

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: P214570

Luminaire Tested: **ARCH-AF16-40-D-U-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214570
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-AF16-40-D-U-T2R-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4627.1 lumens
Efficiency: N/A
Efficacy: 110.2 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

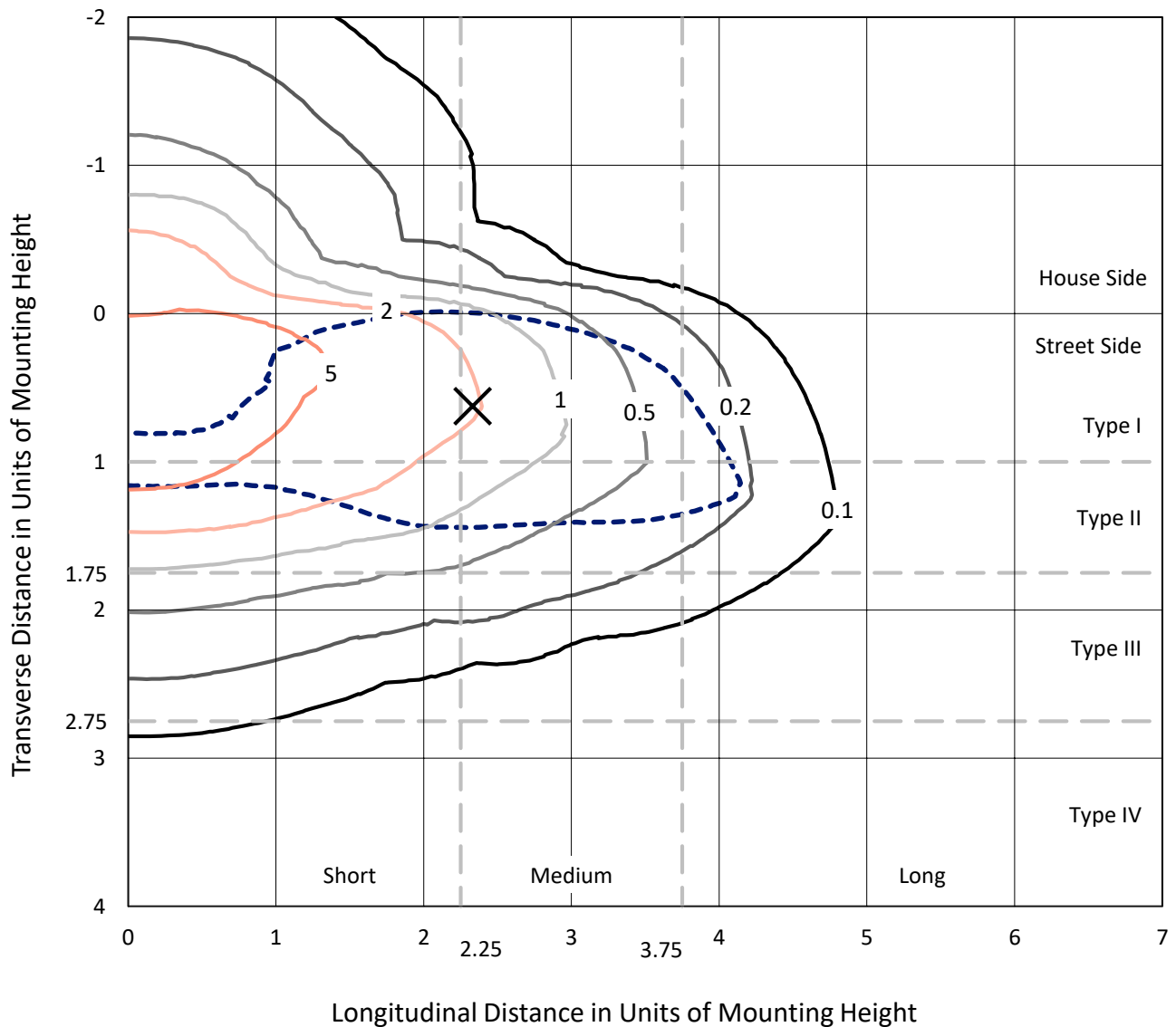
Input Watts (W): 42
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214570
 CATALOG NUMBER: ARCH-AF16-40-D-U-T2R-7030

