

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: P231156

Luminaire Tested: **ARCH-M-AF48-70-D-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231156
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-70-D-U-T3
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10172.2 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 73
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

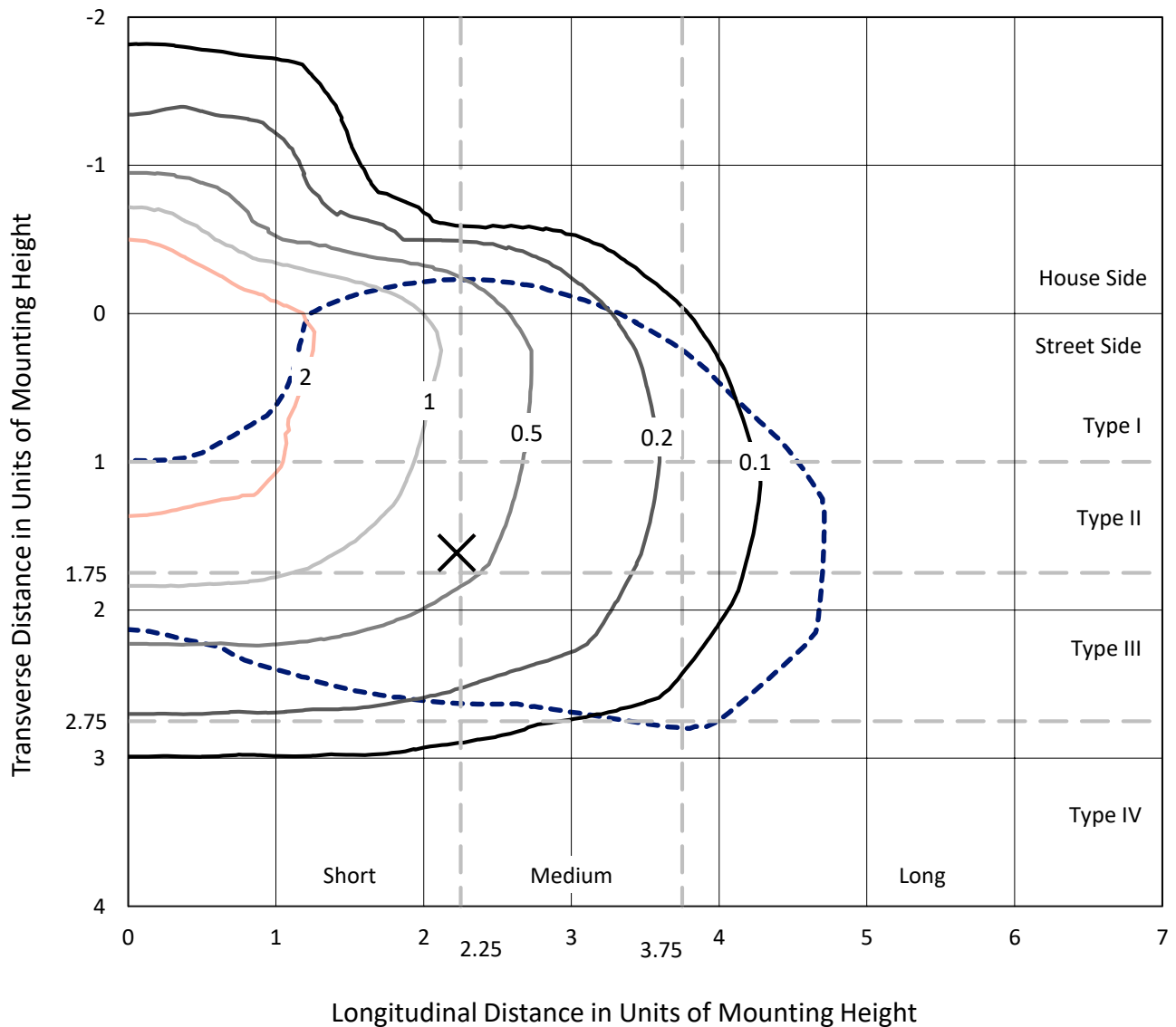


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

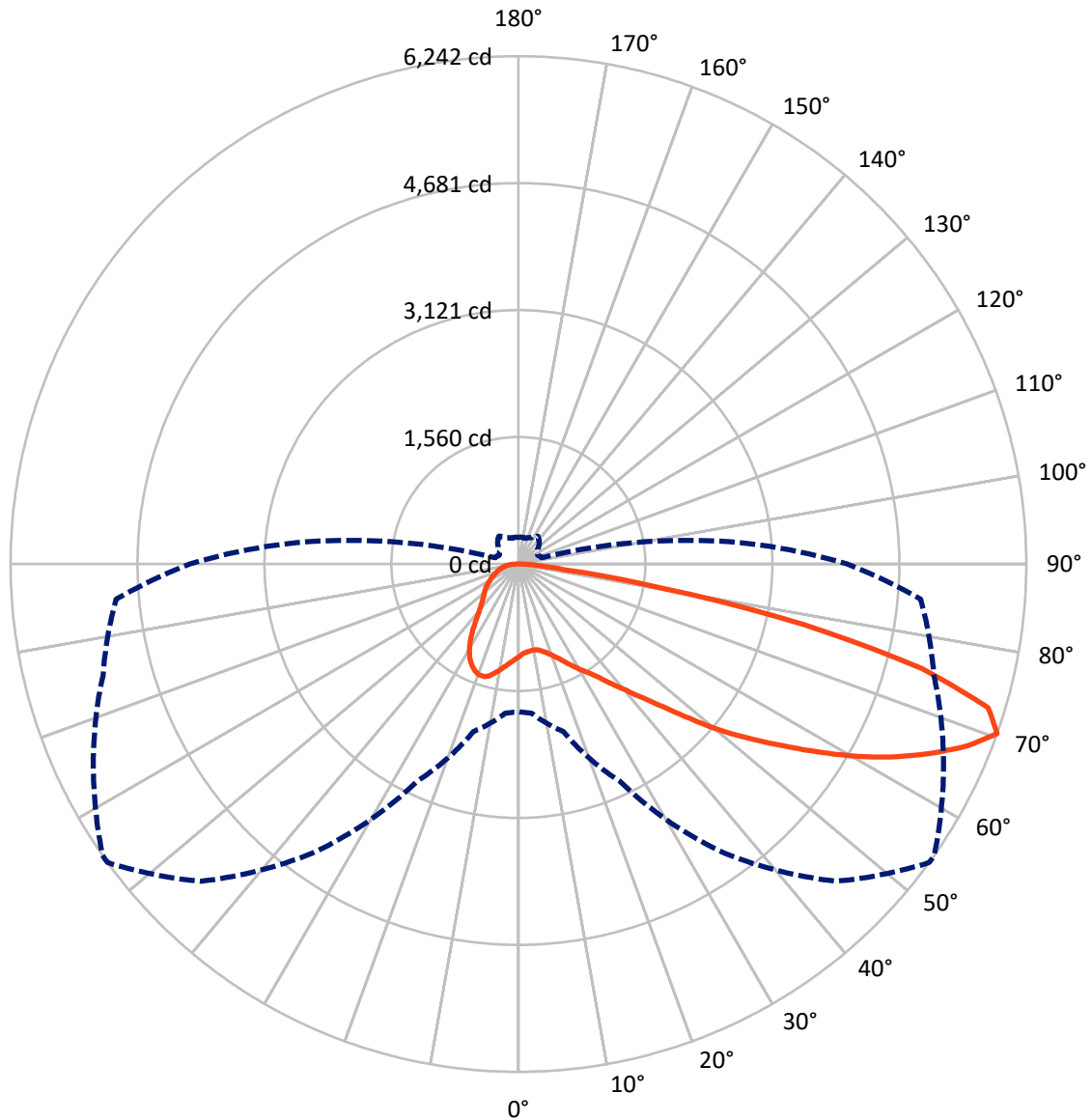


Based on 20 foot mounting height. Maximum calculated value = 3.3 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2307.0	0.0	2307.0
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	7865.2	0.0	7865.2
	% Fixture	77.3	0.0	77.3
Total	Lumens	10172.2	0.0	10172.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.7	1.1
10°-20°	356.9	3.5
20°-30°	620.0	6.1
30°-40°	906.1	8.9
40°-50°	1422.0	14.0
50°-60°	2186.8	21.5
60°-70°	2671.7	26.3
70°-80°	1656.5	16.3
80°-90°	240.6	2.4
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°	10172.2	100.0
0°-180°	10172.2	100.0



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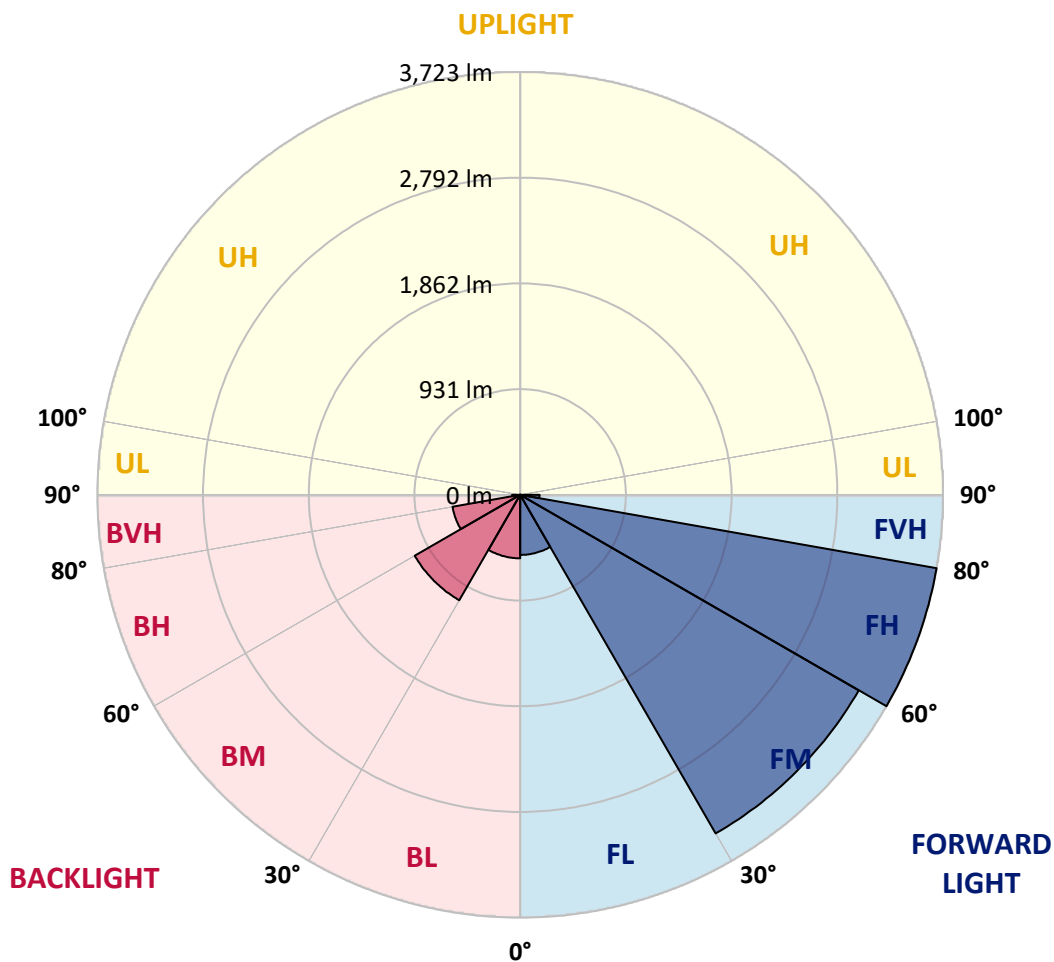
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	529.3	5.2			
FM	(30°-60°)	3442.8	33.8			
FH	(60°-80°)	3723.2	36.6			G2/5000
FVH	(80°-90°)	169.9	1.7			G2/225
BL	(0°-30°)	559.3	5.5	B2/1000		
BM	(30°-60°)	1072.0	10.5	B2/2500		
