

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: P214870

Luminaire Tested: **ARCH-AF24-50-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214870
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-AF24-50-D-U-T4W
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6731 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 54
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

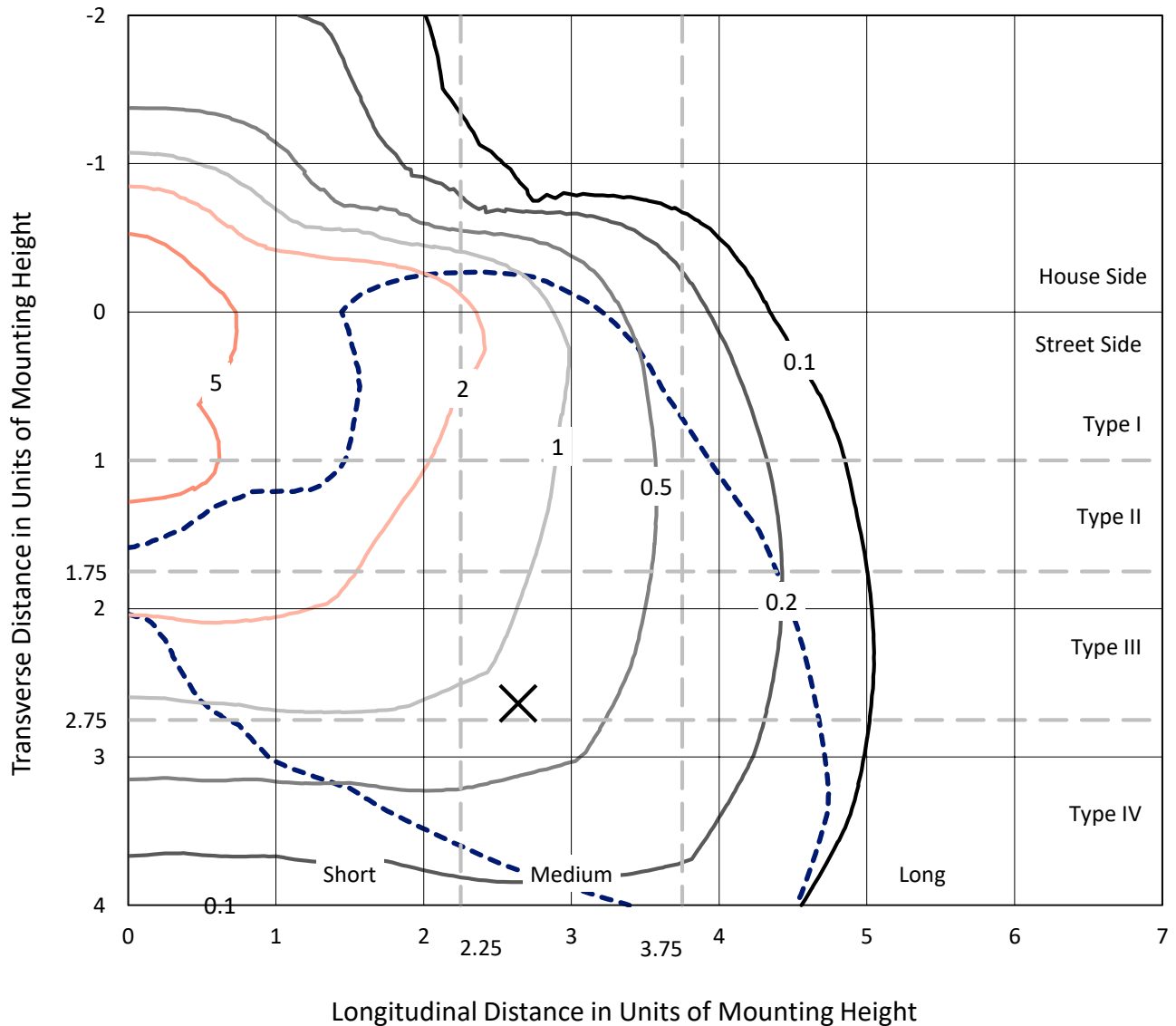


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

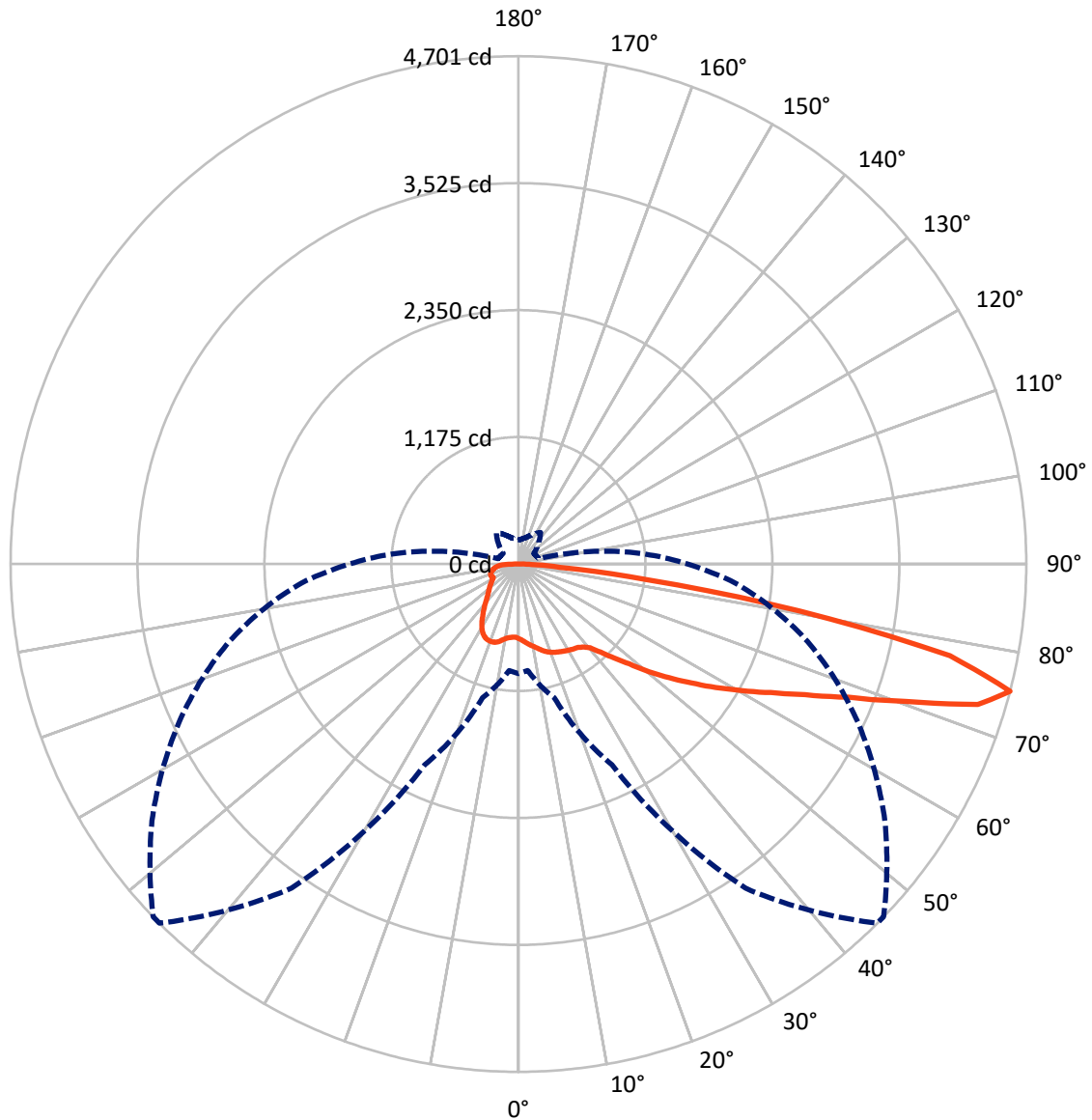


Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type IV - Medium - Non-Cutoff

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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
House Side	Lumens	1559.3	0.0	1559.3
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	5171.7	0.0	5171.7
	% Fixture	76.8	0.0	76.8
Total	Lumens	6731.0	0.0	6731.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	1.0
10°-20°	221.6	3.3
20°-30°	380.3	5.6
30°-40°	531.8	7.9
40°-50°	780.1	11.6
50°-60°	1215.3	18.1
60°-70°	1748.7	26.0
70°-80°	1523.3	22.6
80°-90°	261.6	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°	6731.0	100.0
0°-180°	6731.0	100.0

