

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: P214709

Luminaire Tested: **ARCH-AF16-30-D-U-T3-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214709  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-30-D-U-T3-7030  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 560mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3660.2 lumens  
Efficiency: N/A  
Efficacy: 114.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G1

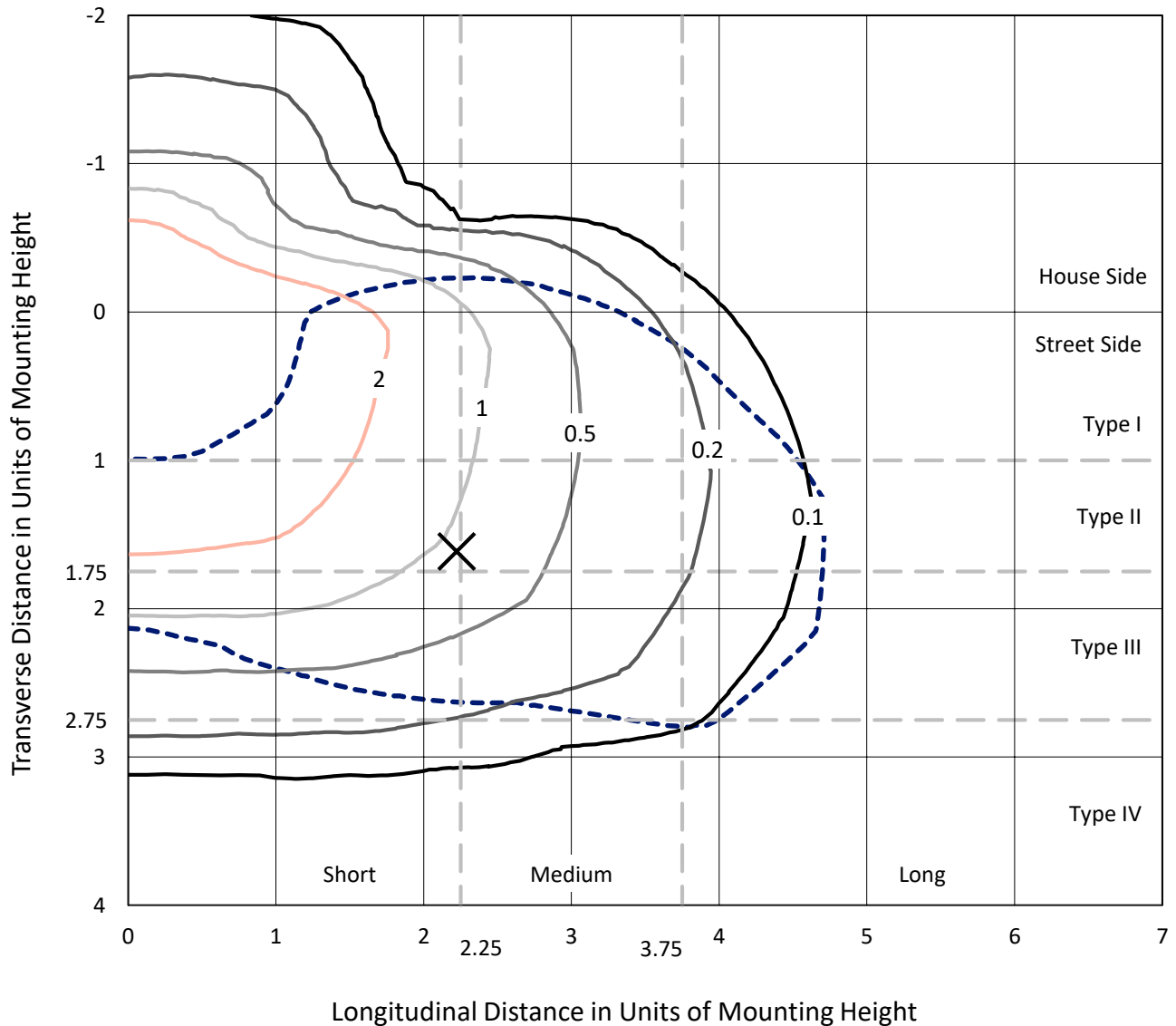
Input Watts (W): 32  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

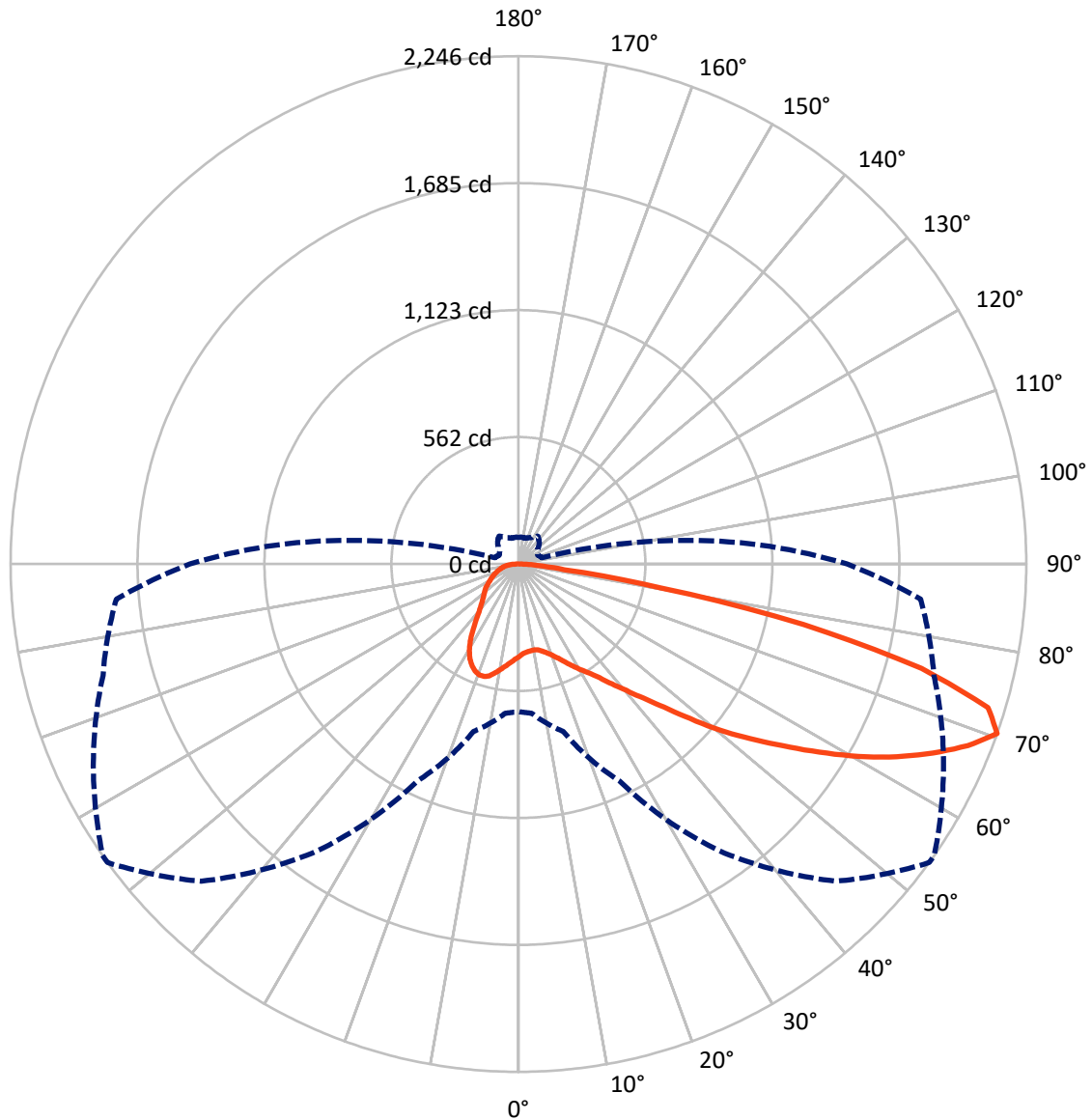
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical



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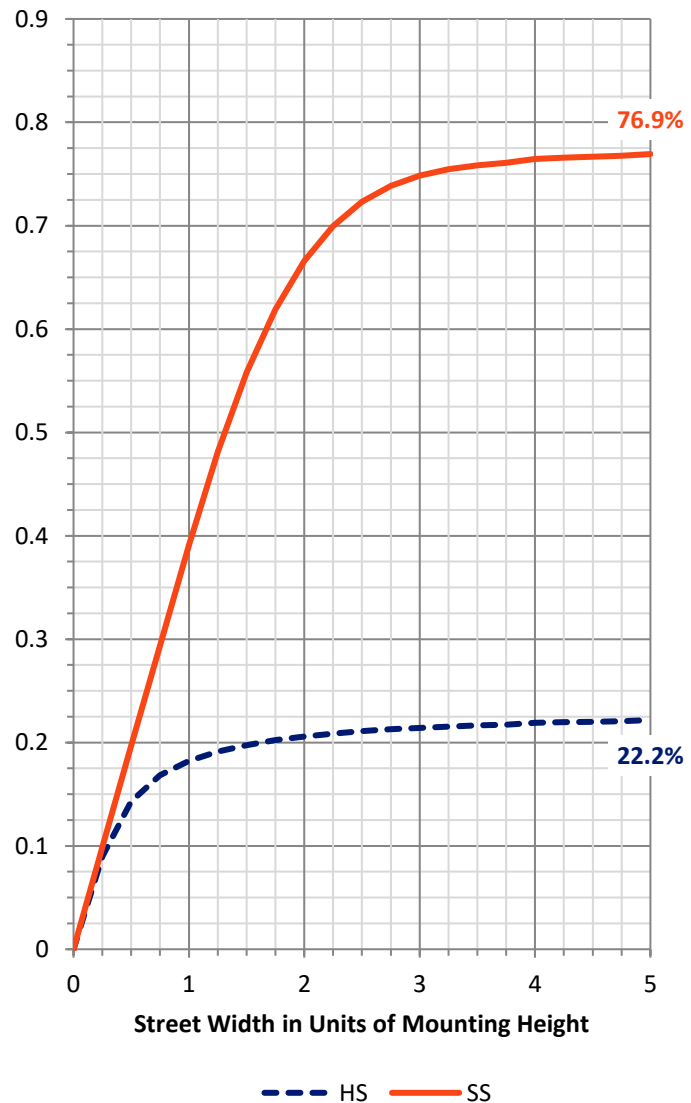
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	830.1	0.0	830.1
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	2830.1	0.0	2830.1
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	3660.2	0.0	3660.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.2	1.1
10°-20°	128.4	3.5
20°-30°	223.1	6.1
30°-40°	326.0	8.9
40°-50°	511.7	14.0
50°-60°	786.8	21.5
60°-70°	961.3	26.3
