

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: P214596

Luminaire Tested: **ARCH-AF16-20-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214596
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-AF16-20-D-U-T2R-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2996 lumens
Efficiency: N/A
Efficacy: 124.8 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

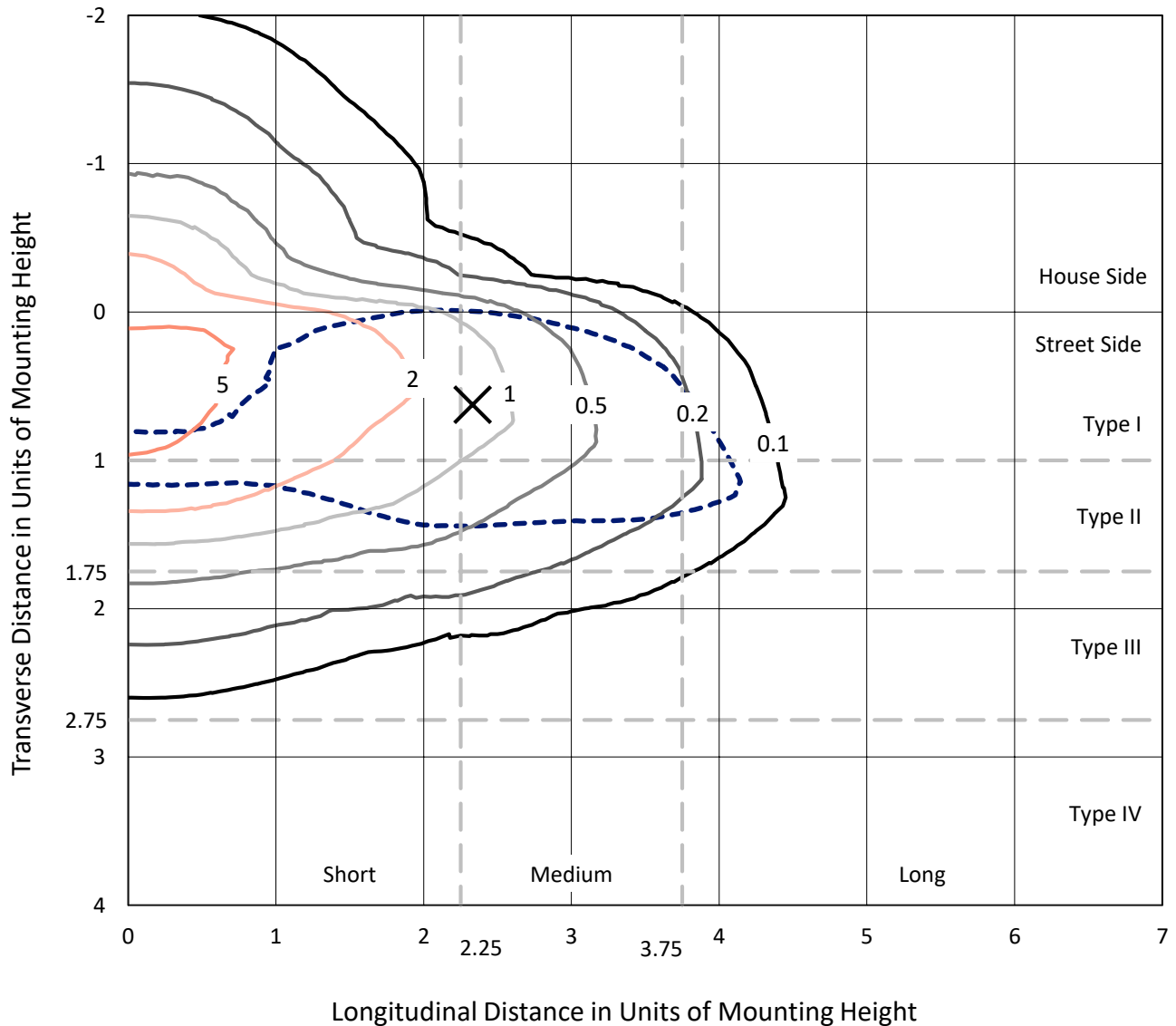
Input Watts (W): 24
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

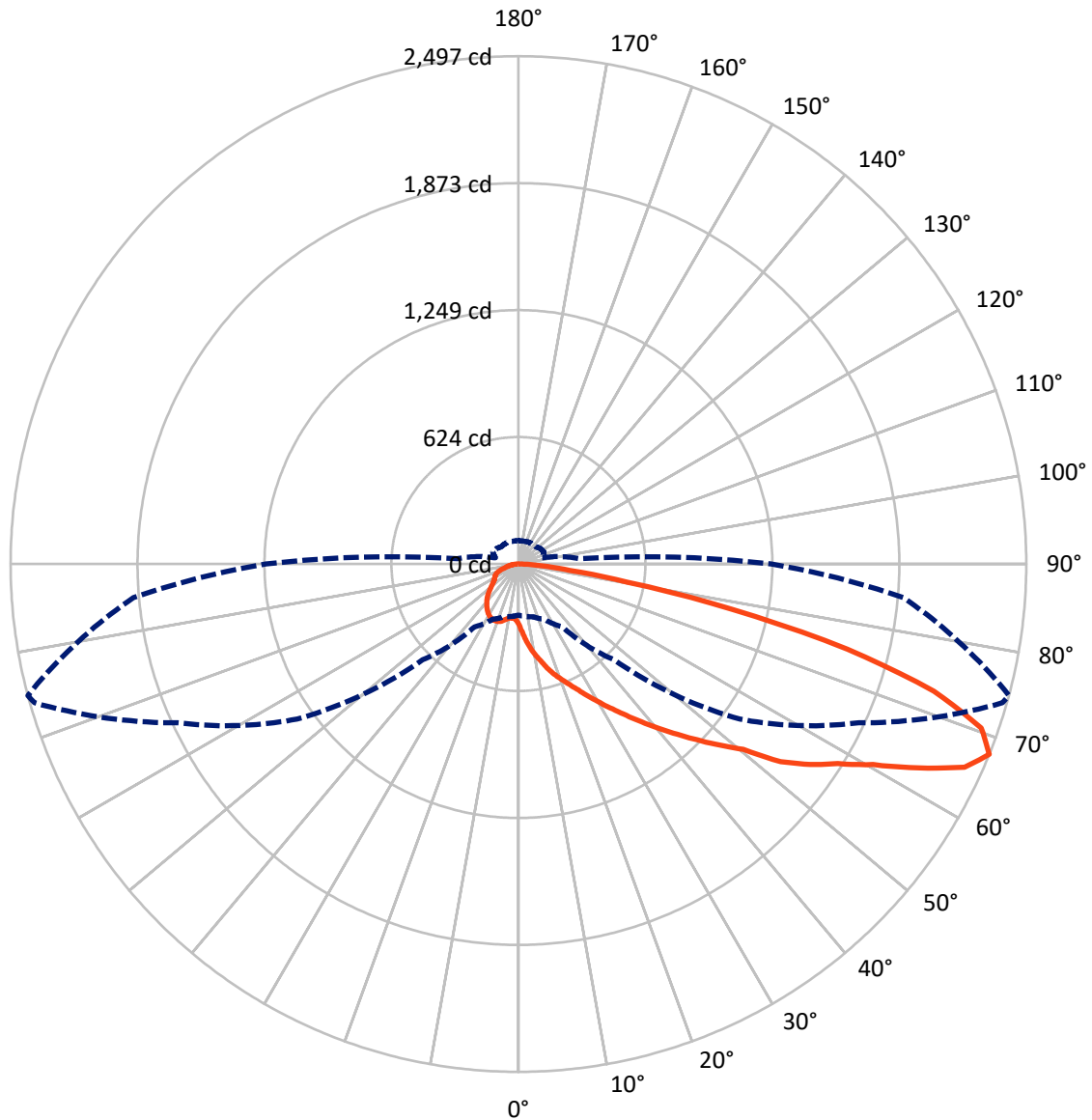
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.2 fc
 Type 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
House Side	Lumens	511.6	0.0	511.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	2484.4	0.0	2484.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	2996.0	0.0	2996.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.9	1.2
10°-20°	126.0	4.2
20°-30°	229.9	7.7
30°-40°	377.3	12.6
40°-50°	545.7	18.2
50°-60°	643.1	21.5
60°-70°	624.9	20.9
70°-80°	347.4	11.6
80°-90°	66.8	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°	2996.0	100.0
0°-180°	2996.0	100.0



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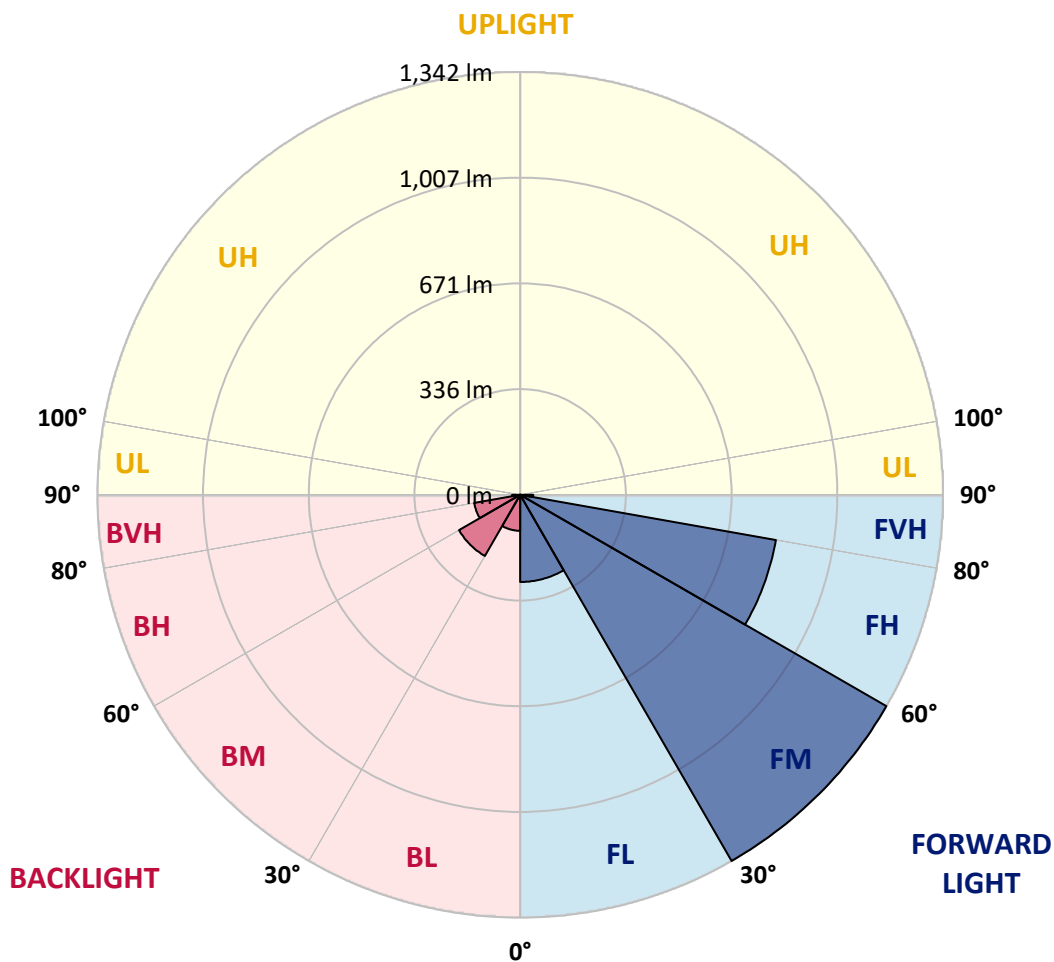
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	276.6	9.2			
FM (30°-60°)	1342.0	44.8			
FH (60°-80°)	824.2	27.5			G1/1800
