

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: P265878

Luminaire Tested: **ARCH-AF16-30-D-U-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265878  
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-AF16-30-D-U-T2R-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 560mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3303.7 lumens  
Efficiency: N/A  
Efficacy: 103.2 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

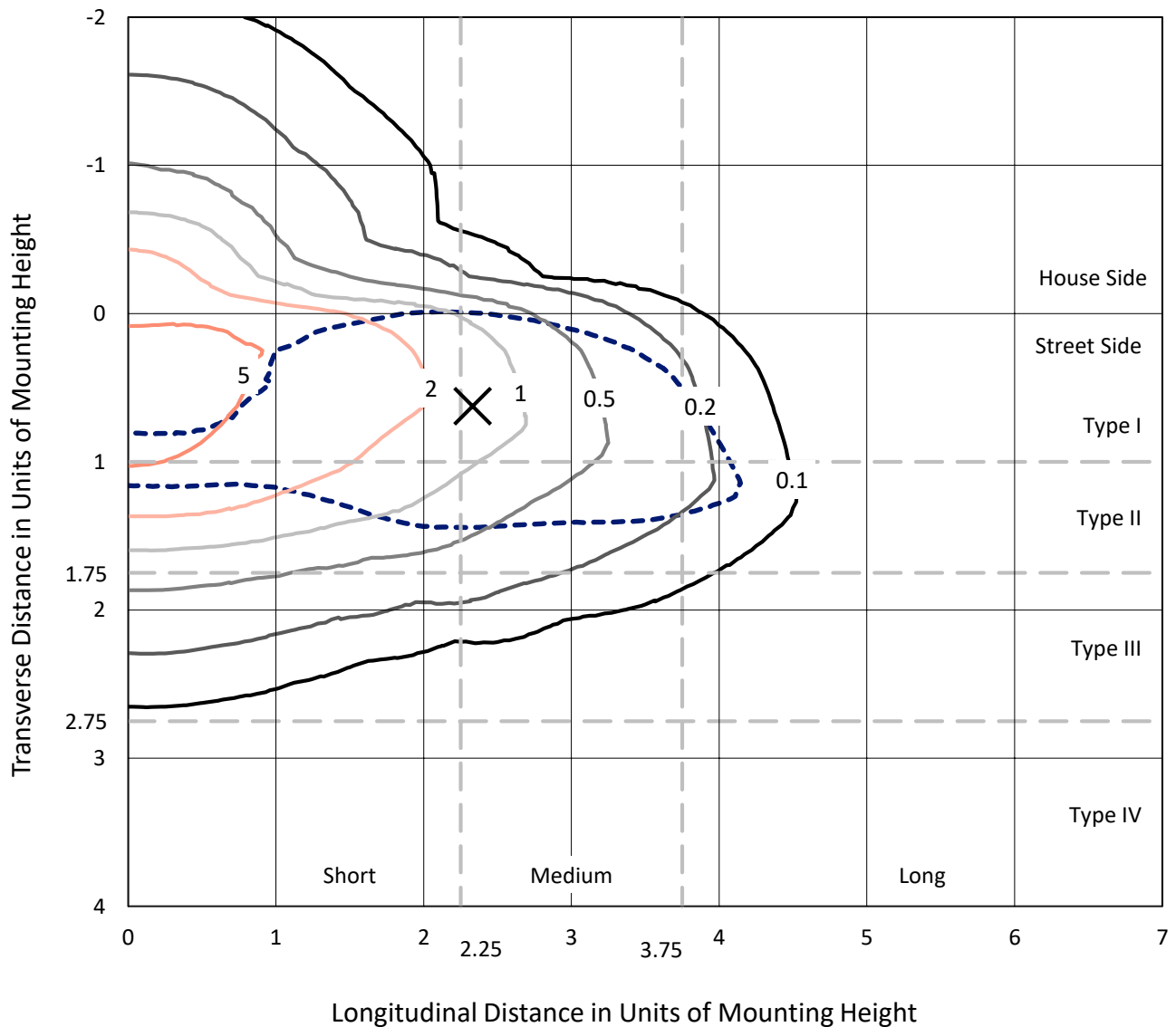
Input Watts (W): 32  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

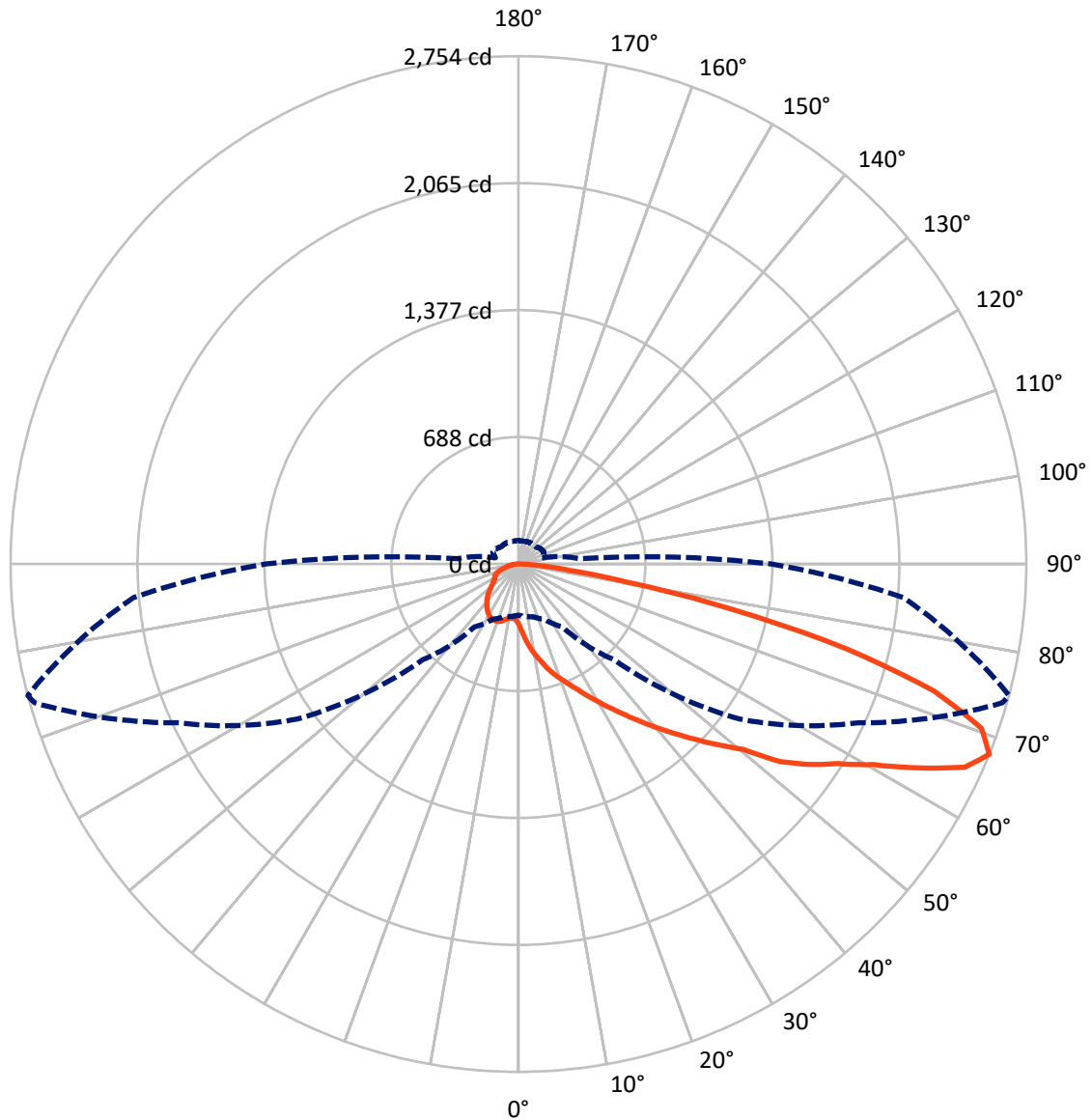
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc  
 Type II - Medium - Semi-Cutoff

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### 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
<b>House Side</b>	Lumens	564.1	0.0	564.1
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	2739.5	0.0	2739.5
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	3303.7	0.0	3303.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.5	1.2
10°-20°	139.0	4.2
20°-30°	253.5	7.7
30°-40°	416.1	12.6
40°-50°	601.7	18.2
50°-60°	709.1	21.5
60°-70°	689.1	20.9
70°-80°	383.0	11.6
80°-90°	73.7	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°	3303.7	100.0
0°-180°	3303.7	100.0



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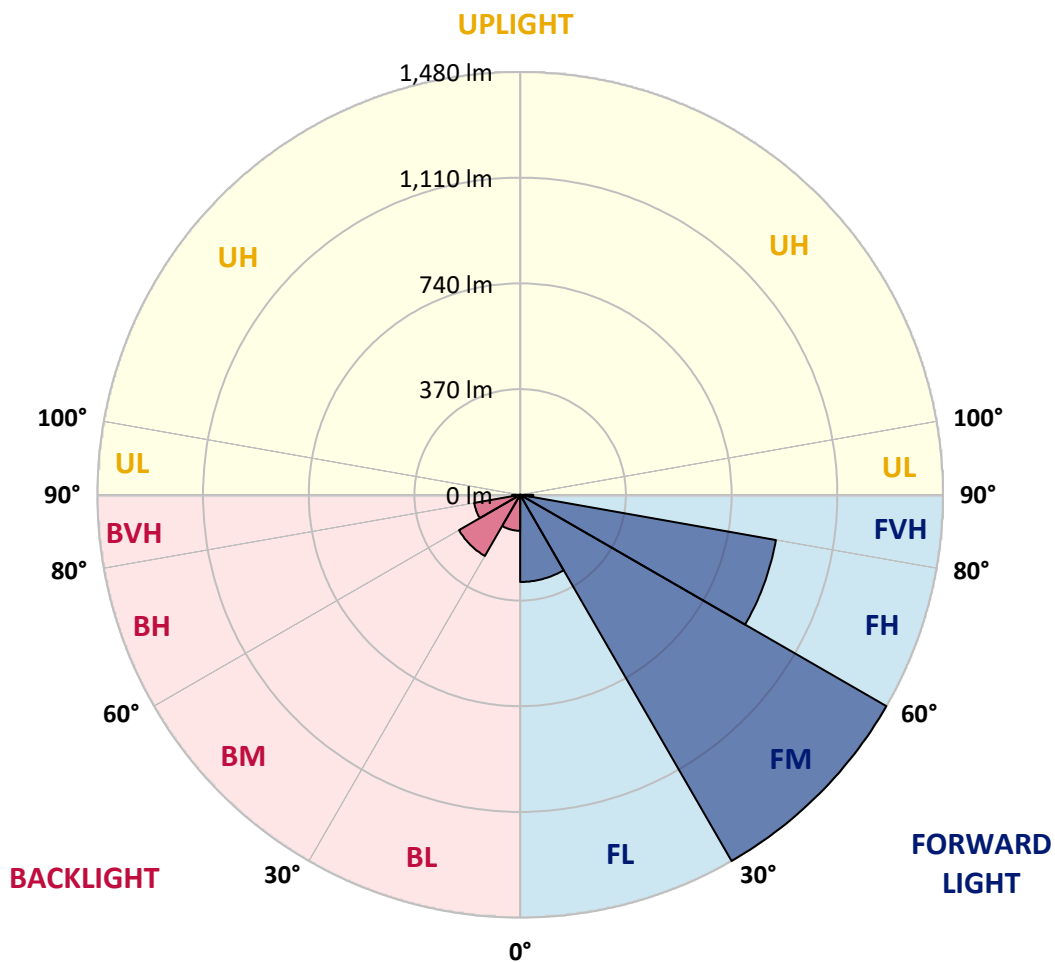
