

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: P265905

Luminaire Tested: **ARCH-AF16-60-D-U-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265905  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)  
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-T2R-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5860.4 lumens  
Efficiency: N/A  
Efficacy: 93.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

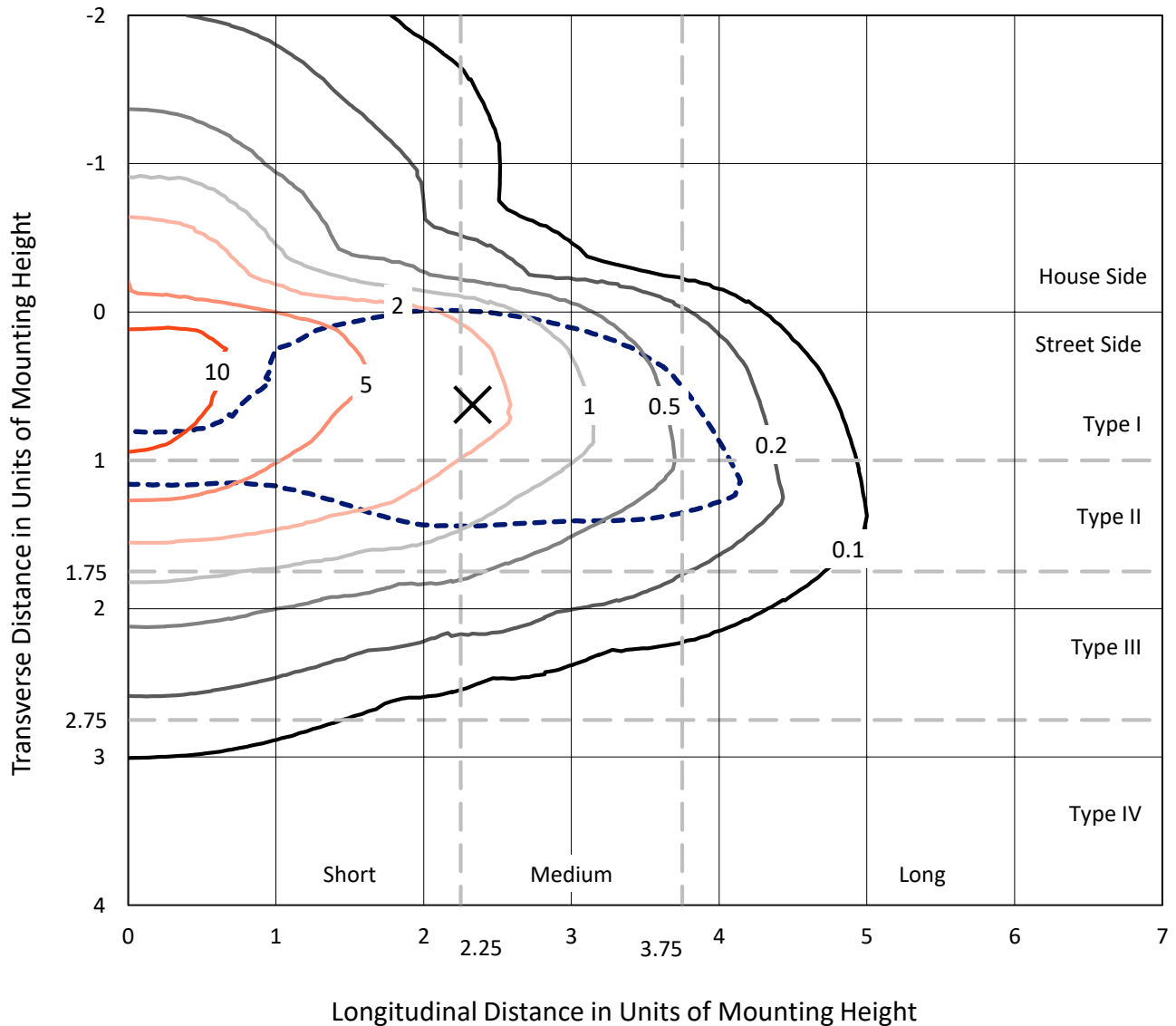
Input Watts (W): 63  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

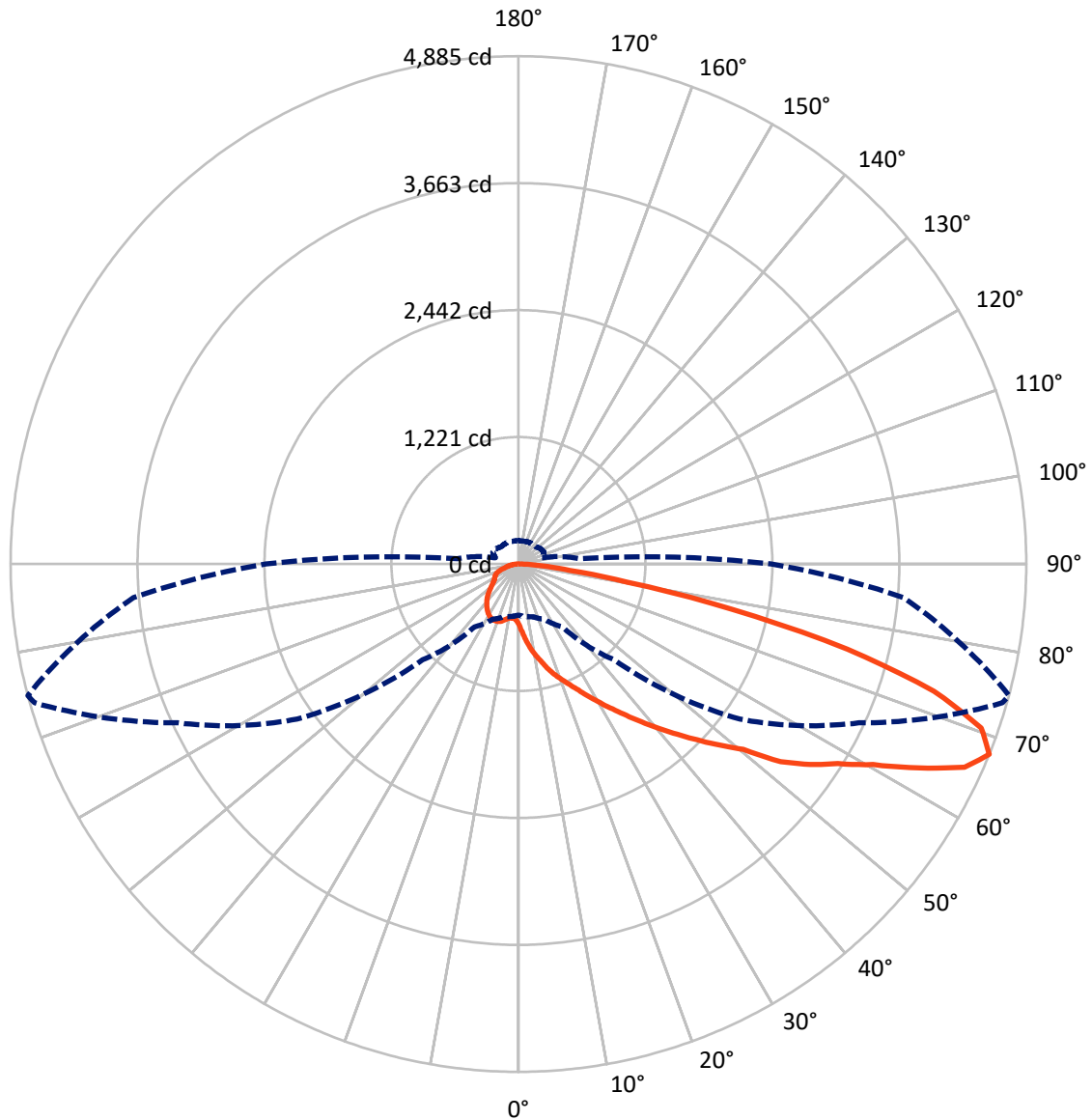
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.2 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1000.7	0.0	1000.7
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	4859.7	0.0	4859.7
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	5860.4	0.0	5860.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.2	1.2
10°-20°	246.5	4.2
20°-30°	449.7	7.7
30°-40°	738.1	12.6
40°-50°	1067.4	18.2
50°-60°	1257.9	21.5
60°-70°	1222.4	20.9
70°-80°	679.5	11.6
80°-90°	130.6	2.2
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°	5860.4	100.0
0°-180°	5860.4	100.0



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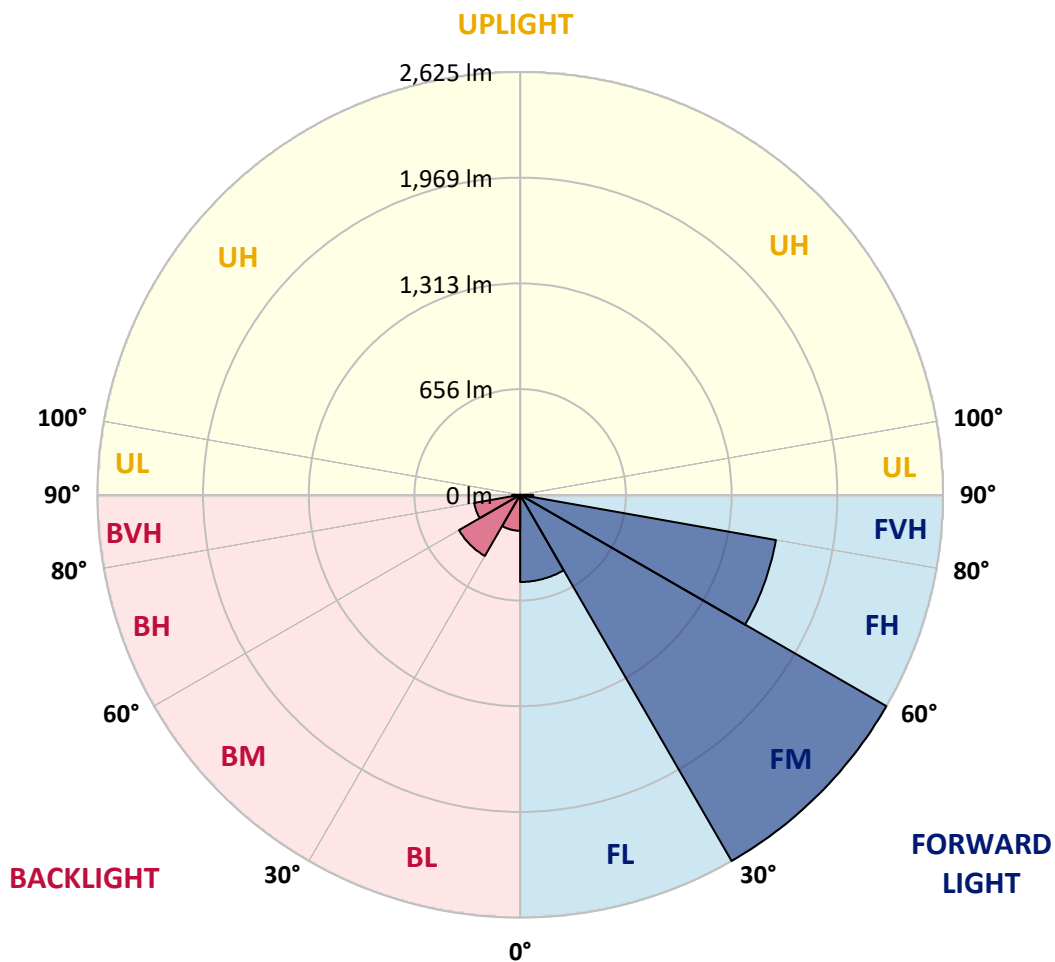
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	541.1	9.2			
FM (30°-60°)	2625.2	44.8			
FH (60°-80°)	1612.1	27.5			G1/1800
FVH (80°-90°)	81.3	1.4			G1/100
