

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: P234788

Luminaire Tested: **ARCH-M-AF48-130-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234788
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-AF48-130-D-U-T2R-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12627 lumens
Efficiency: N/A
Efficacy: 96.4 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): 131
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

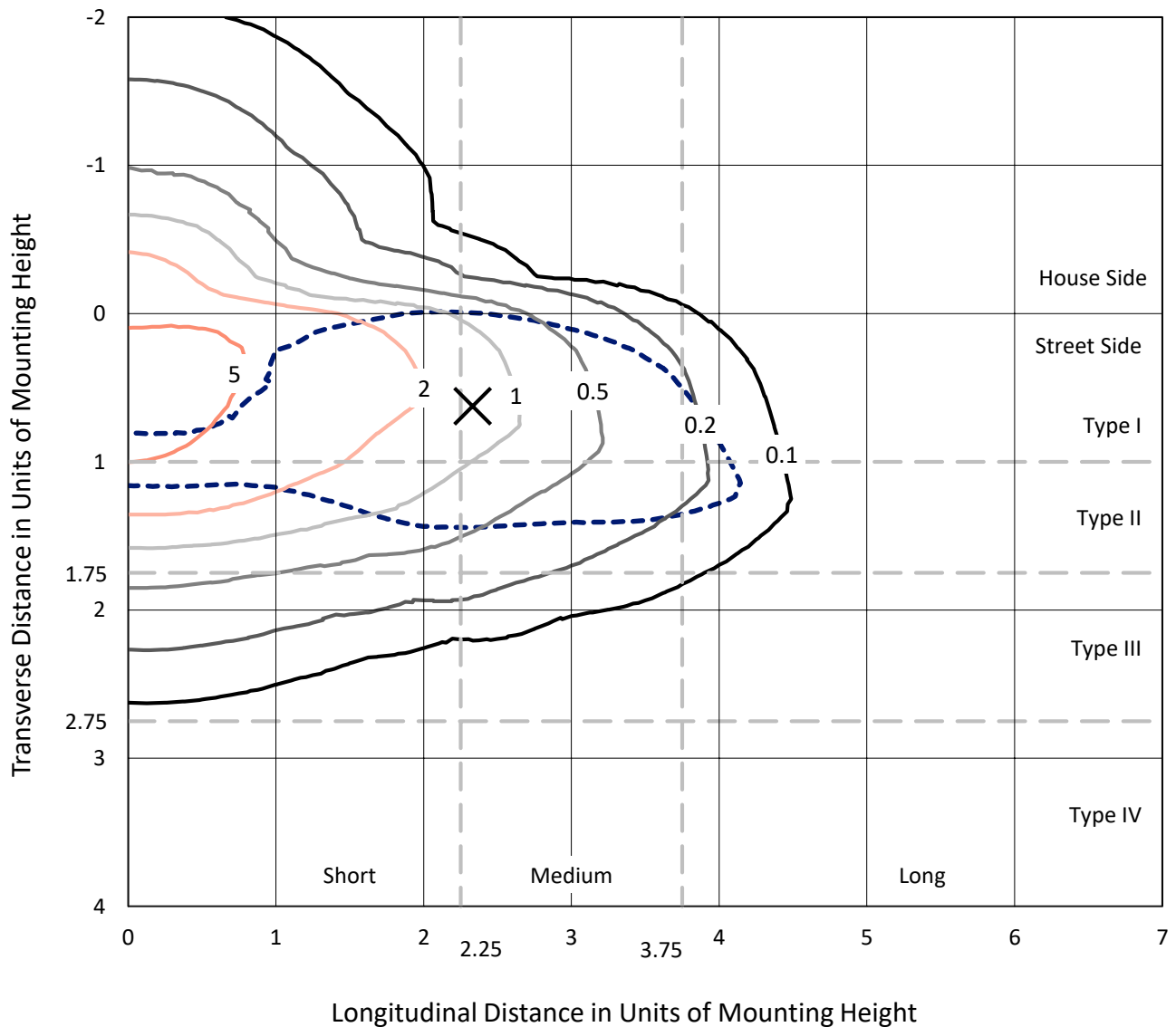


REPORT NUMBER: P234788

CATALOG NUMBER: ARCH-M-AF48-130-D-U-T2R-8027

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

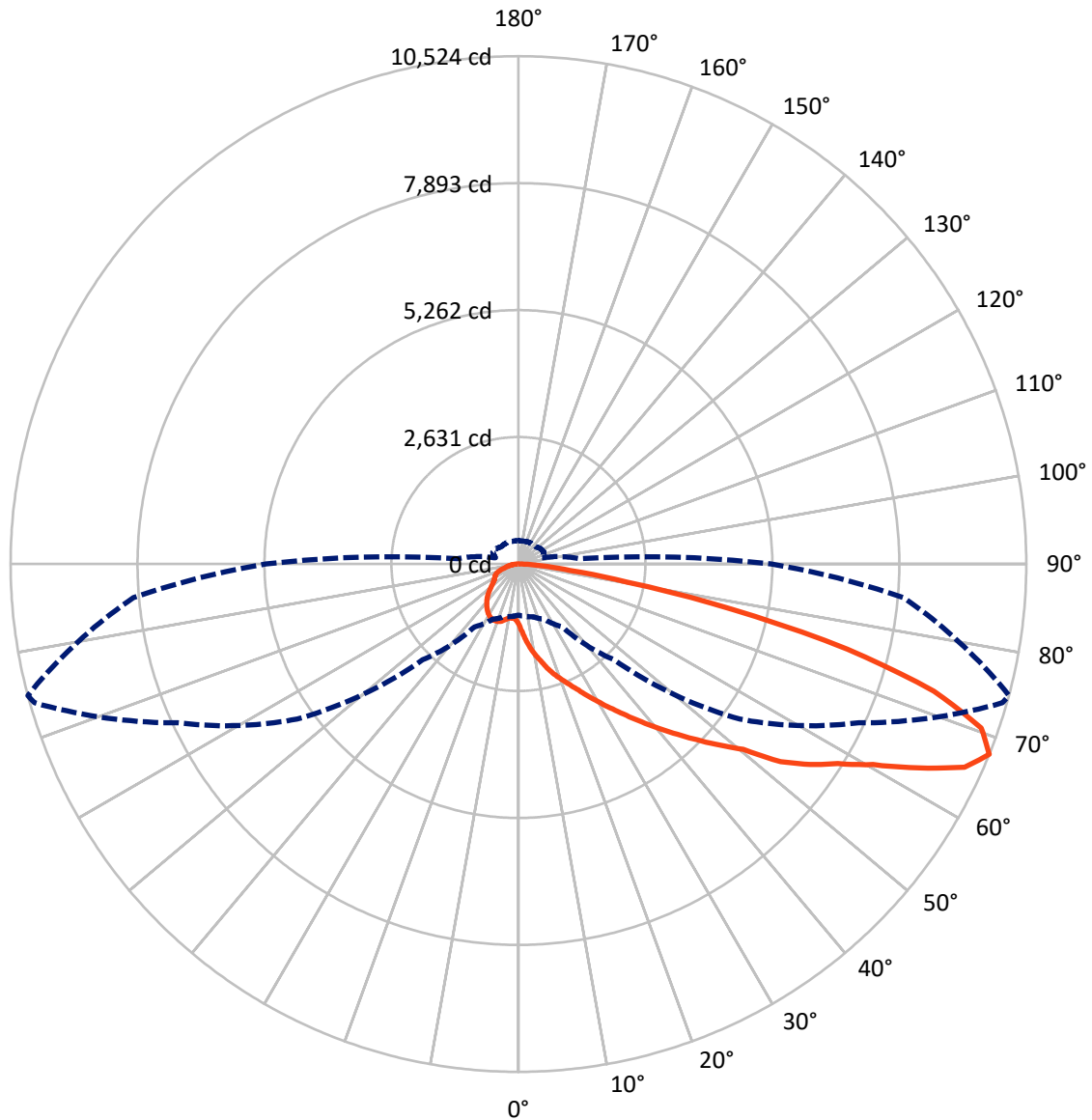


Based on 20 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P234788

CATALOG NUMBER: ARCH-M-AF48-130-D-U-T2R-8027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234788

CATALOG NUMBER: ARCH-M-AF48-130-D-U-T2R-8027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2156.2	0.0	2156.2
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	10470.8	0.0	10470.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	12627.0	0.0	12627.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.0	1.2
10°-20°	531.2	4.2
20°-30°	968.9	7.7
30°-40°	1590.3	12.6
40°-50°	2299.8	18.2
50°-60°	2710.4	21.5
60°-70°	2633.8	20.9
70°-80°	1464.0	11.6
80°-90°	281.5	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°	12627.0	100.0
0°-180°	12627.0	100.0



