

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: P265891

Luminaire Tested: **ARCH-AF16-40-D-U-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265891
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-T3-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4136.9 lumens
Efficiency: N/A
Efficacy: 98.5 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

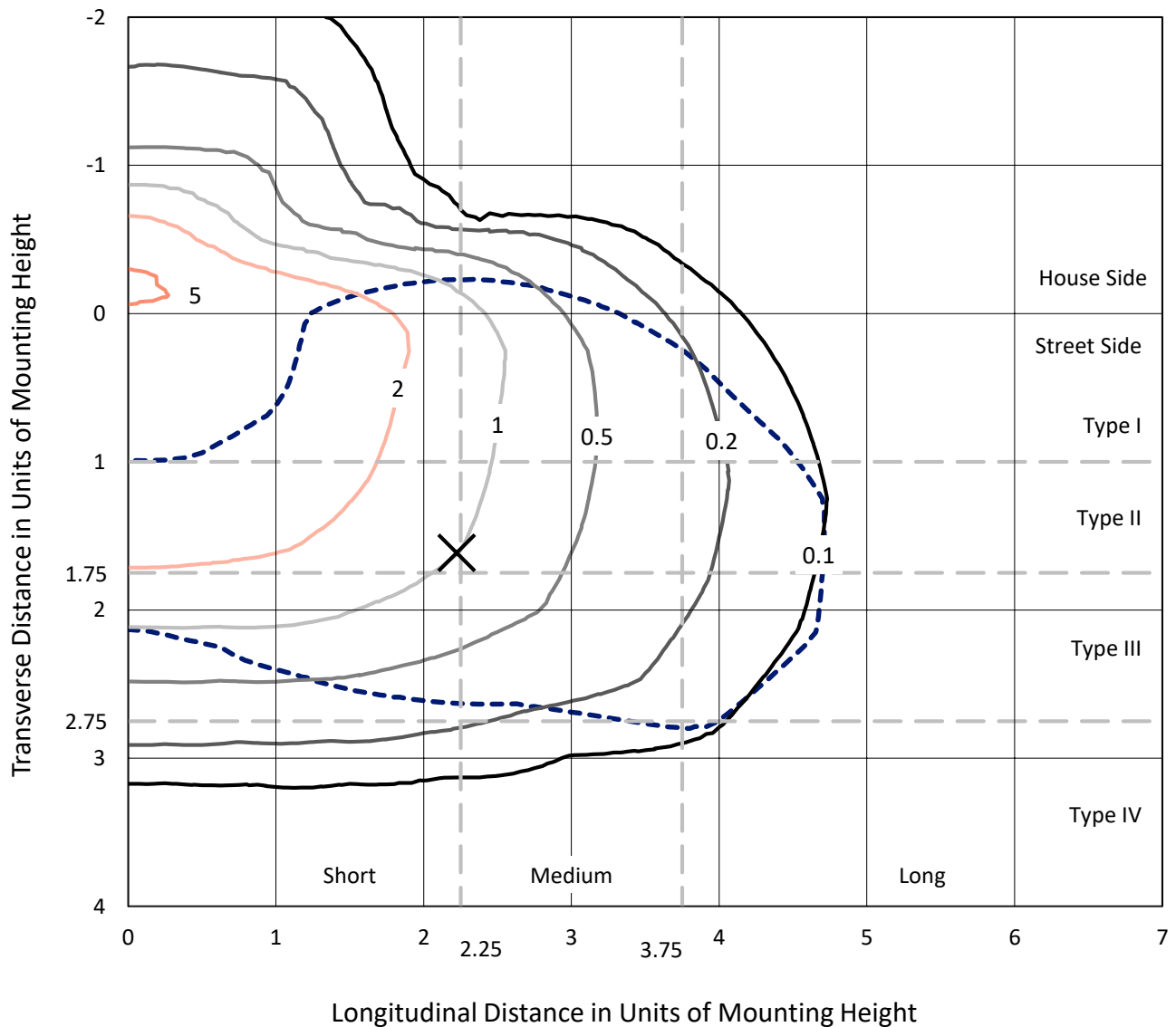
Input Watts (W): 42
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

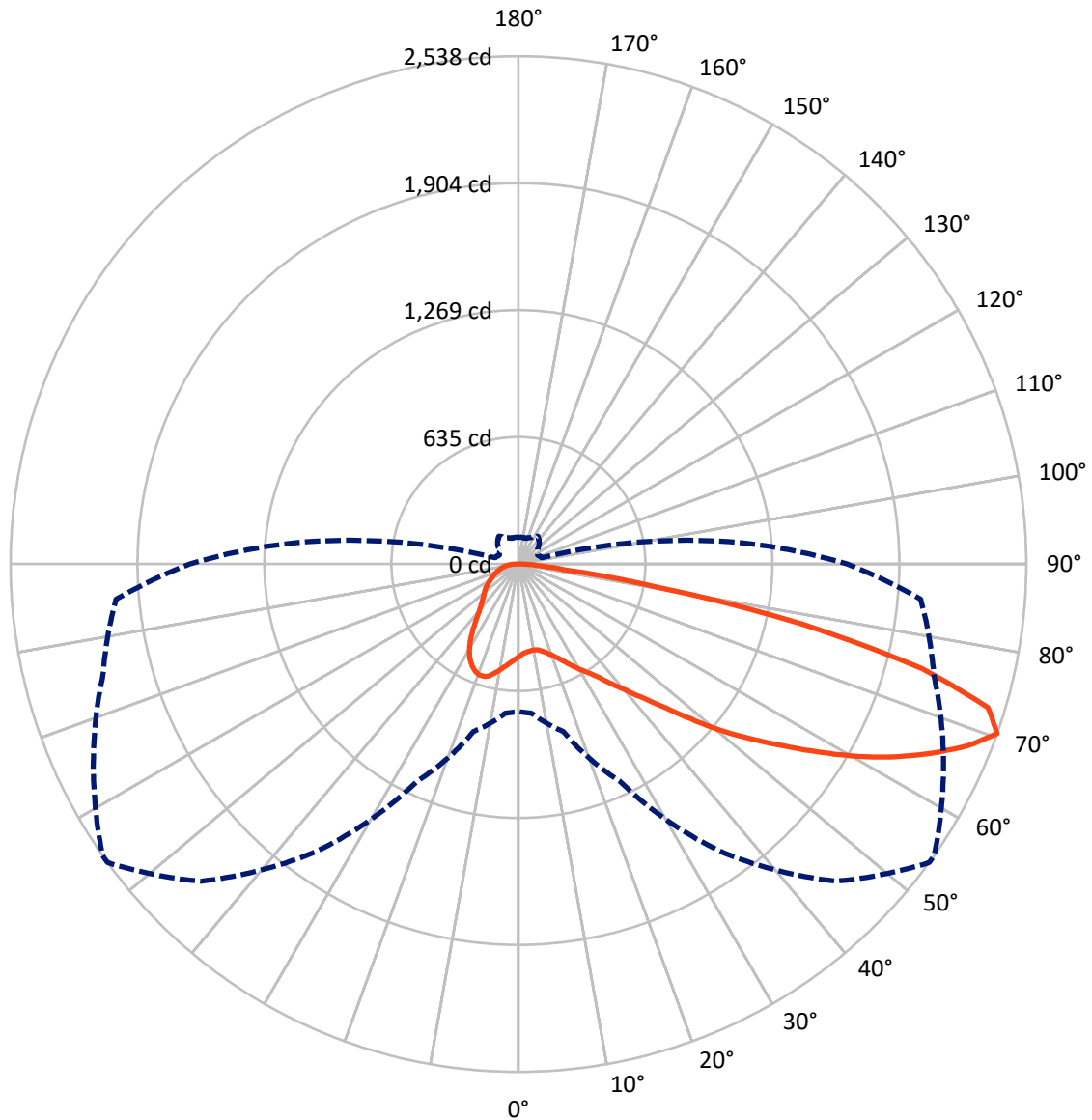
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	938.2	0.0	938.2
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	3198.7	0.0	3198.7
	% Fixture	77.3	0.0	77.3
Total	Lumens	4136.9	0.0	4136.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	1.1
10°-20°	145.1	3.5
20°-30°	252.1	6.1
30°-40°	368.5	8.9
40°-50°	578.3	14.0
50°-60°	889.3	21.5
60°-70°	1086.5	26.3
70°-80°	673.7	16.3
80°-90°	97.9	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°	4136.9	100.0
0°-180°	4136.9	100.0



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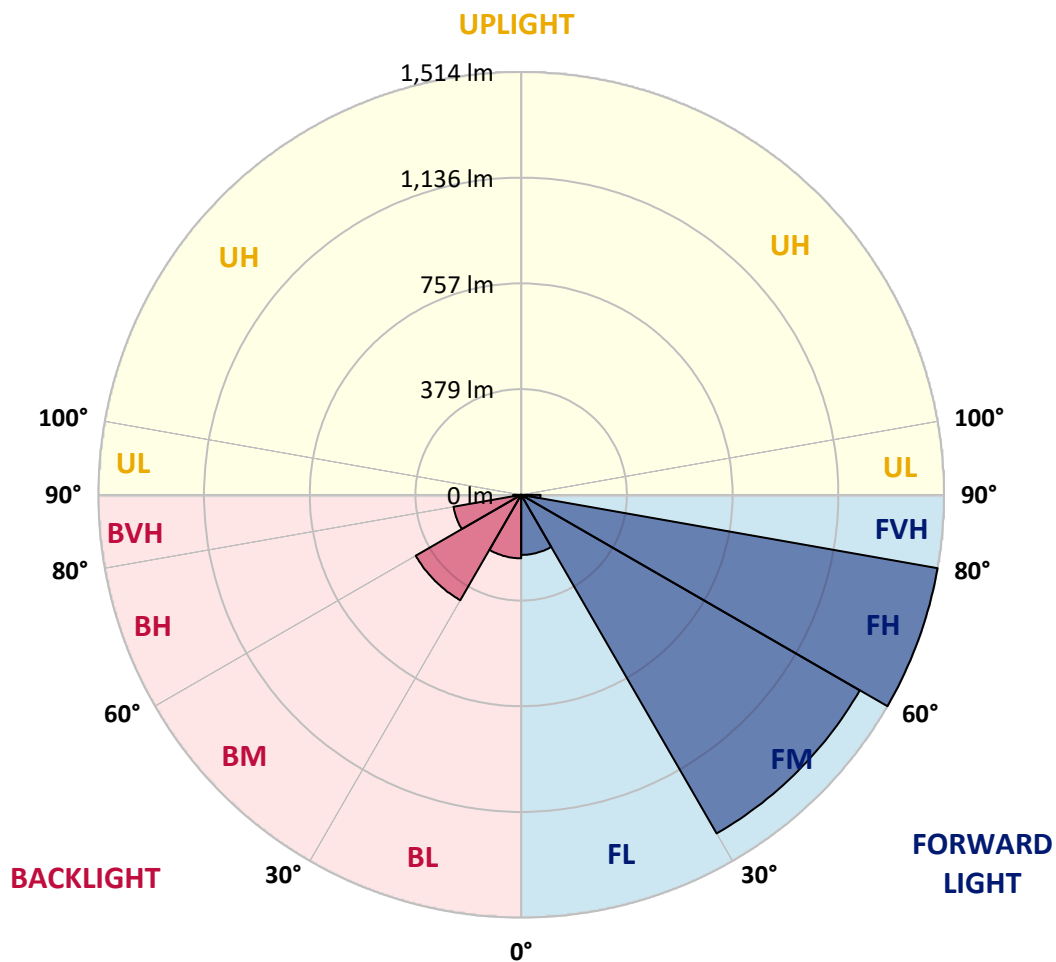
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	215.2	5.2			
FM	(30°-60°)	1400.2	33.8			
FH	(60°-80°)	1514.2	36.6			G1/1800
FVH	(80°-90°)	69.1	1.7			G1/100
BL	(0°-30°)	227.5	5.5	B1/500		
BM	(30°-60°)	436.0	10.5	B1/1000		