BL (0°-30°)	223.4	3.8	B1/500		
BM (30°-60°)	438.3	7.5	B1/1000		
BH (60°-80°)	289.8	4.9	B1/500		G1/500
BVH (80°-90°)	49.3	0.8			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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8
2.5°	823.2	825.7	820.8	809.8	793.9	764.5	738.8	693.4	653.0	648.0	605.2
5°	967.8	970.3	964.2	950.6	933.6	901.7	866.1	807.3	742.4	730.2	639.6
7.5°	1067.0	1068.4	1061.0	1047.5	1033.9	1002.1	966.7	900.6	820.8	811.0	683.6
10°	1151.5	1154.1	1144.4	1135.6	1120.9	1089.1	1052.4	982.6	900.6	886.9	729.0
12.5°	1230.0	1232.5	1226.4	1219.0	1214.1	1184.8	1144.4	1061.0	972.8	958.0	782.9
15°	1282.7	1285.1	1286.5	1296.2	1302.4	1281.5	1241.1	1150.4	1051.1	1037.7	846.6
17.5°	1268.0	1274.2	1292.5	1328.1	1366.1	1367.2	1334.2	1238.7	1128.4	1113.7	911.5
20°	1225.1	1230.0	1252.1	1306.0	1380.8	1423.6	1421.2	1328.1	1200.7	1184.8	971.5
22.5°	1260.6	1266.8	1266.8	1299.8	1373.4	1453.0	1484.9	1416.3	1272.9	1258.2	1031.6
25°	1412.6	1416.3	1390.5	1377.0	1404.1	1477.5	1537.4	1511.8	1361.1	1344.0	1096.6
27.5°	1624.6	1618.3	1586.5	1532.7	1503.3	1522.8	1584.2	1602.4	1462.8	1442.0	1163.8
30°	1835.2	1831.6	1794.9	1722.5	1656.4	1614.8	1635.5	1683.3	1573.0	1548.6	1228.8
32.5°	2032.4	2026.3	1986.0	1901.4	1826.7	1749.4	1709.0	1756.8	1690.7	1662.6	1301.0
35°	2213.9	2197.9	2157.5	2069.2	1992.0	1918.5	1819.2	1826.7	1818.1	1788.6	1380.8
37.5°	2360.8	2348.6	2304.4	2222.3	2140.3	2070.5	1966.3	1906.4	1955.3	1927.1	1472.6