70°-80°	596.0	16.3
80°-90°	86.6	2.4
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°	3660.2	100.0
0°-180°	3660.2	100.0

**Coefficient of Utilization**



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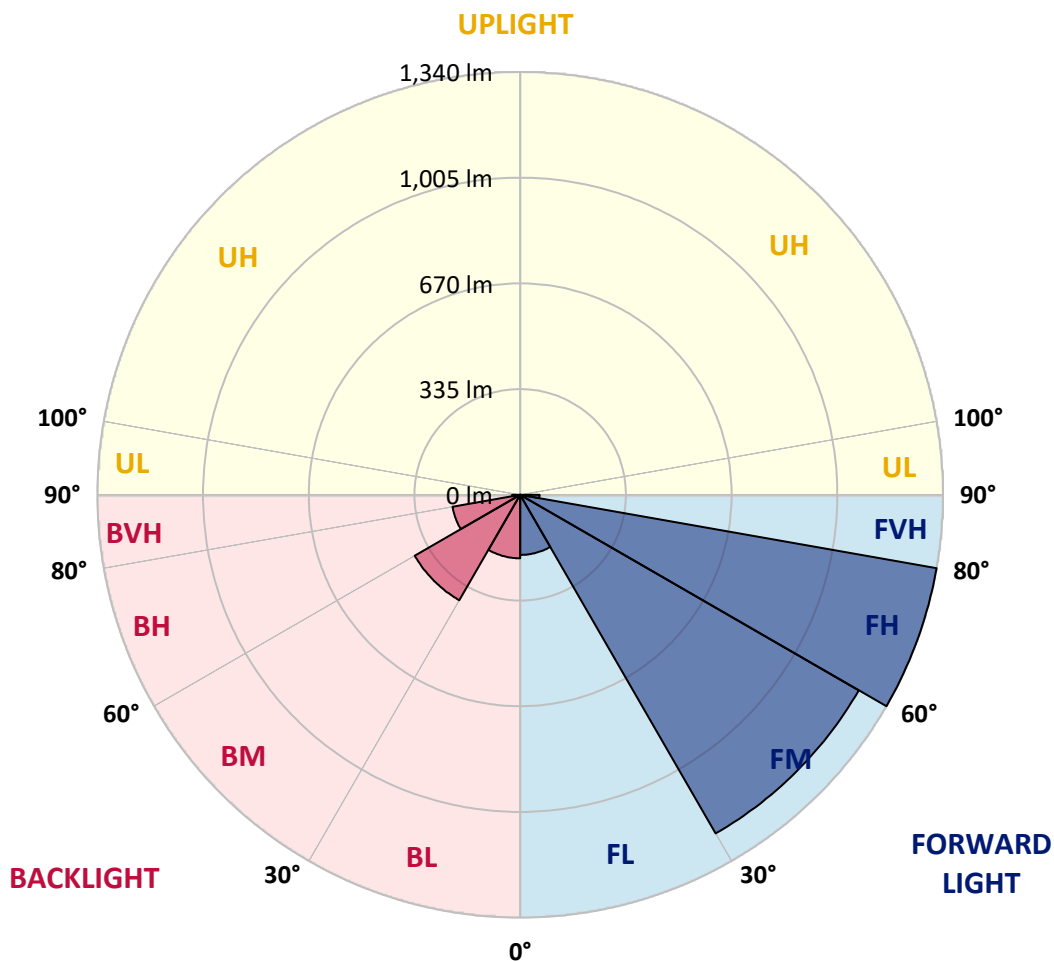
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	190.4	5.2			
FM	(30°-60°)	1238.8	33.8			
FH	(60°-80°)	1339.7	36.6			G1/1800
FVH	(80°-90°)	61.1	1.7			G1/100
BL	(0°-30°)	201.3	5.5	B1/500		
BM	(30°-60°)	385.7	10.5	B1/1000		
BH	(60°-80°)	217.7	5.9	B1/500		G1/500
BVH	(80°-90°)	25.4	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5
2.5°	393.5	392.0	392.0	394.1	394.8	396.7	396.7	397.4	399.5	402.8	406.8
5°	381.4	380.7	381.4	384.0	385.3	389.4	390.7	391.3	395.4	400.8	406.8
7.5°	369.3	368.6	370.0	374.0	378.0	384.0	387.5	388.1	394.1	401.4	409.5
10°	365.3	364.6	366.6	370.0	374.0	380.7	386.0	386.7	395.4	404.2	415.5
12.5°	370.6	370.0	371.9	375.3	379.3	384.0	390.0	390.7	402.1	413.5	425.6
15°	384.0	384.0	384.7	386.7	390.7	394.8	400.1	400.8	412.9	426.2	438.3
17.5°	404.8	403.5	403.5	402.8	405.5	407.5	414.2	414.8	427.6	439.7	451.7
20°	430.3	429.6	426.8	423.6	423.0	424.3	430.9	431.6	444.3	454.4	465.8
