

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: P234685

Luminaire Tested: **ARCH-AF16-50-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234685
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-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 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: 4670 lumens
Efficiency: N/A
Efficacy: 88.1 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

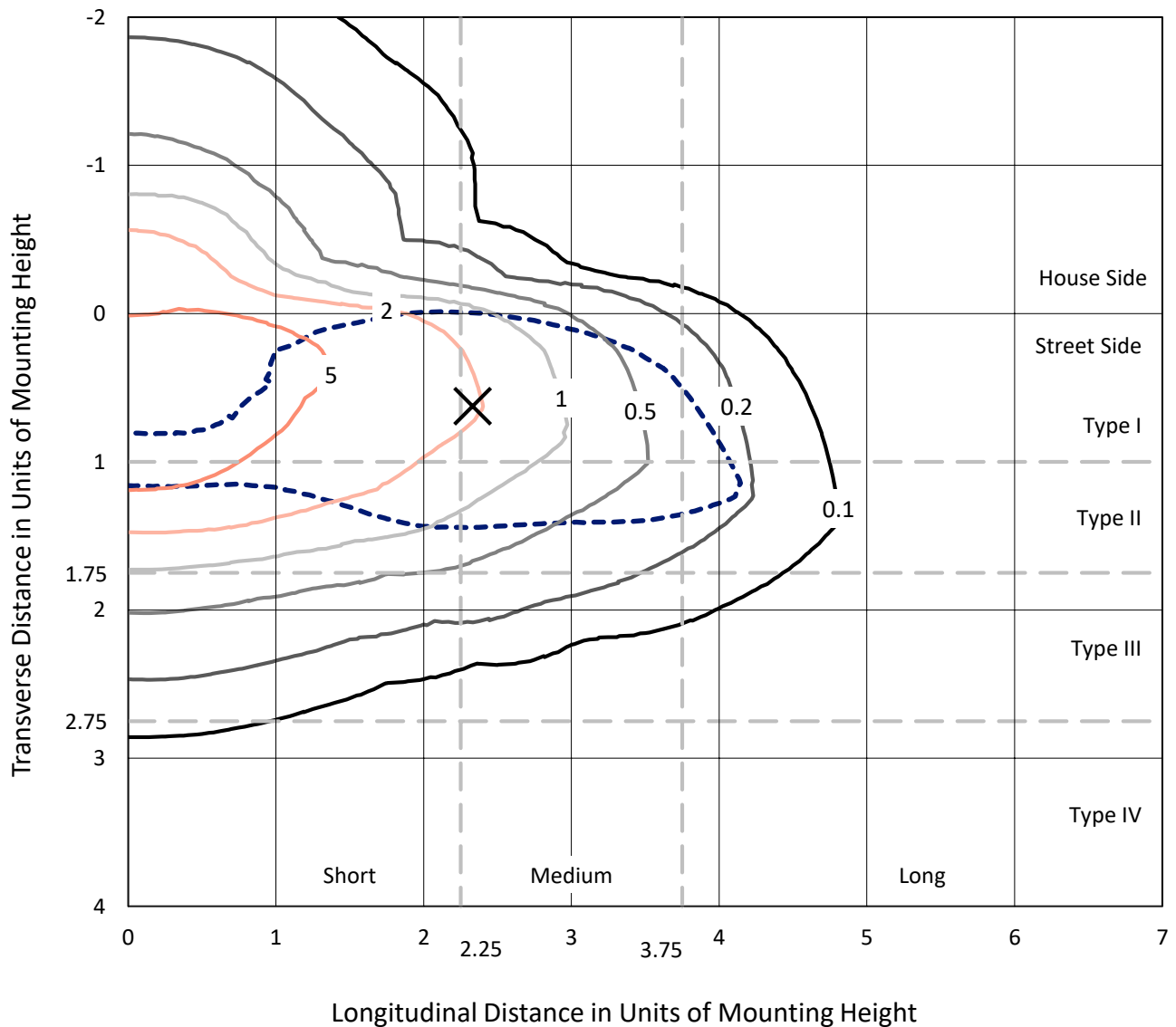
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

