

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: P214738

Luminaire Tested: **ARCH-AF16-40-D-U-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214738  
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-T3-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4762 lumens  
Efficiency: N/A  
Efficacy: 113.4 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

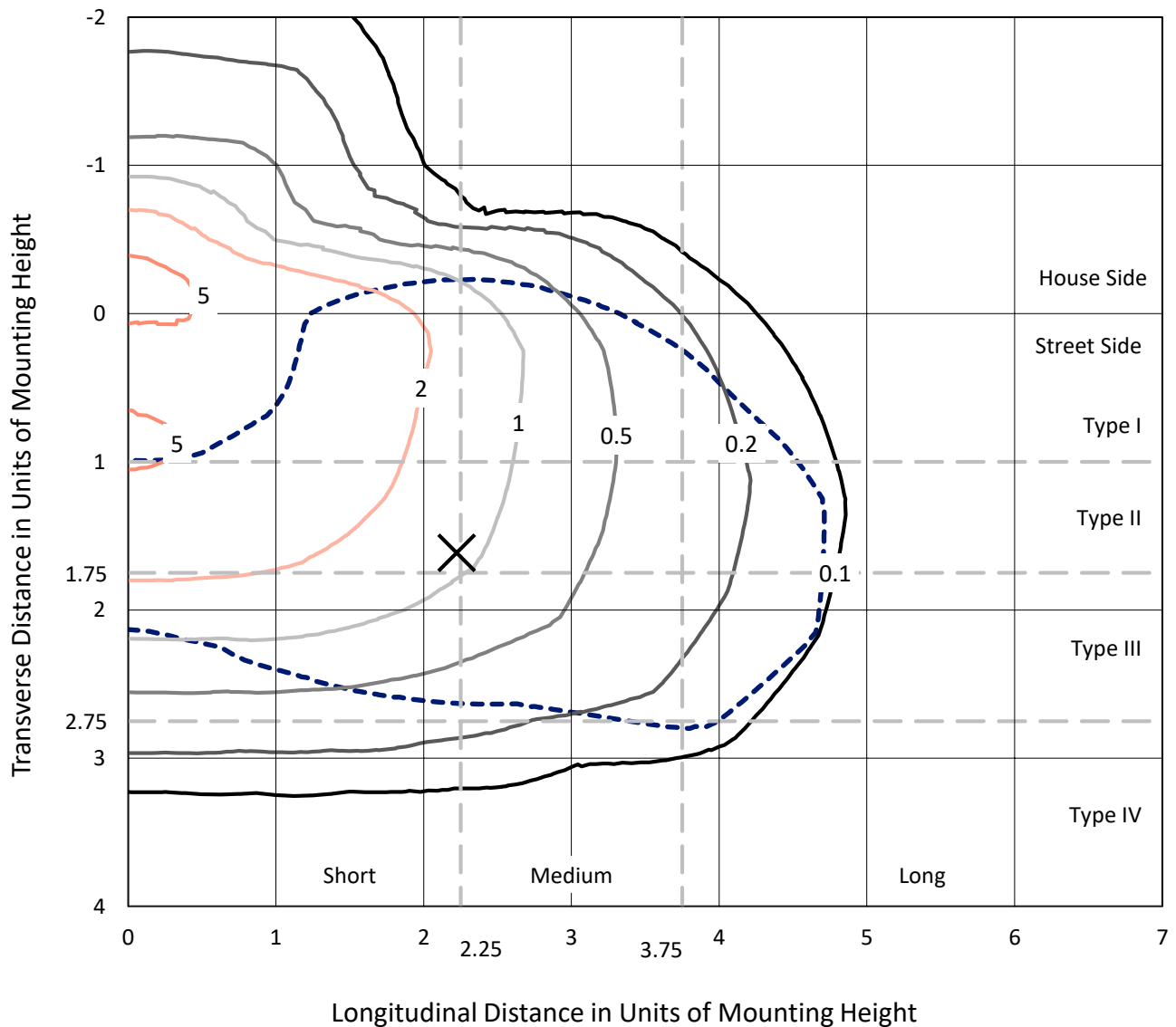
Input Watts (W): 42  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

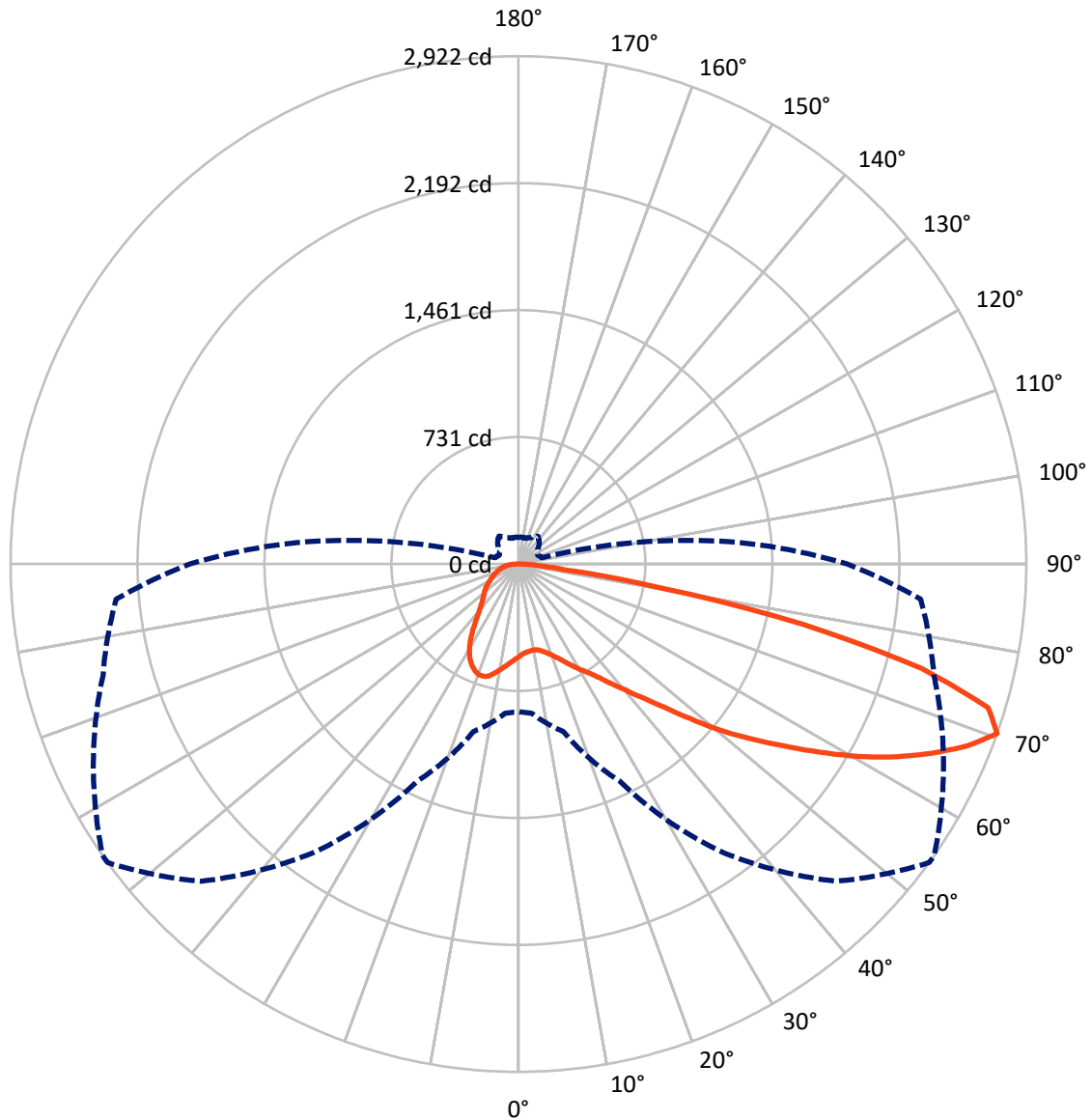
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.2 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
<b>House Side</b>	Lumens	1080.0	0.0	1080.0
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	3682.0	0.0	3682.0
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	4762.0	0.0	4762.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.3	1.1
10°-20°	167.1	3.5
20°-30°	290.3	6.1
30°-40°	424.2	8.9
40°-50°	665.7	14.0
50°-60°	1023.7	21.5
60°-70°	1250.7	26.3
70°-80°	775.5	16.3
80°-90°	112.7	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°	4762.0	100.0
0°-180°	4762.0	100.0

**Coefficient of Utilization**



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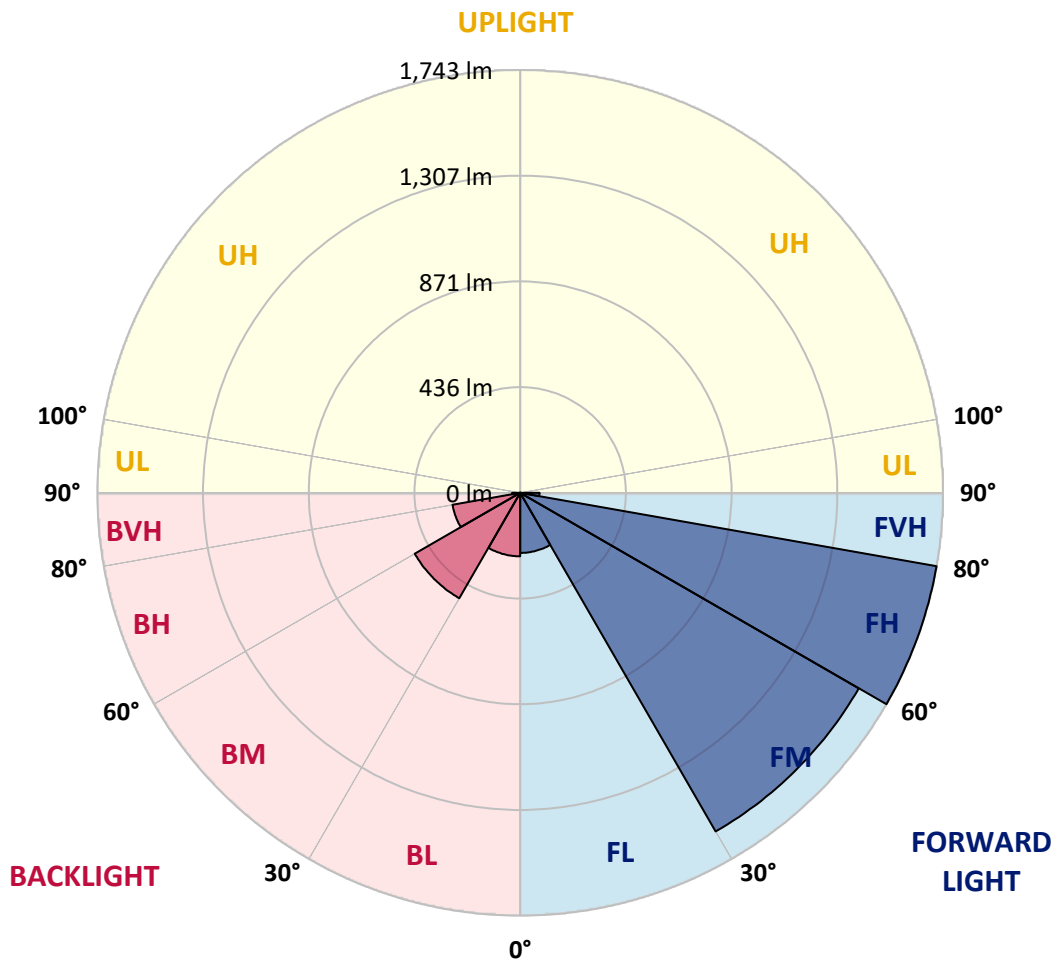
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	247.8	5.2			
FM	(30°-60°)	1611.7	33.8			
FH	(60°-80°)	1743.0	36.6			G1/1800