Iso-Footcandle Lines of Horizontal Illumination

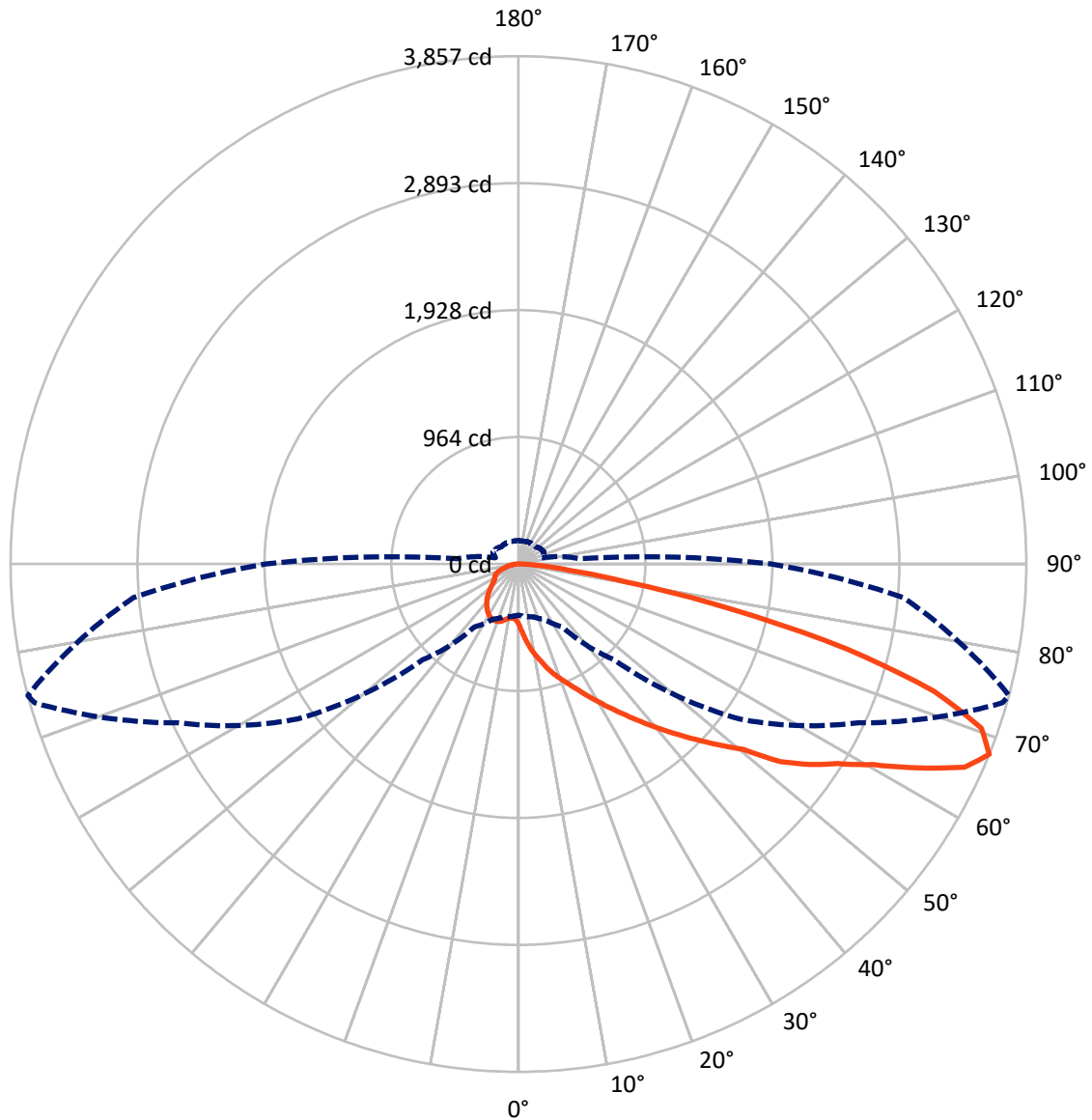
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.6 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P214570
CATALOG NUMBER: ARCH-AF16-40-D-U-T2R-7030

Luminous Intensity Polar Plot



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



REPORT NUMBER: P214570

CATALOG NUMBER: ARCH-AF16-40-D-U-T2R-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	790.1	0.0	790.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	3837.0	0.0	3837.0
	% Fixture	82.9	0.0	82.9
Total	Lumens	4627.1	0.0	4627.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	1.2
10°-20°	194.7	4.2
20°-30°	355.0	7.7
30°-40°	582.8	12.6
40°-50°	842.8	18.2
50°-60°	993.2	21.5
60°-70°	965.1	20.9
70°-80°	536.5	11.6
80°-90°	103.2	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°	4627.1	100.0
0°-180°	4627.1	100.0



