

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: P214601

Luminaire Tested: **ARCH-AF24-20-D-U-T2R-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214601  
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-AF24-20-D-U-T2R-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2859 lumens  
Efficiency: N/A  
Efficacy: 136.1 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

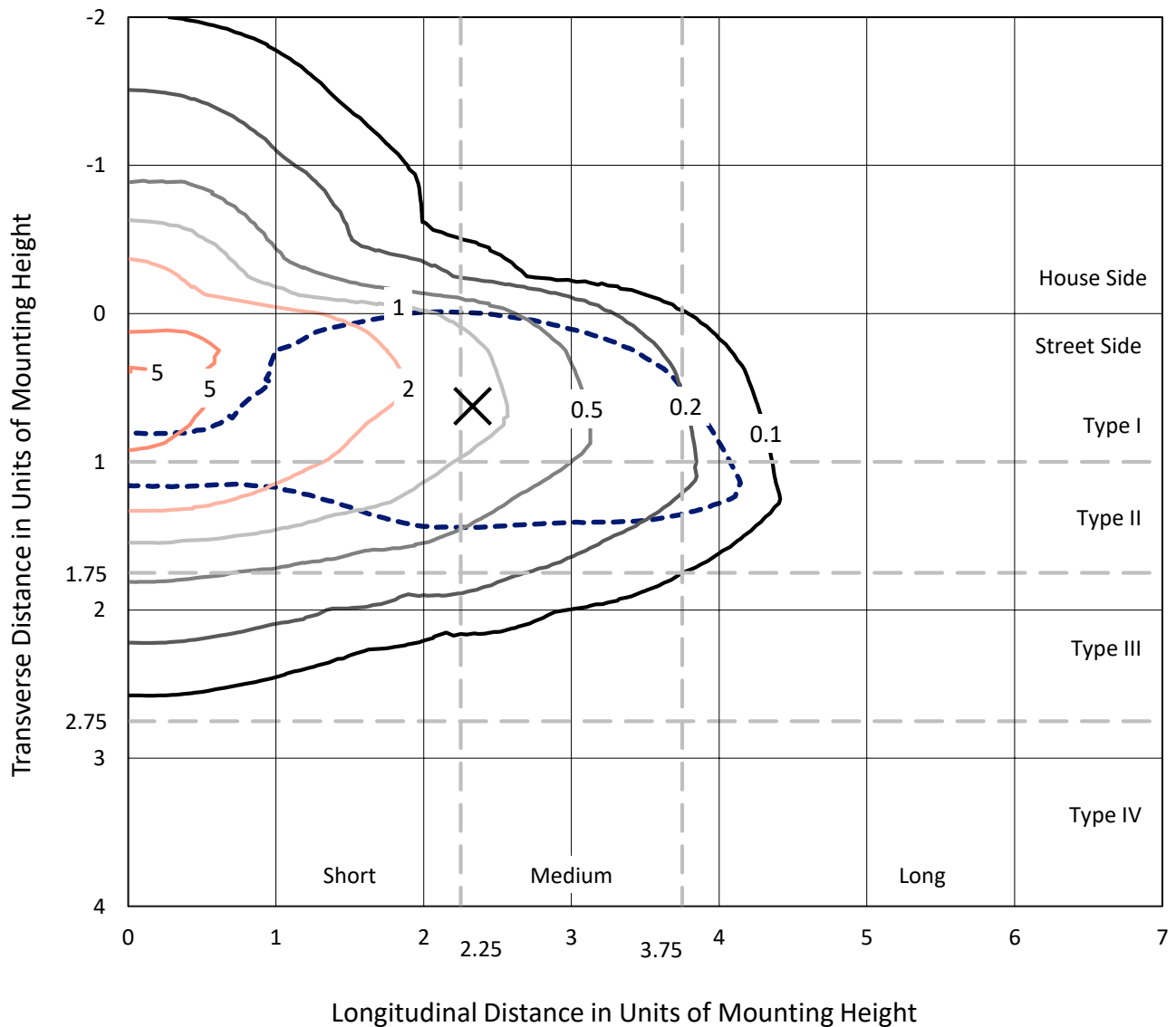
Input Watts (W): 21  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

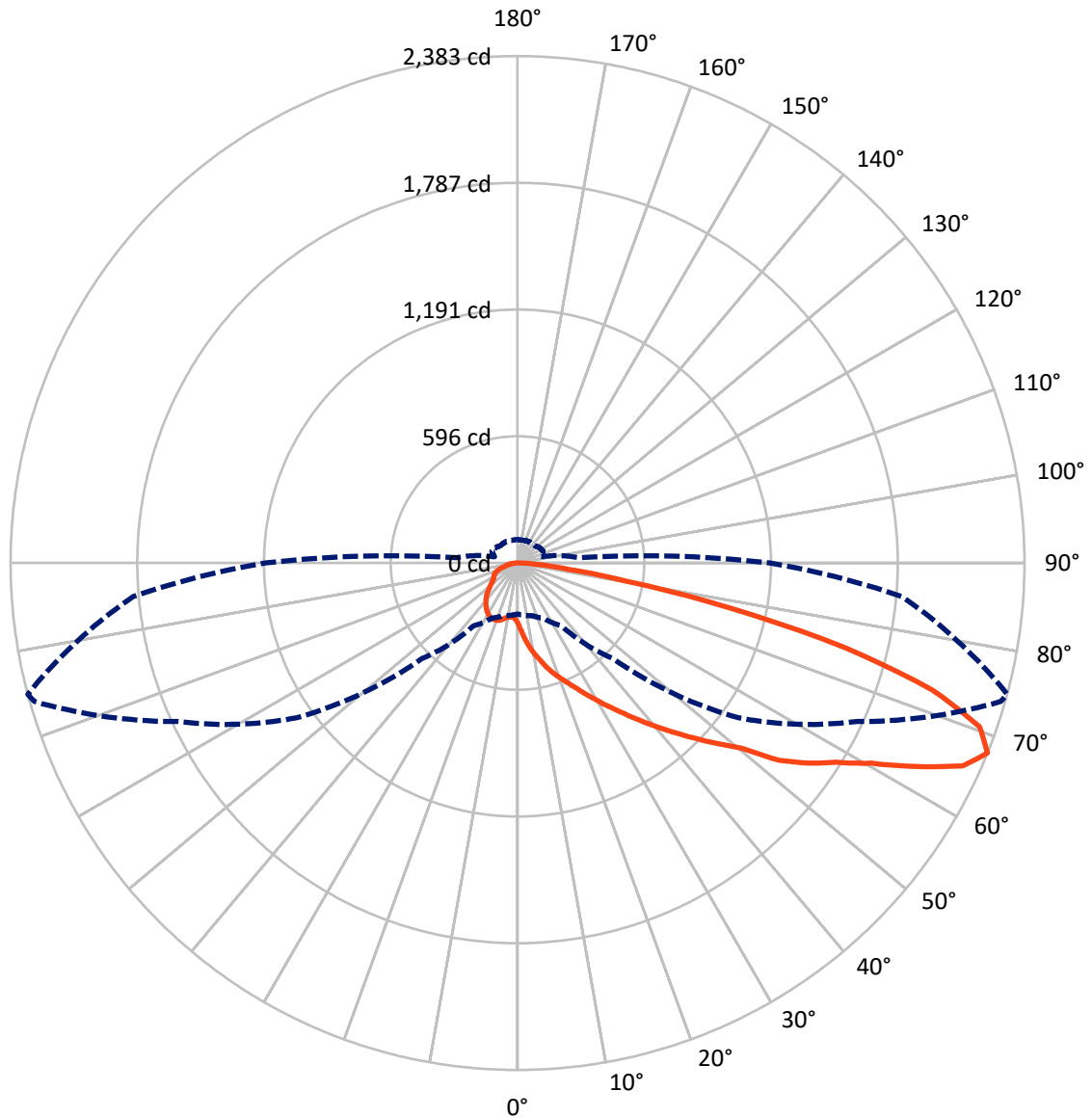
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 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	488.2	0.0	488.2
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	2370.8	0.0	2370.8
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	2859.0	0.0	2859.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.3	1.2
10°-20°	120.3	4.2
20°-30°	219.4	7.7
30°-40°	360.1	12.6
40°-50°	520.7	18.2
50°-60°	613.7	21.5
60°-70°	596.4	20.9
70°-80°	331.5	11.6
80°-90°	63.7	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°	2859.0	100.0
0°-180°	2859.0	100.0



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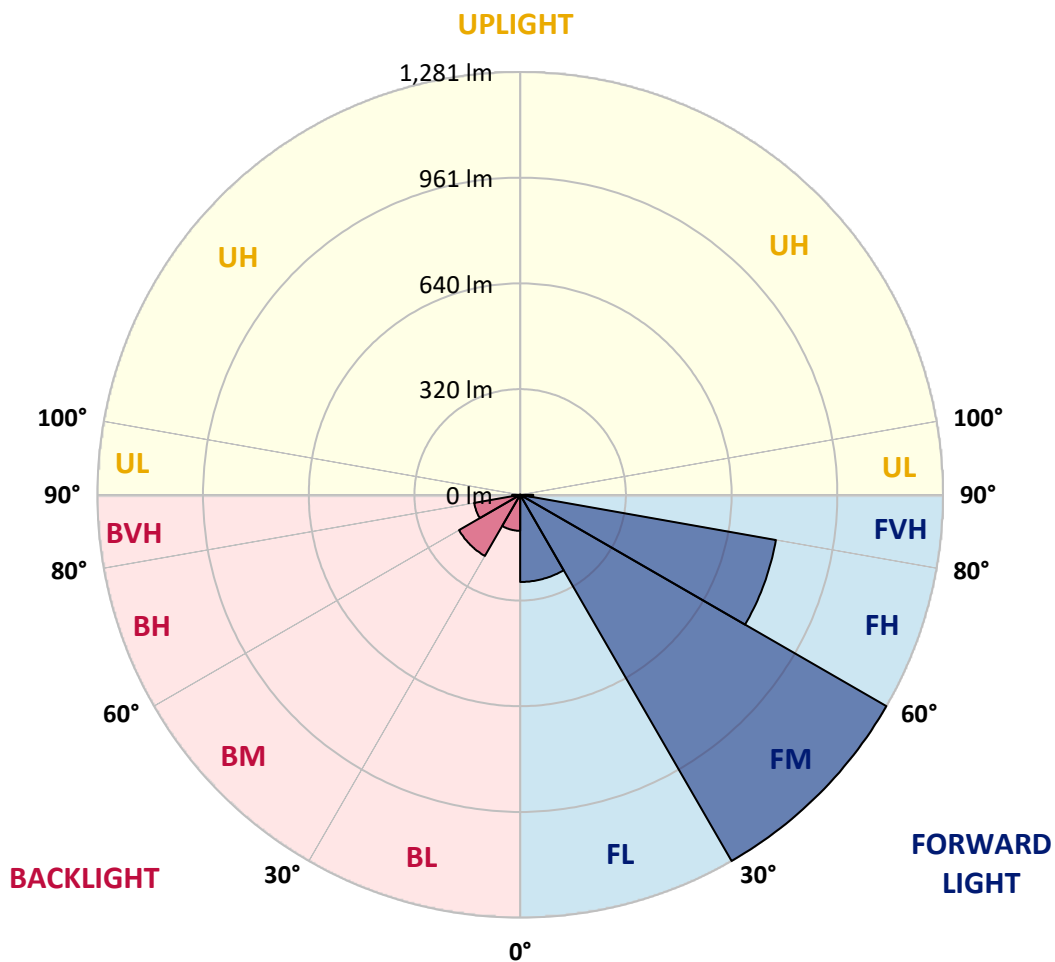
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	264.0	9.2			
FM	(30°-60°)	1280.7	44.8			
FH	(60°-80°)	786.5	27.5			G1/1800
FVH	(80°-90°)	39.7	1.4			G1/100