FVH	(80°-90°)	79.5	1.7			G1/100
BL	(0°-30°)	261.8	5.5	B1/500		
BM	(30°-60°)	501.9	10.5	B1/1000		
BH	(60°-80°)	283.2	5.9	B1/500		G1/500
BVH	(80°-90°)	33.1	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°	532.8	532.8	532.8	532.8	532.8	532.8	532.8	532.8	532.8	532.8	532.8
2.5°	511.8	510.1	510.1	512.7	513.6	516.2	516.2	517.1	519.7	524.1	529.3
5°	496.1	495.3	496.1	499.6	501.4	506.6	508.4	509.2	514.5	521.4	529.3
7.5°	480.5	479.6	481.3	486.6	491.8	499.6	504.0	504.9	512.7	522.3	532.8
10°	475.2	474.3	477.0	481.3	486.6	495.3	502.3	503.1	514.5	525.8	540.6
12.5°	482.2	481.3	483.9	488.3	493.5	499.6	507.5	508.4	523.2	538.0	553.7
15°	499.6	499.6	500.5	503.1	508.4	513.6	520.6	521.4	537.1	554.6	570.3
17.5°	526.7	524.9	524.9	524.1	527.5	530.2	538.9	539.7	556.3	572.0	587.7
20°	559.8	558.9	555.4	551.1	550.2	552.0	560.7	561.5	578.1	591.2	606.0
22.5°	599.9	600.8	592.9	583.3	579.0	581.6	589.4	590.3	602.5	613.9	626.9
25°	653.1	650.5	639.2	625.2	616.5	616.5	624.3	624.3	635.7	642.6	651.4
27.5°	703.7	698.4	688.0	667.9	654.0	656.6	664.4	664.4	674.9	677.5	681.9
30°	758.6	753.4	740.3	715.0	696.7	695.0	704.5	703.7	717.6	716.8	713.3
32.5°	825.8	823.1	801.3	769.1	744.7	738.6	747.3	748.1	756.9	754.3	742.9
35°	919.9	919.1	899.0	842.3	810.1	798.7	804.0	804.0	810.1	803.1	783.9
37.5°	1038.5	1040.3	1022.8	939.1	893.8	874.6	875.5	874.6	876.3	868.5	848.4
40°	1157.1	1161.5	1160.6	1059.4	1001.9	968.8	956.5	954.8	959.2	955.7	936.5
