

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: P214602

Luminaire Tested: **ARCH-AF24-30-D-U-T2R-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214602  
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-AF24-30-D-U-T2R-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4002 lumens  
Efficiency: N/A  
Efficacy: 129.1 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

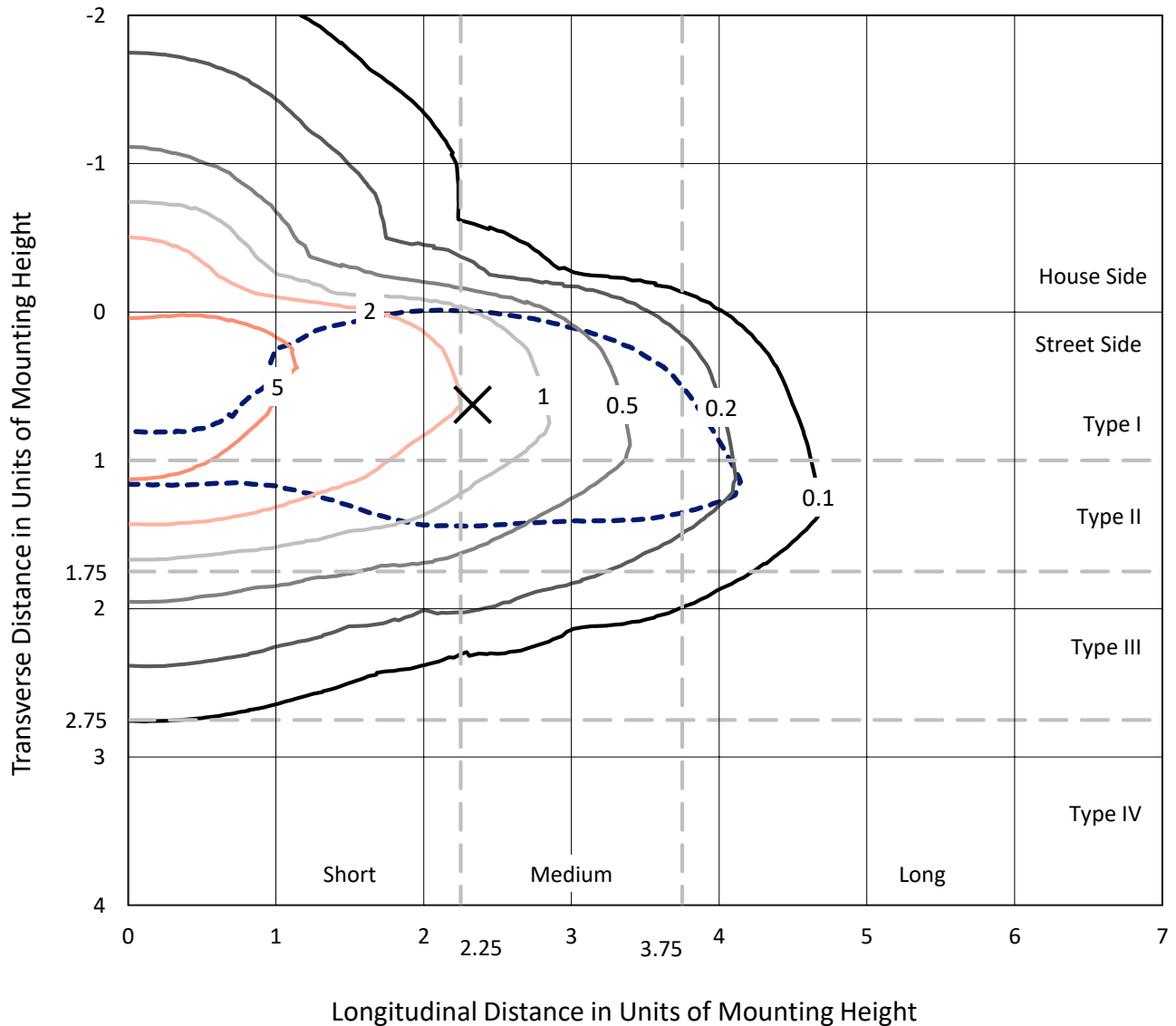
Input Watts (W): 31  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

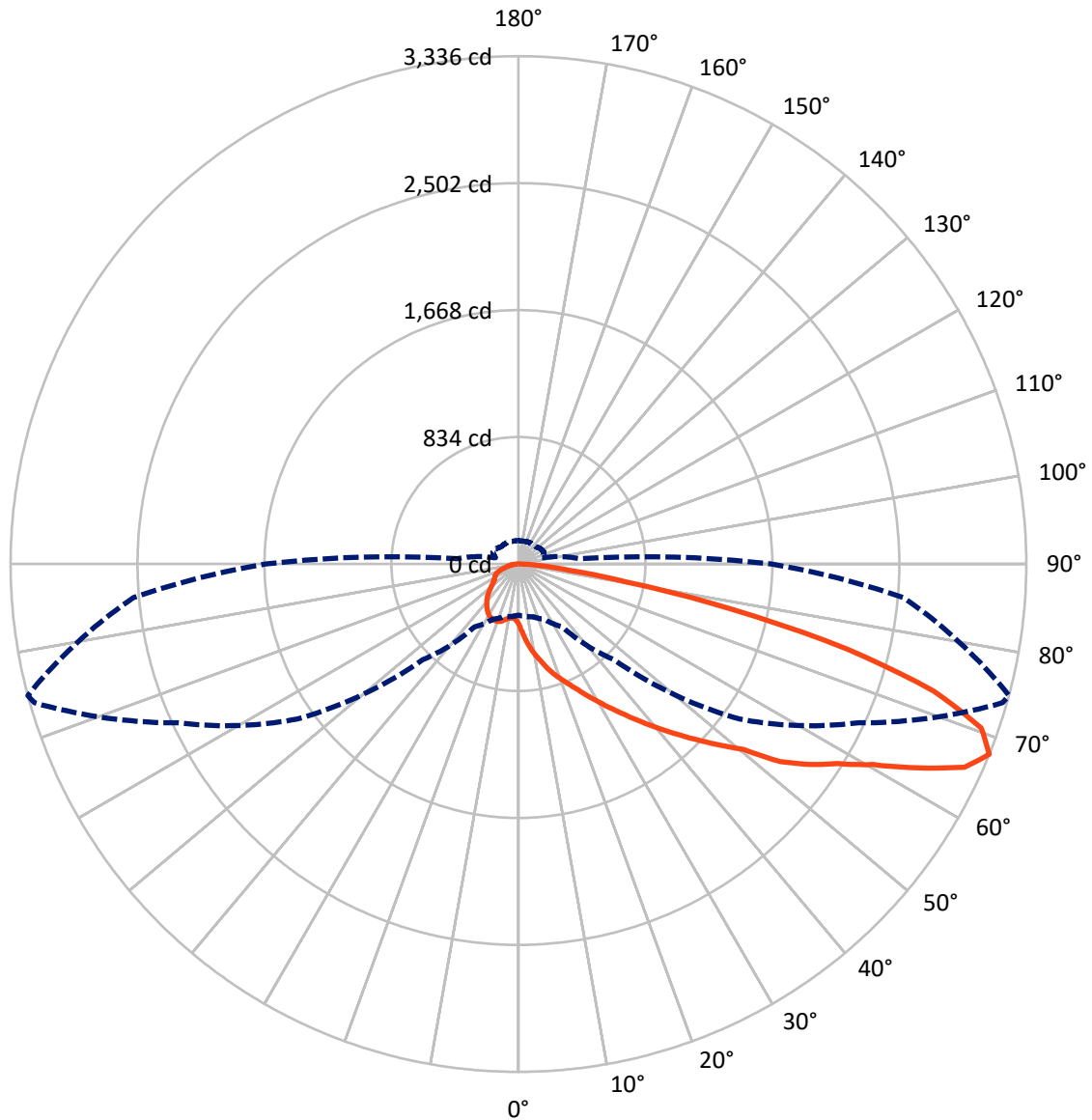
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.3 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	683.4	0.0	683.4
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	3318.6	0.0	3318.6
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	4002.0	0.0	4002.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.6	1.2
10°-20°	168.4	4.2
20°-30°	307.1	7.7
30°-40°	504.0	12.6
40°-50°	728.9	18.2
50°-60°	859.0	21.5
60°-70°	834.8	20.9
70°-80°	464.0	11.6
80°-90°	89.2	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°	4002.0	100.0
0°-180°	4002.0	100.0



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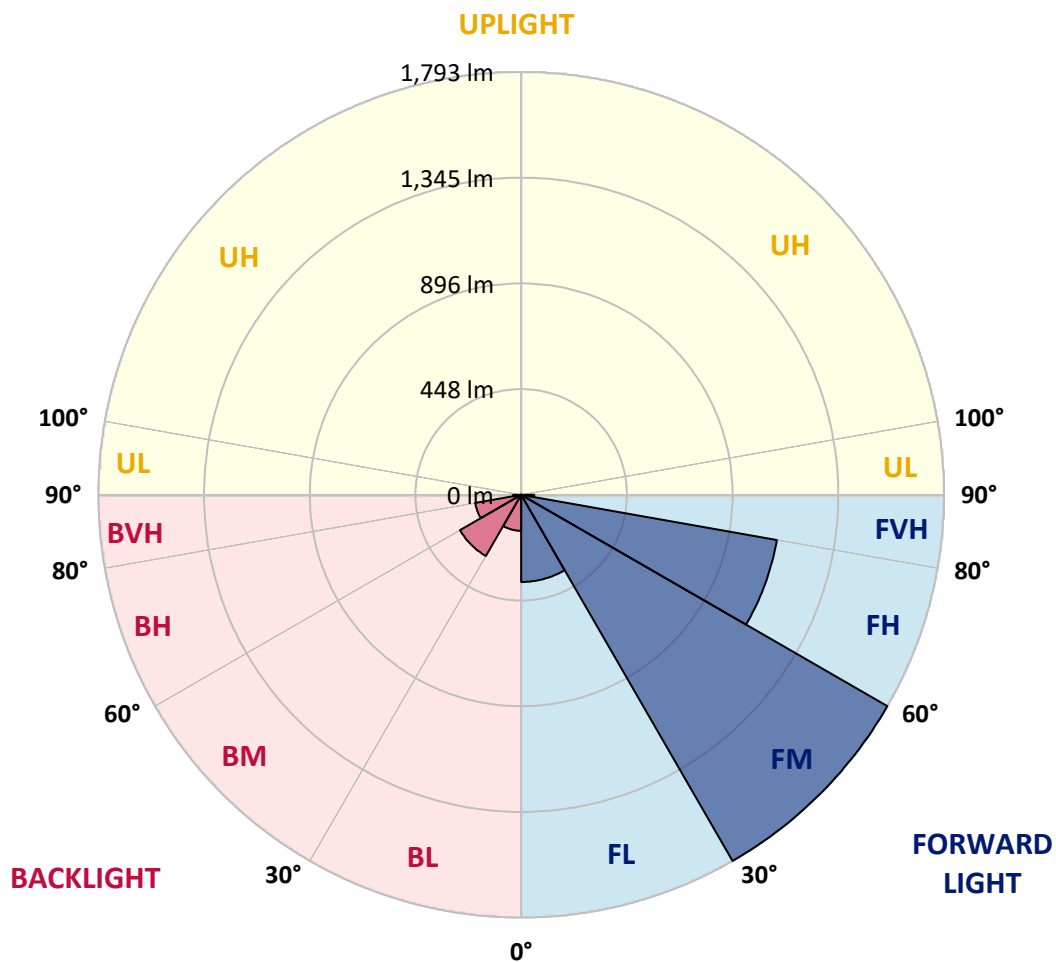
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	369.5	9.2			
FM (30°-60°)	1792.7	44.8			
FH (60°-80°)	1100.9	27.5			G1/1800
FVH (80°-90°)	55.5	1.4			G1/100