BL	(0°-30°)	109.0	3.8	B0/110		
BM	(30°-60°)	213.8	7.5	B0/220		
BH	(60°-80°)	141.4	4.9	B1/500		G1/500
BVH	(80°-90°)	24.1	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°	283.3	283.3	283.3	283.3	283.3	283.3	283.3	283.3	283.3	283.3	283.3
2.5°	401.6	402.8	400.4	395.1	387.3	373.0	360.4	338.3	318.6	316.2	295.3
5°	472.2	473.4	470.4	463.8	455.4	439.9	422.6	393.9	362.2	356.2	312.0
7.5°	520.6	521.2	517.6	511.0	504.4	488.9	471.6	439.3	400.4	395.7	333.5
10°	561.8	563.0	558.2	554.0	546.9	531.3	513.4	479.3	439.3	432.7	355.6
12.5°	600.1	601.3	598.3	594.7	592.3	578.0	558.2	517.6	474.6	467.4	381.9
15°	625.8	627.0	627.6	632.3	635.3	625.2	605.4	561.2	512.8	506.2	413.0
17.5°	618.6	621.6	630.5	647.9	666.4	667.0	650.9	604.3	550.5	543.3	444.7
20°	597.7	600.1	610.8	637.1	673.6	694.5	693.3	647.9	585.7	578.0	474.0
22.5°	615.0	618.0	618.0	634.1	670.0	708.8	724.4	690.9	621.0	613.8	503.2
25°	689.1	690.9	678.4	671.8	684.9	720.8	750.1	737.5	664.0	655.7	534.9
27.5°	792.5	789.5	774.0	747.7	733.3	742.9	772.8	781.8	713.6	703.5	567.8
30°	895.3	893.5	875.6	840.3	808.1	787.7	797.9	821.2	767.4	755.5	599.5
32.5°	991.5	988.6	968.8	927.6	891.1	853.5	833.8	857.1	824.8	811.0	634.7
35°	1080.0	1072.2	1052.5	1009.5	971.8	936.0	887.6	891.1	887.0	872.6	673.6
37.5°	1151.7	1145.7	1124.2	1084.2	1044.1	1010.1	959.3	930.0	953.9	940.1	718.4