REPORT NUMBER: P214570

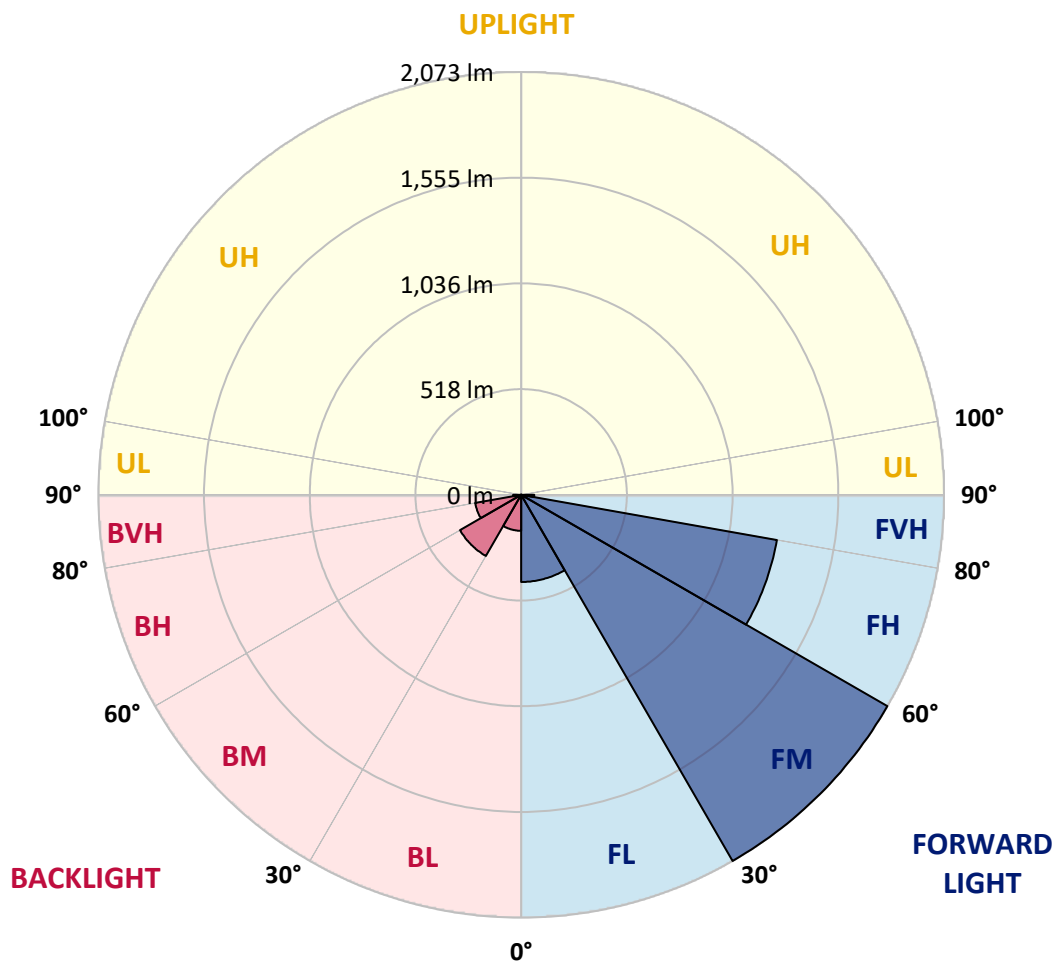
CATALOG NUMBER: ARCH-AF16-40-D-U-T2R-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	427.2	9.2			
FM (30°-60°)	2072.7	44.8			
FH (60°-80°)	1272.9	27.5			G1/1800
FVH (80°-90°)	64.2	1.4			G1/100
BL (0°-30°)	176.4	3.8	B1/500		
BM (30°-60°)	346.0	7.5	B1/1000		
BH (60°-80°)	228.8	4.9	B1/500		G1/500
BVH (80°-90°)	39.0	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