REPORT NUMBER: P234788

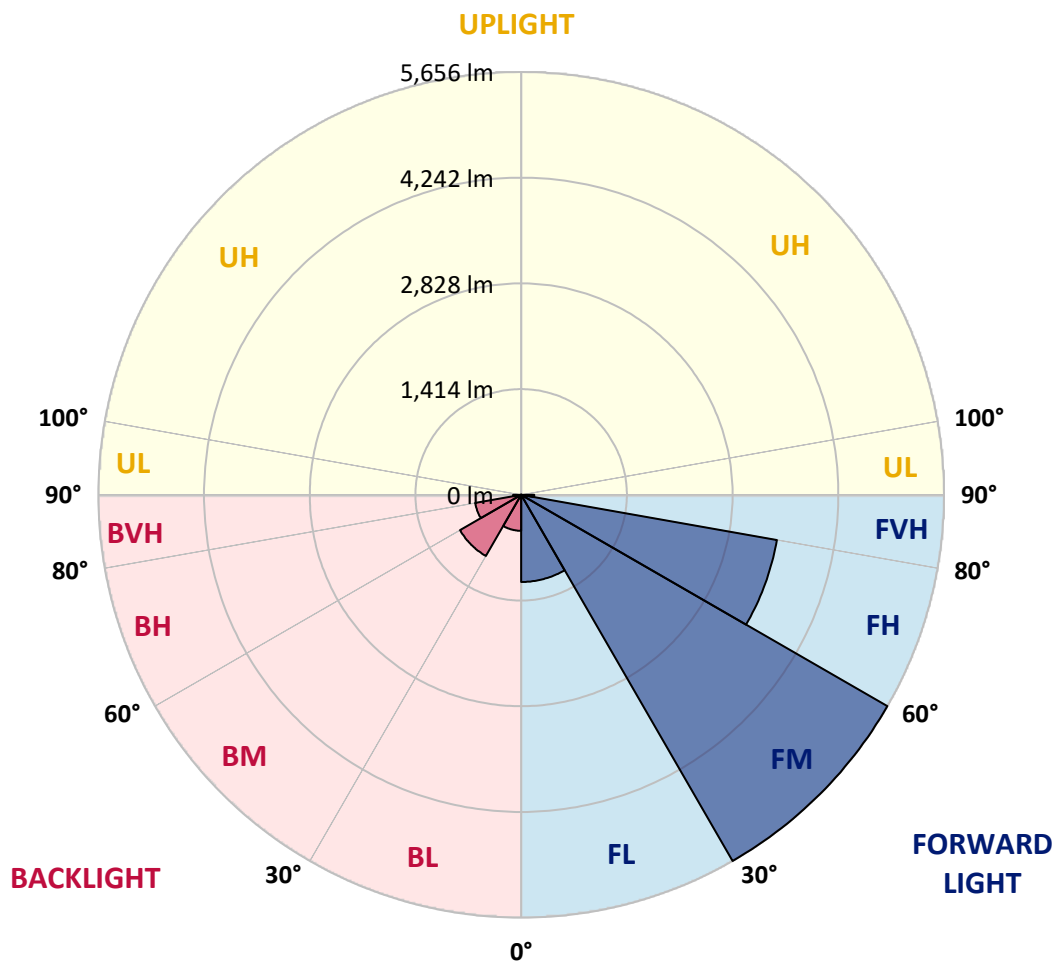
CATALOG NUMBER: ARCH-M-AF48-130-D-U-T2R-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1165.8	9.2			
FM	(30°-60°)	5656.2	44.8			
FH	(60°-80°)	3473.5	27.5			G2/5000
FVH	(80°-90°)	175.2	1.4			G2/225
BL	(0°-30°)	481.3	3.8	B1/500		
BM	(30°-60°)	944.3	7.5	B1/1000		
BH	(60°-80°)	624.3	4.9	B2/1000		G2/1000
BVH	(80°-90°)	106.3	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





