

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: P265902

Luminaire Tested: **ARCH-AF16-50-D-U-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265902  
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-AF16-50-D-U-T4W-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5180.2 lumens  
Efficiency: N/A  
Efficacy: 97.7 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): 53  
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

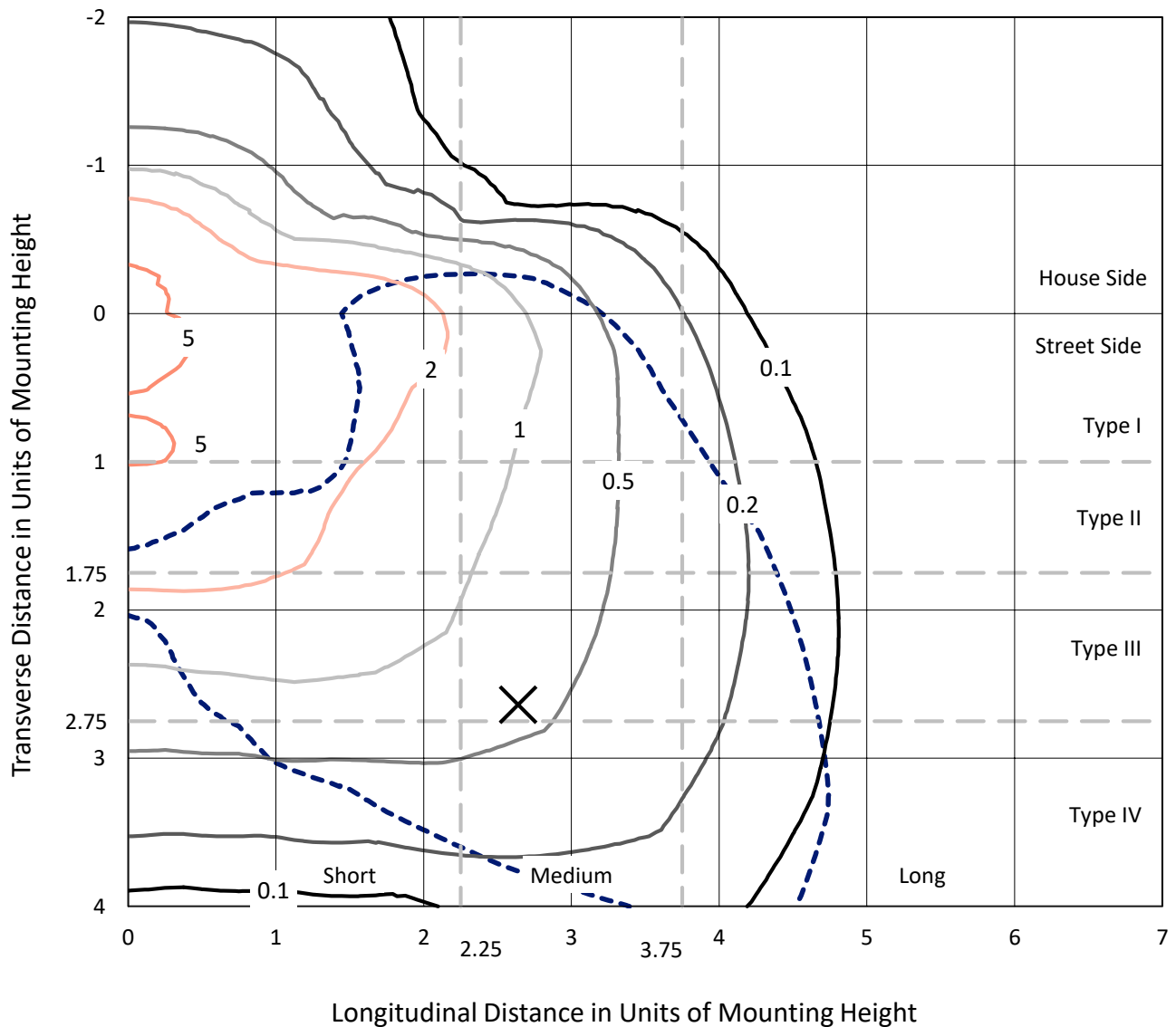


REPORT NUMBER: P265902

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-7027

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

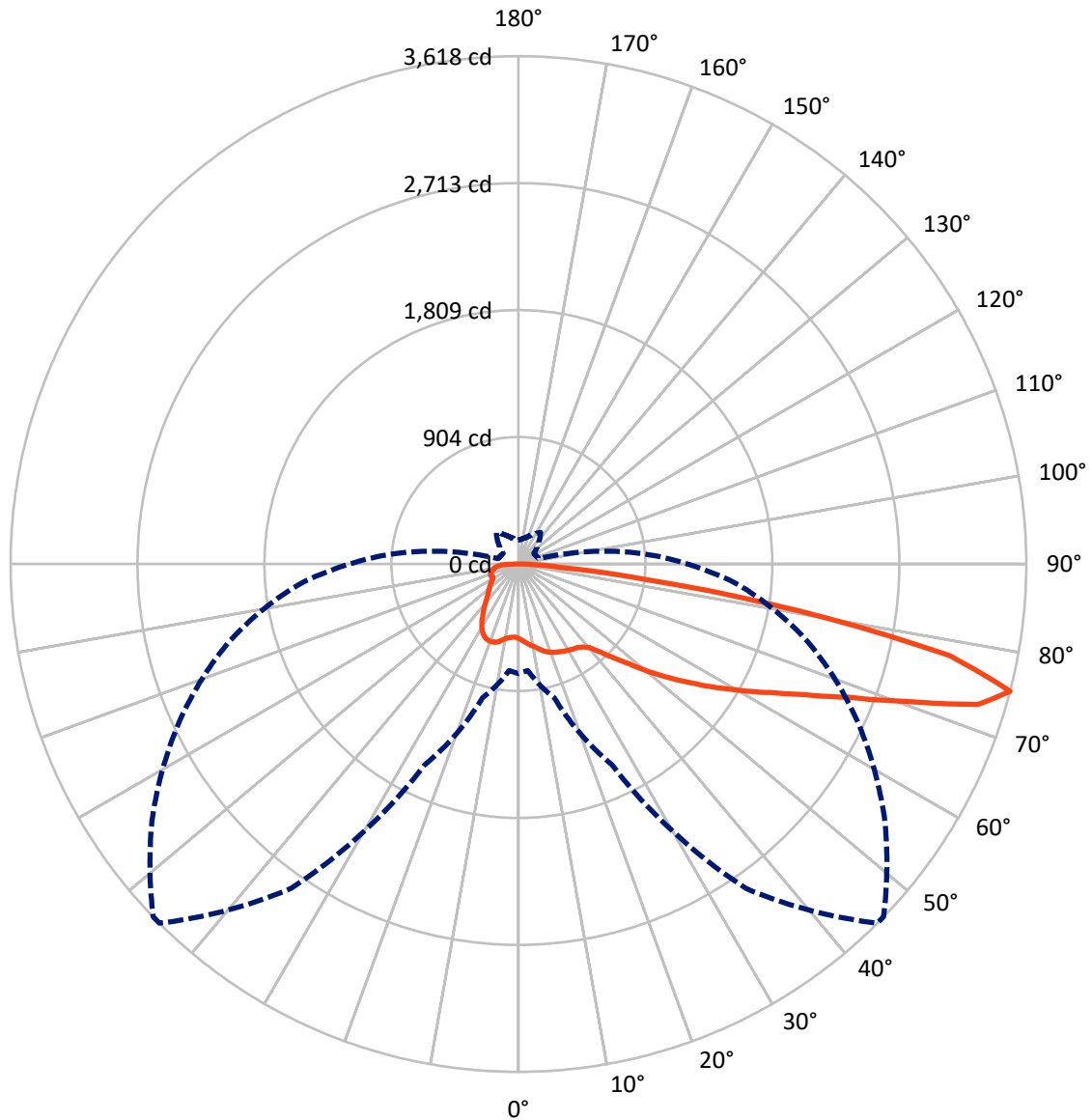


Based on 10 foot mounting height. Maximum calculated value = 6.2 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P265902

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-7027

### Luminous Intensity Polar Plot



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



REPORT NUMBER: P265902

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1200.0	0.0	1200.0
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	3980.2	0.0	3980.2
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	5180.2	0.0	5180.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.6	1.0
10°-20°	170.5	3.3
20°-30°	292.6	5.6
30°-40°	409.3	7.9
40°-50°	600.4	11.6
50°-60°	935.3	18.1
60°-70°	1345.8	26.0
70°-80°	1172.3	22.6
80°-90°	201.3	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°	5180.2	100.0
0°-180°	5180.2	100.0