BL (0°-30°)	152.5	3.8	B1/500		
BM (30°-60°)	299.3	7.5	B1/1000		
BH (60°-80°)	197.9	4.9	B1/500		G1/500
BVH (80°-90°)	33.7	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°	396.6	396.6	396.6	396.6	396.6	396.6	396.6	396.6	396.6	396.6	396.6
2.5°	562.2	563.9	560.5	553.0	542.1	522.1	504.5	473.5	445.9	442.6	413.3
5°	660.9	662.6	658.4	649.2	637.5	615.8	591.5	551.3	507.0	498.6	436.7
7.5°	728.7	729.5	724.5	715.3	706.1	684.4	660.1	614.9	560.5	553.8	466.8
10°	786.4	788.1	781.4	775.5	765.5	743.8	718.7	671.0	614.9	605.7	497.8
12.5°	840.0	841.6	837.5	832.4	829.1	809.0	781.4	724.5	664.3	654.2	534.6
15°	875.9	877.6	878.5	885.1	889.3	875.1	847.5	785.6	717.8	708.6	578.1
17.5°	865.9	870.1	882.6	906.9	932.8	933.7	911.1	845.8	770.5	760.5	622.4
20°	836.6	840.0	855.0	891.8	942.9	972.2	970.5	906.9	819.9	809.0	663.4
22.5°	860.9	865.1	865.1	887.7	937.9	992.2	1014.0	967.1	869.3	859.2	704.4
25°	964.6	967.1	949.6	940.4	958.8	1009.0	1050.0	1032.4	929.5	917.8	748.8
27.5°	1109.4	1105.2	1083.4	1046.6	1026.5	1039.9	1081.8	1094.3	998.9	984.7	794.8
30°	1253.3	1250.8	1225.7	1176.3	1131.1	1102.7	1116.9	1149.5	1074.2	1057.5	839.1
32.5°	1388.0	1383.8	1356.2	1298.4	1247.4	1194.7	1167.1	1199.7	1154.5	1135.3	888.5
35°	1511.8	1500.9	1473.3	1413.1	1360.3	1310.2	1242.4	1247.4	1241.5	1221.5	942.9
37.5°	1612.2	1603.8	1573.7	1517.6	1461.6	1413.9	1342.8	1301.8	1335.2	1316.0	1005.6