BH	(60°-80°)	246.0	5.9	B1/500		G1/500
BVH	(80°-90°)	28.8	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	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°	444.8	443.1	443.1	445.4	446.2	448.4	448.4	449.2	451.5	455.4	459.8
5°	431.0	430.3	431.0	434.1	435.6	440.1	441.6	442.3	446.9	452.9	459.8
7.5°	417.4	416.6	418.2	422.7	427.2	434.1	437.8	438.6	445.4	453.7	462.8
10°	412.9	412.1	414.4	418.2	422.7	430.3	436.3	437.0	446.9	456.8	469.6
12.5°	418.9	418.2	420.4	424.2	428.8	434.1	440.9	441.6	454.5	467.4	481.0
15°	434.1	434.1	434.8	437.0	441.6	446.2	452.2	452.9	466.6	481.9	495.4
17.5°	457.5	456.0	456.0	455.4	458.2	460.7	468.1	468.8	483.3	496.9	510.5
20°	486.3	485.5	482.5	478.7	478.0	479.5	487.2	487.8	502.2	513.7	526.4
22.5°	521.1	521.9	515.1	506.7	503.1	505.2	512.0	512.8	523.4	533.4	544.6
25°	567.4	565.2	555.2	543.1	535.6	535.6	542.3	542.3	552.2	558.2	565.8
27.5°	611.2	606.7	597.7	580.2	568.2	570.5	577.3	577.3	586.4	588.6	592.4
30°	659.0	654.4	643.1	621.2	605.3	603.8	612.0	611.2	623.5	622.6	619.7
32.5°	717.3	715.1	696.1	668.1	646.9	641.6	649.1	650.0	657.5	655.3	645.4
35°	799.2	798.5	780.9	731.8	703.7	693.9	698.4	698.4	703.7	697.7	681.0
37.5°	902.2	903.8	888.6	815.8	776.5	759.7	760.5	759.7	761.4	754.4	737.1
40°	1005.3	1008.9	1008.3	920.4	870.4	841.6	831.0	829.5	833.3	830.3	813.5
42.5°	1140.8	1149.9	1128.7	1049.2	993.0	944.6	915.8	912.0	920.4	924.1	908.2
