

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: P214859

Luminaire Tested: **ARCH-AF24-80-D-U-T4W-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-80-D-U-T4W-7030  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8055 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 83  
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

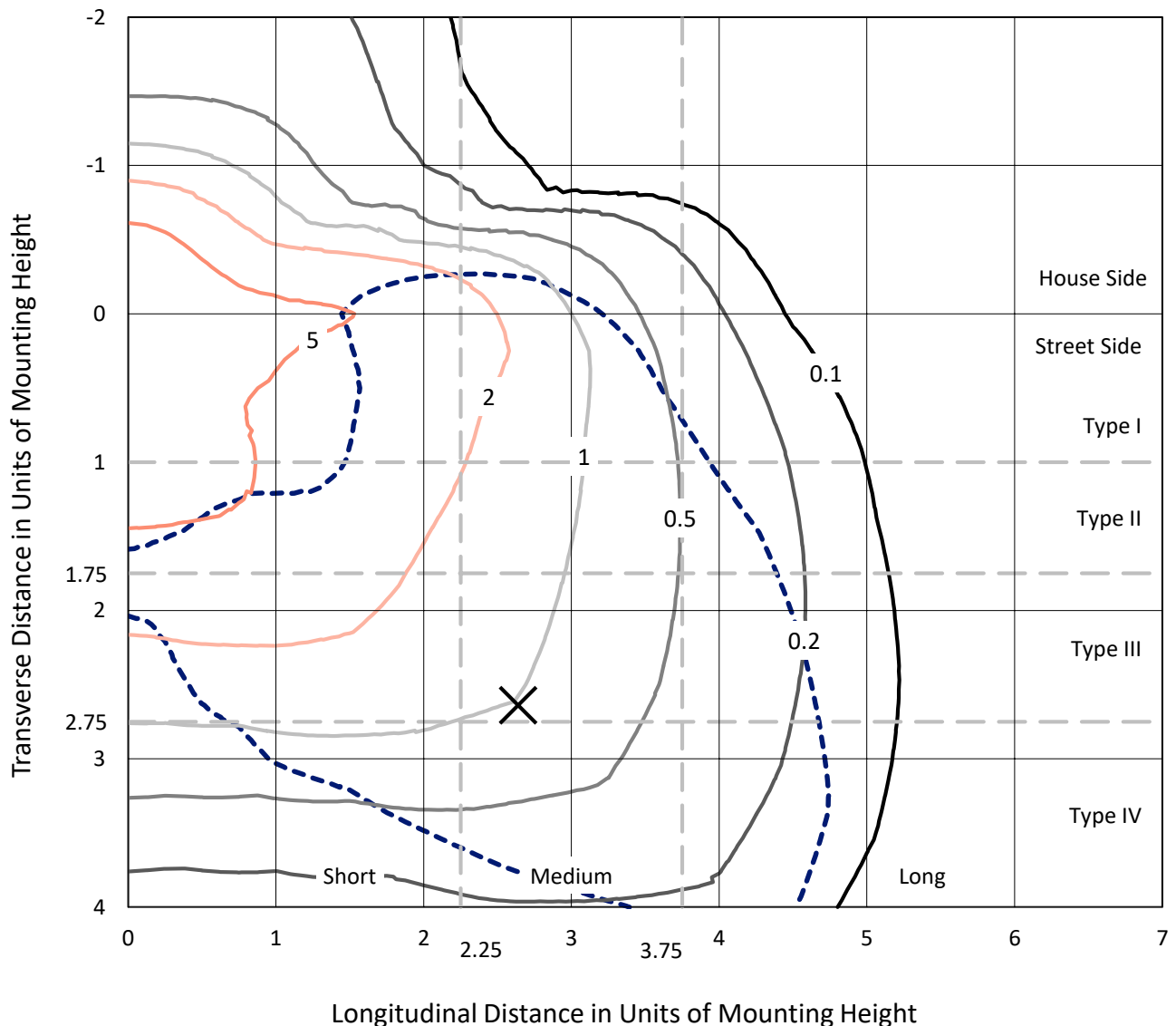


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

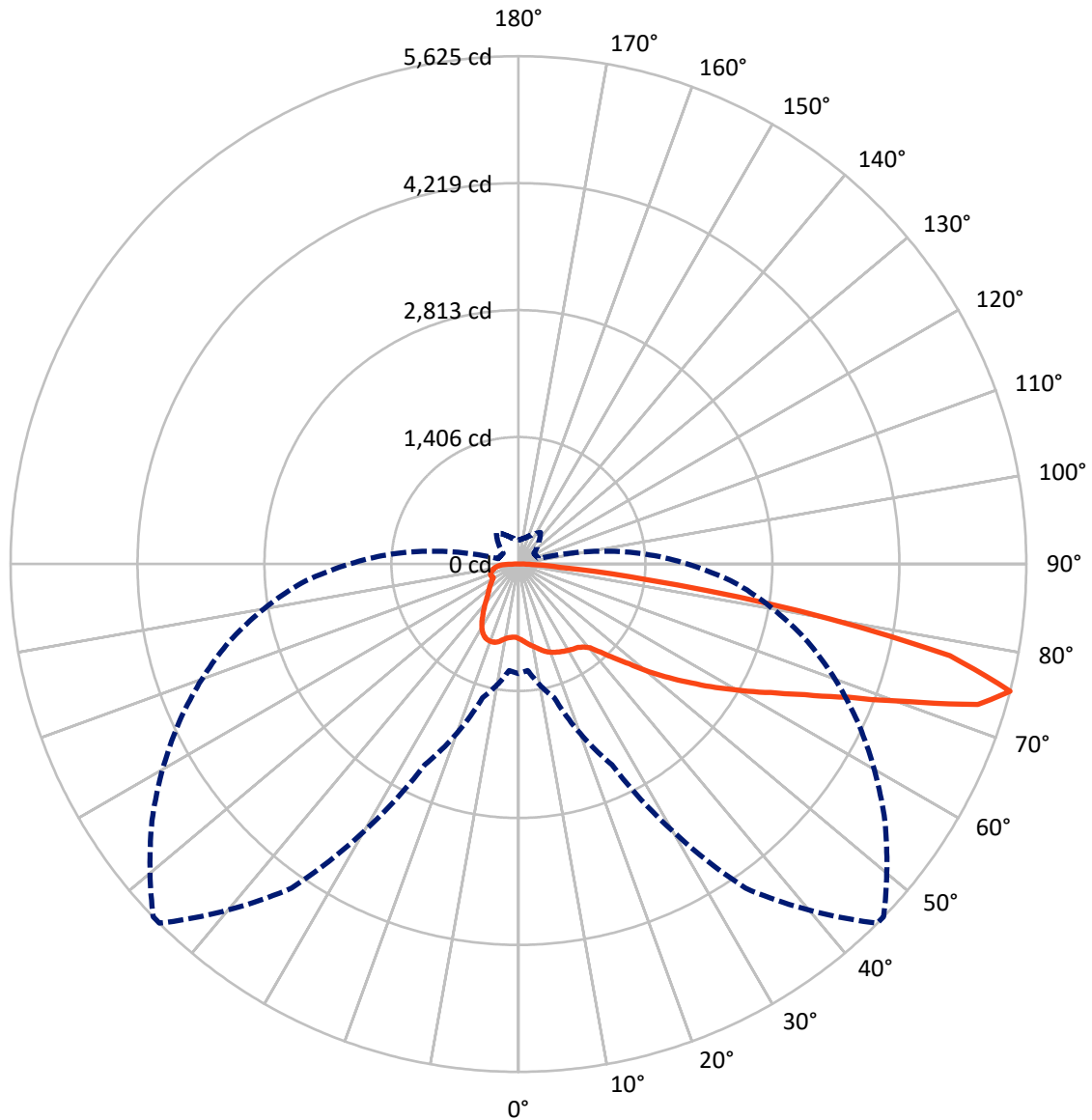


Based on 10 foot mounting height. Maximum calculated value = 9.7 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1866.0	0.0	1866.0
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	6189.0	0.0	6189.0
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	8055.0	0.0	8055.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.8	1.0
10°-20°	265.2	3.3
20°-30°	455.1	5.6
30°-40°	636.4	7.9
40°-50°	933.6	11.6
50°-60°	1454.3	18.1
60°-70°	2092.6	26.0
70°-80°	1822.9	22.6
80°-90°	313.1	3.9
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°	8055.0	100.0
0°-180°	8055.0	100.0

**Coefficient of Utilization**



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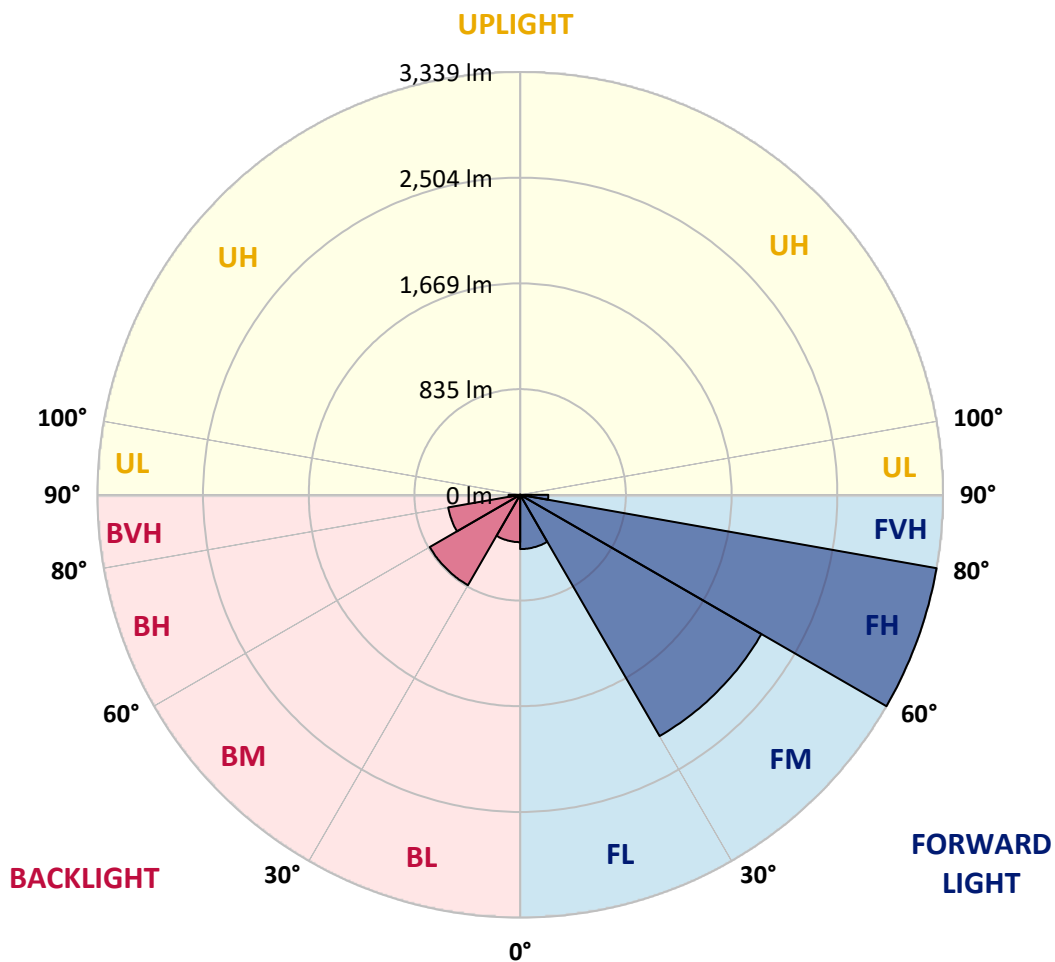
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	428.3	5.3			
FM	(30°-60°)	2199.7	27.3			
FH	(60°-80°)	3338.9	41.5			G2/5000
FVH	(80°-90°)	222.1	2.8			G2/225
BL	(0°-30°)	373.7	4.6	B1/500		
BM	(30°-60°)	824.7	10.2	B1/1000		