40°	2490.7	2477.2	2431.9	2349.7	2273.8	2207.7	2125.6	2003.1	2109.7	2077.8	1575.4
42.5°	2588.6	2578.9	2542.2	2461.3	2387.8	2327.8	2287.4	2125.6	2270.1	2239.6	1688.3
45°	2641.3	2631.6	2612.0	2547.1	2479.6	2433.1	2436.8	2271.4	2438.0	2412.3	1821.8
47.5°	2576.5	2583.7	2601.0	2588.6	2547.1	2525.0	2570.3	2422.1	2625.4	2601.0	1966.3
50°	2402.4	2409.9	2478.5	2563.0	2577.6	2604.6	2690.3	2596.0	2823.9	2804.2	2145.2
52.5°	1975.0	2015.3	2205.2	2407.4	2545.8	2657.2	2823.9	2854.5	3158.4	3158.4	2461.3
55°	1492.3	1527.7	1744.6	2097.5	2422.1	2662.1	2921.9	3029.8	3399.7	3404.7	2626.6
57.5°	1209.2	1231.2	1337.8	1699.2	2162.4	2601.0	3038.2	3180.4	3600.6	3622.8	2839.8
60°	981.3	993.5	1063.5	1314.6	1803.3	2435.6	3121.6	3396.0	3887.3	3918.0	3111.8
62.5°	789.0	801.3	847.8	998.5	1415.0	2125.6	3106.9	3620.3	4269.6	4319.8	3468.4
65°	629.7	643.1	673.8	767.0	1048.7	1740.9	2956.2	3735.4	4665.3	4714.2	3704.8
67.5°	491.3	503.5	524.3	585.6	738.8	1302.4	2599.8	3614.2	4842.9	4884.5	3717.0
70°	371.2	377.4	394.4	433.7	528.1	865.0	2034.9	3207.4	4683.7	4721.6	3471.9
72.5°	287.8	286.6	296.5	316.1	368.8	595.3	1348.8	2608.3	4140.9	4180.2	2962.4
75°	235.3	234.0	240.1	246.2	267.1	399.3	796.3	1963.9	3342.1	3267.4	2222.3
77.5°	198.4	197.3	203.3	204.6	213.2	275.7	453.4	1292.5	2229.8	2101.0	1252.1
80°	167.9	166.6	174.0	176.3	182.5	202.2	261.0	699.5	1119.7	1061.0	597.8