**Coefficient of Utilization**



REPORT NUMBER: P265902

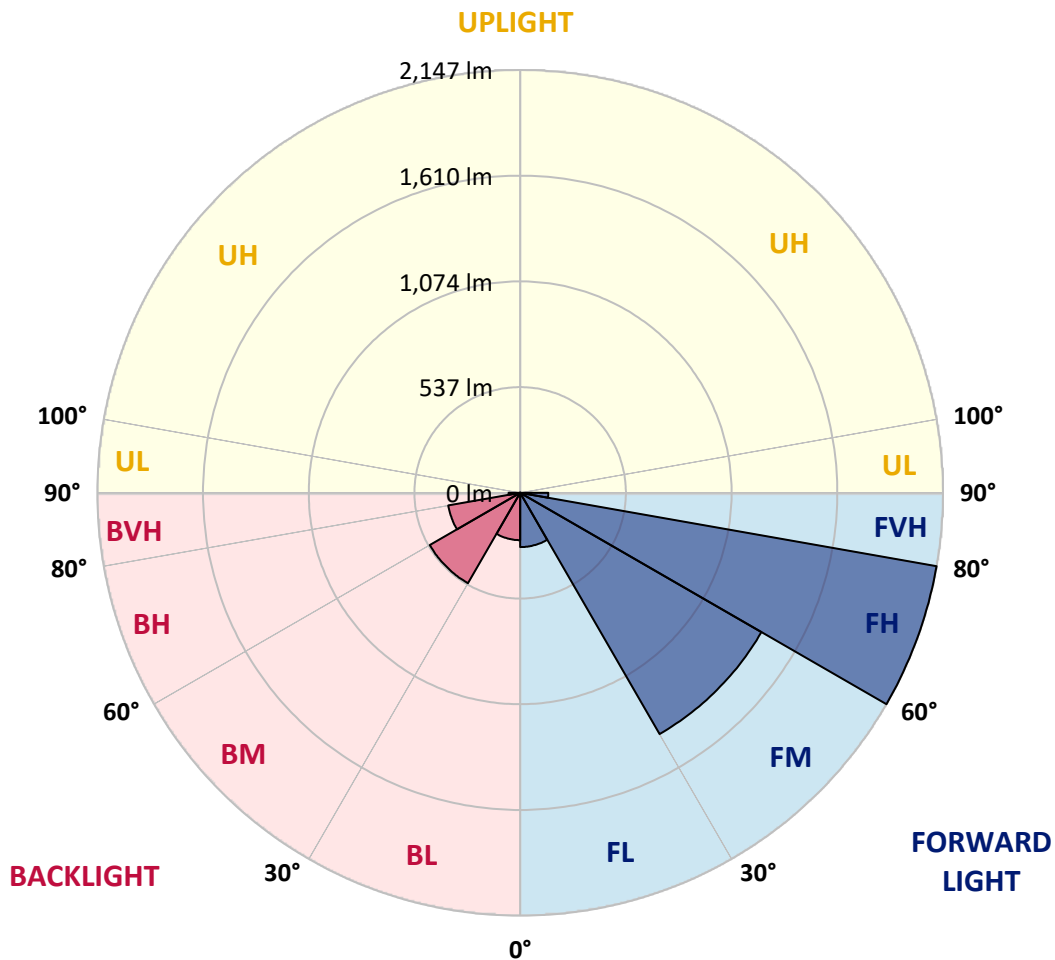
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	275.5	5.3			
FM	(30°-60°)	1414.6	27.3			
FH	(60°-80°)	2147.3	41.5			G2/5000
FVH	(80°-90°)	142.8	2.8			G2/225
BL	(0°-30°)	240.4	4.6	B1/500		
BM	(30°-60°)	530.4	10.2	B1/1000		
BH	(60°-80°)	370.8	7.2	B1/500		G1/500
BVH	(80°-90°)	58.5	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





