

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: P231022

Luminaire Tested: **ARCH-M-AF48-160-D-U-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231022
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-AF48-160-D-U-T2R-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16529 lumens
Efficiency: N/A
Efficacy: 102.7 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 - G3

Input Watts (W): 161
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

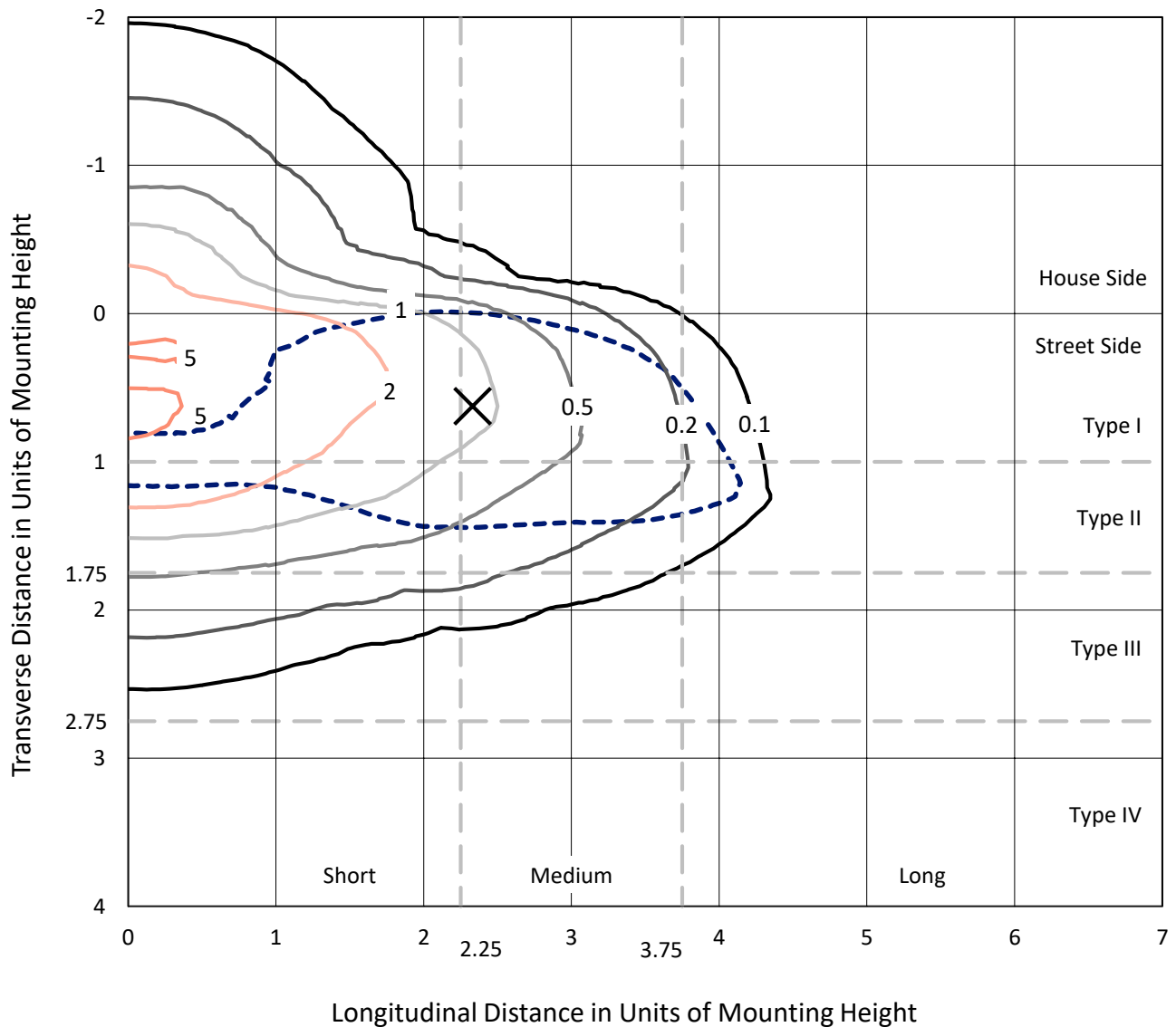


REPORT NUMBER: P231022

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2R-7030

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

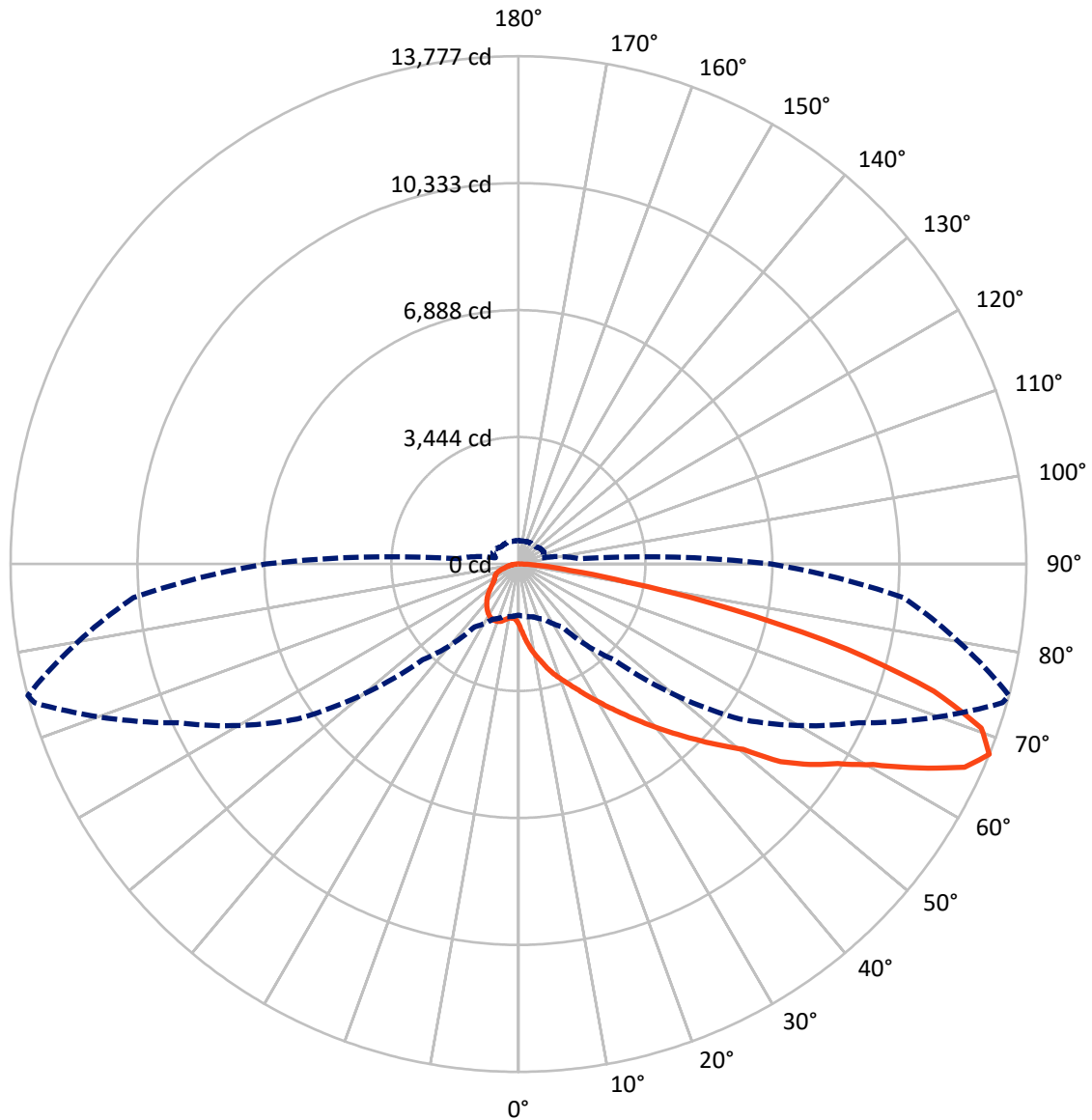


Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P231022

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2R-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P231022

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2R-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2822.5	0.0	2822.5
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	13706.4	0.0	13706.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	16529.0	0.0	16529.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.4	1.2
10°-20°	695.4	4.2
20°-30°	1268.3	7.7
30°-40°	2081.8	12.6
40°-50°	3010.5	18.2
50°-60°	3547.9	21.5
60°-70°	3447.7	20.9
70°-80°	1916.5	11.6
80°-90°	368.5	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°	16529.0	100.0
0°-180°	16529.0	100.0



