

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: P214571

Luminaire Tested: **ARCH-AF16-50-D-U-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214571
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-AF16-50-D-U-T2R-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5812.6 lumens
Efficiency: N/A
Efficacy: 109.7 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

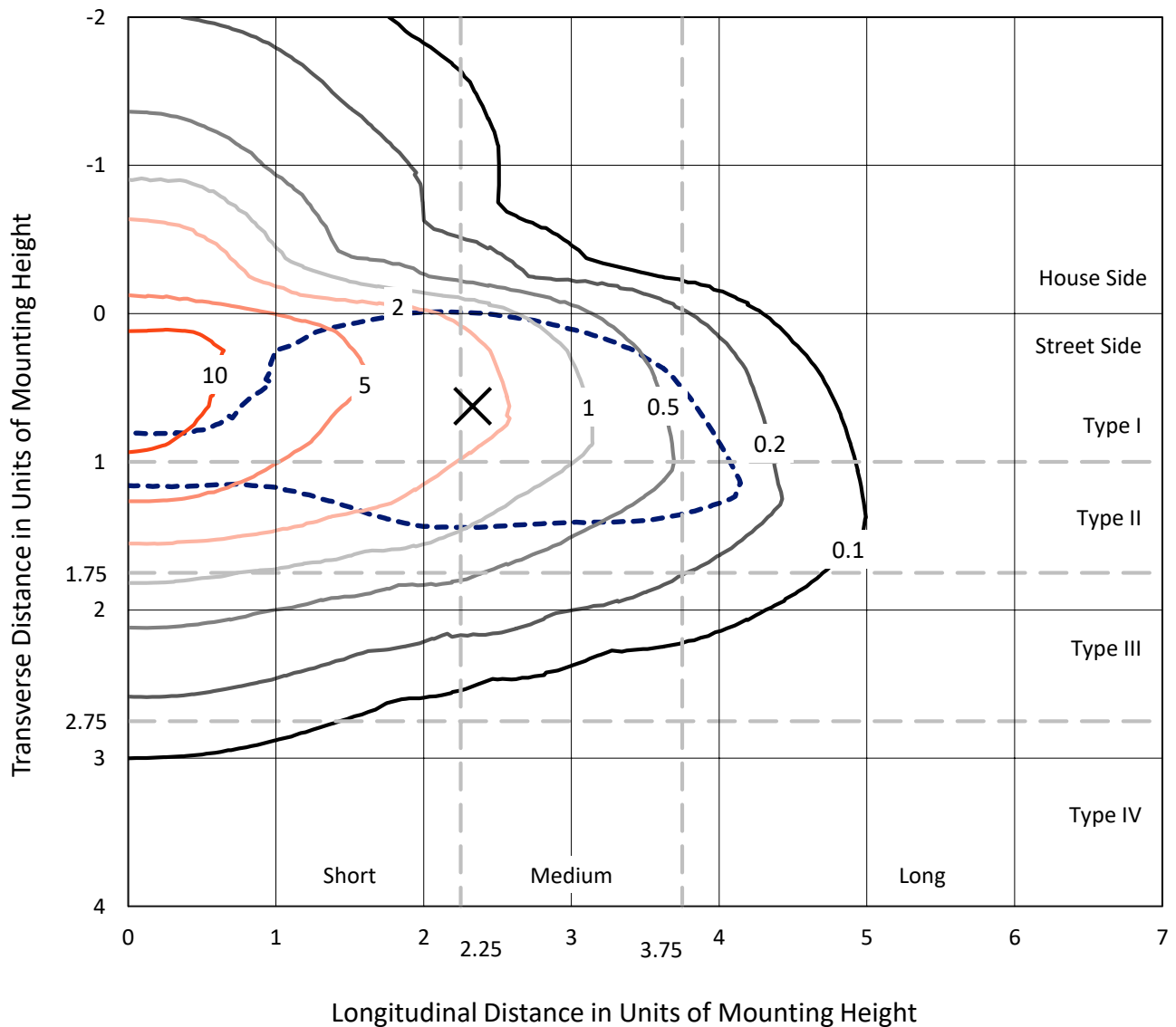
Input Watts (W): 53
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214571
 CATALOG NUMBER: ARCH-AF16-50-D-U-T2R-7030