BH	(60°-80°)	576.7	7.2	B2/1000		G2/1000
BVH	(80°-90°)	90.9	1.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	825.8	825.8	825.8	825.8	825.8	825.8	825.8	825.8	825.8	825.8	825.8
2.5°	866.5	860.2	860.2	855.5	855.5	847.7	844.6	843.0	835.2	830.5	825.8
5°	916.6	908.8	907.2	896.3	891.6	874.3	872.8	861.8	847.7	833.6	822.6
7.5°	962.1	957.4	949.5	938.6	924.5	902.5	901.0	883.7	860.2	841.4	825.8
10°	995.0	991.8	980.9	966.8	951.1	929.2	927.6	908.8	880.6	858.7	836.7
12.5°	1034.1	1029.4	1015.3	996.5	979.3	958.9	957.4	941.7	910.4	882.2	854.0
15°	1071.8	1065.5	1048.3	1029.4	1010.6	993.4	993.4	976.2	943.3	910.4	877.5
17.5°	1090.6	1087.4	1070.2	1049.8	1034.1	1021.6	1020.0	1004.4	971.5	937.0	901.0
20°	1096.8	1098.4	1082.7	1060.8	1049.8	1043.5	1042.0	1031.0	995.0	962.1	927.6
22.5°	1095.3	1100.0	1087.4	1063.9	1060.8	1060.8	1060.8	1048.3	1020.0	987.1	952.7
25°	1101.5	1107.8	1098.4	1070.2	1070.2	1076.5	1076.5	1070.2	1045.1	1016.9	982.4
27.5°	1123.5	1128.2	1120.3	1081.2	1082.7	1092.1	1090.6	1092.1	1076.5	1049.8	1015.3
30°	1150.1	1156.4	1147.0	1098.4	1096.8	1106.2	1106.2	1114.1	1103.1	1074.9	1046.7
32.5°	1222.2	1220.6	1190.8	1117.2	1112.5	1121.9	1121.9	1129.7	1123.5	1101.5	1074.9
35°	1436.8	1413.3	1347.5	1178.3	1131.3	1136.0	1136.0	1150.1	1153.2	1136.0	1112.5
37.5°	1656.2	1648.4	1598.2	1341.3	1200.2	1165.8	1164.2	1184.6	1198.7	1184.6	1168.9
40°	1877.1	1870.9	1859.9	1559.1	1344.4	1219.0	1214.3	1231.6	1256.6	1247.2	1237.8