REPORT NUMBER: P231022

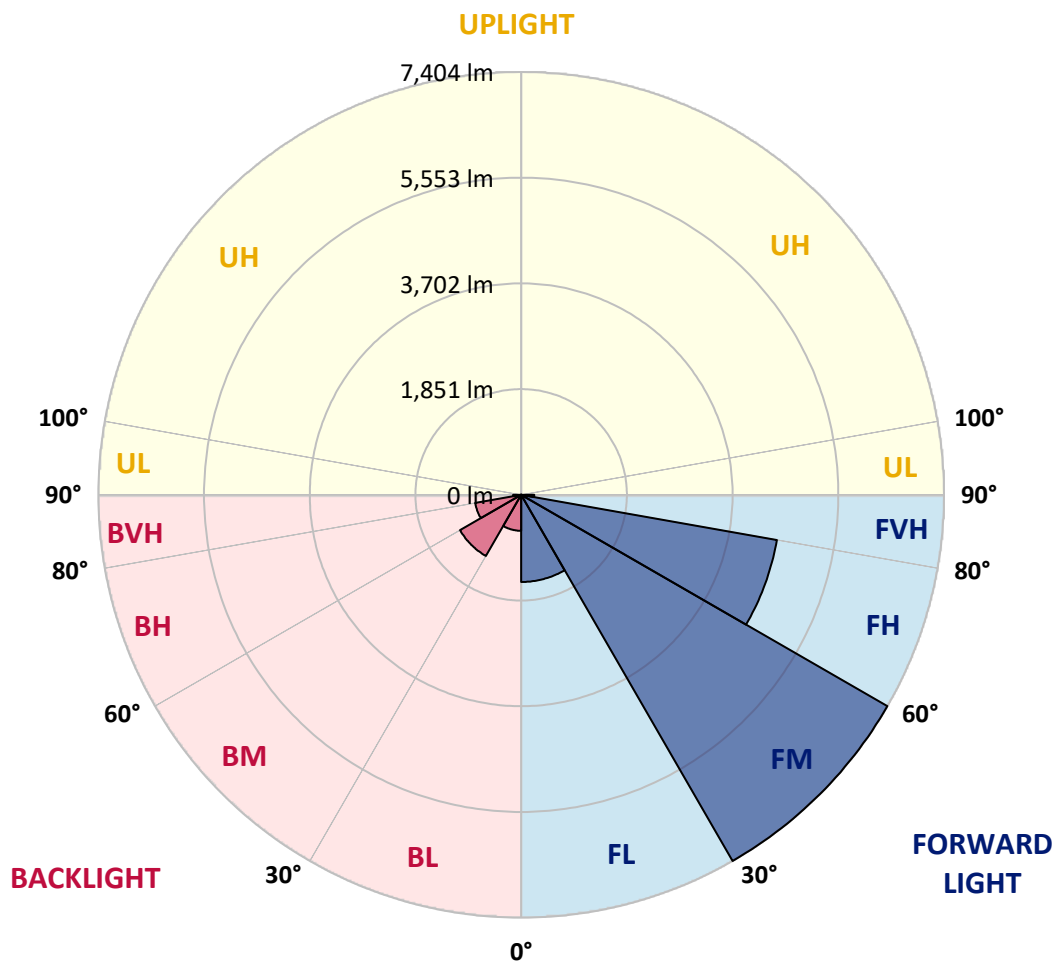
CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2R-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1526.1	9.2			
FM	(30°-60°)	7404.1	44.8			
FH	(60°-80°)	4546.9	27.5			G2/5000
FVH	(80°-90°)	229.3	1.4			G3/500
BL	(0°-30°)	630.0	3.8	B2/1000		
BM	(30°-60°)	1236.1	7.5	B2/2500		
BH	(60°-80°)	817.3	4.9	B2/1000		G2/1000
BVH	(80°-90°)	139.2	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-G3

