

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: P234692

Luminaire Tested: **ARCH-AF24-70-D-U-T2R-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234692  
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-AF24-70-D-U-T2R-8027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6622 lumens  
Efficiency: N/A  
Efficacy: 89.5 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 - G2

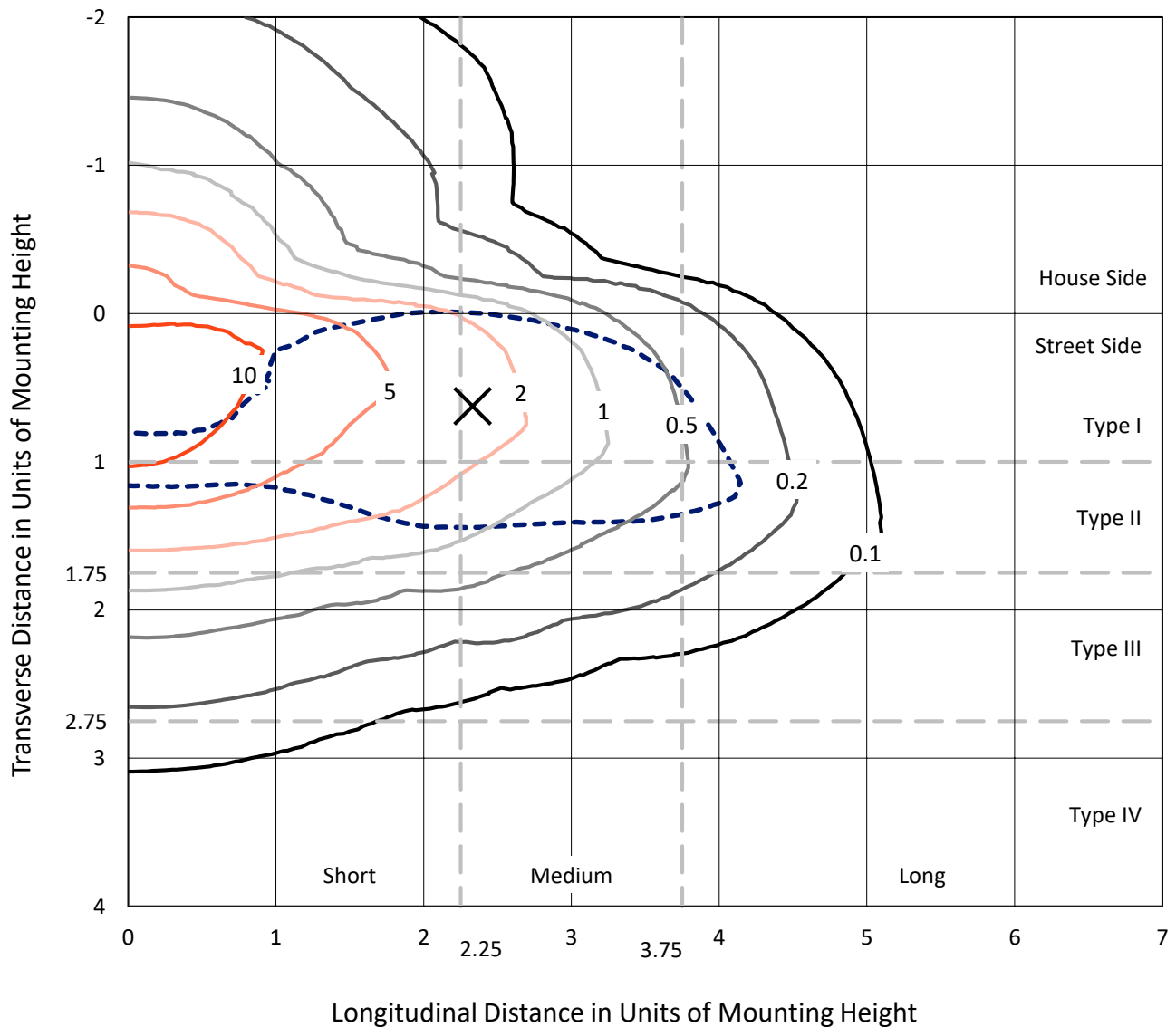
Input Watts (W): 74  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

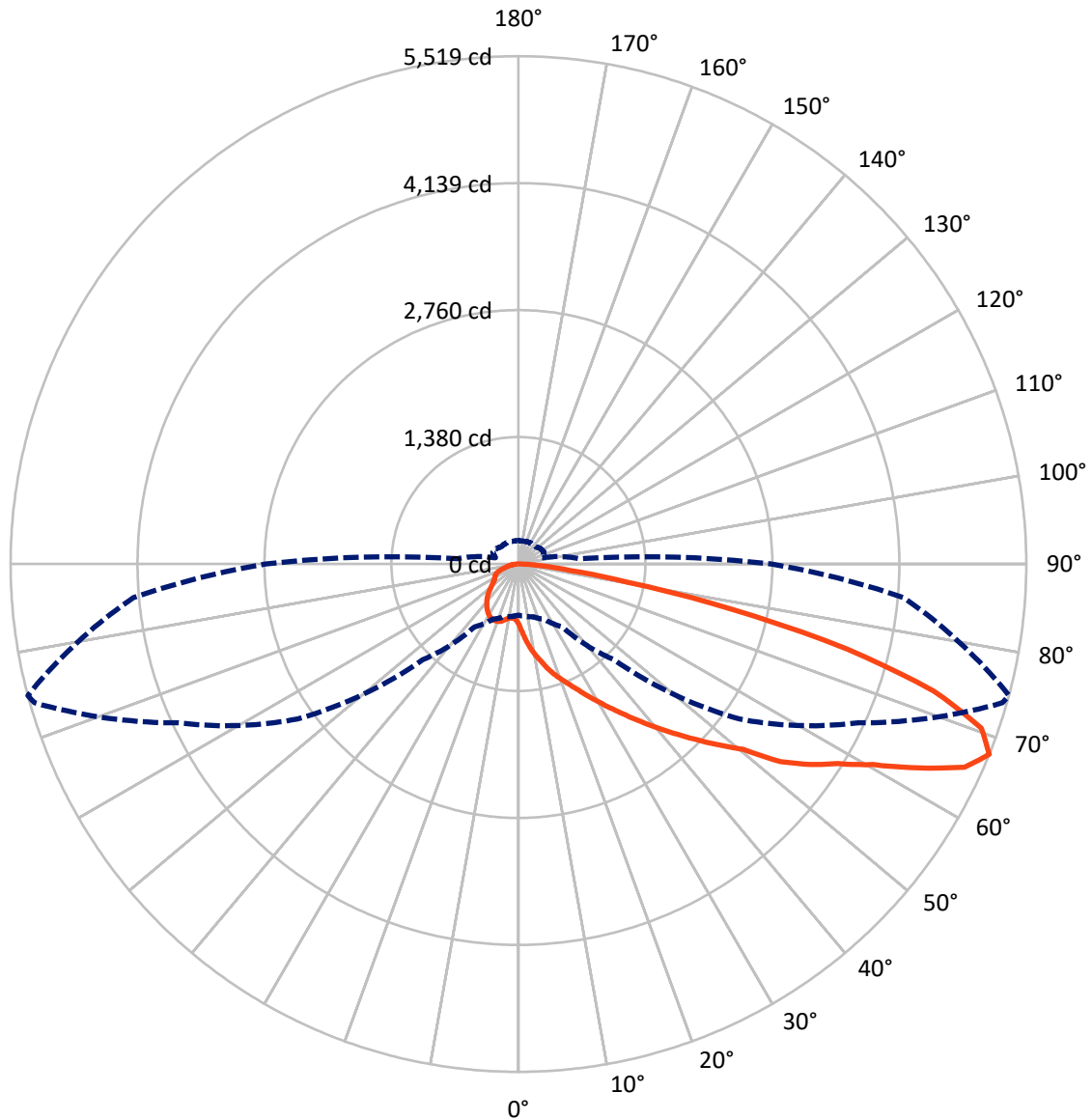
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.7 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	1130.8	0.0	1130.8
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	5491.2	0.0	5491.2
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	6622.0	0.0	6622.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.1	1.2
10°-20°	278.6	4.2
20°-30°	508.1	7.7
30°-40°	834.0	12.6
40°-50°	1206.1	18.2
50°-60°	1421.4	21.5
60°-70°	1381.3	20.9
70°-80°	767.8	11.6
80°-90°	147.6	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°	6622.0	100.0
0°-180°	6622.0	100.0

**Coefficient of Utilization**



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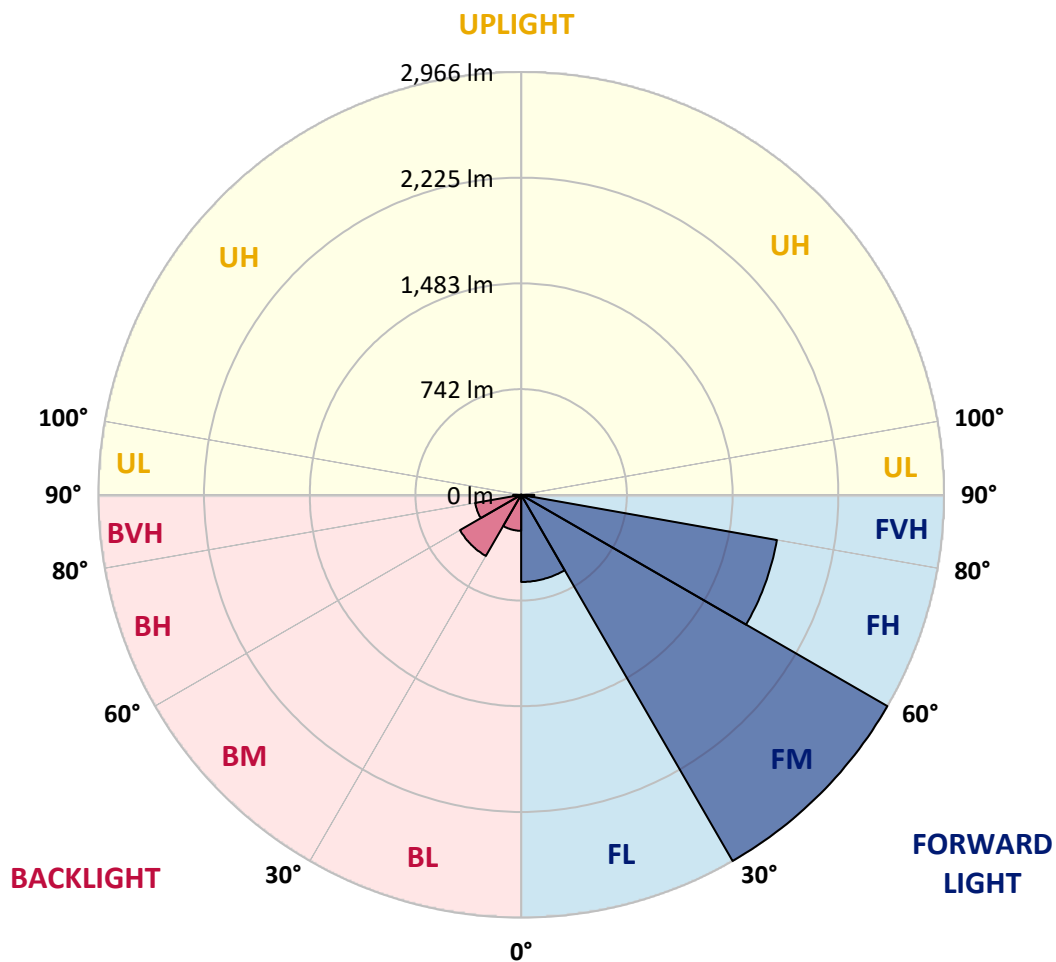
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	611.4	9.2			
FM (30°-60°)	2966.3	44.8			
FH (60°-80°)	1821.6	27.5			G2/5000
FVH (80°-90°)	91.9	1.4			G1/100