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	305.0	9.2			
FM (30°-60°)	1479.9	44.8			
FH (60°-80°)	908.8	27.5			G1/1800
FVH (80°-90°)	45.8	1.4			G1/100
BL (0°-30°)	125.9	3.8	B1/500		
BM (30°-60°)	247.1	7.5	B1/1000		
BH (60°-80°)	163.3	4.9	B1/500		G1/500
BVH (80°-90°)	27.8	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3
2.5°	464.2	465.5	462.7	456.5	447.5	430.9	416.5	390.9	368.1	365.3	341.1
5°	545.6	547.0	543.6	535.8	526.2	508.4	488.3	455.1	418.5	411.7	360.5
7.5°	601.5	602.3	598.1	590.5	582.9	564.9	544.9	507.6	462.7	457.1	385.4
10°	649.1	650.6	645.1	640.2	632.0	614.0	593.2	553.9	507.6	500.0	411.0
12.5°	693.4	694.7	691.3	687.2	684.4	667.8	645.1	598.1	548.3	540.2	441.2
15°	723.0	724.5	725.1	730.7	734.2	722.3	699.6	648.4	592.5	584.9	477.2
17.5°	714.8	718.3	728.6	748.6	770.0	770.7	752.2	698.3	636.1	627.7	513.8
20°	690.6	693.4	705.8	736.3	778.3	802.5	801.2	748.6	676.9	667.8	547.6
22.5°	710.6	714.2	714.2	732.7	774.2	819.1	837.0	798.4	717.6	709.3	581.6
25°	796.3	798.4	784.0	776.2	791.4	832.9	866.8	852.2	767.3	757.6	618.2
27.5°	915.8	912.3	894.4	864.0	847.5	858.5	892.9	903.3	824.6	812.8	656.1
30°	1034.6	1032.5	1011.9	971.1	933.8	910.3	922.0	948.9	886.7	873.0	692.8
32.5°	1145.8	1142.4	1119.5	1071.9	1029.7	986.2	963.4	990.4	953.1	937.2	733.5
35°	1247.9	1239.0	1216.2	1166.4	1123.1	1081.5	1025.5	1029.7	1024.8	1008.3	778.3
37.5°	1330.8	1323.9	1299.0	1252.7	1206.6	1167.2	1108.5	1074.6	1102.3	1086.4	830.2