Type II Medium





REPORT NUMBER: P231022

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2R-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9
2.5°	2322.0	2328.9	2315.1	2284.0	2239.1	2156.2	2083.6	1955.8	1841.7	1827.9	1707.0
5°	2729.8	2736.7	2719.4	2681.4	2633.0	2543.2	2443.0	2277.1	2094.0	2059.4	1803.7
7.5°	3009.7	3013.1	2992.4	2954.4	2916.4	2826.5	2726.3	2539.7	2315.1	2287.5	1928.1
10°	3248.1	3255.0	3227.3	3203.2	3161.7	3071.9	2968.2	2771.2	2539.7	2501.7	2056.0
12.5°	3469.2	3476.1	3458.9	3438.1	3424.3	3341.4	3227.3	2992.4	2743.6	2702.1	2208.0
15°	3617.8	3624.7	3628.2	3655.8	3673.1	3614.4	3500.3	3244.6	2964.7	2926.7	2387.7
17.5°	3576.3	3593.6	3645.5	3745.7	3852.8	3856.2	3762.9	3493.4	3182.4	3141.0	2570.8
20°	3455.4	3469.2	3531.4	3683.5	3894.2	4015.2	4008.3	3745.7	3386.3	3341.4	2740.1
22.5°	3555.6	3572.9	3572.9	3666.2	3873.5	4098.1	4188.0	3994.4	3590.2	3548.7	2909.5
25°	3984.1	3994.4	3921.9	3883.9	3959.9	4167.2	4336.5	4264.0	3839.0	3790.6	3092.6
27.5°	4581.9	4564.6	4474.7	4322.7	4239.8	4295.1	4467.8	4519.7	4125.8	4067.0	3282.6
30°	5176.2	5165.8	5062.2	4858.3	4671.7	4554.2	4613.0	4747.7	4436.7	4367.6	3465.8
32.5°	5732.5	5715.2	5601.2	5362.8	5152.0	4934.3	4820.3	4955.1	4768.5	4689.0	3669.6
35°	6243.9	6199.0	6085.0	5836.2	5618.5	5411.2	5131.3	5152.0	5127.8	5044.9	3894.2
37.5°	6658.6	6624.0	6499.6	6268.1	6036.6	5839.6	5545.9	5376.6	5514.8	5435.4	4153.4
40°	7024.8	6986.8	6859.0	6627.5	6413.2	6226.6	5995.1	5649.6	5950.2	5860.4	4443.7
42.5°	7301.3	7273.6	7170.0	6941.9	6734.6	6565.3	6451.2	5995.1	6402.9	6316.5	4761.5
45°	7449.9	7422.2	7366.9	7183.8	6993.7	6862.4	6872.8	6406.3	6876.3	6803.7	5138.2
47.5°	7266.7	7287.4	7335.8	7301.3	7183.8	7121.6	7249.4	6831.3	7404.9	7335.8	5545.9
50°	6776.0	6796.8	6990.3	7228.7	7270.2	7346.2	7588.1	7322.0	7964.7	7909.4	6050.4
52.5°	5570.1	5684.1	6219.7	6789.9	7180.3	7494.8	7964.7	8051.1	8908.0	8908.0	6941.9
55°	4208.7	4308.9	4920.5	5915.7	6831.3	7508.6	8241.1	8545.2	9588.7	9602.6	7408.4
57.5°	3410.5	3472.7	3773.3	4792.6	6098.8	7335.8	8569.4	8970.2	10155.4	10217.6	8009.6
60°	2767.8	2802.3	2999.3	3707.6	5086.4	6869.3	8804.4	9578.4	10964.0	11050.4	8776.7
62.5°	2225.3	2259.8	2391.1	2816.2	3991.0	5995.1	8762.9	10210.7	12042.1	12183.8	9782.3
65°	1776.1	1814.1	1900.5	2163.1	2957.8	4910.1	8337.9	10535.5	13158.2	13296.4	10449.1
67.5°	1385.6	1420.2	1478.9	1651.7	2083.6	3673.1	7332.4	10193.4	13659.2	13776.7	10483.7
70°	1047.0	1064.3	1112.6	1223.2	1489.3	2439.5	5739.4	9046.2	13210.0	13317.1	9792.6
72.5°	812.0	808.6	836.2	891.5	1040.1	1679.3	3804.4	7356.6	11679.3	11789.8	8355.2
75°	663.4	660.0	677.3	694.5	753.3	1126.5	2246.0	5539.0	9426.3	9215.6	6268.1
77.5°	559.8	556.3	573.6	577.1	601.2	777.5	1278.5	3645.5	6288.8	5926.0	3531.4
80°	473.4	469.9	490.7	497.6	514.9	570.1	736.0	1973.0	3158.2	2992.4	1686.2
82.5°	355.9	369.7	407.7	425.0	445.7	421.6	456.1	870.8	1465.1	1399.4	732.5
85°	172.8	203.9	307.5	342.1	366.3	266.1	311.0	411.2	660.0	628.9	297.2
87.5°	58.7	51.8	183.1	217.7	238.4	120.9	172.8	228.1	273.0	248.8	93.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P231022