Iso-Footcandle Lines of Horizontal Illumination

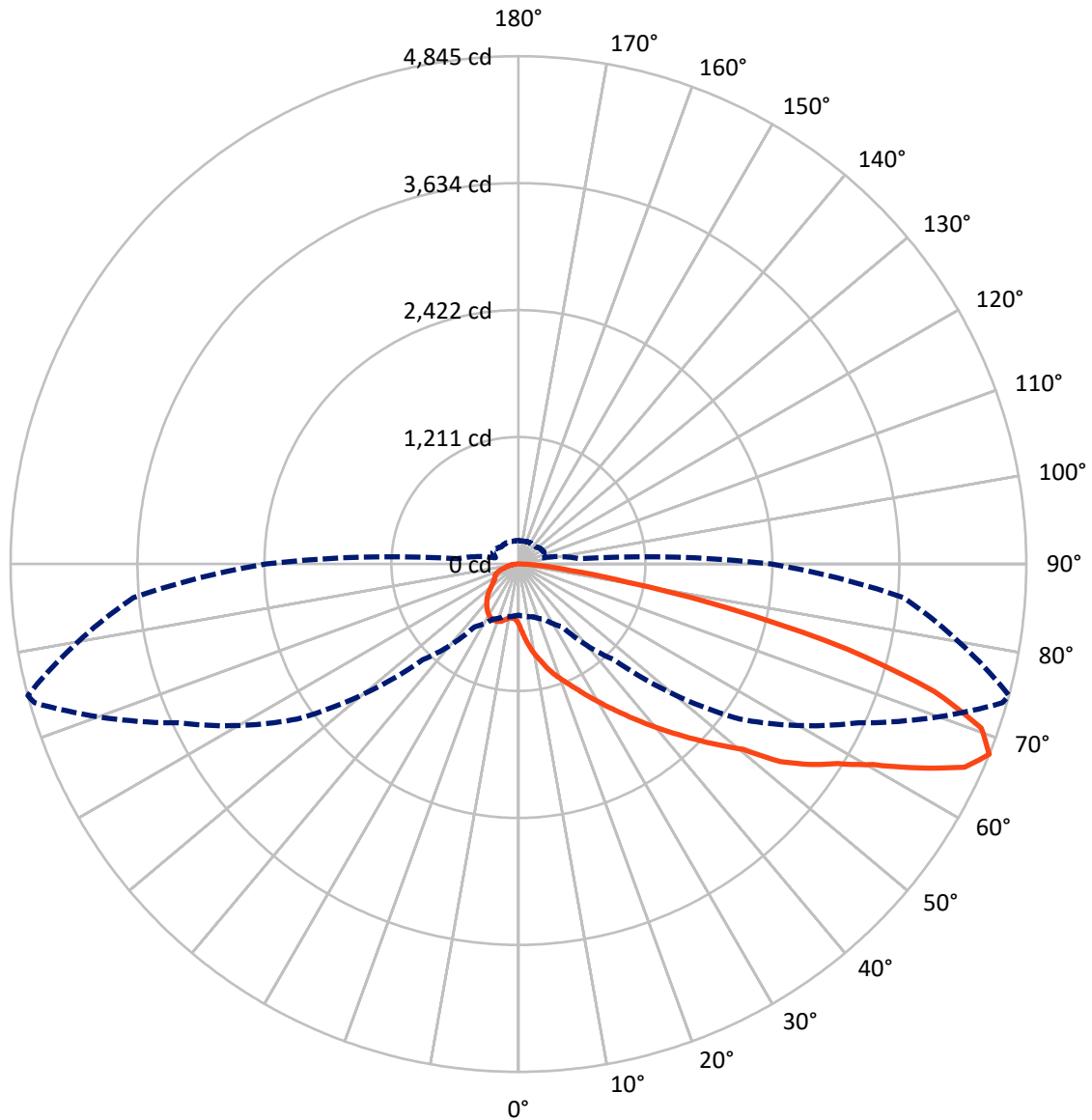
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P214571
CATALOG NUMBER: ARCH-AF16-50-D-U-T2R-7030

Luminous Intensity Polar Plot



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



REPORT NUMBER: P214571

CATALOG NUMBER: ARCH-AF16-50-D-U-T2R-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	992.6	0.0	992.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	4820.0	0.0	4820.0
	% Fixture	82.9	0.0	82.9
Total	Lumens	5812.6	0.0	5812.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.7	1.2
10°-20°	244.5	4.2
20°-30°	446.0	7.7
30°-40°	732.1	12.6
40°-50°	1058.7	18.2
50°-60°	1247.7	21.5
60°-70°	1212.4	20.9
70°-80°	673.9	11.6
80°-90°	129.6	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°	5812.6	100.0
0°-180°	5812.6	100.0