BL (0°-30°)	252.4	3.8	B1/500		
BM (30°-60°)	495.2	7.5	B1/1000		
BH (60°-80°)	327.4	4.9	B1/500		G1/500
BVH (80°-90°)	55.8	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-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2
2.5°	930.3	933.0	927.5	915.0	897.0	863.8	834.8	783.5	737.9	732.3	683.9
5°	1093.6	1096.4	1089.5	1074.2	1054.9	1018.9	978.7	912.3	838.9	825.1	722.6
7.5°	1205.8	1207.1	1198.8	1183.6	1168.4	1132.4	1092.2	1017.5	927.5	916.4	772.5
10°	1301.3	1304.0	1293.0	1283.3	1266.7	1230.7	1189.1	1110.2	1017.5	1002.3	823.7
12.5°	1389.9	1392.6	1385.7	1377.4	1371.9	1338.7	1293.0	1198.8	1099.2	1082.6	884.6
15°	1449.4	1452.2	1453.6	1464.6	1471.5	1448.0	1402.3	1299.9	1187.8	1172.5	956.6
17.5°	1432.8	1439.7	1460.5	1500.6	1543.5	1544.9	1507.5	1399.6	1275.0	1258.4	1029.9
20°	1384.3	1389.9	1414.8	1475.7	1560.1	1608.6	1605.8	1500.6	1356.6	1338.7	1097.8
22.5°	1424.5	1431.4	1431.4	1468.8	1551.8	1641.8	1677.8	1600.3	1438.3	1421.7	1165.6
25°	1596.1	1600.3	1571.2	1556.0	1586.4	1669.5	1737.3	1708.3	1538.0	1518.6	1239.0
27.5°	1835.6	1828.7	1792.7	1731.8	1698.6	1720.7	1789.9	1810.7	1652.9	1629.4	1315.1
30°	2073.7	2069.6	2028.1	1946.4	1871.6	1824.6	1848.1	1902.1	1777.5	1749.8	1388.5
32.5°	2296.6	2289.7	2244.0	2148.5	2064.0	1976.8	1931.1	1985.1	1910.4	1878.5	1470.2
35°	2501.5	2483.5	2437.8	2338.1	2250.9	2167.9	2055.7	2064.0	2054.4	2021.1	1560.1
37.5°	2667.6	2653.8	2603.9	2511.2	2418.4	2339.5	2221.9	2154.0	2209.4	2177.6	1664.0