Coefficient of Utilization



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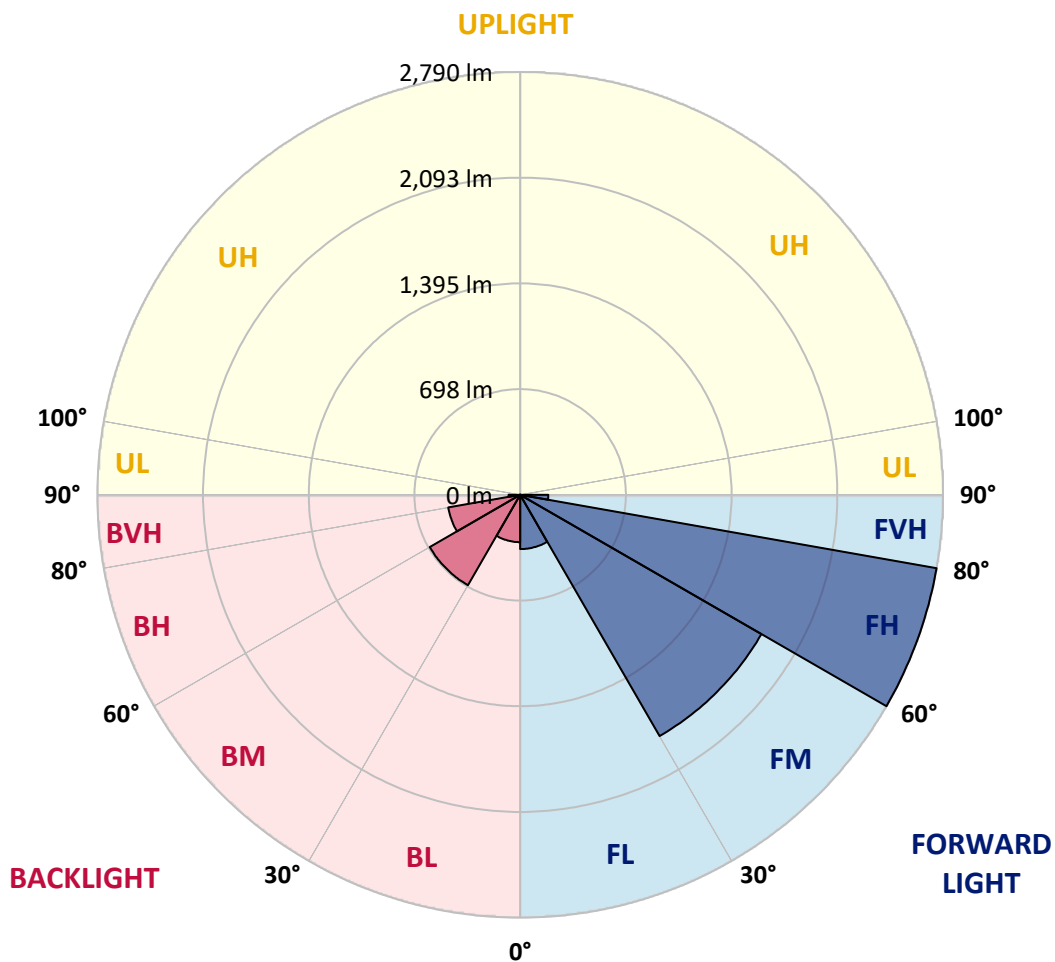
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	357.9	5.3			
FM	(30°-60°)	1838.1	27.3			
FH	(60°-80°)	2790.1	41.5			G2/5000
FVH	(80°-90°)	185.6	2.8			G2/225
BL	(0°-30°)	312.3	4.6	B1/500		
BM	(30°-60°)	689.1	10.2	B1/1000		
BH	(60°-80°)	481.9	7.2	B1/500		G1/500
BVH	(80°-90°)	76.0	1.1			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
2.5°	724.0	718.8	718.8	714.9	714.9	708.4	705.7	704.4	697.9	694.0	690.0
5°	766.0	759.4	758.1	748.9	745.0	730.6	729.3	720.2	708.4	696.5	687.4
7.5°	803.9	800.0	793.5	784.3	772.5	754.2	752.9	738.5	718.8	703.1	690.0
10°	831.5	828.8	819.7	807.8	794.7	776.4	775.1	759.4	735.8	717.5	699.2
12.5°	864.2	860.2	848.4	832.8	818.4	801.3	800.0	787.0	760.8	737.1	713.6
15°	895.6	890.4	876.0	860.2	844.5	830.1	830.1	815.7	788.2	760.8	733.3
17.5°	911.3	908.7	894.3	877.3	864.2	853.7	852.4	839.3	811.8	783.0	752.9
20°	916.6	917.9	904.8	886.4	877.3	872.1	870.7	861.5	831.5	803.9	775.1
22.5°	915.2	919.1	908.7	889.0	886.4	886.4	886.4	876.0	852.4	824.9	796.1
25°	920.5	925.7	917.9	894.3	894.3	899.5	899.5	894.3	873.3	849.8	820.9
27.5°	938.8	942.8	936.2	903.5	904.8	912.6	911.3	912.6	899.5	877.3	848.4
30°	961.1	966.3	958.4	917.9	916.6	924.4	924.4	931.0	921.8	898.3	874.6
32.5°	1021.3	1020.0	995.1	933.5	929.7	937.5	937.5	944.1	938.8	920.5	898.3
35°	1200.6	1181.0	1126.1	984.6	945.3	949.3	949.3	961.1	963.7	949.3	929.7
37.5°	1384.0	1377.4	1335.6	1120.8	1003.0	974.2	972.8	989.9	1001.7	989.9	976.8
40°	1568.6	1563.4	1554.2	1302.8	1123.4	1018.7	1014.8	1029.2	1050.1	1042.3	1034.4
42.5°	1740.1	1737.5	1746.7	1482.2	1276.6	1114.3	1102.4	1085.5	1115.5	1113.0	1113.0
45°	1875.0	1881.5	1886.7	1649.8	1442.9	1237.4	1222.9	1165.3	1206.0	1216.4	1224.3
47.5°	1951.0	1956.2	1974.5	1813.5	1609.2	1380.1	1369.5	1275.3	1329.0	1360.4	1382.6
50°	2059.6	2045.2	2060.9	1973.2	1809.5	1565.9	1537.2	1423.2	1491.4	1546.3	1598.7