42.5°	1313.2	1323.6	1299.2	1207.7	1143.1	1087.3	1054.2	1049.8	1059.4	1063.8	1045.5
45°	1475.4	1471.9	1433.5	1367.2	1308.8	1237.3	1174.5	1167.6	1174.5	1187.6	1168.4
47.5°	1559.9	1557.3	1547.7	1514.6	1505.9	1423.9	1328.9	1322.8	1309.7	1328.0	1305.3
50°	1699.5	1702.1	1662.8	1659.4	1696.0	1650.6	1503.3	1489.3	1465.8	1480.6	1461.4
52.5°	1800.6	1789.3	1764.9	1795.4	1909.6	1885.2	1667.2	1661.1	1639.3	1635.8	1627.1
55°	1841.6	1841.6	1846.0	1916.6	2079.6	2047.4	1845.1	1851.2	1821.5	1797.1	1808.5
57.5°	1853.8	1859.0	1896.5	2013.4	2279.3	2173.8	2041.3	2050.0	2007.3	1958.4	1994.2
60°	1793.6	1809.3	1899.1	2068.3	2391.8	2308.1	2247.9	2250.5	2188.6	2117.1	2179.9
62.5°	1639.3	1658.5	1818.9	2091.0	2373.5	2445.9	2443.3	2449.4	2364.8	2275.8	2354.3
65°	1450.1	1469.3	1640.2	2027.3	2359.5	2544.4	2622.0	2638.6	2529.6	2410.1	2463.3
67.5°	1171.9	1197.2	1359.4	1812.8	2291.5	2625.5	2789.4	2806.9	2656.9	2479.9	2453.7
70°	849.3	861.5	997.5	1377.7	2014.2	2581.0	2922.0	2921.1	2698.7	2474.6	2322.9
72.5°	409.0	418.5	536.3	855.4	1440.5	2190.4	2826.0	2842.6	2641.2	2398.8	2023.8
75°	168.3	177.9	217.1	361.0	756.0	1447.5	2395.3	2434.5	2398.8	2152.9	1583.5
77.5°	104.6	108.1	127.3	186.6	345.3	675.8	1676.8	1730.0	1900.9	1724.8	1045.5
80°	78.5	81.1	95.0	130.8	218.0	249.4	832.7	899.9	1151.9	989.7	473.5
82.5°	65.4	66.3	75.9	95.0	148.2	143.0	266.8	297.3	537.1	377.6	163.1