22.5°	461.1	461.7	455.7	448.4	445.0	447.0	453.1	453.8	463.2	471.8	481.9
25°	501.9	500.0	491.2	480.5	473.8	473.8	479.8	479.8	488.6	494.0	500.6
27.5°	540.9	536.8	528.9	513.4	502.7	504.7	510.7	510.7	518.8	520.7	524.1
30°	583.1	579.1	569.0	549.6	535.5	534.2	541.5	540.9	551.5	550.8	548.3
32.5°	634.7	632.7	615.9	591.1	572.4	567.7	574.3	575.0	581.7	579.7	571.0
35°	707.1	706.4	690.9	647.5	622.7	613.9	618.0	618.0	622.7	617.4	602.6
37.5°	798.2	799.6	786.1	721.7	687.0	672.3	672.9	672.3	673.6	667.6	652.2
40°	889.4	892.7	892.1	814.3	770.1	744.6	735.2	733.9	737.3	734.6	719.8
42.5°	1009.3	1017.4	998.6	928.2	878.7	835.8	810.2	807.0	814.3	817.7	803.6
45°	1134.0	1131.3	1101.9	1050.8	1006.0	951.0	902.8	897.4	902.8	912.9	898.1
47.5°	1199.0	1197.1	1189.7	1164.1	1157.5	1094.4	1021.3	1016.7	1006.8	1020.7	1003.3
50°	1306.2	1308.3	1278.2	1275.4	1303.6	1268.7	1155.4	1144.7	1126.7	1138.1	1123.3
52.5°	1384.0	1375.2	1356.6	1380.0	1467.8	1449.0	1281.5	1276.8	1260.0	1257.3	1250.6
55°	1415.5	1415.5	1418.8	1473.2	1598.5	1573.7	1418.1	1422.9	1400.0	1381.4	1390.0
57.5°	1424.8	1428.9	1457.7	1547.5	1752.0	1670.8	1569.0	1575.6	1542.8	1505.3	1532.8