40°	1215.1	1208.5	1186.4	1146.3	1109.3	1077.0	1037.0	977.2	1029.2	1013.7	768.6
42.5°	1262.9	1258.1	1240.2	1200.7	1164.9	1135.6	1115.9	1037.0	1107.5	1092.6	823.6
45°	1288.6	1283.8	1274.2	1242.6	1209.7	1187.0	1188.8	1108.1	1189.4	1176.8	888.7
47.5°	1256.9	1260.5	1268.9	1262.9	1242.6	1231.8	1253.9	1181.6	1280.8	1268.9	959.3
50°	1172.0	1175.6	1209.1	1250.3	1257.5	1270.7	1312.5	1266.5	1377.6	1368.1	1046.5
52.5°	963.5	983.2	1075.8	1174.4	1242.0	1296.4	1377.6	1392.6	1540.8	1540.8	1200.7
55°	728.0	745.3	851.1	1023.2	1181.6	1298.8	1425.5	1478.1	1658.6	1660.9	1281.4
57.5°	589.9	600.7	652.7	829.0	1054.9	1268.9	1482.2	1551.6	1756.6	1767.3	1385.4
60°	478.7	484.7	518.8	641.3	879.8	1188.2	1522.9	1656.8	1896.4	1911.4	1518.1
62.5°	384.9	390.9	413.6	487.1	690.3	1037.0	1515.7	1766.1	2082.9	2107.4	1692.0
65°	307.2	313.8	328.7	374.1	511.6	849.3	1442.2	1822.3	2276.0	2299.9	1807.4
67.5°	239.7	245.6	255.8	285.7	360.4	635.3	1268.3	1763.1	2362.6	2382.9	1813.4
70°	181.1	184.1	192.5	211.6	257.6	422.0	992.7	1564.7	2284.9	2303.4	1693.8
72.5°	140.5	139.9	144.6	154.2	179.9	290.5	658.0	1272.5	2020.1	2039.3	1445.2
75°	114.8	114.2	117.1	120.1	130.3	194.8	388.5	958.1	1630.5	1594.0	1084.2
77.5°	96.8	96.2	99.2	99.8	104.0	134.5	221.1	630.5	1087.8	1025.0	610.8
80°	81.9	81.3	84.9	86.1	89.1	98.6	127.3	341.3	546.3	517.6	291.7
82.5°	61.6	64.0	70.5	73.5	77.1	72.9	78.9	150.6	253.4	242.1	126.7