BH	(60°-80°)	605.0	5.9	B2/1000		G2/1000
BVH	(80°-90°)	70.7	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0
2.5°	1093.3	1089.6	1089.6	1095.3	1097.1	1102.6	1102.6	1104.6	1110.1	1119.4	1130.6
5°	1059.9	1057.9	1059.9	1067.2	1071.0	1082.2	1085.9	1087.8	1099.0	1113.9	1130.6
7.5°	1026.3	1024.5	1028.2	1039.3	1050.6	1067.2	1076.6	1078.5	1095.3	1115.7	1138.0
10°	1015.2	1013.2	1018.9	1028.2	1039.3	1057.9	1072.9	1074.7	1099.0	1123.2	1154.8
12.5°	1030.0	1028.2	1033.8	1043.1	1054.3	1067.2	1084.0	1085.9	1117.6	1149.3	1182.7
15°	1067.2	1067.2	1069.2	1074.7	1085.9	1097.1	1111.9	1113.9	1147.3	1184.7	1218.1
17.5°	1125.0	1121.3	1121.3	1119.4	1126.9	1132.5	1151.1	1153.0	1188.4	1221.9	1255.4
20°	1195.8	1194.0	1186.5	1177.2	1175.3	1179.1	1197.7	1199.5	1234.9	1262.8	1294.5
22.5°	1281.5	1283.4	1266.6	1246.1	1236.7	1242.4	1259.2	1261.0	1287.1	1311.3	1339.2
25°	1395.1	1389.5	1365.3	1335.5	1316.8	1316.8	1333.6	1333.6	1357.9	1372.8	1391.4
27.5°	1503.1	1492.0	1469.6	1426.8	1396.9	1402.6	1419.3	1419.3	1441.6	1447.3	1456.6
30°	1620.5	1609.3	1581.4	1527.4	1488.3	1484.5	1505.0	1503.1	1533.0	1531.1	1523.6
32.5°	1763.9	1758.4	1711.8	1642.9	1590.7	1577.7	1596.3	1598.2	1616.8	1611.1	1587.0
35°	1965.1	1963.2	1920.4	1799.3	1730.4	1706.2	1717.3	1717.3	1730.4	1715.5	1674.5
37.5°	2218.4	2222.2	2184.8	2006.0	1909.2	1868.2	1870.1	1868.2	1871.9	1855.2	1812.4
40°	2471.8	2481.1	2479.1	2263.1	2140.1	2069.4	2043.3	2039.6	2048.9	2041.4	2000.5