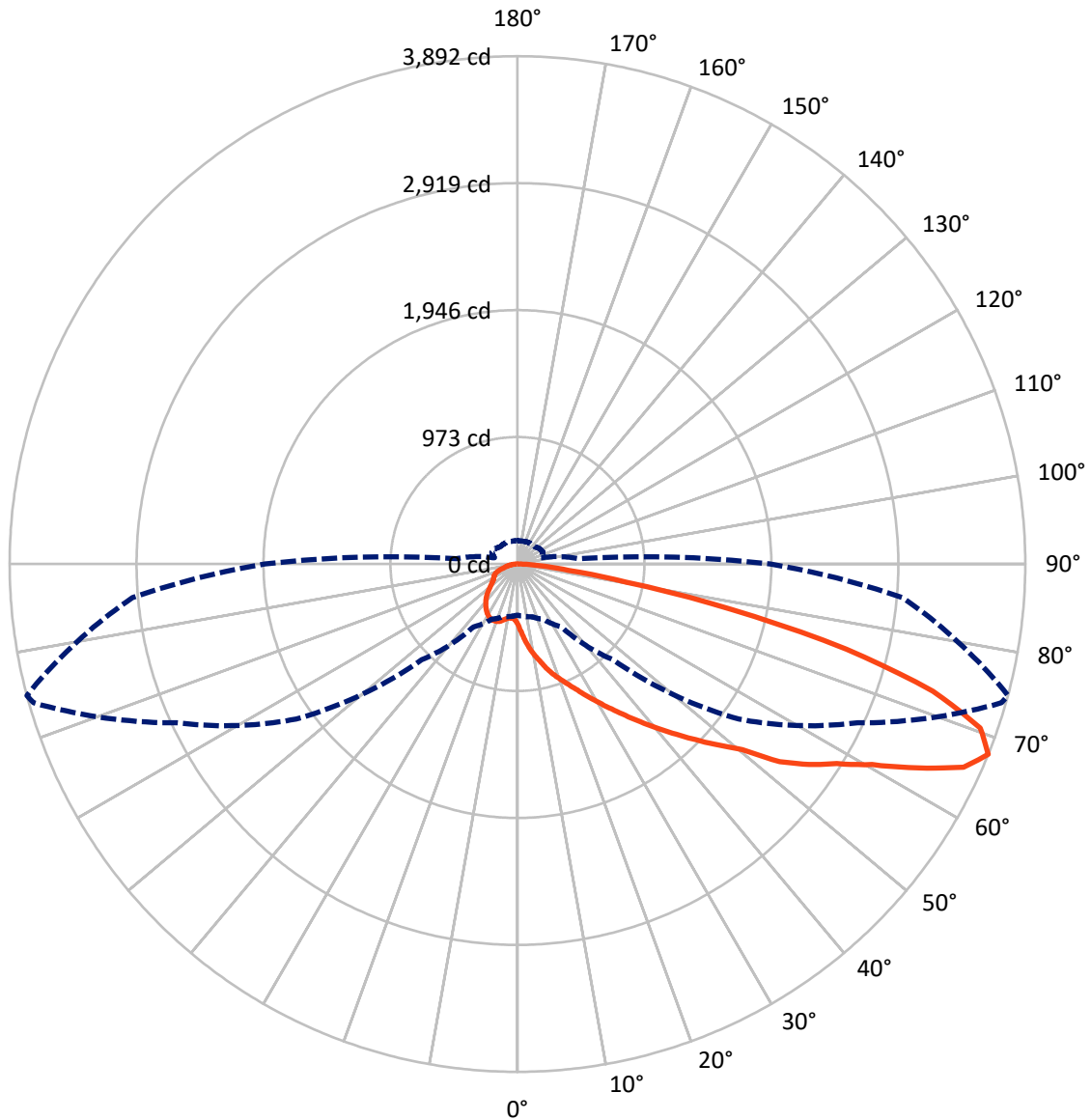
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.7 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P234685
CATALOG NUMBER: ARCH-AF16-50-D-U-T2R-8027

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
House Side	Lumens	797.5	0.0	797.5
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	3872.5	0.0	3872.5
	% Fixture	82.9	0.0	82.9
Total	Lumens	4670.0	0.0	4670.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	1.2
10°-20°	196.5	4.2
20°-30°	358.3	7.7
30°-40°	588.2	12.6
40°-50°	850.6	18.2
50°-60°	1002.4	21.5
60°-70°	974.1	20.9
70°-80°	541.5	11.6
80°-90°	104.1	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°	4670.0	100.0
0°-180°	4670.0	100.0