40°	1404.1	1396.4	1371.0	1324.6	1281.8	1244.5	1198.2	1129.2	1189.3	1171.3	888.2
42.5°	1459.2	1453.7	1433.1	1387.5	1346.0	1312.2	1289.3	1198.2	1279.7	1262.5	951.8
45°	1489.0	1483.6	1472.4	1435.9	1397.9	1371.6	1373.7	1280.4	1374.3	1359.9	1027.0
47.5°	1452.4	1456.5	1466.3	1459.2	1435.9	1423.5	1449.0	1365.3	1480.0	1466.3	1108.5
50°	1354.4	1358.4	1397.1	1444.8	1453.1	1468.3	1516.7	1463.5	1591.8	1580.8	1209.3
52.5°	1113.3	1136.0	1243.2	1357.1	1435.1	1498.1	1591.8	1609.1	1780.5	1780.5	1387.5
55°	841.3	861.2	983.5	1182.3	1365.3	1500.8	1647.1	1707.9	1916.5	1919.3	1480.8
57.5°	681.6	694.1	754.1	958.0	1219.0	1466.3	1712.8	1792.8	2029.8	2042.1	1600.9
60°	553.1	560.2	599.4	741.0	1016.6	1373.0	1759.7	1914.5	2191.3	2208.7	1754.2
62.5°	444.8	451.7	477.9	562.9	797.7	1198.2	1751.4	2040.8	2406.9	2435.1	1955.3
65°	355.0	362.6	379.9	432.4	591.2	981.4	1666.4	2105.7	2630.0	2657.5	2088.5
67.5°	276.9	283.9	295.6	330.1	416.5	734.2	1465.6	2037.4	2730.0	2753.6	2095.3
70°	209.2	212.7	222.4	244.5	297.7	487.6	1147.1	1808.1	2640.3	2661.7	1957.2
72.5°	162.4	161.7	167.2	178.1	207.9	335.6	760.3	1470.3	2334.3	2356.4	1669.9
75°	132.6	132.0	135.4	138.8	150.6	225.1	449.0	1107.2	1884.0	1842.0	1252.7
77.5°	111.8	111.2	114.7	115.3	120.2	155.3	255.6	728.6	1257.0	1184.4	705.8
80°	94.6	94.0	98.1	99.4	102.9	113.9	147.1	394.4	631.2	598.1	337.0