42.5°	2082.4	2079.3	2090.2	1773.7	1527.7	1333.4	1319.3	1299.0	1335.0	1331.9	1331.9
45°	2243.8	2251.6	2257.9	1974.3	1726.7	1480.7	1463.5	1394.5	1443.1	1455.6	1465.0
47.5°	2334.7	2340.9	2362.9	2170.1	1925.7	1651.5	1639.0	1526.2	1590.4	1628.0	1654.6
50°	2464.7	2447.5	2466.3	2361.3	2165.4	1874.0	1839.5	1703.2	1784.7	1850.5	1913.2
52.5°	2590.1	2561.9	2577.5	2582.2	2438.1	2091.8	2055.8	1911.6	2013.5	2116.9	2228.1
55°	2702.9	2701.3	2717.0	2796.9	2701.3	2325.3	2284.5	2141.9	2289.2	2400.5	2588.5
57.5°	2793.8	2809.4	2878.4	3046.0	3005.3	2579.1	2533.7	2409.9	2583.8	2695.1	3006.9
60°	2900.3	2925.4	3039.8	3257.6	3282.6	2845.5	2798.5	2709.2	2886.2	2999.0	3491.0
62.5°	2936.4	2972.4	3207.4	3480.1	3572.5	3136.9	3094.6	3035.1	3204.3	3306.1	3973.6
65°	2696.6	2765.6	3299.9	3594.4	3884.3	3487.9	3451.9	3400.2	3520.8	3588.2	4301.1
67.5°	2630.8	2662.1	3119.7	3759.0	4177.3	3939.2	3903.1	3813.8	3816.9	3788.7	4407.7
70°	2538.4	2572.8	2934.8	3882.8	4597.3	4556.5	4512.6	4249.4	4088.0	3917.2	4197.7
72.5°	2162.3	2151.3	2529.0	3549.0	4799.4	5321.2	5269.5	4717.9	4288.6	3806.0	3542.7
75°	1214.3	1183.0	1534.0	2455.3	4382.6	5625.1	5623.6	4954.5	4147.6	3315.5	2411.4
77.5°	352.6	343.1	506.1	1029.4	2950.5	4887.1	4946.7	4468.8	3461.3	2381.7	1324.0
80°	166.1	169.2	217.8	340.0	1259.8	3154.2	3324.9	2942.6	2068.3	1098.4	546.8
82.5°	105.0	106.5	148.9	219.4	532.7	1432.1	1573.2	1324.0	819.5	474.8	241.3