52.5°	2164.4	2140.7	2153.8	2157.8	2037.3	1748.0	1717.8	1597.4	1682.5	1768.9	1861.9
55°	2258.6	2257.3	2270.4	2337.1	2257.3	1943.1	1909.0	1789.9	1912.9	2005.9	2163.0
57.5°	2334.6	2347.7	2405.3	2545.4	2511.3	2155.2	2117.2	2013.8	2159.1	2252.0	2512.7
60°	2423.6	2444.5	2540.1	2722.2	2743.0	2377.7	2338.5	2263.9	2411.8	2506.1	2917.3
62.5°	2453.8	2483.8	2680.2	2908.0	2985.3	2621.3	2585.9	2536.2	2677.6	2762.7	3320.5
65°	2253.4	2310.9	2757.5	3003.6	3245.8	2914.6	2884.5	2841.2	2942.1	2998.4	3594.1
67.5°	2198.4	2224.6	2606.9	3141.1	3490.7	3291.7	3261.6	3186.9	3189.6	3166.0	3683.2
70°	2121.1	2149.9	2452.4	3244.6	3841.6	3807.5	3770.9	3551.0	3416.0	3273.3	3507.7
72.5°	1806.9	1797.7	2113.3	2965.6	4010.5	4446.6	4403.3	3942.5	3583.7	3180.4	2960.4
75°	1014.8	988.6	1281.9	2051.7	3662.3	4700.6	4699.2	4140.2	3465.9	2770.6	2015.1
77.5°	294.6	286.7	422.9	860.2	2465.5	4083.8	4133.6	3734.3	2892.4	1990.3	1106.4
80°	138.8	141.4	182.0	284.2	1052.7	2635.7	2778.4	2459.0	1728.4	917.9	457.0
82.5°	87.8	89.0	124.4	183.3	445.2	1196.8	1314.6	1106.4	684.8	396.7	201.6
85°	55.0	55.0	82.4	120.5	265.8	382.4	415.0	377.1	293.3	216.0	110.0
87.5°	30.1	30.1	49.7	69.4	145.4	123.1	127.1	150.6	183.3	132.3	55.0
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°	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
2.5°	688.8	686.1	682.2	680.9	679.5	678.2	679.5	682.2	679.5	679.5	680.9
5°	684.8	682.2	676.9	676.9	678.2	679.5	686.1	690.0	691.3	691.3	691.3
7.5°	684.8	680.9	676.9	678.2	680.9	686.1	696.5	703.1	708.4	709.6	709.6
10°	691.3	686.1	683.4	686.1	694.0	697.9	708.4	718.8	725.4	728.0	728.0
12.5°	703.1	697.9	697.9	703.1	713.6	718.8	728.0	735.8	743.7	747.7	747.7
15°	722.7	716.2	717.5	726.7	738.5	743.7	750.2	752.9	759.4	764.7	764.7
17.5°	741.1	734.6	737.1	747.7	755.4	758.1	762.0	760.8	763.3	767.3	768.5
20°	762.0	755.4	756.8	763.3	764.7	762.0	762.0	758.1	756.8	763.3	766.0
22.5°	783.0	776.4	775.1	771.2	764.7	758.1	754.2	750.2	747.7	754.2	756.8