REPORT NUMBER: P214571

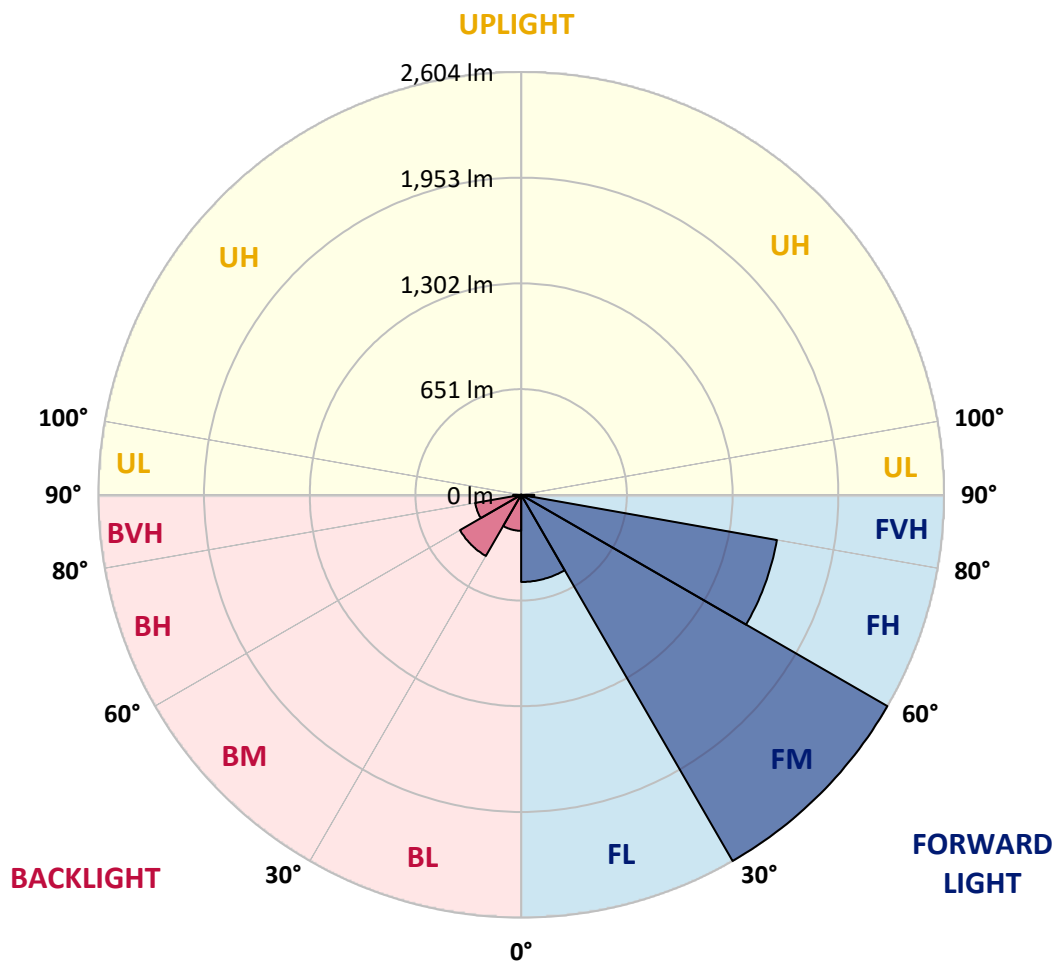
CATALOG NUMBER: ARCH-AF16-50-D-U-T2R-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	536.7	9.2			
FM (30°-60°)	2603.7	44.8			
FH (60°-80°)	1599.0	27.5			G1/1800
FVH (80°-90°)	80.6	1.4			G1/100
BL (0°-30°)	221.5	3.8	B1/500		
BM (30°-60°)	434.7	7.5	B1/1000		
BH (60°-80°)	287.4	4.9	B1/500		G1/500
BVH (80°-90°)	48.9	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: P214571

