

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: P214724

Luminaire Tested: **ARCH-AF16-40-D-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214724
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-AF16-40-D-U-T3
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4871.3 lumens
Efficiency: N/A
Efficacy: 116.0 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

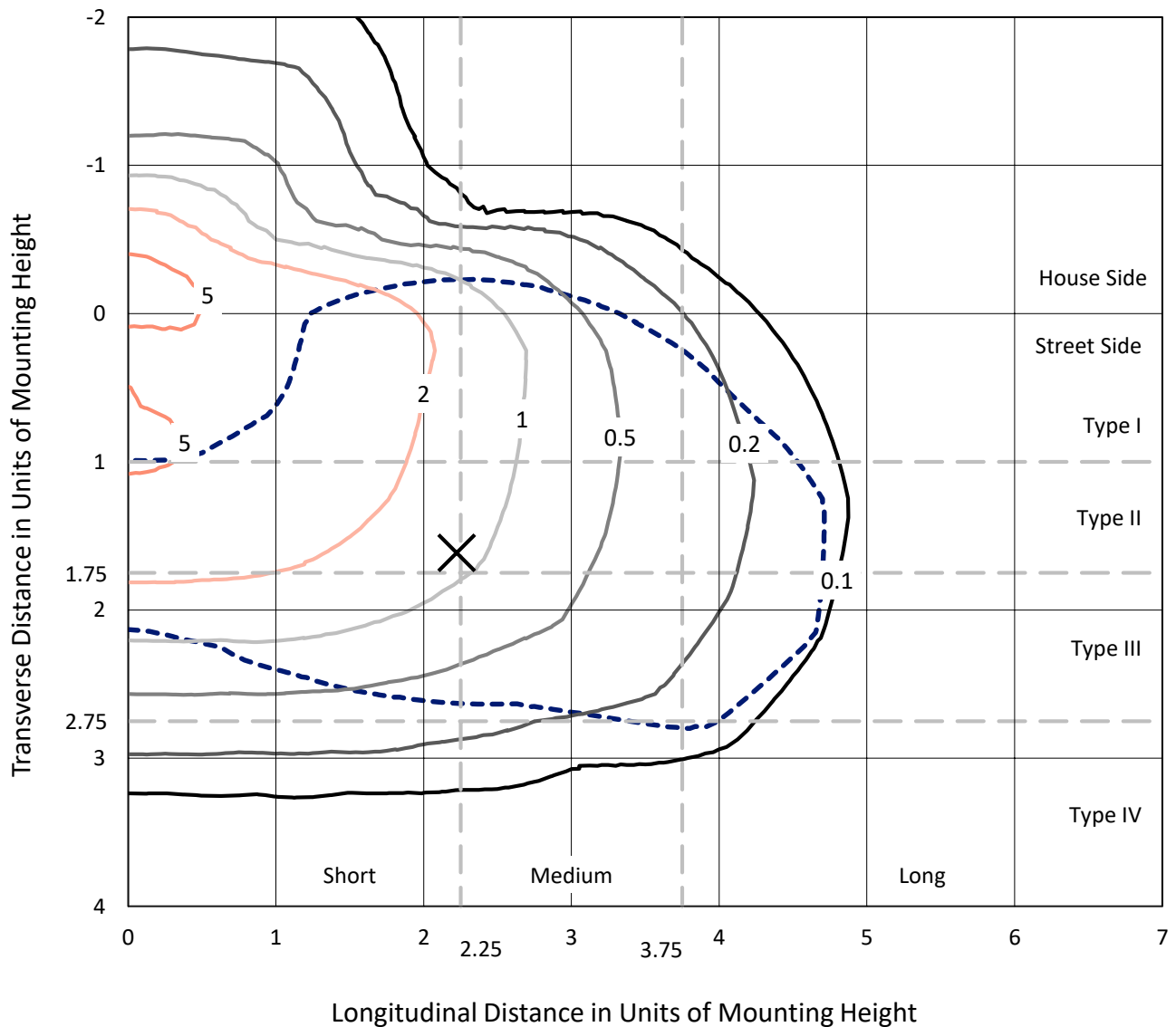
Input Watts (W): 42
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214724
 CATALOG NUMBER: ARCH-AF16-40-D-U-T3