40°	2814.4	2799.1	2747.9	2655.2	2569.3	2494.6	2401.8	2263.4	2383.8	2347.8	1780.3
42.5°	2925.1	2914.0	2872.5	2781.1	2698.1	2630.2	2584.6	2401.8	2565.2	2530.6	1907.6
45°	2984.6	2973.6	2951.4	2878.0	2801.9	2749.3	2753.4	2566.6	2754.8	2725.8	2058.5
47.5°	2911.3	2919.6	2938.9	2925.1	2878.0	2853.1	2904.3	2736.8	2966.6	2938.9	2221.9
50°	2714.7	2723.0	2800.5	2896.0	2912.6	2943.1	3040.0	2933.4	3190.9	3168.7	2424.0
52.5°	2231.5	2277.2	2491.8	2720.2	2876.7	3002.6	3190.9	3225.5	3568.8	3568.8	2781.1
55°	1686.1	1726.3	1971.3	2370.0	2736.8	3008.2	3301.6	3423.5	3841.5	3847.1	2968.0
57.5°	1366.3	1391.3	1511.7	1920.1	2443.4	2938.9	3433.2	3593.7	4068.6	4093.5	3208.9
60°	1108.9	1122.7	1201.6	1485.4	2037.7	2752.1	3527.3	3837.4	4392.5	4427.1	3516.2
62.5°	891.5	905.4	958.0	1128.2	1598.9	2401.8	3510.7	4090.7	4824.4	4881.2	3919.1
65°	711.5	726.8	761.4	866.6	1185.0	1967.1	3340.4	4220.8	5271.6	5326.9	4186.2
67.5°	555.1	569.0	592.5	661.7	834.8	1471.5	2937.6	4083.8	5472.3	5519.3	4200.1
70°	419.5	426.4	445.8	490.1	596.6	977.3	2299.4	3624.2	5292.3	5335.2	3923.2
72.5°	325.3	323.9	335.0	357.2	416.7	672.8	1524.2	2947.3	4679.1	4723.4	3347.3
75°	265.8	264.4	271.3	278.3	301.8	451.3	899.8	2219.1	3776.5	3692.0	2511.2
77.5°	224.3	222.9	229.8	231.2	240.9	311.5	512.2	1460.5	2519.5	2374.1	1414.8
80°	189.7	188.3	196.6	199.3	206.3	228.4	294.9	790.5	1265.3	1198.8	675.6