40°	1700.9	1691.7	1660.7	1604.6	1552.8	1507.6	1451.5	1367.9	1440.7	1418.9	1075.9
42.5°	1767.8	1761.1	1736.0	1680.8	1630.6	1589.6	1562.0	1451.5	1550.3	1529.3	1152.9
45°	1803.8	1797.1	1783.7	1739.3	1693.3	1661.5	1664.0	1551.1	1664.9	1647.3	1244.1
47.5°	1759.4	1764.4	1776.1	1767.8	1739.3	1724.3	1755.2	1654.0	1792.9	1776.1	1342.8
50°	1640.6	1645.6	1692.5	1750.2	1760.3	1778.7	1837.2	1772.8	1928.4	1915.0	1464.9
52.5°	1348.6	1376.2	1505.9	1644.0	1738.5	1814.6	1928.4	1949.3	2156.8	2156.8	1680.8
55°	1019.0	1043.3	1191.4	1432.3	1654.0	1818.0	1995.3	2069.0	2321.6	2325.0	1793.7
57.5°	825.7	840.8	913.6	1160.4	1476.6	1776.1	2074.8	2171.9	2458.8	2473.9	1939.3
60°	670.1	678.5	726.2	897.7	1231.5	1663.2	2131.7	2319.1	2654.6	2675.5	2125.0
62.5°	538.8	547.2	578.9	681.8	966.3	1451.5	2121.7	2472.2	2915.6	2949.9	2368.5
65°	430.0	439.2	460.1	523.7	716.1	1188.8	2018.8	2550.9	3185.9	3219.3	2529.9
67.5°	335.5	343.9	358.1	399.9	504.5	889.3	1775.3	2468.0	3307.2	3335.6	2538.3
70°	253.5	257.7	269.4	296.2	360.6	590.7	1389.6	2190.3	3198.4	3224.3	2371.0
72.5°	196.6	195.8	202.5	215.8	251.8	406.6	921.1	1781.2	2827.8	2854.6	2023.0
75°	160.6	159.8	164.0	168.2	182.4	272.7	543.8	1341.1	2282.3	2231.3	1517.6
77.5°	135.5	134.7	138.9	139.7	145.6	188.2	309.6	882.6	1522.7	1434.8	855.0
80°	114.6	113.8	118.8	120.5	124.7	138.0	178.2	477.7	764.7	724.5	408.3
82.5°	86.2	89.5	98.7	102.9	107.9	102.1	110.4	210.8	354.7	338.8	177.4