45°	1281.7	1278.6	1245.3	1187.7	1137.1	1074.9	1020.4	1014.2	1020.4	1031.8	1015.1
47.5°	1355.3	1352.8	1344.7	1315.7	1308.2	1237.1	1154.4	1149.1	1137.9	1153.8	1134.0
50°	1476.4	1478.7	1444.6	1441.5	1473.4	1434.0	1306.0	1293.7	1273.3	1286.3	1269.6
52.5°	1564.3	1554.3	1533.1	1559.6	1659.0	1637.7	1448.3	1443.0	1424.2	1421.1	1413.6
55°	1599.9	1599.9	1603.7	1665.0	1806.8	1778.6	1602.8	1608.1	1582.5	1561.3	1571.0
57.5°	1610.5	1615.1	1647.6	1749.1	1980.1	1888.4	1773.3	1780.9	1743.8	1701.4	1732.4
60°	1558.2	1571.9	1649.8	1796.8	2077.9	2005.1	1952.8	1955.2	1901.4	1839.2	1893.7
62.5°	1424.2	1440.8	1580.2	1816.6	2062.0	2124.9	2122.5	2127.8	2054.3	1977.1	2045.4
65°	1259.8	1276.4	1424.9	1761.1	2049.8	2210.4	2277.8	2292.3	2197.6	2093.8	2140.0
67.5°	1018.0	1040.1	1180.9	1574.9	1990.7	2280.8	2423.3	2438.4	2308.1	2154.3	2131.7
70°	737.8	748.4	866.5	1196.9	1749.9	2242.2	2538.4	2537.6	2344.4	2149.9	2018.0
72.5°	355.3	363.6	466.0	743.1	1251.3	1902.9	2455.1	2469.5	2294.5	2083.9	1758.3
75°	146.2	154.5	188.6	313.6	656.8	1257.4	2081.0	2115.0	2083.9	1870.4	1375.7
77.5°	90.9	94.0	110.6	162.1	299.9	587.0	1456.7	1503.0	1651.4	1498.4	908.2
80°	68.2	70.4	82.6	113.6	189.5	216.6	723.5	781.7	1000.7	859.8	411.3
82.5°	56.9	57.6	65.8	82.6	128.7	124.2	231.9	258.4	466.6	328.1	141.7
85°	53.0	54.5	59.1	59.1	81.8	78.1	96.2	100.8	135.6	112.1	49.2