FVH (80°-90°)	41.6	1.4			G1/100
BL (0°-30°)	114.2	3.8	B1/500		
BM (30°-60°)	224.1	7.5	B1/1000		
BH (60°-80°)	148.1	4.9	B1/500		G1/500
BVH (80°-90°)	25.2	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°	296.9	296.9	296.9	296.9	296.9	296.9	296.9	296.9	296.9	296.9	296.9
2.5°	420.9	422.1	419.6	414.0	405.9	390.8	377.7	354.5	333.8	331.3	309.4
5°	494.8	496.0	492.9	486.0	477.3	461.0	442.8	412.7	379.5	373.3	326.9
7.5°	545.5	546.1	542.4	535.5	528.6	512.3	494.2	460.3	419.6	414.6	349.5
10°	588.7	590.0	585.0	580.6	573.1	556.8	538.0	502.3	460.3	453.5	372.7
12.5°	628.8	630.1	626.9	623.2	620.7	605.6	585.0	542.4	497.3	489.8	400.2
15°	655.8	657.0	657.6	662.6	665.8	655.1	634.5	588.1	537.4	530.5	432.8
17.5°	648.2	651.4	660.8	678.9	698.3	699.0	682.1	633.2	576.8	569.3	466.0
20°	626.3	628.8	640.1	667.7	705.9	727.8	726.5	678.9	613.8	605.6	496.7
22.5°	644.5	647.6	647.6	664.5	702.1	742.8	759.1	724.0	650.7	643.2	527.4
25°	722.1	724.0	710.9	704.0	717.8	755.3	786.0	772.9	695.8	687.1	560.6
27.5°	830.5	827.4	811.1	783.5	768.5	778.5	809.8	819.2	747.8	737.2	595.0
30°	938.2	936.3	917.6	880.6	846.8	825.5	836.1	860.6	804.2	791.7	628.2
32.5°	1039.1	1035.9	1015.3	972.0	933.8	894.4	873.7	898.1	864.3	849.9	665.1
35°	1131.8	1123.6	1102.9	1057.8	1018.4	980.8	930.1	933.8	929.5	914.4	705.9
37.5°	1206.9	1200.6	1178.1	1136.1	1094.2	1058.5	1005.2	974.5	999.6	985.2	752.8