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

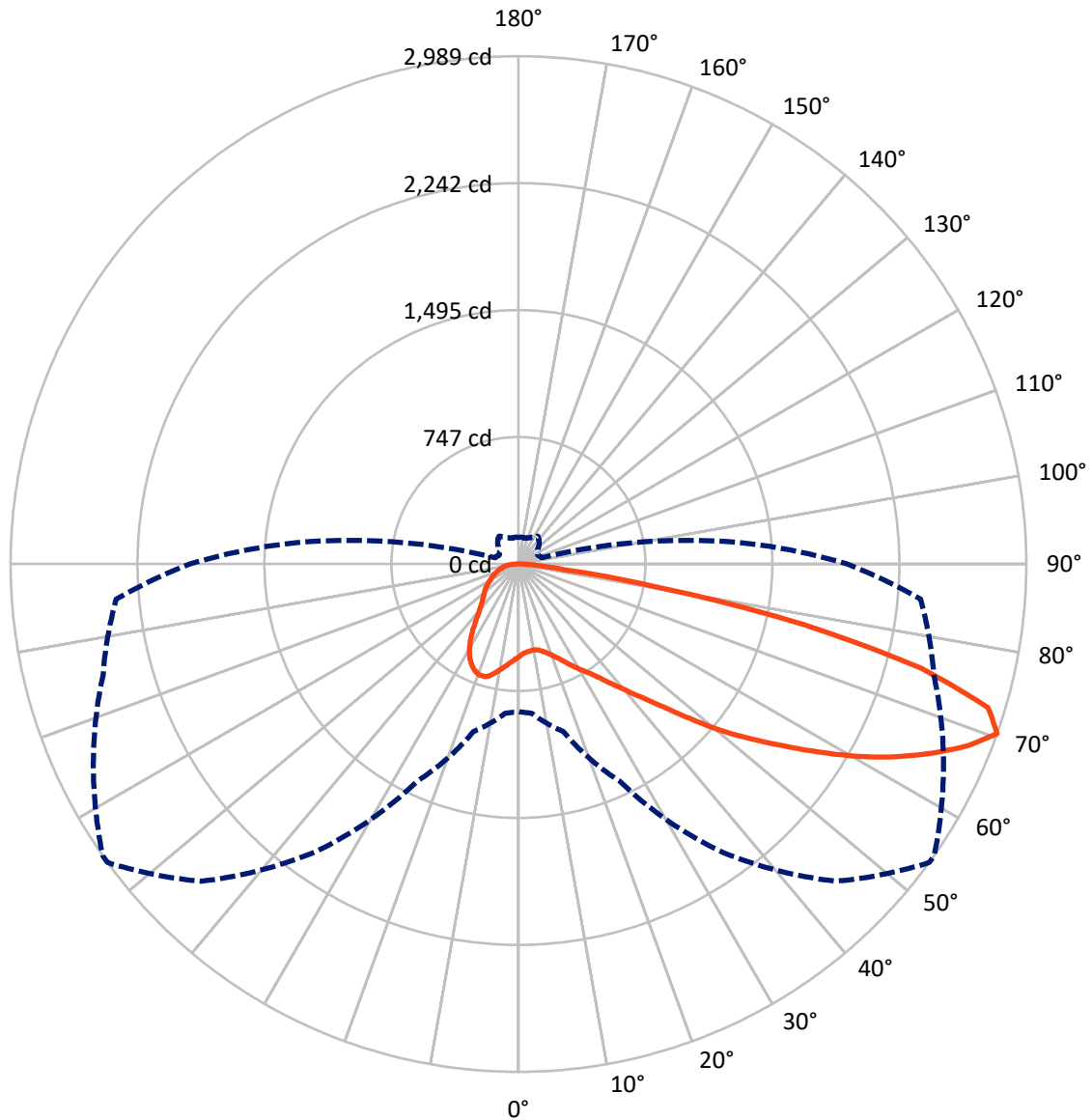


Based on 10 foot mounting height. Maximum calculated value = 6.3 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P214724

CATALOG NUMBER: ARCH-AF16-40-D-U-T3

Luminous Intensity Polar Plot



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

REPORT NUMBER: P214724

CATALOG NUMBER: ARCH-AF16-40-D-U-T3

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1104.8	0.0	1104.8
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	3766.5	0.0	3766.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	4871.3	0.0	4871.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.5	1.1
10°-20°	170.9	3.5
20°-30°	296.9	6.1
30°-40°	433.9	8.9
40°-50°	681.0	14.0
50°-60°	1047.2	21.5
60°-70°	1279.4	26.3
70°-80°	793.3	16.3
80°-90°	115.2	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°	4871.3	100.0
0°-180°	4871.3	100.0