42.5°	2805.1	2827.4	2775.4	2579.8	2441.9	2322.7	2251.9	2242.6	2263.1	2272.4	2233.3
45°	3151.6	3144.1	3062.2	2920.6	2795.8	2643.1	2509.0	2494.1	2509.0	2536.9	2495.9
47.5°	3332.3	3326.6	3306.2	3235.4	3216.8	3041.6	2838.7	2825.6	2797.7	2836.7	2788.4
50°	3630.2	3635.9	3552.0	3544.6	3622.8	3525.9	3211.1	3181.4	3131.0	3162.8	3121.7
52.5°	3846.3	3822.2	3770.0	3835.1	4079.1	4027.1	3561.3	3548.3	3501.8	3494.3	3475.7
55°	3933.9	3933.9	3943.2	4094.1	4442.4	4373.4	3941.3	3954.3	3891.0	3838.8	3863.1
57.5°	3959.9	3971.1	4051.2	4300.8	4868.9	4643.6	4360.4	4379.0	4287.8	4183.5	4259.9
60°	3831.5	3864.9	4056.8	4418.1	5109.2	4930.4	4801.8	4807.5	4675.2	4522.5	4656.6
62.5°	3501.8	3542.7	3885.5	4466.6	5070.1	5224.7	5219.1	5232.1	5051.4	4861.5	5029.1
65°	3097.6	3138.5	3503.6	4330.7	5040.3	5435.1	5601.0	5636.4	5403.5	5148.3	5262.0
67.5°	2503.4	2557.4	2903.9	3872.4	4895.0	5608.3	5958.6	5995.8	5675.4	5297.4	5241.4
70°	1814.2	1840.3	2130.8	2942.9	4302.6	5513.4	6241.6	6239.8	5764.8	5286.1	4962.0
72.5°	873.6	894.1	1145.5	1827.2	3077.0	4678.9	6036.7	6072.1	5641.9	5124.1	4323.2
75°	359.5	380.0	463.8	771.1	1614.9	3092.0	5116.6	5200.5	5124.1	4598.9	3382.5
77.5°	223.5	231.0	271.9	398.6	737.6	1443.6	3581.9	3695.4	4060.5	3684.3	2233.3
80°	167.7	173.2	203.1	279.4	465.6	532.8	1778.8	1922.2	2460.5	2114.1	1011.4
82.5°	139.7	141.6	162.0	203.1	316.6	305.5	570.0	635.2	1147.3	806.5	348.3
85°	130.4	134.1	145.3	145.3	201.2	191.8	236.5	247.8	333.4	275.7	121.1