85°	29.9	35.3	53.2	59.2	63.4	46.0	53.8	71.1	114.2	108.8	51.4
87.5°	10.2	9.0	31.7	37.7	41.2	20.9	29.9	39.4	47.2	43.0	16.1
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°	283.3	283.3	283.3	283.3	283.3	283.3	283.3	283.3	283.3	283.3	283.3
2.5°	286.3	277.3	264.2	254.0	247.4	242.1	239.7	239.1	237.9	237.3	237.3
5°	292.3	276.1	255.8	245.0	242.1	239.7	240.9	241.5	241.5	241.5	241.5
7.5°	301.2	278.5	254.0	246.8	246.2	246.2	249.8	251.6	252.8	252.8	252.8
10°	313.2	282.7	257.0	251.0	252.8	254.0	258.2	260.6	261.8	262.4	263.0
12.5°	329.3	291.7	263.0	258.2	260.6	261.2	264.2	265.4	266.6	267.2	267.2
15°	350.8	304.8	272.5	266.6	267.2	266.6	266.6	265.4	264.8	264.8	266.0
17.5°	373.0	317.4	280.9	272.5	270.1	265.4	261.8	258.8	257.0	255.8	256.4
20°	395.1	328.7	285.7	273.7	267.2	259.4	252.8	248.6	246.2	243.9	245.0
22.5°	417.2	339.5	287.5	270.1	260.6	249.2	242.1	235.5	230.1	226.5	227.1
25°	441.7	351.4	287.5	266.0	251.6	239.7	230.7	219.9	212.2	209.2	210.4
27.5°	466.2	361.6	284.5	258.2	241.5	229.5	216.4	203.8	199.0	197.2	197.8
30°	490.7	369.4	277.9	248.6	230.7	217.6	200.2	191.9	185.9	181.1	181.7
32.5°	515.2	374.7	269.0	236.7	219.3	202.6	188.3	178.7	167.9	162.0	162.6
35°	543.3	378.9	258.2	224.7	206.8	189.5	178.7	163.2	151.8	147.0	145.8
37.5°	572.6	381.9	246.8	211.6	194.2	179.9	169.1	150.0	139.3	132.7	132.1
40°	604.3	383.1	233.1	197.8	182.3	173.9	156.6	142.2	123.7	119.5	119.5