REPORT NUMBER: P265902

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1
2.5°	557.3	553.3	553.3	550.2	550.2	545.1	543.1	542.1	537.0	534.0	531.1
5°	589.5	584.4	583.4	576.4	573.4	562.2	561.4	554.3	545.1	536.1	529.0
7.5°	618.8	615.7	610.7	603.7	594.6	580.5	579.4	568.4	553.3	541.0	531.1
10°	640.0	637.8	630.8	621.7	611.7	597.6	596.6	584.4	566.3	552.2	538.2
12.5°	665.0	662.1	653.0	640.9	629.8	616.6	615.7	605.5	585.4	567.3	549.3
15°	689.3	685.2	674.2	662.1	650.0	638.9	638.9	627.7	606.6	585.4	564.3
17.5°	701.3	699.3	688.2	675.2	665.0	657.0	656.0	645.9	624.9	602.7	579.4
20°	705.3	706.3	696.2	682.3	675.2	671.2	670.1	663.0	640.0	618.8	596.6
22.5°	704.5	707.3	699.3	684.1	682.3	682.3	682.3	674.2	656.0	634.8	612.6
25°	708.5	712.4	706.3	688.2	688.2	692.2	692.2	688.2	672.1	654.0	631.8
27.5°	722.4	725.6	720.5	695.3	696.2	702.4	701.3	702.4	692.2	675.2	653.0
30°	739.7	743.6	737.6	706.3	705.3	711.4	711.4	716.5	709.4	691.2	673.1
32.5°	785.9	784.9	765.9	718.5	715.5	721.5	721.5	726.5	722.4	708.5	691.2
35°	924.0	908.9	866.7	757.8	727.5	730.6	730.6	739.7	741.6	730.6	715.5
37.5°	1065.1	1060.1	1027.8	862.6	772.0	749.7	748.6	761.9	770.8	761.9	751.7
40°	1207.2	1203.2	1196.2	1002.7	864.6	784.0	780.9	792.0	808.1	802.1	796.1
42.5°	1339.3	1337.1	1344.3	1140.7	982.4	857.5	848.4	835.3	858.5	856.5	856.5
45°	1442.9	1448.1	1452.1	1269.7	1110.5	952.3	941.2	896.9	928.0	936.2	942.2
47.5°	1501.4	1505.5	1519.7	1395.6	1238.5	1062.1	1054.0	981.5	1022.8	1047.0	1064.1
50°	1585.1	1574.0	1586.0	1518.6	1392.6	1205.2	1183.0	1095.4	1147.8	1190.1	1230.4
52.5°	1665.6	1647.6	1657.6	1660.6	1567.9	1345.2	1322.0	1229.4	1294.8	1361.4	1432.9
55°	1738.3	1737.2	1747.4	1798.8	1737.2	1495.4	1469.2	1377.6	1472.2	1543.7	1664.6
57.5°	1796.7	1806.9	1851.0	1958.9	1932.8	1658.6	1629.4	1549.8	1661.7	1733.2	1933.7
60°	1865.2	1881.3	1954.9	2094.9	2111.0	1829.9	1799.8	1742.4	1856.2	1928.8	2245.1
62.5°	1888.3	1911.6	2062.8	2238.0	2297.5	2017.4	1990.1	1951.8	2060.7	2126.2	2555.5
65°	1734.2	1778.6	2122.2	2311.6	2498.0	2243.1	2219.9	2186.7	2264.3	2307.6	2766.2
67.5°	1691.9	1712.1	2006.4	2417.3	2686.6	2533.3	2510.1	2452.7	2454.7	2436.7	2834.6
70°	1632.5	1654.6	1887.3	2497.1	2956.5	2930.4	2902.2	2732.9	2629.1	2519.1	2699.5
72.5°	1390.5	1383.6	1626.4	2282.5	3086.5	3422.2	3388.9	3034.1	2758.1	2447.6	2278.5
75°	780.9	760.9	986.5	1579.0	2818.5	3617.6	3616.5	3186.3	2667.3	2132.2	1550.8
77.5°	226.7	220.7	325.5	662.1	1897.5	3143.0	3181.3	2873.9	2226.0	1531.7	851.6
80°	106.8	108.9	140.0	218.6	810.2	2028.5	2138.3	1892.4	1330.1	706.3	351.6
82.5°	67.6	68.5	95.7	141.0	342.7	921.0	1011.8	851.6	527.0	305.3	155.1
85°	42.3	42.3	63.5	92.7	204.5	294.3	319.4	290.2	225.7	166.2	84.6
87.5°	23.1	23.1	38.3	53.4	111.8	94.7	97.7	115.9	141.0	101.8	42.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P265902