82.5°	126.2	131.2	144.5	150.6	158.0	149.5	161.8	308.7	519.5	496.1	259.7
85°	61.3	72.3	109.1	121.4	129.8	94.3	110.2	145.7	234.0	223.0	105.3
87.5°	20.8	18.3	64.9	77.2	84.5	42.8	61.3	80.8	96.7	88.3	33.1
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°	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8
2.5°	586.9	568.4	541.5	520.7	507.3	496.1	491.3	490.0	487.6	486.4	486.4
5°	599.1	566.0	524.3	502.3	496.1	491.3	493.7	495.0	495.0	495.0	495.0
7.5°	617.5	571.0	520.7	505.9	504.8	504.8	512.2	515.7	518.2	518.2	518.2
10°	642.0	579.4	526.8	514.5	518.2	520.7	529.2	534.1	536.6	537.8	539.1
12.5°	675.0	597.8	539.1	529.2	534.1	535.4	541.5	544.0	546.3	547.6	547.6
15°	719.2	624.9	558.7	546.3	547.6	546.3	546.3	544.0	542.8	542.8	545.2
17.5°	764.5	650.6	575.9	558.7	553.7	544.0	536.6	530.4	526.8	524.3	525.6
20°	809.8	673.8	585.6	561.1	547.6	531.6	518.2	509.7	504.8	499.8	502.3
22.5°	855.1	695.8	589.3	553.7	534.1	510.9	496.1	482.7	471.7	464.3	465.5
25°	905.4	720.4	589.3	545.2	515.7	491.3	472.9	450.9	434.9	428.9	431.2
27.5°	955.5	741.2	583.2	529.2	495.0	470.4	443.6	417.8	408.0	404.2	405.6
30°	1005.8	757.1	569.6	509.7	472.9	446.0	410.4	393.3	381.1	371.2	372.4
32.5°	1056.0	768.1	551.3	485.2	449.6	415.3	385.9	366.2	344.3	332.1	333.2
35°	1113.7	776.8	529.2	460.7	423.9	388.3	366.2	334.4	311.3	301.4	299.0
37.5°	1173.6	782.9	505.9	433.7	398.2	368.8	346.7	307.5	285.4	271.9	270.7
40°	1238.7	785.3	477.8	405.6	373.6	356.4	321.0	291.6	253.6	245.0	245.0