60°	1378.7	1390.7	1459.7	1589.7	1838.4	1774.1	1727.8	1729.8	1682.3	1627.3	1675.5
62.5°	1260.0	1274.7	1398.1	1607.2	1824.3	1880.0	1877.9	1882.6	1817.6	1749.2	1809.6
65°	1114.6	1129.3	1260.7	1558.2	1813.6	1955.6	2015.3	2028.1	1944.3	1852.5	1893.4
67.5°	900.8	920.2	1044.8	1393.4	1761.4	2018.0	2144.0	2157.5	2042.2	1906.1	1886.1
70°	652.9	662.2	766.7	1058.9	1548.2	1983.8	2246.0	2245.2	2074.3	1902.1	1785.4
72.5°	314.3	321.7	412.2	657.5	1107.3	1683.5	2172.2	2184.8	2030.0	1843.7	1555.6
75°	129.4	136.7	166.8	277.5	581.0	1112.6	1841.1	1871.3	1843.7	1654.7	1217.1
77.5°	80.5	83.1	97.9	143.4	265.4	519.4	1288.8	1329.6	1461.1	1325.7	803.6
80°	60.3	62.3	73.1	100.5	167.6	191.6	640.0	691.6	885.3	760.7	364.0
82.5°	50.3	51.0	58.4	73.1	113.9	110.0	205.1	228.6	412.9	290.2	125.3
85°	46.9	48.3	52.2	52.2	72.3	69.1	85.1	89.1	119.9	99.2	43.6
87.5°	24.1	22.8	46.2	40.9	37.5	33.6	36.2	38.9	44.9	47.6	19.4
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°	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5
2.5°	408.2	410.2	413.5	416.9	420.8	425.6	428.3	431.6	434.3	433.0	432.3
5°	410.2	413.5	420.8	427.6	435.6	445.0	451.0	457.8	463.2	464.5	462.5
7.5°	413.5	419.5	429.6	441.6	452.5	464.5	473.8	483.3	489.9	491.2	491.2