85°	41.8	49.4	74.5	82.8	88.7	64.4	75.3	99.6	159.8	152.3	71.9
87.5°	14.2	12.5	44.3	52.7	57.7	29.3	41.8	55.2	66.1	60.2	22.6
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°	396.6	396.6	396.6	396.6	396.6	396.6	396.6	396.6	396.6	396.6	396.6
2.5°	400.7	388.2	369.8	355.6	346.4	338.8	335.5	334.6	333.0	332.1	332.1
5°	409.1	386.5	358.1	343.0	338.8	335.5	337.2	338.0	338.0	338.0	338.0
7.5°	421.7	389.9	355.6	345.5	344.7	344.7	349.7	352.2	353.9	353.9	353.9
10°	438.4	395.7	359.7	351.4	353.9	355.6	361.4	364.8	366.4	367.3	368.1
12.5°	461.0	408.3	368.1	361.4	364.8	365.6	369.8	371.5	373.1	374.0	374.0
15°	491.1	426.7	381.5	373.1	374.0	373.1	373.1	371.5	370.6	370.6	372.3
17.5°	522.1	444.2	393.2	381.5	378.2	371.5	366.4	362.3	359.7	358.1	358.9
20°	553.0	460.1	399.9	383.2	374.0	363.1	353.9	348.0	344.7	341.3	343.0
22.5°	584.0	475.2	402.4	378.2	364.8	348.9	338.8	329.6	322.1	317.1	317.9
25°	618.3	491.9	402.4	372.3	352.2	335.5	322.9	307.9	297.0	292.8	294.5
27.5°	652.6	506.2	398.2	361.4	338.0	321.3	302.9	285.3	278.6	276.1	276.9
30°	686.9	517.0	389.0	348.0	322.9	304.5	280.3	268.6	260.2	253.5	254.3
32.5°	721.2	524.6	376.5	331.3	307.0	283.6	263.5	250.2	235.1	226.7	227.6
35°	760.5	530.4	361.4	314.6	289.5	265.2	250.2	228.4	212.5	205.8	204.1
37.5°	801.5	534.6	345.5	296.2	271.9	251.8	236.8	210.0	194.9	185.7	184.9
40°	845.8	536.3	326.3	276.9	255.2	243.5	219.2	199.1	173.2	167.3	167.3