CATALOG NUMBER: ARCH-AF16-50-D-U-T4W-7027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1	531.1
2.5°	530.0	528.1	525.0	524.0	523.1	521.9	523.1	525.0	523.1	523.1	524.0
5°	527.0	525.0	520.9	520.9	521.9	523.1	528.1	531.1	532.1	532.1	532.1
7.5°	527.0	524.0	520.9	521.9	524.0	528.1	536.1	541.0	545.1	546.2	546.2
10°	532.1	528.1	526.0	528.1	534.0	537.0	545.1	553.3	558.2	560.3	560.3
12.5°	541.0	537.0	537.0	541.0	549.3	553.3	560.3	566.3	572.4	575.4	575.4
15°	556.2	551.2	552.2	559.3	568.4	572.4	577.4	579.4	584.4	588.5	588.5
17.5°	570.3	565.4	567.3	575.4	581.5	583.4	586.5	585.4	587.5	590.5	591.5
20°	586.5	581.5	582.5	587.5	588.5	586.5	586.5	583.4	582.5	587.5	589.5
22.5°	602.7	597.6	596.6	593.5	588.5	583.4	580.5	577.4	575.4	580.5	582.5
25°	621.7	614.7	609.7	596.6	583.4	574.3	570.3	568.4	567.3	572.4	574.3
27.5°	642.8	635.8	620.6	592.5	571.3	556.2	553.3	553.3	555.2	558.2	560.3
30°	663.0	656.0	628.9	583.4	550.2	528.1	525.0	528.1	533.1	536.1	539.2
32.5°	683.3	676.2	633.8	569.3	519.0	490.7	488.7	493.8	501.9	503.8	505.8
35°	710.4	703.4	640.0	549.3	479.6	449.4	447.4	450.4	457.4	460.6	463.5
37.5°	748.6	744.7	648.9	527.0	443.4	410.2	404.1	402.1	406.2	405.0	409.1
40°	799.1	802.1	665.0	497.8	408.1	373.9	360.8	354.7	350.7	342.7	346.7
42.5°	872.7	874.7	683.3	464.6	377.8	339.6	322.4	311.4	303.3	290.2	292.2
45°	980.5	963.3	704.5	429.3	350.7	312.4	292.2	279.2	268.1	256.9	258.0
47.5°	1123.6	1071.1	727.5	400.0	323.5	290.2	272.0	256.9	243.9	234.7	235.7
50°	1299.8	1205.2	750.8	372.8	296.3	273.1	256.9	240.8	227.7	218.6	217.7
52.5°	1532.7	1366.4	765.9	342.7	269.0	258.0	243.9	228.8	212.5	201.5	200.5
55°	1774.5	1553.9	778.9	306.3	242.8	240.8	233.7	216.6	197.4	183.4	181.4
57.5°	2040.6	1754.4	789.0	271.1	222.7	226.7	224.8	204.5	183.4	170.3	169.3
60°	2282.5	1962.0	756.8	239.8	204.5	212.5	214.7	197.4	186.4	189.5	190.4
62.5°	2526.3	2122.2	633.8	216.6	192.4	203.6	220.7	219.6	214.7	219.6	220.7
65°	2614.0	2155.5	449.4	197.4	180.4	207.6	239.8	237.8	214.7	205.5	203.6
67.5°	2564.5	2056.7	302.3	182.4	171.2	212.5	260.0	237.8	206.6	194.6	190.4
70°	2329.8	1813.9	221.7	167.3	163.2	211.6	271.1	236.9	202.6	189.5	184.4
72.5°	1858.1	1399.6	178.4	153.3	151.2	206.6	277.0	234.7	198.5	184.4	178.4
75°	1203.2	870.6	150.1	139.1	132.9	198.5	274.2	228.8	193.4	175.3	171.2
77.5°	558.2	374.9	128.0	123.0	115.9	186.4	265.0	216.6	182.4	165.3	160.2
80°	260.0	177.3	107.8	106.8	103.8	176.3	253.0	202.6	169.3	155.1	147.1
82.5°	139.1	106.8	87.7	87.7	90.6	164.3	237.8	185.4	152.2	145.0	124.0
85°	73.5	61.4	63.5	68.5	77.7	145.0	217.7	167.3	132.9	110.9	107.8
87.5°	37.3	39.3	39.3	46.4	59.5	117.9	179.4	138.1	112.8	90.6	88.7
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)