82.5°	71.1	73.9	81.4	85.0	89.1	84.3	91.2	174.0	292.8	279.7	146.5
85°	34.6	40.8	61.4	68.5	73.2	53.2	62.2	82.1	132.0	125.8	59.4
87.5°	11.8	10.4	36.7	43.5	47.7	24.2	34.6	45.5	54.5	49.8	18.7
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°	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3
2.5°	330.8	320.4	305.2	293.6	285.9	279.7	276.9	276.3	274.9	274.3	274.3
5°	337.8	319.1	295.6	283.1	279.7	276.9	278.4	279.1	279.1	279.1	279.1
7.5°	348.1	321.9	293.6	285.2	284.6	284.6	288.6	290.7	292.2	292.2	292.2
10°	361.8	326.7	297.0	290.1	292.2	293.6	298.3	301.1	302.5	303.2	303.8
12.5°	380.5	337.0	303.8	298.3	301.1	301.8	305.2	306.6	307.9	308.7	308.7
15°	405.5	352.2	314.9	307.9	308.7	307.9	307.9	306.6	306.0	306.0	307.3
17.5°	430.9	366.7	324.6	314.9	312.3	306.6	302.5	299.0	297.0	295.6	296.4
20°	456.5	379.9	330.1	316.4	308.7	299.8	292.2	287.3	284.6	281.8	283.1
22.5°	482.1	392.3	332.3	312.3	301.1	287.9	279.7	272.0	265.9	261.8	262.5
25°	510.3	406.2	332.3	307.3	290.7	276.9	266.5	254.1	245.1	241.7	243.1
27.5°	538.8	417.8	328.7	298.3	279.1	265.2	250.0	235.5	230.0	227.9	228.6
30°	567.0	426.9	321.1	287.3	266.5	251.3	231.4	221.7	214.8	209.2	209.9
32.5°	595.3	433.1	310.8	273.5	253.4	234.1	217.6	206.5	194.0	187.1	187.8
35°	627.7	437.8	298.3	259.7	238.9	218.9	206.5	188.6	175.3	169.9	168.5
37.5°	661.6	441.2	285.2	244.5	224.4	207.9	195.4	173.4	160.9	153.3	152.6
40°	698.3	442.7	269.3	228.6	210.7	201.0	181.0	164.4	143.0	138.1	138.1