REPORT NUMBER: P234685

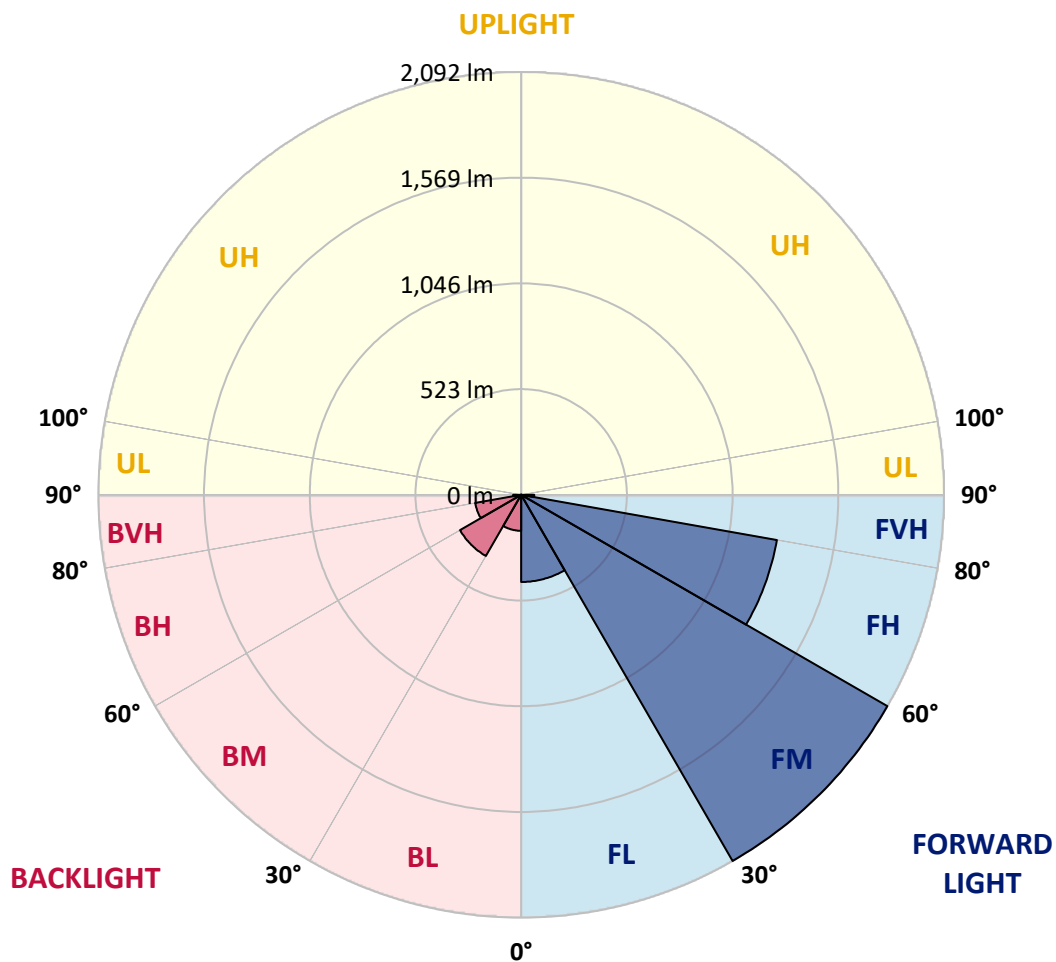
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	431.2	9.2			
FM (30°-60°)	2091.9	44.8			
FH (60°-80°)	1284.7	27.5			G1/1800
FVH (80°-90°)	64.8	1.4			G1/100
BL (0°-30°)	178.0	3.8	B1/500		
BM (30°-60°)	349.2	7.5	B1/1000		
BH (60°-80°)	230.9	4.9	B1/500		G1/500
BVH (80°-90°)	39.3	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