REPORT NUMBER: P234788

CATALOG NUMBER: ARCH-M-AF48-130-D-U-T2R-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1773.9	1779.1	1768.6	1744.8	1710.5	1647.2	1591.7	1494.1	1407.0	1396.4	1304.0
5°	2085.4	2090.6	2077.4	2048.4	2011.4	1942.8	1866.3	1739.6	1599.7	1573.3	1377.9
7.5°	2299.2	2301.8	2286.0	2256.9	2227.9	2159.3	2082.7	1940.2	1768.6	1747.5	1472.9
10°	2481.3	2486.6	2465.5	2447.0	2415.3	2346.7	2267.5	2117.0	1940.2	1911.1	1570.6
12.5°	2650.2	2655.5	2642.3	2626.5	2615.9	2552.6	2465.5	2286.0	2095.9	2064.2	1686.8
15°	2763.8	2769.0	2771.7	2792.8	2806.0	2761.1	2674.0	2478.7	2264.9	2235.8	1824.0
17.5°	2732.1	2745.3	2784.9	2861.4	2943.3	2945.9	2874.6	2668.7	2431.2	2399.5	1963.9
20°	2639.7	2650.2	2697.8	2813.9	2974.9	3067.3	3062.0	2861.4	2586.9	2552.6	2093.3
22.5°	2716.2	2729.4	2729.4	2800.7	2959.1	3130.7	3199.3	3051.5	2742.6	2711.0	2222.6
25°	3043.6	3051.5	2996.0	2967.0	3025.1	3183.5	3312.8	3257.4	2932.7	2895.7	2362.5
27.5°	3500.2	3487.0	3418.4	3302.2	3238.9	3281.1	3413.1	3452.7	3151.8	3106.9	2507.7
30°	3954.3	3946.3	3867.1	3711.4	3568.9	3479.1	3524.0	3626.9	3389.4	3336.6	2647.6
32.5°	4379.2	4366.0	4278.9	4096.8	3935.8	3769.5	3682.4	3785.3	3642.8	3582.1	2803.3
35°	4769.9	4735.6	4648.5	4458.4	4292.1	4133.8	3919.9	3935.8	3917.3	3853.9	2974.9
37.5°	5086.7	5060.3	4965.3	4788.4	4611.5	4461.1	4236.7	4107.4	4212.9	4152.2	3172.9
40°	5366.5	5337.4	5239.8	5062.9	4899.3	4756.7	4579.9	4315.9	4545.5	4476.9	3394.6
42.5°	5577.7	5556.5	5477.4	5303.1	5144.8	5015.4	4928.3	4579.9	4891.3	4825.3	3637.5
45°	5691.2	5670.0	5627.8	5487.9	5342.7	5242.4	5250.3	4894.0	5253.0	5197.5	3925.2
47.5°	5551.3	5567.1	5604.1	5577.7	5487.9	5440.4	5538.1	5218.7	5656.9	5604.1	4236.7
50°	5176.4	5192.3	5340.1	5522.2	5553.9	5612.0	5796.8	5593.5	6084.5	6042.2	4622.1
52.5°	4255.2	4342.3	4751.4	5187.0	5485.3	5725.5	6084.5	6150.5	6805.1	6805.1	5303.1
55°	3215.1	3291.7	3758.9	4519.1	5218.7	5736.0	6295.7	6527.9	7325.1	7335.7	5659.5
57.5°	2605.4	2652.9	2882.5	3661.2	4659.0	5604.1	6546.4	6852.6	7758.0	7805.6	6118.8
60°	2114.4	2140.8	2291.2	2832.4	3885.6	5247.7	6725.9	7317.2	8375.7	8441.7	6704.8
62.5°	1700.0	1726.4	1826.7	2151.3	3048.8	4579.9	6694.2	7800.3	9199.3	9307.5	7473.0
65°	1356.8	1385.8	1451.8	1652.4	2259.6	3751.0	6369.6	8048.4	10051.9	10157.5	7982.4
67.5°	1058.5	1084.9	1129.8	1261.8	1591.7	2806.0	5601.4	7787.1	10434.7	10524.4	8008.8
70°	799.8	813.0	850.0	934.4	1137.7	1863.6	4384.5	6910.7	10091.5	10173.4	7480.9
72.5°	620.3	617.7	638.8	681.0	794.5	1282.9	2906.3	5619.9	8922.1	9006.6	6382.8
75°	506.8	504.2	517.4	530.6	575.5	860.5	1715.8	4231.4	7201.1	7040.0	4788.4
77.5°	427.6	425.0	438.2	440.8	459.3	593.9	976.7	2784.9	4804.2	4527.1	2697.8
80°	361.6	359.0	374.8	380.1	393.3	435.5	562.3	1507.3	2412.7	2286.0	1288.2
82.5°	271.9	282.4	311.5	324.7	340.5	322.0	348.4	665.2	1119.2	1069.1	559.6
85°	132.0	155.7	234.9	261.3	279.8	203.3	237.6	314.1	504.2	480.4	227.0
87.5°	44.9	39.6	139.9	166.3	182.1	92.4	132.0	174.2	208.5	190.1	71.3
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: P234788