42.5°	641.9	382.5	219.3	184.1	169.1	160.2	147.6	141.1	124.9	120.7	118.3
45°	684.9	382.5	204.4	167.9	156.0	142.8	137.5	133.3	122.5	124.3	125.5
47.5°	733.9	381.3	186.5	154.8	145.2	133.9	130.9	121.9	117.7	118.9	120.1
50°	801.5	383.1	170.3	144.0	137.5	127.9	124.3	119.5	117.7	118.3	117.7
52.5°	895.3	377.1	154.8	137.5	131.5	118.9	118.9	118.3	118.9	118.3	118.3
55°	946.7	364.0	143.4	133.9	127.3	114.8	117.1	118.3	119.5	118.9	118.9
57.5°	1019.6	355.0	134.5	131.5	124.9	113.6	115.9	118.3	118.9	118.3	118.3
60°	1105.7	349.0	128.5	132.1	123.1	113.6	116.5	118.3	117.7	117.1	117.1
62.5°	1205.5	346.7	124.3	133.9	121.3	114.2	116.5	118.3	115.9	115.4	115.4
65°	1243.2	325.1	118.9	135.1	122.5	114.2	115.9	116.5	113.6	113.0	112.4
67.5°	1185.2	288.1	111.2	132.7	126.1	114.2	114.2	113.6	110.0	109.4	108.2
70°	1055.5	239.1	99.2	124.9	128.5	114.8	111.8	108.8	105.2	105.2	102.8
72.5°	864.2	188.3	83.7	111.2	126.7	116.5	107.0	102.8	98.6	98.6	96.2
75°	622.8	140.5	66.9	92.6	118.9	115.9	101.0	95.6	90.8	90.2	87.3
77.5°	355.0	98.6	54.4	72.3	105.8	113.0	95.6	87.3	81.9	80.1	78.3
80°	182.3	66.3	44.2	56.8	87.9	104.6	91.4	77.7	71.7	68.7	65.7
82.5°	86.7	44.2	34.1	41.8	66.3	91.4	86.1	66.9	60.4	56.8	53.2
85°	38.8	26.3	22.7	26.9	47.2	71.1	75.9	55.0	47.2	59.2	43.6
87.5°	12.6	12.0	12.0	12.6	22.7	31.1	55.6	40.6	37.7	31.1	26.3
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)