10°	421.5	428.3	441.6	457.8	470.5	483.3	494.0	501.3	507.4	510.0	510.0
12.5°	433.0	441.0	457.0	476.5	490.6	502.7	508.7	512.1	514.7	517.5	518.1
15°	446.4	455.1	474.5	495.3	510.0	516.0	516.0	515.3	515.3	516.7	518.1
17.5°	459.8	469.2	489.3	511.4	520.7	517.5	512.8	510.7	509.3	508.7	510.7
20°	473.8	483.3	503.3	524.1	521.3	507.4	500.6	495.9	491.8	489.9	492.6
22.5°	489.3	498.0	518.8	532.8	512.8	491.2	478.5	471.1	464.5	460.4	463.2
25°	507.4	516.0	536.1	535.5	497.3	467.2	447.0	435.0	427.6	423.6	423.6
27.5°	528.9	536.1	555.6	528.9	475.9	435.0	405.5	394.1	392.0	388.8	388.8
30°	550.8	556.9	573.7	513.4	446.4	392.8	360.5	355.2	355.8	352.6	353.2
32.5°	573.7	579.7	584.4	490.6	408.2	345.2	323.7	319.7	319.0	316.3	313.7
35°	605.9	614.6	585.7	459.8	361.8	305.6	290.2	286.2	282.1	272.8	272.8
37.5°	654.8	664.2	582.5	421.5	314.3	274.8	260.7	255.3	248.7	239.3	235.9
40°	721.7	721.7	575.0	378.7	276.1	249.9	236.5	229.9	222.6	213.2	211.1
42.5°	800.9	782.2	563.7	335.1	248.0	233.3	221.1	213.8	205.1	194.4	193.1
45°	893.4	842.5	547.6	296.2	227.2	223.2	215.8	203.1	188.4	176.9	175.0
47.5°	983.3	896.8	532.2	268.8	209.8	219.2	213.2	191.6	171.5	155.4	153.5