40°	1273.3	1266.4	1243.2	1201.3	1162.4	1128.6	1086.7	1024.0	1078.5	1062.2	805.4
42.5°	1323.4	1318.4	1299.6	1258.3	1220.7	1190.0	1169.3	1086.7	1160.6	1144.9	863.1
45°	1350.3	1345.3	1335.3	1302.1	1267.7	1243.9	1245.7	1161.2	1246.4	1233.2	931.3
47.5°	1317.1	1320.9	1329.7	1323.4	1302.1	1290.8	1314.0	1238.2	1342.2	1329.7	1005.2
50°	1228.2	1232.0	1267.0	1310.3	1317.8	1331.5	1375.4	1327.2	1443.7	1433.6	1096.7
52.5°	1009.6	1030.3	1127.4	1230.7	1301.5	1358.5	1443.7	1459.3	1614.6	1614.6	1258.3
55°	762.9	781.0	891.9	1072.3	1238.2	1361.0	1493.8	1548.9	1738.0	1740.5	1342.8
57.5°	618.2	629.4	683.9	868.7	1105.4	1329.7	1553.3	1625.9	1840.7	1852.0	1451.8
60°	501.7	507.9	543.6	672.0	921.9	1245.1	1595.9	1736.2	1987.3	2003.0	1590.8
62.5°	403.3	409.6	433.4	510.4	723.4	1086.7	1588.3	1850.8	2182.7	2208.4	1773.1
65°	321.9	328.8	344.5	392.1	536.1	890.0	1511.3	1909.6	2385.0	2410.1	1894.0
67.5°	251.2	257.4	268.1	299.4	377.7	665.8	1329.0	1847.6	2475.8	2497.1	1900.2
70°	189.8	192.9	201.7	221.7	269.9	442.2	1040.3	1639.7	2394.4	2413.8	1775.0
72.5°	147.2	146.6	151.6	161.6	188.5	304.4	689.6	1333.4	2117.0	2137.0	1514.4
75°	120.3	119.6	122.8	125.9	136.5	204.2	407.1	1004.0	1708.6	1670.4	1136.1
77.5°	101.5	100.8	104.0	104.6	109.0	140.9	231.7	660.8	1139.9	1074.1	640.1
80°	85.8	85.2	88.9	90.2	93.3	103.3	133.4	357.6	572.5	542.4	305.6
82.5°	64.5	67.0	73.9	77.0	80.8	76.4	82.7	157.8	265.6	253.7	132.8