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2R-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9	1637.9
2.5°	1655.1	1603.3	1527.3	1468.5	1430.5	1399.4	1385.6	1382.2	1375.3	1371.8	1371.8
5°	1689.7	1596.4	1478.9	1416.7	1399.4	1385.6	1392.5	1396.0	1396.0	1396.0	1396.0
7.5°	1741.5	1610.2	1468.5	1427.1	1423.6	1423.6	1444.4	1454.7	1461.6	1461.6	1461.6
10°	1810.6	1634.4	1485.8	1451.3	1461.6	1468.5	1492.7	1506.6	1513.5	1516.9	1520.4
12.5°	1903.9	1686.2	1520.4	1492.7	1506.6	1510.0	1527.3	1534.2	1541.1	1544.6	1544.6
15°	2028.3	1762.3	1575.7	1541.1	1544.6	1541.1	1541.1	1534.2	1530.7	1530.7	1537.7
17.5°	2156.2	1834.8	1624.0	1575.7	1561.8	1534.2	1513.5	1496.2	1485.8	1478.9	1482.4
20°	2284.0	1900.5	1651.7	1582.6	1544.6	1499.6	1461.6	1437.4	1423.6	1409.8	1416.7
22.5°	2411.9	1962.7	1662.0	1561.8	1506.6	1440.9	1399.4	1361.4	1330.3	1309.6	1313.1
25°	2553.5	2031.8	1662.0	1537.7	1454.7	1385.6	1333.8	1271.6	1226.7	1209.4	1216.3
27.5°	2695.2	2090.5	1644.8	1492.7	1396.0	1326.9	1250.9	1178.3	1150.6	1140.3	1143.7
30°	2836.9	2135.4	1606.8	1437.4	1333.8	1257.8	1157.6	1109.2	1074.6	1047.0	1050.4
32.5°	2978.6	2166.5	1554.9	1368.3	1268.1	1171.4	1088.5	1033.2	971.0	936.4	939.9
35°	3141.0	2190.7	1492.7	1299.2	1195.6	1095.4	1033.2	943.3	877.7	850.0	843.1
37.5°	3310.3	2208.0	1427.1	1223.2	1123.0	1040.1	977.9	867.3	805.1	767.1	763.6
40°	3493.4	2214.9	1347.6	1143.7	1053.9	1005.5	905.3	822.4	715.3	691.1	691.1
42.5°	3711.1	2211.5	1268.1	1064.3	977.9	926.0	853.5	815.5	722.2	698.0	684.2
45°	3959.9	2211.5	1181.7	971.0	901.9	825.8	794.7	770.6	708.4	718.7	725.6
47.5°	4243.2	2204.5	1078.1	894.9	839.7	774.0	756.7	704.9	680.7	687.6	694.5
50°	4633.7	2214.9	984.8	832.8	794.7	739.5	718.7	691.1	680.7	684.2	680.7
52.5°	5176.2	2180.4	894.9	794.7	760.2	687.6	687.6	684.2	687.6	684.2	684.2
55°	5473.4	2104.3	829.3	774.0	736.0	663.4	677.3	684.2	691.1	687.6	687.6
57.5°	5894.9	2052.5	777.5	760.2	722.2	656.5	670.3	684.2	687.6	684.2	684.2
60°	6392.5	2018.0	742.9	763.6	711.8	656.5	673.8	684.2	680.7	677.3	677.3
62.5°	6969.6	2004.1	718.7	774.0	701.4	660.0	673.8	684.2	670.3	666.9	666.9
65°	7187.2	1879.7	687.6	780.9	708.4	660.0	670.3	673.8	656.5	653.1	649.6
67.5°	6852.1	1665.5	642.7	767.1	729.1	660.0	660.0	656.5	635.8	632.3	625.4
70°	6102.2	1382.2	573.6	722.2	742.9	663.4	646.2	628.9	608.2	608.2	594.3
72.5°	4996.5	1088.5	483.8	642.7	732.5	673.8	618.5	594.3	570.1	570.1	556.3
75°	3600.5	812.0	387.0	535.6	687.6	670.3	584.0	552.9	525.2	521.8	504.5
77.5°	2052.5	570.1	314.4	418.1	611.6	653.1	552.9	504.5	473.4	463.0	452.7
80°	1053.9	383.5	255.7	328.3	507.9	604.7	528.7	449.2	414.6	397.4	380.1
82.5°	501.0	255.7	197.0	241.9	383.5	528.7	497.6	387.0	349.0	328.3	307.5
85°	224.6	152.0	131.3	155.5	273.0	411.2	438.8	317.9	273.0	342.1	252.2
87.5°	72.6	69.1	69.1	72.6	131.3	179.7	321.4	235.0	217.7	179.7	152.0
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)