276.8	259.0	247.4	237.5	227.7	228.6
47.5°	995.6	949.1	644.6	354.4	286.6	257.2	241.0	227.7	216.2	208.0	208.9
50°	1151.8	1067.9	665.2	330.4	262.6	242.0	227.7	213.4	201.8	193.7	192.9
52.5°	1358.1	1210.7	678.6	303.5	238.4	228.6	216.2	202.6	188.4	178.5	177.6
55°	1572.4	1376.7	690.2	271.4	215.1	213.4	207.1	192.0	175.1	162.5	160.7
57.5°	1808.0	1554.4	699.1	240.2	197.3	200.9	199.1	181.3	162.5	150.9	150.0
60°	2022.3	1738.5	670.6	212.5	181.3	188.4	190.2	175.1	165.2	167.8	168.7
62.5°	2238.4	1880.4	561.6	192.0	170.6	180.4	195.6	194.6	190.2	194.6	195.6
65°	2316.1	1909.9	398.2	175.1	159.8	183.9	212.5	210.8	190.2	182.1	180.4
67.5°	2272.4	1822.3	267.9	161.6	151.8	188.4	230.3	210.8	183.0	172.3	168.7
70°	2064.4	1607.2	196.4	148.3	144.7	187.5	240.2	209.8	179.5	167.8	163.4
72.5°	1646.4	1240.2	158.0	135.7	134.0	183.0	245.5	208.0	175.9	163.4	158.0
75°	1066.1	771.5	133.1	123.3	117.9	175.9	242.9	202.6	171.4	155.3	151.8
77.5°	494.6	332.1	113.4	108.9	102.7	165.2	234.8	192.0	161.6	146.4	141.9
80°	230.3	157.2	95.5	94.6	92.0	156.2	224.1	179.5	150.0	137.4	130.3
82.5°	123.3	94.6	77.7	77.7	80.3	145.6	210.8	164.3	134.8	128.6	109.8
85°	65.2	54.4	56.3	60.7	68.8	128.6	192.9	148.3	117.9	98.3	95.5
87.5°	33.0	34.9	34.9	41.1	52.7	104.5	159.0	122.4	100.0	80.3	78.5
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)