85°	61.0	62.8	68.0	68.0	94.2	89.8	110.7	116.0	156.1	129.1	56.7
87.5°	31.4	29.6	60.2	53.2	48.8	43.6	47.1	50.6	58.4	61.9	25.3
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°	532.8	532.8	532.8	532.8	532.8	532.8	532.8	532.8	532.8	532.8	532.8
2.5°	531.0	533.6	538.0	542.4	547.6	553.7	557.2	561.5	565.0	563.3	562.4
5°	533.6	538.0	547.6	556.3	566.8	579.0	586.8	595.6	602.5	604.3	601.7
7.5°	538.0	545.9	558.9	574.6	588.6	604.3	616.5	628.7	637.4	639.2	639.2
10°	548.5	557.2	574.6	595.6	612.1	628.7	642.6	652.2	660.1	663.6	663.6
12.5°	563.3	573.8	594.7	620.0	638.3	654.0	661.8	666.2	669.7	673.2	674.0
15°	580.7	592.1	617.4	644.4	663.6	671.4	671.4	670.5	670.5	672.3	674.0
17.5°	598.2	610.4	636.5	665.3	677.5	673.2	667.1	664.4	662.7	661.8	664.4
20°	616.5	628.7	654.8	681.9	678.4	660.1	651.4	645.3	640.0	637.4	640.9
22.5°	636.5	647.9	674.9	693.2	667.1	639.2	622.6	613.0	604.3	599.0	602.5
25°	660.1	671.4	697.6	696.7	647.0	607.8	581.6	565.9	556.3	551.1	551.1
27.5°	688.0	697.6	722.9	688.0	619.1	565.9	527.5	512.7	510.1	505.7	505.7
30°	716.8	724.6	746.4	667.9	580.7	511.0	469.1	462.1	463.0	458.7	459.5
32.5°	746.4	754.3	760.4	638.3	531.0	449.1	421.2	415.9	415.1	411.6	408.1
35°	788.3	799.6	762.1	598.2	470.9	397.6	377.6	372.3	367.1	354.9	354.9
37.5°	851.9	864.1	757.7	548.5	409.0	357.5	339.2	332.2	323.5	311.3	306.9
40°	939.1	939.1	748.1	492.7	359.3	325.2	307.8	299.1	289.5	277.3	274.7