REPORT NUMBER: P234685

CATALOG NUMBER: ARCH-AF16-50-D-U-T2R-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	462.8	462.8	462.8	462.8	462.8	462.8	462.8	462.8	462.8	462.8	462.8
2.5°	656.1	658.0	654.1	645.3	632.6	609.2	588.7	552.6	520.4	516.4	482.3
5°	771.3	773.2	768.3	757.6	743.9	718.5	690.2	643.4	591.6	581.9	509.6
7.5°	850.3	851.3	845.4	834.7	824.0	798.6	770.3	717.6	654.1	646.3	544.8
10°	917.7	919.6	911.8	905.0	893.3	867.9	838.6	783.0	717.6	706.8	580.9
12.5°	980.2	982.1	977.2	971.4	967.5	944.1	911.8	845.4	775.2	763.4	623.8
15°	1022.2	1024.1	1025.1	1032.9	1037.8	1021.2	989.0	916.7	837.6	826.9	674.6
17.5°	1010.4	1015.3	1030.0	1058.3	1088.5	1089.5	1063.2	987.0	899.1	887.4	726.3
20°	976.3	980.2	997.7	1040.7	1100.3	1134.4	1132.5	1058.3	956.7	944.1	774.2
22.5°	1004.6	1009.5	1009.5	1035.8	1094.4	1157.9	1183.2	1128.6	1014.3	1002.6	822.0
25°	1125.6	1128.6	1108.1	1097.3	1118.8	1177.4	1225.2	1204.7	1084.6	1071.0	873.8
27.5°	1294.5	1289.7	1264.3	1221.3	1197.9	1213.5	1262.3	1277.0	1165.7	1149.1	927.5
30°	1462.5	1459.5	1430.2	1372.6	1319.9	1286.7	1303.3	1341.4	1253.5	1234.0	979.2
32.5°	1619.6	1614.7	1582.5	1515.2	1455.6	1394.1	1361.9	1400.0	1347.3	1324.8	1036.8
35°	1764.1	1751.4	1719.2	1648.9	1587.4	1528.8	1449.8	1455.6	1448.8	1425.4	1100.3
37.5°	1881.3	1871.5	1836.4	1771.0	1705.5	1649.9	1566.9	1519.1	1558.1	1535.7	1173.5
40°	1984.8	1974.0	1937.9	1872.5	1812.0	1759.2	1693.8	1596.2	1681.1	1655.8	1255.5
42.5°	2062.9	2055.0	2025.8	1961.3	1902.7	1854.9	1822.7	1693.8	1809.0	1784.6	1345.3
45°	2104.8	2097.0	2081.4	2029.7	1976.0	1938.9	1941.8	1810.0	1942.8	1922.3	1451.7
47.5°	2053.1	2059.0	2072.6	2062.9	2029.7	2012.1	2048.2	1930.1	2092.1	2072.6	1566.9
50°	1914.5	1920.3	1975.0	2042.4	2054.1	2075.5	2143.9	2068.7	2250.3	2234.7	1709.4
52.5°	1573.7	1606.0	1757.3	1918.4	2028.7	2117.5	2250.3	2274.7	2516.8	2516.8	1961.3
55°	1189.1	1217.4	1390.2	1671.4	1930.1	2121.4	2328.4	2414.3	2709.1	2713.0	2093.1
57.5°	963.6	981.1	1066.1	1354.1	1723.1	2072.6	2421.1	2534.4	2869.3	2886.8	2263.0
60°	782.0	791.8	847.4	1047.5	1437.1	1940.8	2487.5	2706.2	3097.7	3122.1	2479.7
62.5°	628.7	638.5	675.6	795.7	1127.6	1693.8	2475.8	2884.9	3402.3	3442.3	2763.8
65°	501.8	512.5	536.9	611.1	835.7	1387.3	2355.7	2976.6	3717.6	3756.7	2952.2
67.5°	391.5	401.2	417.8	466.7	588.7	1037.8	2071.6	2880.0	3859.2	3892.4	2962.0
70°	295.8	300.7	314.4	345.6	420.8	689.2	1621.6	2555.9	3732.3	3762.5	2766.7
72.5°	229.4	228.4	236.3	251.9	293.9	474.5	1074.9	2078.5	3299.8	3331.0	2360.6
75°	187.4	186.5	191.3	196.2	212.8	318.3	634.6	1565.0	2663.3	2603.7	1771.0
77.5°	158.2	157.2	162.1	163.0	169.9	219.7	361.2	1030.0	1776.8	1674.3	997.7
80°	133.7	132.8	138.6	140.6	145.5	161.1	207.9	557.4	892.3	845.4	476.4
82.5°	100.6	104.5	115.2	120.1	125.9	119.1	128.9	246.0	413.9	395.4	207.0
85°	48.8	57.6	86.9	96.7	103.5	75.2	87.9	116.2	186.5	177.7	84.0
87.5°	16.6	14.6	51.7	61.5	67.4	34.2	48.8	64.4	77.1	70.3	26.4
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: P234685