82.5°	142.6	148.1	163.4	170.3	178.6	168.9	182.7	348.9	587.0	560.7	293.5
85°	69.2	81.7	123.2	137.0	146.7	106.6	124.6	164.7	264.4	251.9	119.1
87.5°	23.5	20.8	73.4	87.2	95.5	48.5	69.2	91.4	109.4	99.7	37.4
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°	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2
2.5°	663.1	642.3	611.9	588.3	573.1	560.7	555.1	553.7	551.0	549.6	549.6
5°	676.9	639.6	592.5	567.6	560.7	555.1	557.9	559.3	559.3	559.3	559.3
7.5°	697.7	645.1	588.3	571.7	570.3	570.3	578.7	582.8	585.6	585.6	585.6
10°	725.4	654.8	595.3	581.4	585.6	588.3	598.0	603.6	606.3	607.7	609.1
12.5°	762.8	675.6	609.1	598.0	603.6	605.0	611.9	614.6	617.4	618.8	618.8
15°	812.6	706.0	631.3	617.4	618.8	617.4	617.4	614.6	613.3	613.3	616.0
17.5°	863.8	735.1	650.6	631.3	625.7	614.6	606.3	599.4	595.3	592.5	593.9
20°	915.0	761.4	661.7	634.0	618.8	600.8	585.6	575.9	570.3	564.8	567.6
22.5°	966.3	786.3	665.9	625.7	603.6	577.3	560.7	545.4	533.0	524.7	526.0
25°	1023.0	814.0	665.9	616.0	582.8	555.1	534.4	509.4	491.4	484.5	487.3
27.5°	1079.8	837.5	658.9	598.0	559.3	531.6	501.1	472.1	461.0	456.8	458.2
30°	1136.5	855.5	643.7	575.9	534.4	503.9	463.8	444.4	430.5	419.5	420.8
32.5°	1193.3	868.0	623.0	548.2	508.1	469.3	436.1	413.9	389.0	375.2	376.5
35°	1258.4	877.7	598.0	520.5	479.0	438.8	413.9	377.9	351.6	340.5	337.8
37.5°	1326.2	884.6	571.7	490.1	449.9	416.7	391.8	347.5	322.6	307.3	305.9
40°	1399.6	887.4	539.9	458.2	422.2	402.8	362.7	329.5	286.6	276.9	276.9