85°	65.8	65.8	98.7	144.2	318.1	457.5	496.7	451.3	351.0	258.5	131.6
87.5°	36.0	36.0	59.5	83.0	173.9	147.3	152.0	180.2	219.4	158.3	65.8
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°	825.8	825.8	825.8	825.8	825.8	825.8	825.8	825.8	825.8	825.8	825.8
2.5°	824.2	821.1	816.4	814.8	813.2	811.6	813.2	816.4	813.2	813.2	814.8
5°	819.5	816.4	810.1	810.1	811.6	813.2	821.1	825.8	827.3	827.3	827.3
7.5°	819.5	814.8	810.1	811.6	814.8	821.1	833.6	841.4	847.7	849.3	849.3
10°	827.3	821.1	817.9	821.1	830.5	835.2	847.7	860.2	868.1	871.2	871.2
12.5°	841.4	835.2	835.2	841.4	854.0	860.2	871.2	880.6	890.0	894.7	894.7
15°	864.9	857.1	858.7	869.6	883.7	890.0	897.8	901.0	908.8	915.1	915.1
17.5°	886.9	879.0	882.2	894.7	904.1	907.2	911.9	910.4	913.5	918.2	919.8
20°	911.9	904.1	905.7	913.5	915.1	911.9	911.9	907.2	905.7	913.5	916.6
22.5°	937.0	929.2	927.6	922.9	915.1	907.2	902.5	897.8	894.7	902.5	905.7
25°	966.8	955.8	948.0	927.6	907.2	893.1	886.9	883.7	882.2	890.0	893.1
27.5°	999.7	988.7	965.2	921.3	888.4	864.9	860.2	860.2	863.4	868.1	871.2
30°	1031.0	1020.0	977.7	907.2	855.5	821.1	816.4	821.1	828.9	833.6	838.3
32.5°	1062.4	1051.4	985.6	885.3	806.9	763.1	759.9	767.8	780.3	783.4	786.6
35°	1104.7	1093.7	995.0	854.0	745.8	698.8	695.7	700.4	711.4	716.1	720.8
37.5°	1164.2	1157.9	1009.1	819.5	689.4	637.7	628.3	625.2	631.5	629.9	636.2
40°	1242.5	1247.2	1034.1	774.0	634.6	581.3	560.9	551.5	545.3	532.7	539.0