87.5°	67.1	63.3	128.5	113.6	104.3	93.1	100.6	108.0	124.8	132.3	54.0
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°	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0	1138.0
2.5°	1134.4	1140.0	1149.3	1158.6	1169.7	1182.7	1190.2	1199.5	1207.0	1203.3	1201.4
5°	1140.0	1149.3	1169.7	1188.4	1210.7	1236.7	1253.5	1272.1	1287.1	1290.8	1285.2
7.5°	1149.3	1166.0	1194.0	1227.4	1257.3	1290.8	1316.8	1342.9	1361.5	1365.3	1365.3
10°	1171.6	1190.2	1227.4	1272.1	1307.5	1342.9	1372.8	1393.3	1410.0	1417.5	1417.5
12.5°	1203.3	1225.6	1270.3	1324.3	1363.5	1396.9	1413.7	1423.0	1430.5	1438.0	1439.8
15°	1240.5	1264.7	1318.8	1376.5	1417.5	1434.2	1434.2	1432.3	1432.3	1436.1	1439.8
17.5°	1277.8	1303.9	1359.7	1421.2	1447.3	1438.0	1424.9	1419.3	1415.6	1413.7	1419.3
20°	1316.8	1342.9	1398.9	1456.6	1449.1	1410.0	1391.4	1378.3	1367.2	1361.5	1369.0
22.5°	1359.7	1384.0	1441.6	1480.8	1424.9	1365.3	1329.9	1309.4	1290.8	1279.6	1287.1
25°	1410.0	1434.2	1490.1	1488.3	1382.1	1298.2	1242.4	1208.8	1188.4	1177.2	1177.2
27.5°	1469.6	1490.1	1544.1	1469.6	1322.5	1208.8	1126.9	1095.3	1089.6	1080.3	1080.3
30°	1531.1	1547.8	1594.4	1426.8	1240.5	1091.5	1002.1	987.1	989.1	979.8	981.6
32.5°	1594.4	1611.1	1624.2	1363.5	1134.4	959.2	899.7	888.4	886.6	879.1	871.8
35°	1683.8	1708.0	1627.9	1277.8	1005.9	849.4	806.5	795.3	784.2	758.1	758.1
37.5°	1819.8	1845.9	1618.6	1171.6	873.6	763.6	724.6	709.6	691.0	664.9	655.6
40°	2006.0	2006.0	1598.2	1052.4	767.4	694.8	657.6	638.8	618.4	592.3	586.8