42.5°	1486.8	886.0	508.1	426.4	391.8	371.0	341.9	326.7	289.3	279.6	274.1
45°	1586.4	886.0	473.4	389.0	361.3	330.9	318.4	308.7	283.8	287.9	290.7
47.5°	1700.0	883.2	431.9	358.5	336.4	310.1	303.2	282.4	272.7	275.5	278.3
50°	1856.4	887.4	394.5	333.6	318.4	296.2	287.9	276.9	272.7	274.1	272.7
52.5°	2073.7	873.5	358.5	318.4	304.6	275.5	275.5	274.1	275.5	274.1	274.1
55°	2192.8	843.1	332.2	310.1	294.9	265.8	271.3	274.1	276.9	275.5	275.5
57.5°	2361.7	822.3	311.5	304.6	289.3	263.0	268.6	274.1	275.5	274.1	274.1
60°	2561.0	808.5	297.6	305.9	285.2	263.0	269.9	274.1	272.7	271.3	271.3
62.5°	2792.2	802.9	287.9	310.1	281.0	264.4	269.9	274.1	268.6	267.2	267.2
65°	2879.4	753.1	275.5	312.9	283.8	264.4	268.6	269.9	263.0	261.6	260.3
67.5°	2745.1	667.2	257.5	307.3	292.1	264.4	264.4	263.0	254.7	253.3	250.6
70°	2444.7	553.7	229.8	289.3	297.6	265.8	258.9	251.9	243.6	243.6	238.1
72.5°	2001.7	436.1	193.8	257.5	293.5	269.9	247.8	238.1	228.4	228.4	222.9
75°	1442.5	325.3	155.0	214.6	275.5	268.6	234.0	221.5	210.4	209.0	202.1
77.5°	822.3	228.4	126.0	167.5	245.0	261.6	221.5	202.1	189.7	185.5	181.3
80°	422.2	153.7	102.4	131.5	203.5	242.3	211.8	180.0	166.1	159.2	152.3
82.5°	200.7	102.4	78.9	96.9	153.7	211.8	199.3	155.0	139.8	131.5	123.2
85°	90.0	60.9	52.6	62.3	109.4	164.7	175.8	127.4	109.4	137.0	101.1
87.5°	29.1	27.7	27.7	29.1	52.6	72.0	128.7	94.1	87.2	72.0	60.9
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)