

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: P234790

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2R-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234790  
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-M-AF48-150-D-U-T2R-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13943 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 151  
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

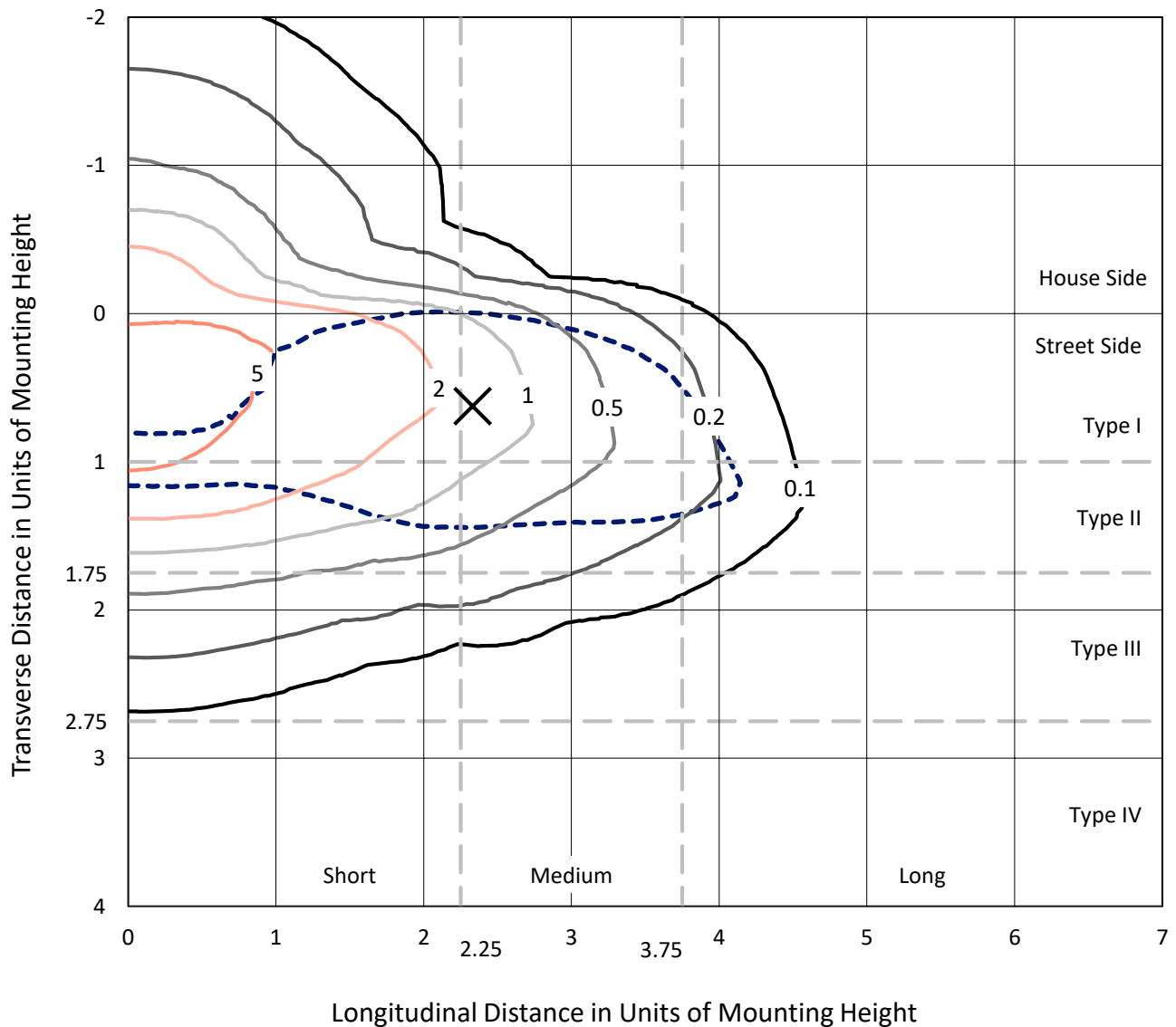


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

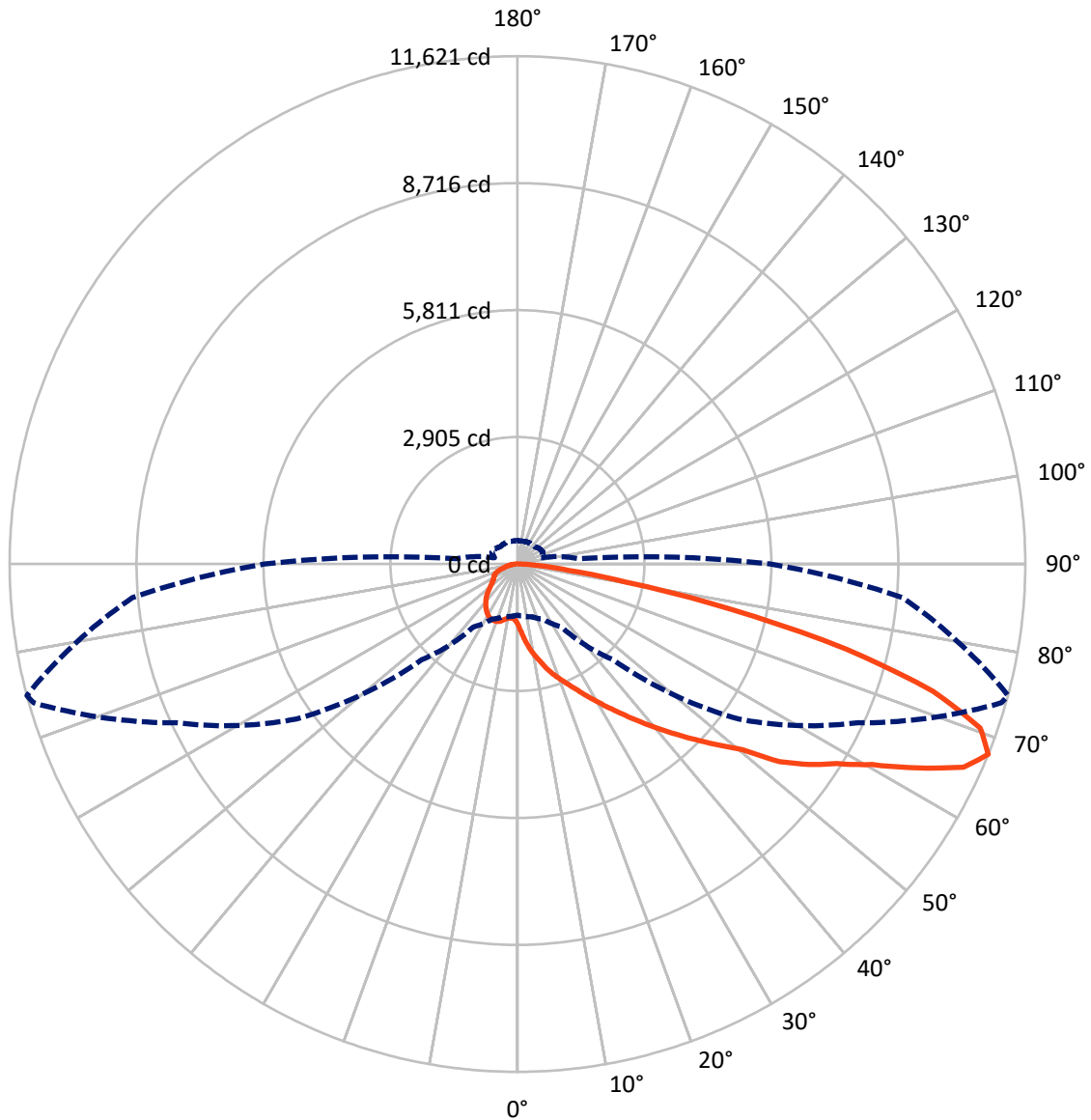


Based on 20 foot mounting height. Maximum calculated value = 7.2 fc  
 Type II - Medium - Semi-Cutoff

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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	2381.0	0.0	2381.0
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	11562.1	0.0	11562.1
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	13943.0	0.0	13943.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.3	1.2
10°-20°	586.6	4.2
20°-30°	1069.9	7.7
30°-40°	1756.1	12.6
40°-50°	2539.5	18.2
50°-60°	2992.8	21.5
60°-70°	2908.3	20.9
70°-80°	1616.6	11.6
80°-90°	310.9	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°	13943.0	100.0
0°-180°	13943.0	100.0