CATALOG NUMBER: ARCH-AF16-50-D-U-T2R-8027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	462.8	462.8	462.8	462.8	462.8	462.8	462.8	462.8	462.8	462.8	462.8
2.5°	467.6	453.0	431.5	414.9	404.2	395.4	391.5	390.5	388.6	387.6	387.6
5°	477.4	451.0	417.8	400.3	395.4	391.5	393.4	394.4	394.4	394.4	394.4
7.5°	492.0	454.9	414.9	403.2	402.2	402.2	408.1	411.0	413.0	413.0	413.0
10°	511.6	461.8	419.8	410.0	413.0	414.9	421.7	425.7	427.6	428.6	429.6
12.5°	537.9	476.4	429.6	421.7	425.7	426.6	431.5	433.5	435.4	436.4	436.4
15°	573.1	497.9	445.2	435.4	436.4	435.4	435.4	433.5	432.5	432.5	434.4
17.5°	609.2	518.4	458.8	445.2	441.3	433.5	427.6	422.7	419.8	417.8	418.8
20°	645.3	536.9	466.7	447.1	436.4	423.7	413.0	406.1	402.2	398.3	400.3
22.5°	681.4	554.5	469.6	441.3	425.7	407.1	395.4	384.6	375.9	370.0	371.0
25°	721.5	574.0	469.6	434.4	411.0	391.5	376.8	359.3	346.6	341.7	343.6
27.5°	761.5	590.6	464.7	421.7	394.4	374.9	353.4	332.9	325.1	322.2	323.1
30°	801.5	603.3	454.0	406.1	376.8	355.4	327.0	313.4	303.6	295.8	296.8
32.5°	841.5	612.1	439.3	386.6	358.3	331.0	307.5	291.9	274.3	264.6	265.5
35°	887.4	619.0	421.7	367.1	337.8	309.5	291.9	266.5	248.0	240.2	238.2
37.5°	935.3	623.8	403.2	345.6	317.3	293.9	276.3	245.0	227.5	216.7	215.8
40°	987.0	625.8	380.7	323.1	297.8	284.1	255.8	232.4	202.1	195.3	195.3
42.5°	1048.5	624.8	358.3	300.7	276.3	261.6	241.1	230.4	204.0	197.2	193.3
45°	1118.8	624.8	333.9	274.3	254.8	233.3	224.5	217.7	200.1	203.1	205.0
47.5°	1198.9	622.9	304.6	252.9	237.2	218.7	213.8	199.2	192.3	194.3	196.2
50°	1309.2	625.8	278.2	235.3	224.5	208.9	203.1	195.3	192.3	193.3	192.3
52.5°	1462.5	616.0	252.9	224.5	214.8	194.3	194.3	193.3	194.3	193.3	193.3
55°	1546.4	594.5	234.3	218.7	207.9	187.4	191.3	193.3	195.3	194.3	194.3
57.5°	1665.5	579.9	219.7	214.8	204.0	185.5	189.4	193.3	194.3	193.3	193.3
60°	1806.1	570.1	209.9	215.8	201.1	185.5	190.4	193.3	192.3	191.3	191.3
62.5°	1969.1	566.2	203.1	218.7	198.2	186.5	190.4	193.3	189.4	188.4	188.4
65°	2030.6	531.1	194.3	220.6	200.1	186.5	189.4	190.4	185.5	184.5	183.5
67.5°	1935.9	470.6	181.6	216.7	206.0	186.5	186.5	185.5	179.6	178.7	176.7
70°	1724.1	390.5	162.1	204.0	209.9	187.4	182.6	177.7	171.8	171.8	167.9
72.5°	1411.7	307.5	136.7	181.6	207.0	190.4	174.8	167.9	161.1	161.1	157.2
75°	1017.3	229.4	109.3	151.3	194.3	189.4	165.0	156.2	148.4	147.4	142.5
77.5°	579.9	161.1	88.8	118.1	172.8	184.5	156.2	142.5	133.7	130.8	127.9
80°	297.8	108.4	72.2	92.7	143.5	170.8	149.4	126.9	117.2	112.3	107.4
82.5°	141.6	72.2	55.6	68.3	108.4	149.4	140.6	109.3	98.6	92.7	86.9
85°	63.5	43.0	37.1	43.9	77.1	116.2	124.0	89.8	77.1	96.7	71.3
87.5°	20.5	19.5	19.5	20.5	37.1	50.8	90.8	66.4	61.5	50.8	43.0
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)