CATALOG NUMBER: ARCH-AF16-50-D-U-T2R-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1
2.5°	816.6	819.0	814.1	803.2	787.4	758.3	732.7	687.8	647.7	642.8	600.3
5°	960.0	962.3	956.3	942.9	926.0	894.3	859.1	800.8	736.4	724.2	634.2
7.5°	1058.4	1059.6	1052.2	1038.9	1025.6	993.9	958.7	893.0	814.1	804.3	678.1
10°	1142.2	1144.6	1134.8	1126.5	1111.8	1080.2	1043.8	974.5	893.0	879.7	723.0
12.5°	1220.0	1222.4	1216.4	1209.1	1204.1	1175.1	1134.8	1052.2	964.8	950.2	776.5
15°	1272.3	1274.6	1275.9	1285.7	1291.7	1271.0	1231.0	1141.0	1042.6	1029.2	839.6
17.5°	1257.7	1263.7	1281.9	1317.2	1354.9	1356.1	1323.2	1228.5	1119.2	1104.5	904.0
20°	1215.2	1220.0	1241.8	1295.4	1369.4	1411.9	1409.6	1317.2	1190.8	1175.1	963.5
22.5°	1250.4	1256.5	1256.5	1289.3	1362.1	1441.1	1472.7	1404.6	1262.5	1248.0	1023.1
25°	1401.0	1404.6	1379.2	1365.8	1392.5	1465.5	1525.0	1499.5	1350.0	1333.0	1087.5
27.5°	1611.2	1605.2	1573.6	1520.2	1491.0	1510.4	1571.1	1589.4	1450.9	1430.2	1154.4
30°	1820.3	1816.7	1780.2	1708.5	1642.8	1601.5	1622.2	1669.6	1560.2	1535.9	1218.8
32.5°	2016.0	2009.9	1969.7	1886.0	1811.7	1735.2	1695.1	1742.4	1676.9	1648.9	1290.5
35°	2195.8	2179.9	2139.9	2052.3	1975.9	1902.9	1804.4	1811.7	1803.3	1774.1	1369.4
37.5°	2341.5	2329.4	2285.7	2204.2	2122.8	2053.5	1950.3	1890.7	1939.4	1911.4	1460.6
40°	2470.4	2457.0	2412.0	2330.6	2255.3	2189.7	2108.2	1986.8	2092.5	2060.8	1562.6
42.5°	2567.6	2557.9	2521.3	2441.2	2368.3	2308.7	2268.7	2108.2	2251.7	2221.2	1674.4
45°	2619.8	2610.1	2590.6	2526.3	2459.4	2413.2	2417.0	2252.8	2418.1	2392.6	1806.9
47.5°	2555.5	2562.6	2579.7	2567.6	2526.3	2504.3	2549.3	2402.3	2603.9	2579.7	1950.3
50°	2382.8	2390.1	2458.3	2542.0	2556.6	2583.3	2668.4	2574.8	2800.9	2781.4	2127.8
52.5°	1958.8	1998.9	2187.3	2387.8	2525.1	2635.7	2800.9	2831.2	3132.6	3132.6	2441.2
55°	1480.0	1515.3	1730.3	2080.3	2402.3	2640.5	2898.1	3005.0	3372.0	3376.8	2605.3
57.5°	1199.3	1221.2	1327.0	1685.5	2144.6	2579.7	3013.5	3154.5	3571.2	3593.1	2816.7
60°	973.3	985.5	1054.7	1303.8	1788.7	2415.7	3096.2	3368.4	3855.6	3886.1	3086.5
62.5°	782.6	794.7	840.9	990.3	1403.4	2108.2	3081.5	3590.7	4234.7	4284.5	3440.0
65°	624.5	638.0	668.3	760.7	1040.1	1726.8	2932.1	3705.0	4627.2	4675.9	3674.5
67.5°	487.3	499.5	520.1	580.8	732.7	1291.7	2578.5	3584.6	4803.4	4844.7	3686.7
70°	368.2	374.2	391.2	430.2	523.7	857.9	2018.3	3181.2	4645.4	4683.1	3443.7
72.5°	285.6	284.3	294.0	313.5	365.8	590.5	1337.9	2587.0	4107.2	4146.1	2938.2
75°	233.3	232.0	238.1	244.2	264.9	396.2	789.8	1947.9	3314.8	3240.7	2204.2
77.5°	196.8	195.7	201.7	202.9	211.4	273.3	449.6	1281.9	2211.5	2083.9	1241.8
80°	166.5	165.3	172.5	175.0	181.1	200.5	258.8	693.8	1110.6	1052.2	592.9
82.5°	125.2	130.0	143.3	149.4	156.8	148.3	160.4	306.3	515.2	492.1	257.7
85°	60.7	71.7	108.1	120.3	128.8	93.5	109.4	144.5	232.0	221.1	104.5
87.5°	20.6	18.2	64.4	76.6	83.8	42.5	60.7	80.2	96.0	87.5	32.8
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: P214571