42.5°	1042.0	1017.6	733.3	436.0	322.6	303.4	287.7	278.2	266.8	252.9	251.1
45°	1162.3	1096.1	712.4	385.4	295.6	290.4	280.8	264.2	245.0	230.2	227.6
47.5°	1279.2	1166.7	692.3	349.7	272.9	285.1	277.3	249.4	223.2	202.3	199.7
50°	1407.4	1229.5	668.8	320.0	255.5	281.6	272.9	227.6	198.8	184.0	182.2
52.5°	1535.5	1293.1	643.5	288.6	240.7	274.7	262.5	211.9	197.9	177.9	175.3
55°	1670.7	1367.2	613.9	253.7	223.2	260.7	248.5	211.0	204.0	177.9	171.8
57.5°	1802.4	1449.2	565.9	219.7	204.0	239.8	243.3	205.8	191.0	176.1	169.2
60°	1948.0	1536.4	486.6	191.0	187.5	222.4	236.3	194.4	176.1	170.9	167.4
62.5°	2064.8	1614.9	380.2	170.9	173.5	208.4	227.6	187.5	170.0	165.7	164.8
65°	2115.4	1616.6	272.9	153.5	159.6	195.3	218.9	181.4	164.8	163.1	162.2
67.5°	2062.2	1527.7	191.8	136.9	144.7	183.1	207.5	175.3	159.6	160.4	158.7
70°	1890.4	1340.2	140.4	121.2	130.8	170.0	195.3	167.4	153.5	155.2	152.6
72.5°	1581.7	1044.6	112.5	108.1	119.5	156.1	183.1	158.7	143.9	144.7	139.5
75°	1168.4	692.3	94.2	96.8	106.4	143.0	167.4	147.4	133.4	129.9	126.4
77.5°	695.0	355.8	77.6	84.6	95.0	127.3	150.0	133.4	122.1	116.0	113.4
80°	286.9	143.9	63.7	71.5	82.8	113.4	132.5	116.8	109.0	102.9	99.4
82.5°	114.2	70.6	50.6	58.4	69.8	98.5	116.0	102.9	95.0	90.7	81.1
85°	43.6	34.9	34.0	41.0	52.3	75.9	95.9	86.3	80.2	68.9	66.3
87.5°	17.4	15.7	15.7	20.1	29.6	48.0	68.9	60.2	62.8	49.7	50.6
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)