REPORT NUMBER: P214724

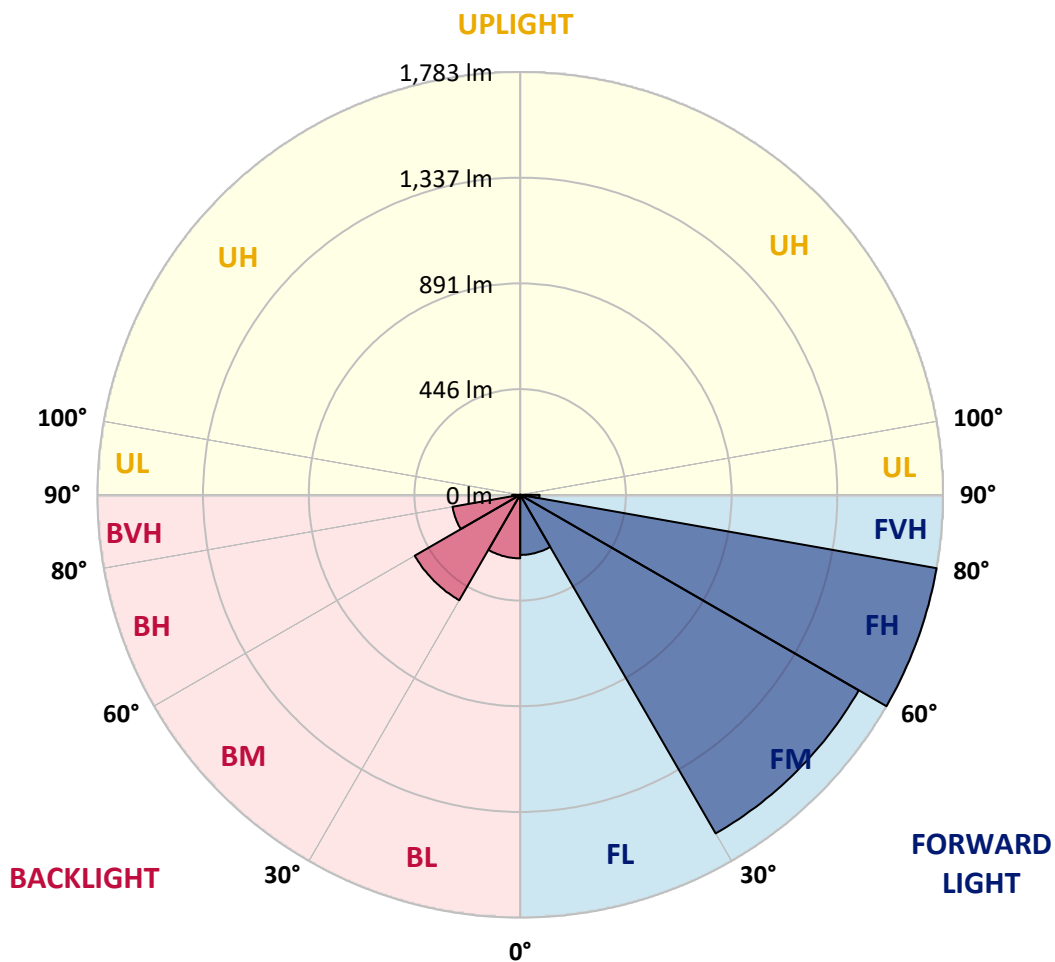
CATALOG NUMBER: ARCH-AF16-40-D-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	253.4	5.2			
FM	(30°-60°)	1648.7	33.8			
FH	(60°-80°)	1783.0	36.6			G1/1800
FVH	(80°-90°)	81.4	1.7			G1/100
BL	(0°-30°)	267.8	5.5	B1/500		
BM	(30°-60°)	513.4	10.5	B1/1000		
BH	(60°-80°)	289.7	5.9	B1/500		G1/500
BVH	(80°-90°)	33.9	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