85°	31.3	37.0	55.7	62.0	66.4	48.2	56.4	74.5	119.6	114.0	53.9
87.5°	10.6	9.4	33.2	39.5	43.2	21.9	31.3	41.3	49.5	45.1	16.9
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°	296.9	296.9	296.9	296.9	296.9	296.9	296.9	296.9	296.9	296.9	296.9
2.5°	300.0	290.6	276.8	266.2	259.3	253.7	251.2	250.5	249.3	248.6	248.6
5°	306.3	289.4	268.1	256.8	253.7	251.2	252.4	253.0	253.0	253.0	253.0
7.5°	315.7	291.9	266.2	258.7	258.0	258.0	261.8	263.7	264.9	264.9	264.9
10°	328.2	296.2	269.3	263.1	264.9	266.2	270.6	273.1	274.3	275.0	275.6
12.5°	345.1	305.6	275.6	270.6	273.1	273.7	276.8	278.1	279.3	280.0	280.0
15°	367.6	319.4	285.6	279.3	280.0	279.3	279.3	278.1	277.5	277.5	278.7
17.5°	390.8	332.6	294.4	285.6	283.1	278.1	274.3	271.2	269.3	268.1	268.7
20°	414.0	344.5	299.4	286.9	280.0	271.8	264.9	260.5	258.0	255.5	256.8
22.5°	437.2	355.7	301.3	283.1	273.1	261.2	253.7	246.8	241.1	237.4	238.0
25°	462.8	368.3	301.3	278.7	263.7	251.2	241.8	230.5	222.3	219.2	220.5
27.5°	488.5	378.9	298.1	270.6	253.0	240.5	226.7	213.6	208.6	206.7	207.3
30°	514.2	387.1	291.2	260.5	241.8	228.0	209.8	201.0	194.8	189.8	190.4
32.5°	539.9	392.7	281.8	248.0	229.9	212.3	197.3	187.3	176.0	169.7	170.4
35°	569.3	397.1	270.6	235.5	216.7	198.5	187.3	171.0	159.1	154.1	152.8
37.5°	600.0	400.2	258.7	221.7	203.6	188.5	177.2	157.2	145.9	139.0	138.4
40°	633.2	401.5	244.3	207.3	191.0	182.3	164.1	149.1	129.6	125.3	125.3