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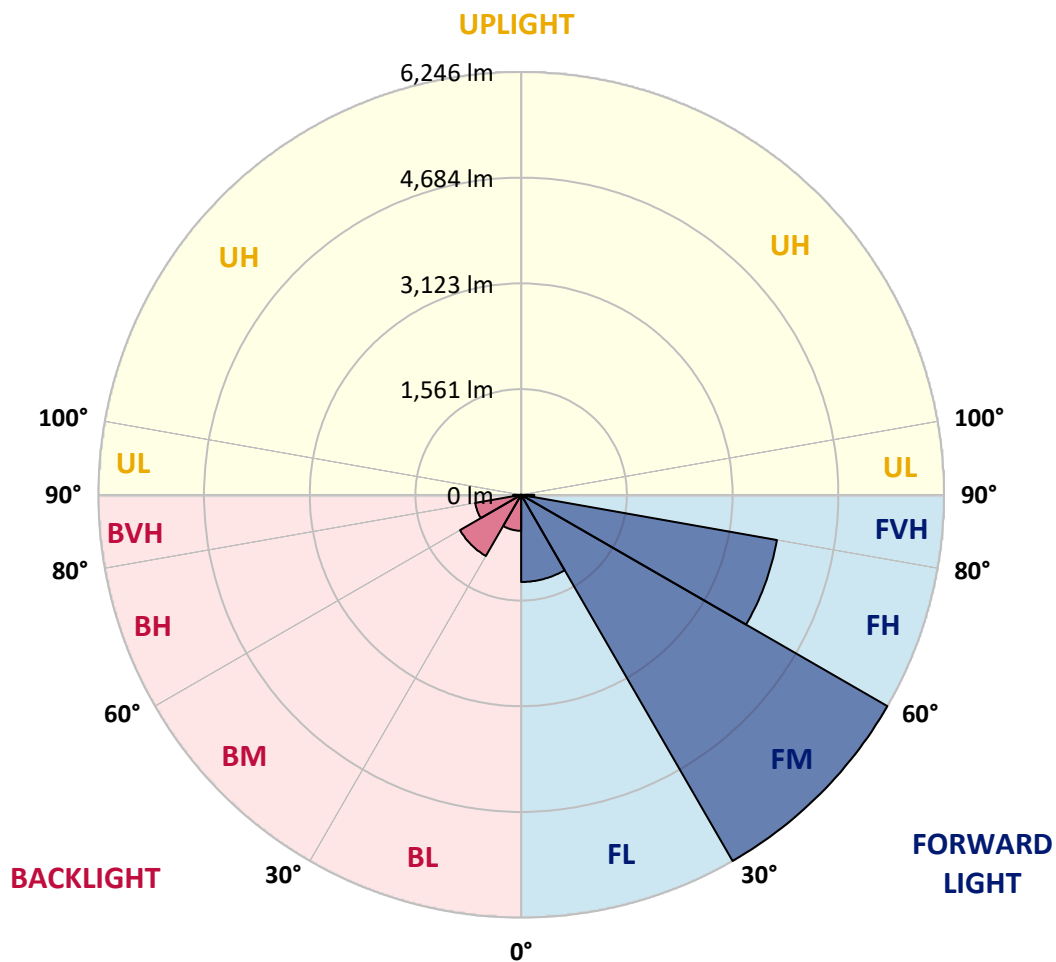
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1287.3	9.2			
FM (30°-60°)	6245.7	44.8			
FH (60°-80°)	3835.6	27.5			G2/5000
FVH (80°-90°)	193.5	1.4			G2/225
BL (0°-30°)	531.4	3.8	B2/1000		
BM (30°-60°)	1042.7	7.5	B2/2500		
BH (60°-80°)	689.4	4.9	B2/1000		G2/1000
BVH (80°-90°)	117.4	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