42.5°	898.5	535.4	307.0	257.7	236.8	224.2	206.6	197.4	174.9	169.0	165.7
45°	958.8	535.4	286.1	235.1	218.4	200.0	192.4	186.6	171.5	174.0	175.7
47.5°	1027.4	533.8	261.0	216.7	203.3	187.4	183.2	170.7	164.8	166.5	168.2
50°	1121.9	536.3	238.4	201.6	192.4	179.0	174.0	167.3	164.8	165.7	164.8
52.5°	1253.3	527.9	216.7	192.4	184.1	166.5	166.5	165.7	166.5	165.7	165.7
55°	1325.2	509.5	200.8	187.4	178.2	160.6	164.0	165.7	167.3	166.5	166.5
57.5°	1427.3	497.0	188.2	184.1	174.9	159.0	162.3	165.7	166.5	165.7	165.7
60°	1547.8	488.6	179.9	184.9	172.3	159.0	163.1	165.7	164.8	164.0	164.0
62.5°	1687.5	485.2	174.0	187.4	169.8	159.8	163.1	165.7	162.3	161.5	161.5
65°	1740.2	455.1	166.5	189.1	171.5	159.8	162.3	163.1	159.0	158.1	157.3
67.5°	1659.0	403.3	155.6	185.7	176.5	159.8	159.8	159.0	153.9	153.1	151.4
70°	1477.5	334.6	138.9	174.9	179.9	160.6	156.4	152.3	147.2	147.2	143.9
72.5°	1209.8	263.5	117.1	155.6	177.4	163.1	149.8	143.9	138.0	138.0	134.7
75°	871.8	196.6	93.7	129.7	166.5	162.3	141.4	133.9	127.2	126.3	122.1
77.5°	497.0	138.0	76.1	101.2	148.1	158.1	133.9	122.1	114.6	112.1	109.6
80°	255.2	92.9	61.9	79.5	123.0	146.4	128.0	108.8	100.4	96.2	92.0
82.5°	121.3	61.9	47.7	58.6	92.9	128.0	120.5	93.7	84.5	79.5	74.5
85°	54.4	36.8	31.8	37.6	66.1	99.6	106.3	77.0	66.1	82.8	61.1
87.5°	17.6	16.7	16.7	17.6	31.8	43.5	77.8	56.9	52.7	43.5	36.8
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)