REPORT NUMBER: P214724

CATALOG NUMBER: ARCH-AF16-40-D-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
2.5°	523.5	521.8	521.8	524.5	525.4	528.0	528.0	529.0	531.6	536.1	541.4
5°	507.5	506.7	507.5	511.1	512.9	518.2	520.1	520.9	526.3	533.4	541.4
7.5°	491.5	490.6	492.3	497.8	503.1	511.1	515.6	516.5	524.5	534.3	545.0
10°	486.1	485.2	487.9	492.3	497.8	506.7	513.8	514.6	526.3	537.9	553.0
12.5°	493.3	492.3	495.0	499.5	504.8	511.1	519.1	520.1	535.2	550.3	566.4
15°	511.1	511.1	512.0	514.6	520.1	525.4	532.5	533.4	549.4	567.3	583.4
17.5°	538.8	536.9	536.9	536.1	539.6	542.4	551.3	552.1	569.1	585.1	601.2
20°	572.6	571.7	568.1	563.7	562.8	564.7	573.6	574.4	591.4	604.8	619.9
22.5°	613.7	614.6	606.5	596.7	592.3	594.9	602.9	603.8	616.3	628.0	641.3
25°	668.1	665.4	653.9	639.5	630.6	630.6	638.6	638.6	650.3	657.3	666.4
27.5°	719.9	714.4	703.8	683.2	669.0	671.7	679.6	679.6	690.4	693.0	697.6
30°	776.0	770.7	757.3	731.4	712.7	711.0	720.7	719.9	734.1	733.3	729.7
32.5°	844.8	842.0	819.7	786.8	761.8	755.6	764.5	765.3	774.3	771.6	760.0
35°	941.0	940.2	919.6	861.6	828.7	817.0	822.5	822.5	828.7	821.5	801.9
37.5°	1062.3	1064.2	1046.3	960.7	914.3	894.7	895.6	894.7	896.4	888.4	867.9
40°	1183.7	1188.2	1187.2	1083.7	1024.9	991.0	978.5	976.7	981.2	977.6	958.0
42.5°	1343.3	1354.0	1329.0	1235.4	1169.3	1112.3	1078.4	1073.9	1083.7	1088.2	1069.5
45°	1509.3	1505.7	1466.4	1398.6	1338.8	1265.7	1201.5	1194.4	1201.5	1214.9	1195.2
47.5°	1595.7	1593.0	1583.2	1549.4	1540.5	1456.6	1359.4	1353.2	1339.8	1358.5	1335.3
50°	1738.5	1741.2	1701.0	1697.5	1734.9	1688.5	1537.8	1523.5	1499.4	1514.6	1494.9
52.5°	1841.9	1830.4	1805.4	1836.6	1953.4	1928.5	1705.5	1699.2	1676.9	1673.3	1664.4
55°	1883.9	1883.9	1888.4	1960.6	2127.3	2094.4	1887.4	1893.7	1863.3	1838.3	1850.0
57.5°	1896.3	1901.7	1940.0	2059.6	2331.6	2223.7	2088.1	2097.0	2053.4	2003.3	2040.0
60°	1834.8	1850.8	1942.7	2115.8	2446.7	2361.1	2299.5	2302.2	2238.8	2165.7	2229.9
62.5°	1676.9	1696.6	1860.6	2139.0	2428.0	2502.0	2499.4	2505.6	2419.1	2328.0	2408.3
65°	1483.4	1503.0	1677.8	2073.8	2413.7	2602.8	2682.2	2699.2	2587.7	2465.4	2519.8
67.5°	1198.8	1224.7	1390.6	1854.4	2344.1	2685.8	2853.4	2871.3	2717.9	2536.8	2510.0
70°	868.8	881.3	1020.4	1409.3	2060.4	2640.2	2989.1	2988.1	2760.6	2531.4	2376.2
72.5°	418.4	428.1	548.6	875.0	1473.6	2240.7	2890.9	2907.8	2701.8	2453.9	2070.2
75°	172.2	182.0	222.1	369.3	773.4	1480.7	2450.3	2490.4	2453.9	2202.3	1619.8
77.5°	107.0	110.6	130.2	190.9	353.2	691.3	1715.3	1769.7	1944.5	1764.4	1069.5
80°	80.3	83.0	97.2	133.8	223.0	255.1	851.8	920.6	1178.3	1012.4	484.4
82.5°	66.9	67.8	77.6	97.2	151.6	146.3	272.9	304.1	549.4	386.3	166.8
85°	62.4	64.2	69.6	69.6	96.4	91.9	113.2	118.7	159.7	132.1	58.0
87.5°	32.1	30.3	61.6	54.4	49.9	44.6	48.2	51.8	59.7	63.3	25.9
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: P214724