CATALOG NUMBER: ARCH-AF16-50-D-U-T2R-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1
2.5°	582.1	563.8	537.1	516.5	503.0	492.1	487.3	486.1	483.6	482.4	482.4
5°	594.2	561.4	520.1	498.2	492.1	487.3	489.7	490.9	490.9	490.9	490.9
7.5°	612.4	566.3	516.5	501.8	500.6	500.6	507.9	511.6	513.9	513.9	513.9
10°	636.8	574.7	522.5	510.4	513.9	516.5	524.9	529.8	532.2	533.4	534.6
12.5°	669.5	592.9	534.6	524.9	529.8	531.0	537.1	539.5	541.9	543.1	543.1
15°	713.3	619.7	554.1	541.9	543.1	541.9	541.9	539.5	538.3	538.3	540.8
17.5°	758.3	645.2	571.1	554.1	549.2	539.5	532.2	526.2	522.5	520.1	521.2
20°	803.2	668.3	580.8	556.5	543.1	527.4	513.9	505.6	500.6	495.8	498.2
22.5°	848.2	690.2	584.4	549.2	529.8	506.8	492.1	478.8	467.8	460.5	461.7
25°	898.0	714.4	584.4	540.8	511.6	487.3	469.0	447.2	431.3	425.3	427.7
27.5°	947.9	735.2	578.4	524.9	490.9	466.6	439.9	414.3	404.6	401.0	402.2
30°	997.6	750.9	565.1	505.6	469.0	442.3	407.1	390.0	377.9	368.2	369.4
32.5°	1047.5	761.9	546.9	481.2	446.0	411.9	382.7	363.3	341.4	329.3	330.5
35°	1104.5	770.4	524.9	456.9	420.4	385.2	363.3	331.7	308.6	299.0	296.5
37.5°	1164.0	776.5	501.8	430.2	394.9	365.8	343.8	305.1	283.1	269.8	268.6
40°	1228.5	778.9	473.8	402.2	370.6	353.6	318.4	289.2	251.6	243.0	243.0
42.5°	1305.1	777.7	446.0	374.2	343.8	325.7	300.1	286.8	253.9	245.5	240.6
45°	1392.5	777.7	415.6	341.4	317.2	290.4	279.4	271.0	249.1	252.7	255.2
47.5°	1492.2	775.3	379.1	314.6	295.3	272.2	266.1	247.9	239.4	241.8	244.2
50°	1629.5	778.9	346.4	292.9	279.4	260.0	252.7	243.0	239.4	240.6	239.4
52.5°	1820.3	766.8	314.6	279.4	267.3	241.8	241.8	240.6	241.8	240.6	240.6
55°	1924.7	740.0	291.6	272.2	258.8	233.3	238.1	240.6	243.0	241.8	241.8
57.5°	2072.9	721.7	273.3	267.3	253.9	230.9	235.8	240.6	241.8	240.6	240.6
60°	2248.0	709.6	261.2	268.6	250.3	230.9	237.0	240.6	239.4	238.1	238.1
62.5°	2450.9	704.7	252.7	272.2	246.7	232.0	237.0	240.6	235.8	234.5	234.5
65°	2527.5	661.0	241.8	274.6	249.1	232.0	235.8	237.0	230.9	229.7	228.5
67.5°	2409.6	585.7	226.0	269.8	256.4	232.0	232.0	230.9	223.6	222.4	219.9
70°	2146.0	486.1	201.7	253.9	261.2	233.3	227.3	221.1	213.8	213.8	209.0
72.5°	1757.1	382.7	170.1	226.0	257.7	237.0	217.5	209.0	200.5	200.5	195.7
75°	1266.2	285.6	136.1	188.4	241.8	235.8	205.4	194.4	184.6	183.4	177.4
77.5°	721.7	200.5	110.6	147.1	215.1	229.7	194.4	177.4	166.5	162.8	159.2
80°	370.6	134.8	89.9	115.5	178.6	212.6	186.0	158.0	145.9	139.8	133.7
82.5°	176.2	89.9	69.3	85.1	134.8	186.0	175.0	136.1	122.7	115.5	108.1
85°	79.0	53.4	46.2	54.6	96.0	144.5	154.3	111.8	96.0	120.3	88.7
87.5°	25.5	24.2	24.2	25.5	46.2	63.2	113.0	82.6	76.6	63.2	53.4
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)