42.5°	1356.9	1360.1	1062.4	722.3	587.6	528.0	501.4	484.2	471.6	451.3	454.4
45°	1524.6	1497.9	1095.3	667.5	545.3	485.7	454.4	434.0	416.8	399.6	401.1
47.5°	1747.1	1665.6	1131.3	622.1	503.0	451.3	423.1	399.6	379.2	365.1	366.7
50°	2021.3	1874.0	1167.3	579.7	460.7	424.6	399.6	374.5	354.1	340.0	338.4
52.5°	2383.2	2124.7	1190.8	532.7	418.4	401.1	379.2	355.7	330.6	313.4	311.8
55°	2759.3	2416.1	1211.2	476.3	377.6	374.5	363.5	336.9	307.1	285.2	282.0
57.5°	3173.0	2728.0	1226.9	421.5	346.3	352.6	349.4	318.1	285.2	264.8	263.2
60°	3549.0	3050.7	1176.7	372.9	318.1	330.6	333.7	307.1	289.9	294.6	296.1
62.5°	3928.2	3299.9	985.6	336.9	299.3	316.5	343.1	341.6	333.7	341.6	343.1
65°	4064.5	3351.6	698.8	307.1	280.5	322.8	372.9	369.8	333.7	319.6	316.5
67.5°	3987.7	3198.0	470.1	283.6	266.4	330.6	404.3	369.8	321.2	302.4	296.1
70°	3622.7	2820.4	344.7	260.1	253.8	329.0	421.5	368.2	314.9	294.6	286.7
72.5°	2889.3	2176.4	277.3	238.2	235.0	321.2	430.9	365.1	308.7	286.7	277.3
75°	1870.9	1353.8	233.5	216.2	206.8	308.7	426.2	355.7	300.8	272.6	266.4
77.5°	868.1	582.9	199.0	191.2	180.2	289.9	412.1	336.9	283.6	257.0	249.1
80°	404.3	275.8	167.7	166.1	161.4	274.2	393.3	314.9	263.2	241.3	228.8
82.5°	216.2	166.1	136.3	136.3	141.0	255.4	369.8	288.3	236.6	225.6	192.7
85°	114.4	95.6	98.7	106.5	120.7	225.6	338.4	260.1	206.8	172.4	167.7
87.5°	58.0	61.1	61.1	72.1	92.4	183.3	278.9	214.7	175.5	141.0	137.9
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)