50°	1081.7	945.0	514.1	246.0	196.3	216.5	209.8	175.0	152.9	141.4	140.1
52.5°	1180.2	993.9	494.6	221.8	184.9	211.1	201.7	162.9	152.1	136.7	134.7
55°	1284.2	1050.8	471.8	195.0	171.5	200.4	190.9	162.1	156.8	136.7	131.9
57.5°	1385.3	1113.9	435.0	169.0	156.8	184.3	187.0	158.2	146.7	135.4	130.0
60°	1497.3	1180.9	374.0	146.7	144.1	170.9	181.6	149.4	135.4	131.3	128.7
62.5°	1587.1	1241.1	292.2	131.3	133.4	160.2	175.0	144.1	130.7	127.3	126.6
65°	1625.9	1242.6	209.8	118.0	122.7	150.1	168.3	139.5	126.6	125.3	124.7
67.5°	1585.1	1174.2	147.5	105.2	111.2	140.7	159.5	134.7	122.7	123.4	122.0
70°	1453.0	1030.1	107.9	93.2	100.5	130.7	150.1	128.7	118.0	119.3	117.2
72.5°	1215.7	802.9	86.5	83.1	91.8	119.9	140.7	122.0	110.6	111.2	107.2
75°	898.1	532.2	72.3	74.4	81.7	110.0	128.7	113.3	102.6	99.9	97.1
77.5°	534.2	273.4	59.6	65.0	73.1	97.9	115.3	102.6	93.9	89.1	87.1
80°	220.4	110.6	48.9	54.9	63.7	87.1	101.8	89.8	83.8	79.1	76.4
82.5°	87.9	54.3	38.9	44.9	53.6	75.7	89.1	79.1	73.1	69.7	62.3
85°	33.6	26.8	26.1	31.4	40.2	58.4	73.8	66.3	61.6	53.0	51.0
87.5°	13.4	12.0	12.0	15.4	22.8	36.8	53.0	46.2	48.3	38.2	38.9
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)