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

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6
2.5°	1958.7	1964.6	1952.9	1926.7	1888.8	1818.8	1757.6	1649.8	1553.6	1541.9	1439.9
5°	2302.7	2308.5	2293.9	2261.9	2221.1	2145.3	2060.8	1920.9	1766.4	1737.2	1521.5
7.5°	2538.8	2541.7	2524.2	2492.2	2460.1	2384.3	2299.8	2142.4	1952.9	1929.6	1626.5
10°	2739.9	2745.7	2722.4	2702.0	2667.0	2591.3	2503.8	2337.7	2142.4	2110.3	1734.3
12.5°	2926.5	2932.3	2917.7	2900.2	2888.6	2818.6	2722.4	2524.2	2314.4	2279.4	1862.6
15°	3051.8	3057.6	3060.5	3083.9	3098.4	3048.9	2952.7	2737.0	2500.9	2468.8	2014.1
17.5°	3016.8	3031.4	3075.1	3159.6	3250.0	3252.9	3174.2	2946.9	2684.5	2649.6	2168.6
20°	2914.8	2926.5	2978.9	3107.2	3285.0	3387.0	3381.2	3159.6	2856.5	2818.6	2311.4
22.5°	2999.3	3013.9	3013.9	3092.6	3267.5	3457.0	3532.7	3369.5	3028.5	2993.5	2454.3
25°	3360.8	3369.5	3308.3	3276.2	3340.4	3515.2	3658.1	3596.9	3238.3	3197.5	2608.7
27.5°	3865.0	3850.4	3774.7	3646.4	3576.5	3623.1	3768.8	3812.6	3480.3	3430.7	2769.1
30°	4366.4	4357.6	4270.2	4098.2	3940.8	3841.7	3891.3	4004.9	3742.6	3684.3	2923.5
32.5°	4835.7	4821.1	4724.9	4523.8	4346.0	4162.3	4066.1	4179.8	4022.4	3955.4	3095.5
35°	5267.0	5229.1	5133.0	4923.1	4739.5	4564.6	4328.5	4346.0	4325.6	4255.6	3285.0
37.5°	5616.8	5587.7	5482.7	5287.4	5092.2	4926.0	4678.3	4535.4	4652.0	4585.0	3503.6
40°	5925.8	5893.7	5785.9	5590.6	5409.9	5252.5	5057.2	4765.7	5019.3	4943.5	3748.4
42.5°	6159.0	6135.7	6048.2	5855.8	5680.9	5538.1	5441.9	5057.2	5401.1	5328.3	4016.6
45°	6284.3	6261.0	6214.4	6059.9	5899.6	5788.8	5797.5	5404.0	5800.4	5739.2	4334.3
47.5°	6129.8	6147.3	6188.1	6159.0	6059.9	6007.4	6115.2	5762.6	6246.4	6188.1	4678.3
50°	5715.9	5733.4	5896.6	6097.8	6132.7	6196.9	6400.9	6176.5	6718.6	6672.0	5103.8
52.5°	4698.7	4794.8	5246.6	5727.6	6057.0	6322.2	6718.6	6791.5	7514.4	7514.4	5855.8
55°	3550.2	3634.8	4150.7	4990.1	5762.6	6333.9	6951.8	7208.3	8088.6	8100.2	6249.3
57.5°	2876.9	2929.4	3183.0	4042.8	5144.6	6188.1	7228.7	7566.8	8566.6	8619.1	6756.5
60°	2334.8	2363.9	2530.0	3127.6	4290.6	5794.6	7426.9	8079.8	9248.7	9321.5	7403.6
62.5°	1877.1	1906.3	2017.0	2375.6	3366.6	5057.2	7391.9	8613.2	10158.1	10277.6	8251.8
65°	1498.2	1530.3	1603.1	1824.7	2495.1	4141.9	7033.4	8887.2	11099.6	11216.1	8814.4
67.5°	1168.8	1198.0	1247.5	1393.3	1757.6	3098.4	6185.2	8598.7	11522.2	11621.3	8843.5
70°	883.2	897.8	938.6	1031.8	1256.3	2057.8	4841.5	7630.9	11143.3	11233.6	8260.5
72.5°	685.0	682.1	705.4	752.0	877.4	1416.6	3209.2	6205.6	9852.0	9945.3	7048.0
75°	559.6	556.7	571.3	585.9	635.4	950.2	1894.6	4672.4	7951.6	7773.8	5287.4
77.5°	472.2	469.3	483.9	486.8	507.2	655.8	1078.5	3075.1	5304.9	4998.9	2978.9
80°	399.3	396.4	413.9	419.7	434.3	480.9	620.9	1664.4	2664.1	2524.2	1422.4
82.5°	300.2	311.9	343.9	358.5	376.0	355.6	384.8	734.5	1235.9	1180.5	617.9
85°	145.7	172.0	259.4	288.6	309.0	224.4	262.3	346.9	556.7	530.5	250.7