CATALOG NUMBER: ARCH-AF16-40-D-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
2.5°	543.2	545.8	550.3	554.8	560.2	566.4	570.0	574.4	578.0	576.2	575.3
5°	545.8	550.3	560.2	569.1	579.8	592.3	600.3	609.3	616.3	618.2	615.5
7.5°	550.3	558.4	571.7	587.8	602.1	618.2	630.6	643.1	652.0	653.9	653.9
10°	561.1	570.0	587.8	609.3	626.1	643.1	657.3	667.2	675.2	678.8	678.8
12.5°	576.2	587.0	608.3	634.2	652.9	669.0	677.0	681.5	685.1	688.7	689.5
15°	594.0	605.7	631.6	659.2	678.8	686.8	686.8	685.9	685.9	687.7	689.5
17.5°	611.9	624.4	651.1	680.6	693.0	688.7	682.4	679.6	677.9	677.0	679.6
20°	630.6	643.1	669.8	697.6	694.0	675.2	666.4	660.1	654.7	652.0	655.6
22.5°	651.1	662.8	690.4	709.1	682.4	653.9	636.9	627.1	618.2	612.7	616.3
25°	675.2	686.8	713.6	712.7	661.8	621.7	594.9	578.9	569.1	563.7	563.7
27.5°	703.8	713.6	739.5	703.8	633.3	578.9	539.6	524.5	521.8	517.3	517.3
30°	733.3	741.2	763.5	683.2	594.0	522.7	479.9	472.7	473.6	469.2	470.0
32.5°	763.5	771.6	777.9	652.9	543.2	459.4	430.9	425.4	424.6	421.0	417.5
35°	806.4	818.0	779.6	611.9	481.7	406.7	386.3	380.8	375.5	363.0	363.0
37.5°	871.5	883.9	775.1	561.1	418.4	365.7	347.0	339.8	330.9	318.4	313.9
40°	960.7	960.7	765.3	504.0	367.5	332.7	314.9	306.0	296.1	283.7	281.0
42.5°	1065.9	1041.0	750.1	446.0	330.0	310.4	294.3	284.6	272.9	258.7	256.9
45°	1189.0	1121.3	728.8	394.2	302.4	297.1	287.2	270.3	250.6	235.5	232.8
47.5°	1308.6	1193.5	708.2	357.7	279.2	291.6	283.7	255.1	228.3	206.9	204.3
50°	1439.7	1257.7	684.1	327.3	261.4	288.1	279.2	232.8	203.4	188.2	186.4
52.5°	1570.7	1322.8	658.3	295.2	246.2	281.0	268.5	216.8	202.4	182.0	179.3
55°	1709.0	1398.6	628.0	259.5	228.3	266.7	254.2	215.8	208.7	182.0	175.7
57.5°	1843.8	1482.5	578.9	224.7	208.7	245.3	248.9	210.5	195.4	180.1	173.1
60°	1992.7	1571.7	497.8	195.4	191.8	227.5	241.7	198.9	180.1	174.8	171.2
62.5°	2112.2	1652.0	388.9	174.8	177.5	213.2	232.8	191.8	173.9	169.5	168.6
65°	2164.0	1653.7	279.2	157.0	163.3	199.8	223.9	185.6	168.6	166.8	165.9
67.5°	2109.5	1562.8	196.2	140.0	148.0	187.3	212.3	179.3	163.3	164.1	162.3
70°	1933.8	1371.0	143.6	124.0	133.8	173.9	199.8	171.2	157.0	158.8	156.1
72.5°	1618.0	1068.6	115.1	110.6	122.2	159.7	187.3	162.3	147.2	148.0	142.7
75°	1195.2	708.2	96.4	99.0	108.8	146.3	171.2	150.8	136.5	132.9	129.3
77.5°	711.0	364.0	79.4	86.5	97.2	130.2	153.4	136.5	124.9	118.7	116.0
80°	293.5	147.2	65.2	73.1	84.7	116.0	135.5	119.5	111.5	105.3	101.7
82.5°	116.8	72.2	51.8	59.7	71.4	100.8	118.7	105.3	97.2	92.8	83.0
85°	44.6	35.7	34.8	41.9	53.5	77.6	98.1	88.3	82.0	70.5	67.8
87.5°	17.8	16.1	16.1	20.6	30.3	49.1	70.5	61.6	64.2	50.8	51.8
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)