42.5°	672.7	400.8	229.9	192.9	177.2	167.9	154.7	147.8	130.9	126.5	124.0
45°	717.8	400.8	214.2	176.0	163.5	149.7	144.1	139.7	128.4	130.3	131.5
47.5°	769.1	399.6	195.4	162.2	152.2	140.3	137.2	127.8	123.4	124.6	125.9
50°	839.9	401.5	178.5	150.9	144.1	134.0	130.3	125.3	123.4	124.0	123.4
52.5°	938.2	395.2	162.2	144.1	137.8	124.6	124.6	124.0	124.6	124.0	124.0
55°	992.1	381.4	150.3	140.3	133.4	120.3	122.8	124.0	125.3	124.6	124.6
57.5°	1068.5	372.0	140.9	137.8	130.9	119.0	121.5	124.0	124.6	124.0	124.0
60°	1158.7	365.8	134.7	138.4	129.0	119.0	122.1	124.0	123.4	122.8	122.8
62.5°	1263.3	363.3	130.3	140.3	127.1	119.6	122.1	124.0	121.5	120.9	120.9
65°	1302.7	340.7	124.6	141.5	128.4	119.6	121.5	122.1	119.0	118.4	117.7
67.5°	1242.0	301.9	116.5	139.0	132.2	119.6	119.6	119.0	115.2	114.6	113.4
70°	1106.1	250.5	104.0	130.9	134.7	120.3	117.1	114.0	110.2	110.2	107.7
72.5°	905.7	197.3	87.7	116.5	132.8	122.1	112.1	107.7	103.3	103.3	100.8
75°	652.6	147.2	70.1	97.1	124.6	121.5	105.8	100.2	95.2	94.6	91.4
77.5°	372.0	103.3	57.0	75.8	110.9	118.4	100.2	91.4	85.8	83.9	82.0
80°	191.0	69.5	46.3	59.5	92.1	109.6	95.8	81.4	75.2	72.0	68.9
82.5°	90.8	46.3	35.7	43.8	69.5	95.8	90.2	70.1	63.3	59.5	55.7
85°	40.7	27.6	23.8	28.2	49.5	74.5	79.5	57.6	49.5	62.0	45.7
87.5°	13.2	12.5	12.5	13.2	23.8	32.6	58.2	42.6	39.5	32.6	27.6
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)