87.5°	27.3	25.7	52.3	46.3	42.4	37.9	41.0	43.9	50.8	53.8	22.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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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°	461.3	463.5	467.4	471.3	475.7	481.0	484.0	487.8	490.8	489.3	488.6
5°	463.5	467.4	475.7	483.3	492.5	503.1	509.8	517.3	523.4	525.0	522.6
7.5°	467.4	474.2	485.5	499.2	511.3	525.0	535.6	546.2	553.7	555.2	555.2
10°	476.6	484.0	499.2	517.3	531.7	546.2	558.2	566.7	573.5	576.4	576.4
12.5°	489.3	498.4	516.6	538.7	554.6	568.2	574.9	578.8	581.7	584.7	585.5
15°	504.5	514.4	536.3	559.9	576.4	583.3	583.3	582.6	582.6	584.1	585.5
17.5°	519.7	530.3	552.9	578.0	588.6	584.7	579.4	577.3	575.8	574.9	577.3
20°	535.6	546.2	568.8	592.4	589.4	573.5	565.8	560.5	556.1	553.7	556.8
22.5°	552.9	562.9	586.4	602.3	579.4	555.2	540.9	532.5	525.0	520.4	523.4
25°	573.5	583.3	605.9	605.3	562.1	527.9	505.2	491.6	483.3	478.7	478.7
27.5°	597.7	605.9	627.9	597.7	537.8	491.6	458.2	445.4	443.1	439.4	439.4
30°	622.6	629.5	648.4	580.2	504.5	443.9	407.6	401.5	402.3	398.5	399.1
32.5°	648.4	655.3	660.6	554.6	461.3	390.1	365.9	361.4	360.6	357.5	354.6
35°	684.8	694.6	662.1	519.7	409.1	345.4	328.1	323.5	318.9	308.3	308.3
37.5°	740.2	750.8	658.3	476.6	355.3	310.5	294.6	288.6	281.0	270.4	266.6
40°	815.8	815.8	650.0	428.0	312.2	282.5	267.3	259.8	251.4	240.8	238.6