REPORT NUMBER: P214570

CATALOG NUMBER: ARCH-AF16-40-D-U-T2R-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	458.5	458.5	458.5	458.5	458.5	458.5	458.5	458.5	458.5	458.5	458.5
2.5°	650.0	651.9	648.1	639.3	626.8	603.5	583.3	547.5	515.6	511.7	477.9
5°	764.2	766.1	761.3	750.6	737.1	712.0	683.9	637.4	586.1	576.6	504.9
7.5°	842.5	843.5	837.7	827.1	816.3	791.2	763.1	710.9	648.1	640.4	539.7
10°	909.2	911.2	903.5	896.7	885.1	860.0	830.9	775.7	710.9	700.4	575.6
12.5°	971.2	973.1	968.2	962.5	958.6	935.4	903.5	837.7	768.1	756.4	618.1
15°	1012.8	1014.7	1015.7	1023.4	1028.2	1011.8	979.8	908.3	830.0	819.3	668.4
17.5°	1001.2	1006.0	1020.5	1048.6	1078.5	1079.5	1053.4	978.0	890.9	879.3	719.7
20°	967.3	971.2	988.6	1031.2	1090.2	1124.1	1122.1	1048.6	948.0	935.4	767.1
22.5°	995.4	1000.2	1000.2	1026.3	1084.4	1147.2	1172.4	1118.2	1005.0	993.3	814.4
25°	1115.3	1118.2	1097.9	1087.2	1108.6	1166.6	1214.0	1193.6	1074.7	1061.1	865.8
27.5°	1282.6	1277.8	1252.6	1210.0	1186.9	1202.4	1250.7	1265.2	1155.0	1138.5	919.0
30°	1449.0	1446.1	1417.1	1360.1	1307.9	1274.9	1291.3	1329.0	1242.1	1222.7	970.2
32.5°	1604.8	1599.9	1568.0	1501.2	1442.2	1381.4	1349.4	1387.1	1334.9	1312.6	1027.2
35°	1747.9	1735.4	1703.5	1633.8	1572.8	1514.8	1436.4	1442.2	1435.4	1412.2	1090.2
37.5°	1864.0	1854.3	1819.5	1754.7	1689.9	1634.7	1552.6	1505.1	1543.9	1521.6	1162.7
40°	1966.5	1955.8	1920.1	1855.3	1795.3	1743.1	1678.2	1581.5	1665.6	1640.5	1243.9
42.5°	2043.9	2036.1	2007.2	1943.2	1885.3	1837.8	1805.9	1678.2	1792.4	1768.3	1333.0
45°	2085.5	2077.8	2062.3	2011.0	1957.8	1921.1	1923.9	1793.4	1924.9	1904.6	1438.4
47.5°	2034.3	2040.1	2053.6	2043.9	2011.0	1993.7	2029.4	1912.4	2072.9	2053.6	1552.6
50°	1896.8	1902.6	1956.9	2023.6	2035.2	2056.5	2124.2	2049.7	2229.7	2214.1	1693.7
52.5°	1559.3	1591.3	1741.1	1900.8	2010.1	2098.1	2229.7	2253.8	2493.8	2493.8	1943.2
55°	1178.2	1206.2	1377.4	1656.1	1912.4	2101.9	2307.0	2392.1	2684.3	2688.1	2074.0
57.5°	954.7	972.2	1056.3	1341.7	1707.2	2053.6	2398.9	2511.1	2842.9	2860.3	2242.2
60°	774.8	784.5	839.6	1038.0	1423.8	1923.0	2464.7	2681.3	3069.3	3093.4	2456.9
62.5°	623.0	632.6	669.3	788.3	1117.2	1678.2	2453.1	2858.4	3371.0	3410.7	2738.5
65°	497.2	507.8	532.0	605.6	827.9	1374.6	2334.1	2949.4	3683.4	3722.3	2925.1
67.5°	387.9	397.6	414.0	462.3	583.3	1028.2	2052.7	2853.6	3823.7	3856.7	2934.8
70°	293.2	297.9	311.5	342.4	417.0	682.9	1606.6	2532.4	3698.0	3728.0	2741.4
72.5°	227.4	226.3	234.2	249.5	291.1	470.2	1065.0	2059.4	3269.5	3300.5	2338.9
75°	185.7	184.7	189.6	194.5	210.9	315.3	628.8	1550.6	2638.8	2579.8	1754.7
77.5°	156.7	155.7	160.6	161.6	168.3	217.7	358.0	1020.5	1760.5	1658.9	988.6
80°	132.5	131.5	137.3	139.3	144.1	159.6	206.1	552.3	884.1	837.7	472.0
82.5°	99.7	103.5	114.1	119.0	124.8	118.0	127.8	243.7	410.2	391.8	205.1
85°	48.4	57.1	86.1	95.7	102.4	74.6	87.1	115.2	184.7	176.0	83.1
87.5°	16.5	14.5	51.3	60.9	66.7	33.9	48.4	63.8	76.4	69.6	26.1
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: P214570