CATALOG NUMBER: ARCH-M-AF48-130-D-U-T2R-8027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1264.4	1224.8	1166.7	1121.9	1092.8	1069.1	1058.5	1055.9	1050.6	1048.0	1048.0
5°	1290.8	1219.5	1129.8	1082.3	1069.1	1058.5	1063.8	1066.4	1066.4	1066.4	1066.4
7.5°	1330.4	1230.1	1121.9	1090.2	1087.6	1087.6	1103.4	1111.3	1116.6	1116.6	1116.6
10°	1383.2	1248.6	1135.1	1108.7	1116.6	1121.9	1140.3	1150.9	1156.2	1158.8	1161.5
12.5°	1454.5	1288.2	1161.5	1140.3	1150.9	1153.5	1166.7	1172.0	1177.3	1179.9	1179.9
15°	1549.5	1346.2	1203.7	1177.3	1179.9	1177.3	1177.3	1172.0	1169.4	1169.4	1174.7
17.5°	1647.2	1401.7	1240.7	1203.7	1193.1	1172.0	1156.2	1143.0	1135.1	1129.8	1132.4
20°	1744.8	1451.8	1261.8	1209.0	1179.9	1145.6	1116.6	1098.1	1087.6	1077.0	1082.3
22.5°	1842.5	1499.3	1269.7	1193.1	1150.9	1100.7	1069.1	1040.0	1016.3	1000.4	1003.1
25°	1950.7	1552.1	1269.7	1174.7	1111.3	1058.5	1018.9	971.4	937.1	923.9	929.2
27.5°	2059.0	1597.0	1256.5	1140.3	1066.4	1013.6	955.6	900.1	879.0	871.1	873.7
30°	2167.2	1631.3	1227.5	1098.1	1018.9	960.8	884.3	847.3	820.9	799.8	802.5
32.5°	2275.4	1655.1	1187.9	1045.3	968.8	894.9	831.5	789.3	741.8	715.4	718.0
35°	2399.5	1673.6	1140.3	992.5	913.3	836.8	789.3	720.6	670.5	649.4	644.1
37.5°	2528.8	1686.8	1090.2	934.4	857.9	794.5	747.0	662.6	615.0	586.0	583.4
40°	2668.7	1692.0	1029.5	873.7	805.1	768.1	691.6	628.2	546.4	527.9	527.9
42.5°	2835.0	1689.4	968.8	813.0	747.0	707.4	652.0	623.0	551.7	533.2	522.7
45°	3025.1	1689.4	902.8	741.8	689.0	630.9	607.1	588.7	541.1	549.1	554.3
47.5°	3241.5	1684.1	823.6	683.7	641.4	591.3	578.1	538.5	520.0	525.3	530.6
50°	3539.8	1692.0	752.3	636.2	607.1	564.9	549.1	527.9	520.0	522.7	520.0
52.5°	3954.3	1665.6	683.7	607.1	580.7	525.3	525.3	522.7	525.3	522.7	522.7
55°	4181.3	1607.6	633.5	591.3	562.3	506.8	517.4	522.7	527.9	525.3	525.3
57.5°	4503.3	1568.0	593.9	580.7	551.7	501.5	512.1	522.7	525.3	522.7	522.7
60°	4883.4	1541.6	567.5	583.4	543.8	501.5	514.7	522.7	520.0	517.4	517.4
62.5°	5324.2	1531.0	549.1	591.3	535.9	504.2	514.7	522.7	512.1	509.5	509.5
65°	5490.6	1436.0	525.3	596.6	541.1	504.2	512.1	514.7	501.5	498.9	496.3
67.5°	5234.5	1272.3	491.0	586.0	557.0	504.2	504.2	501.5	485.7	483.1	477.8
70°	4661.7	1055.9	438.2	551.7	567.5	506.8	493.6	480.4	464.6	464.6	454.0
72.5°	3817.0	831.5	369.6	491.0	559.6	514.7	472.5	454.0	435.5	435.5	425.0
75°	2750.6	620.3	295.6	409.2	525.3	512.1	446.1	422.4	401.2	398.6	385.4
77.5°	1568.0	435.5	240.2	319.4	467.2	498.9	422.4	385.4	361.6	353.7	345.8
80°	805.1	293.0	195.3	250.8	388.0	461.9	403.9	343.2	316.8	303.6	290.4
82.5°	382.8	195.3	150.5	184.8	293.0	403.9	380.1	295.6	266.6	250.8	234.9
85°	171.6	116.1	100.3	118.8	208.5	314.1	335.2	242.9	208.5	261.3	192.7
87.5°	55.4	52.8	52.8	55.4	100.3	137.3	245.5	179.5	166.3	137.3	116.1
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)