42.5°	741.7	442.0	253.4	212.7	195.4	185.1	170.6	163.0	144.4	139.4	136.7
45°	791.4	442.0	236.3	194.0	180.3	165.1	158.8	154.0	141.7	143.6	145.0
47.5°	848.1	440.6	215.5	178.9	167.9	154.7	151.3	140.9	136.1	137.4	138.8
50°	926.2	442.7	196.8	166.5	158.8	147.9	143.6	138.1	136.1	136.7	136.1
52.5°	1034.6	435.8	178.9	158.8	152.0	137.4	137.4	136.7	137.4	136.7	136.7
55°	1094.0	420.5	165.7	154.7	147.1	132.6	135.4	136.7	138.1	137.4	137.4
57.5°	1178.2	410.3	155.3	152.0	144.4	131.2	133.9	136.7	137.4	136.7	136.7
60°	1277.7	403.2	148.5	152.6	142.3	131.2	134.7	136.7	136.1	135.4	135.4
62.5°	1393.0	400.6	143.6	154.7	140.1	132.0	134.7	136.7	133.9	133.3	133.3
65°	1436.5	375.8	137.4	156.0	141.7	132.0	133.9	134.7	131.2	130.6	129.8
67.5°	1369.6	332.9	128.5	153.3	145.7	132.0	132.0	131.2	127.1	126.4	125.0
70°	1219.7	276.3	114.7	144.4	148.5	132.6	129.1	125.8	121.5	121.5	118.8
72.5°	998.6	217.6	96.7	128.5	146.5	134.7	123.6	118.8	113.9	113.9	111.2
75°	719.6	162.4	77.3	107.1	137.4	133.9	116.7	110.5	105.0	104.4	100.8
77.5°	410.3	113.9	62.8	83.5	122.2	130.6	110.5	100.8	94.6	92.5	90.5
80°	210.7	76.6	51.2	65.5	101.5	120.8	105.7	89.8	82.9	79.4	75.9
82.5°	100.2	51.2	39.3	48.4	76.6	105.7	99.4	77.3	69.8	65.5	61.4
85°	44.8	30.5	26.2	31.1	54.5	82.1	87.8	63.5	54.5	68.5	50.5
87.5°	14.6	13.8	13.8	14.6	26.2	35.9	64.1	46.9	43.5	35.9	30.5
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)