CATALOG NUMBER: ARCH-AF16-40-D-U-T2R-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	458.5	458.5	458.5	458.5	458.5	458.5	458.5	458.5	458.5	458.5	458.5
2.5°	463.4	448.8	427.5	411.2	400.4	391.8	387.9	386.9	385.0	384.0	384.0
5°	473.0	446.9	414.0	396.6	391.8	387.9	389.8	390.8	390.8	390.8	390.8
7.5°	487.6	450.8	411.2	399.5	398.6	398.6	404.4	407.2	409.1	409.1	409.1
10°	506.9	457.6	415.9	406.2	409.1	411.2	417.9	421.7	423.7	424.7	425.6
12.5°	532.9	472.0	425.6	417.9	421.7	422.8	427.5	429.5	431.5	432.3	432.3
15°	567.8	493.3	441.1	431.5	432.3	431.5	431.5	429.5	428.6	428.6	430.5
17.5°	603.5	513.6	454.6	441.1	437.2	429.5	423.7	418.8	415.9	414.0	414.9
20°	639.3	532.0	462.3	443.0	432.3	419.8	409.1	402.4	398.6	394.7	396.6
22.5°	675.2	549.5	465.2	437.2	421.7	403.3	391.8	381.1	372.5	366.6	367.5
25°	714.9	568.8	465.2	430.5	407.2	387.9	373.3	355.9	343.4	338.6	340.5
27.5°	754.6	585.2	460.4	417.9	390.8	371.5	350.1	329.9	322.1	319.2	320.1
30°	794.2	597.7	449.8	402.4	373.3	352.2	324.1	310.6	300.8	293.2	294.0
32.5°	833.8	606.5	435.3	383.1	355.0	327.9	304.8	289.2	271.8	262.1	263.1
35°	879.3	613.3	417.9	363.8	334.7	306.6	289.2	264.1	245.8	237.9	236.0
37.5°	926.6	618.1	399.5	342.4	314.3	291.1	273.7	242.8	225.4	214.7	213.8
40°	978.0	620.0	377.3	320.1	295.0	281.5	253.5	230.2	200.3	193.5	193.5
42.5°	1038.8	619.1	355.0	297.9	273.7	259.3	239.0	228.3	202.1	195.3	191.5
45°	1108.6	619.1	330.8	271.8	252.5	231.2	222.5	215.7	198.3	201.1	203.1
47.5°	1187.8	617.1	301.8	250.5	235.0	216.7	211.9	197.3	190.5	192.6	194.5
50°	1297.1	620.0	275.7	233.2	222.5	207.0	201.1	193.5	190.5	191.5	190.5
52.5°	1449.0	610.3	250.5	222.5	212.8	192.6	192.6	191.5	192.6	191.5	191.5
55°	1532.3	589.1	232.1	216.7	206.1	185.7	189.6	191.5	193.5	192.6	192.6
57.5°	1650.3	574.6	217.7	212.8	202.1	183.8	187.7	191.5	192.6	191.5	191.5
60°	1789.5	564.9	207.9	213.8	199.3	183.8	188.6	191.5	190.5	189.6	189.6
62.5°	1951.1	561.0	201.1	216.7	196.3	184.7	188.6	191.5	187.7	186.8	186.8
65°	2012.0	526.2	192.6	218.6	198.3	184.7	187.7	188.6	183.8	182.8	181.8
67.5°	1918.1	466.2	180.0	214.7	204.1	184.7	184.7	183.8	178.0	177.0	175.1
70°	1708.3	386.9	160.6	202.1	207.9	185.7	181.0	176.0	170.2	170.2	166.4
72.5°	1398.7	304.8	135.4	180.0	205.1	188.6	173.1	166.4	159.6	159.6	155.7
75°	1007.9	227.4	108.3	149.9	192.6	187.7	163.5	154.8	147.1	146.1	141.3
77.5°	574.6	159.6	88.1	117.0	171.2	182.8	154.8	141.3	132.5	129.6	126.7
80°	295.0	107.4	71.6	91.9	142.1	169.3	148.0	125.7	116.1	111.2	106.4
82.5°	140.3	71.6	55.1	67.7	107.4	148.0	139.3	108.3	97.7	91.9	86.1
85°	62.9	42.6	36.7	43.4	76.4	115.2	122.8	89.0	76.4	95.7	70.6
87.5°	20.3	19.3	19.3	20.3	36.7	50.3	89.9	65.8	60.9	50.3	42.6
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)