25°	807.8	798.7	792.2	775.1	758.1	746.3	741.1	738.5	737.1	743.7	746.3
27.5°	835.3	826.2	806.6	769.9	742.4	722.7	718.8	718.8	721.5	725.4	728.0
30°	861.5	852.4	817.0	758.1	714.9	686.1	682.2	686.1	692.6	696.5	700.5
32.5°	887.7	878.6	823.6	739.8	674.3	637.6	635.0	641.6	652.0	654.7	657.2
35°	923.1	913.9	831.5	713.6	623.3	584.0	581.3	585.2	594.4	598.3	602.3
37.5°	972.8	967.6	843.2	684.8	576.1	532.9	525.1	522.4	527.6	526.3	531.6
40°	1038.3	1042.3	864.2	646.8	530.3	485.8	468.7	460.8	455.6	445.2	450.4
42.5°	1133.9	1136.5	887.7	603.6	491.0	441.2	419.0	404.6	394.1	377.1	379.7
45°	1274.0	1251.7	915.2	557.8	455.6	405.9	379.7	362.7	348.3	333.9	335.2
47.5°	1460.0	1391.8	945.3	519.8	420.3	377.1	353.5	333.9	316.9	305.0	306.4
50°	1689.1	1565.9	975.5	484.5	384.9	354.9	333.9	312.9	295.9	284.2	282.8
52.5°	1991.5	1775.4	995.1	445.2	349.6	335.2	316.9	297.3	276.3	261.9	260.5
55°	2305.7	2019.0	1012.1	398.0	315.6	312.9	303.8	281.5	256.7	238.3	235.7
57.5°	2651.4	2279.5	1025.2	352.2	289.4	294.6	292.0	265.8	238.3	221.3	219.9
60°	2965.6	2549.3	983.4	311.6	265.8	276.3	278.9	256.7	242.2	246.1	247.5
62.5°	3282.5	2757.5	823.6	281.5	250.1	264.5	286.7	285.4	278.9	285.4	286.7
65°	3396.4	2800.7	584.0	256.7	234.4	269.8	311.6	309.0	278.9	267.1	264.5
67.5°	3332.3	2672.4	392.8	237.0	222.6	276.3	337.8	309.0	268.4	252.7	247.5
70°	3027.2	2356.8	288.1	217.4	212.2	275.0	352.2	307.7	263.2	246.1	239.6
72.5°	2414.5	1818.7	231.8	199.1	196.4	268.4	360.1	305.0	258.0	239.6	231.8
75°	1563.4	1131.3	195.1	180.7	172.9	258.0	356.2	297.3	251.4	227.8	222.6
77.5°	725.4	487.0	166.3	159.8	150.6	242.2	344.3	281.5	237.0	214.7	208.2
80°	337.8	230.5	140.1	138.8	134.8	229.1	328.7	263.2	219.9	201.6	191.2
82.5°	180.7	138.8	114.0	114.0	117.8	213.4	309.0	240.9	197.7	188.5	161.0
85°	95.5	79.9	82.4	89.0	100.9	188.5	282.8	217.4	172.9	144.0	140.1
87.5°	48.5	51.0	51.0	60.3	77.2	153.2	233.0	179.4	146.7	117.8	115.2
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)