42.5°	2225.8	2173.7	1566.4	931.3	689.2	648.2	614.7	594.1	570.0	540.1	536.4
45°	2482.9	2341.3	1521.7	823.3	631.5	620.2	599.8	564.4	523.4	491.7	486.1
47.5°	2732.5	2492.2	1478.9	747.0	583.0	609.1	592.3	532.8	476.8	432.1	426.6
50°	3006.2	2626.3	1428.7	683.5	545.7	601.6	583.0	486.1	424.7	393.0	389.3
52.5°	3280.1	2762.3	1374.6	616.5	514.1	586.8	560.7	452.7	422.8	380.0	374.4
55°	3568.8	2920.6	1311.3	542.1	476.8	556.9	530.8	450.7	435.9	380.0	366.9
57.5°	3850.1	3095.7	1208.8	469.4	435.9	512.2	519.7	439.6	408.0	376.2	361.3
60°	4161.2	3281.9	1039.3	408.0	400.5	475.0	504.7	415.3	376.2	365.1	357.6
62.5°	4410.7	3449.6	812.1	365.1	370.6	445.2	486.1	400.5	363.2	353.9	352.0
65°	4518.8	3453.3	583.0	327.9	340.8	417.3	467.5	387.4	352.0	348.3	346.5
67.5°	4405.1	3263.3	409.8	292.5	309.2	391.2	443.3	374.4	340.8	342.7	339.0
70°	4038.2	2862.8	299.9	258.9	279.4	363.2	417.3	357.6	327.9	331.5	325.9
72.5°	3378.8	2231.5	240.3	231.0	255.2	333.4	391.2	339.0	307.3	309.2	298.0
75°	2495.9	1478.9	201.2	206.7	227.2	305.5	357.6	314.8	285.0	277.5	270.1
77.5°	1484.5	760.0	165.8	180.7	203.1	271.9	320.4	285.0	260.8	247.8	242.1
80°	612.8	307.3	136.0	152.7	177.0	242.1	283.2	249.6	232.8	219.8	212.4
82.5°	244.0	150.9	108.0	124.8	149.0	210.5	247.8	219.8	203.1	193.7	173.2
85°	93.1	74.5	72.6	87.6	111.8	162.0	204.9	184.4	171.3	147.1	141.6
87.5°	37.2	33.6	33.6	42.9	63.3	102.4	147.1	128.5	134.1	106.2	108.0
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)