42.5°	905.2	884.0	637.1	378.7	280.4	263.7	250.0	241.6	231.9	219.6	218.2
45°	1009.8	952.3	618.9	334.8	256.7	252.2	243.9	229.5	212.9	200.1	197.6
47.5°	1111.3	1013.6	601.4	303.7	237.2	247.8	240.8	216.6	193.9	175.8	173.5
50°	1222.7	1068.1	581.1	278.0	221.9	244.7	237.2	197.6	172.7	159.9	158.3
52.5°	1334.1	1123.4	559.0	250.7	209.0	238.6	228.0	184.1	171.9	154.5	152.3
55°	1451.4	1187.7	533.4	220.4	193.9	226.6	216.0	183.3	177.2	154.5	149.2
57.5°	1565.7	1259.0	491.6	190.9	177.2	208.2	211.3	178.8	165.8	153.0	147.0
60°	1692.2	1334.7	422.7	165.8	162.9	193.1	205.4	168.9	153.0	148.5	145.4
62.5°	1793.7	1403.0	330.2	148.5	150.7	181.1	197.6	162.9	147.7	143.9	143.2
65°	1837.8	1404.4	237.2	133.3	138.6	169.7	190.1	157.6	143.2	141.7	140.9
67.5°	1791.5	1327.2	166.6	118.9	125.8	159.1	180.3	152.3	138.6	139.3	137.9
70°	1642.3	1164.4	122.0	105.3	113.6	147.7	169.7	145.4	133.3	134.8	132.6
72.5°	1374.1	907.5	97.7	94.0	103.8	135.6	159.1	137.9	125.0	125.8	121.2
75°	1015.1	601.4	81.8	84.1	92.4	124.2	145.4	128.0	115.9	112.8	109.9
77.5°	603.8	309.0	67.5	73.5	82.6	110.6	130.3	115.9	106.1	100.8	98.5
80°	249.2	125.0	55.2	62.2	72.0	98.5	115.2	101.5	94.7	89.4	86.3
82.5°	99.3	61.4	43.9	50.8	60.5	85.6	100.8	89.4	82.6	78.8	70.4
85°	37.9	30.4	29.6	35.7	45.5	65.8	83.4	75.0	69.7	59.8	57.6
87.5°	15.1	13.7	13.7	17.4	25.7	41.6	59.8	52.3	54.5	43.2	43.9
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)