42.5°	1315.7	784.1	449.6	377.4	346.7	328.3	302.5	289.2	256.0	247.5	242.6
45°	1404.1	784.1	419.0	344.3	319.7	292.8	281.8	273.3	251.2	254.8	257.3
47.5°	1504.4	781.6	382.3	317.3	297.7	274.4	268.4	249.9	241.4	243.8	246.2
50°	1642.9	785.3	349.1	295.3	281.8	262.1	254.8	245.0	241.4	242.6	241.4
52.5°	1835.2	773.0	317.3	281.8	269.5	243.8	243.8	242.6	243.8	242.6	242.6
55°	1940.6	746.1	294.0	274.4	261.0	235.3	240.1	242.6	245.0	243.8	243.8
57.5°	2090.0	727.7	275.7	269.5	256.0	232.8	237.7	242.6	243.8	242.6	242.6
60°	2266.6	715.5	263.5	270.7	252.3	232.8	238.9	242.6	241.4	240.1	240.1
62.5°	2471.1	710.6	254.8	274.4	248.7	234.0	238.9	242.6	237.7	236.4	236.4
65°	2548.2	666.5	243.8	276.9	251.2	234.0	237.7	238.9	232.8	231.6	230.3
67.5°	2429.5	590.5	227.9	271.9	258.5	234.0	234.0	232.8	225.5	224.1	221.7
70°	2163.6	490.0	203.3	256.0	263.5	235.3	229.1	223.0	215.7	215.7	210.7
72.5°	1771.5	385.9	171.5	227.9	259.7	238.9	219.2	210.7	202.2	202.2	197.3
75°	1276.6	287.8	137.3	189.9	243.8	237.7	207.1	196.0	186.2	185.1	178.9
77.5°	727.7	202.2	111.5	148.2	216.9	231.6	196.0	178.9	167.9	164.2	160.4
80°	373.6	136.1	90.6	116.4	180.1	214.3	187.4	159.3	147.1	140.9	134.7
82.5°	177.7	90.6	69.8	85.8	136.1	187.4	176.3	137.3	123.7	116.4	109.1
85°	79.6	53.9	46.5	55.2	96.7	145.7	155.5	112.6	96.7	121.4	89.4
87.5°	25.7	24.6	24.6	25.7	46.5	63.7	113.9	83.4	77.2	63.7	53.9
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)