87.5°	49.6	43.7	154.5	183.6	201.1	102.0	145.7	192.4	230.3	209.9	78.7
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°	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6	1381.6
2.5°	1396.2	1352.5	1288.3	1238.8	1206.7	1180.5	1168.8	1165.9	1160.1	1157.2	1157.2
5°	1425.3	1346.6	1247.5	1195.1	1180.5	1168.8	1174.7	1177.6	1177.6	1177.6	1177.6
7.5°	1469.1	1358.3	1238.8	1203.8	1200.9	1200.9	1218.4	1227.1	1233.0	1233.0	1233.0
10°	1527.4	1378.7	1253.4	1224.2	1233.0	1238.8	1259.2	1270.9	1276.7	1279.6	1282.5
12.5°	1606.1	1422.4	1282.5	1259.2	1270.9	1273.8	1288.3	1294.2	1300.0	1302.9	1302.9
15°	1711.0	1486.5	1329.1	1300.0	1302.9	1300.0	1300.0	1294.2	1291.3	1291.3	1297.1
17.5°	1818.8	1547.8	1370.0	1329.1	1317.5	1294.2	1276.7	1262.1	1253.4	1247.5	1250.4
20°	1926.7	1603.1	1393.3	1335.0	1302.9	1265.0	1233.0	1212.6	1200.9	1189.2	1195.1
22.5°	2034.5	1655.6	1402.0	1317.5	1270.9	1215.5	1180.5	1148.4	1122.2	1104.7	1107.6
25°	2154.0	1713.9	1402.0	1297.1	1227.1	1168.8	1125.1	1072.6	1034.8	1020.2	1026.0
27.5°	2273.5	1763.5	1387.4	1259.2	1177.6	1119.3	1055.2	993.9	970.6	961.9	964.8
30°	2393.0	1801.3	1355.4	1212.6	1125.1	1061.0	976.5	935.7	906.5	883.2	886.1
32.5°	2512.6	1827.6	1311.7	1154.3	1069.7	988.1	918.2	871.5	819.1	789.9	792.8
35°	2649.6	1848.0	1259.2	1096.0	1008.5	924.0	871.5	795.7	740.4	717.0	711.2
37.5°	2792.4	1862.6	1203.8	1031.8	947.3	877.4	824.9	731.6	679.1	647.1	644.2
40°	2946.9	1868.4	1136.8	964.8	889.0	848.2	763.7	693.7	603.4	583.0	583.0
42.5°	3130.5	1865.5	1069.7	897.8	824.9	781.2	720.0	687.9	609.2	588.8	577.1
45°	3340.4	1865.5	996.9	819.1	760.8	696.6	670.4	650.0	597.5	606.3	612.1
47.5°	3579.4	1859.6	909.4	754.9	708.3	652.9	638.3	594.6	574.2	580.0	585.9
50°	3908.7	1868.4	830.7	702.5	670.4	623.8	606.3	583.0	574.2	577.1	574.2
52.5°	4366.4	1839.2	754.9	670.4	641.3	580.0	580.0	577.1	580.0	577.1	577.1
55°	4617.0	1775.1	699.6	652.9	620.9	559.6	571.3	577.1	583.0	580.0	580.0
57.5°	4972.6	1731.4	655.8	641.3	609.2	553.8	565.5	577.1	580.0	577.1	577.1
60°	5392.4	1702.2	626.7	644.2	600.4	553.8	568.4	577.1	574.2	571.3	571.3
62.5°	5879.1	1690.6	606.3	652.9	591.7	556.7	568.4	577.1	565.5	562.6	562.6
65°	6062.8	1585.7	580.0	658.7	597.5	556.7	565.5	568.4	553.8	550.9	548.0
67.5°	5780.0	1404.9	542.2	647.1	615.0	556.7	556.7	553.8	536.3	533.4	527.6
70°	5147.5	1165.9	483.9	609.2	626.7	559.6	545.1	530.5	513.0	513.0	501.3
72.5°	4214.8	918.2	408.1	542.2	617.9	568.4	521.7	501.3	480.9	480.9	469.3
75°	3037.2	685.0	326.5	451.8	580.0	565.5	492.6	466.4	443.0	440.1	425.6
77.5°	1731.4	480.9	265.2	352.7	515.9	550.9	466.4	425.6	399.3	390.6	381.8
80°	889.0	323.5	215.7	276.9	428.5	510.1	446.0	378.9	349.8	335.2	320.6
82.5°	422.6	215.7	166.1	204.0	323.5	446.0	419.7	326.5	294.4	276.9	259.4
85°	189.5	128.3	110.8	131.2	230.3	346.9	370.2	268.2	230.3	288.6	212.8
87.5°	61.2	58.3	58.3	61.2	110.8	151.6	271.1	198.2	183.6	151.6	128.3
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)