

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: P265990

Luminaire Tested: **ARCH-AF24-100-D-U-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265990
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-AF24-100-D-U-T3-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8616.4 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

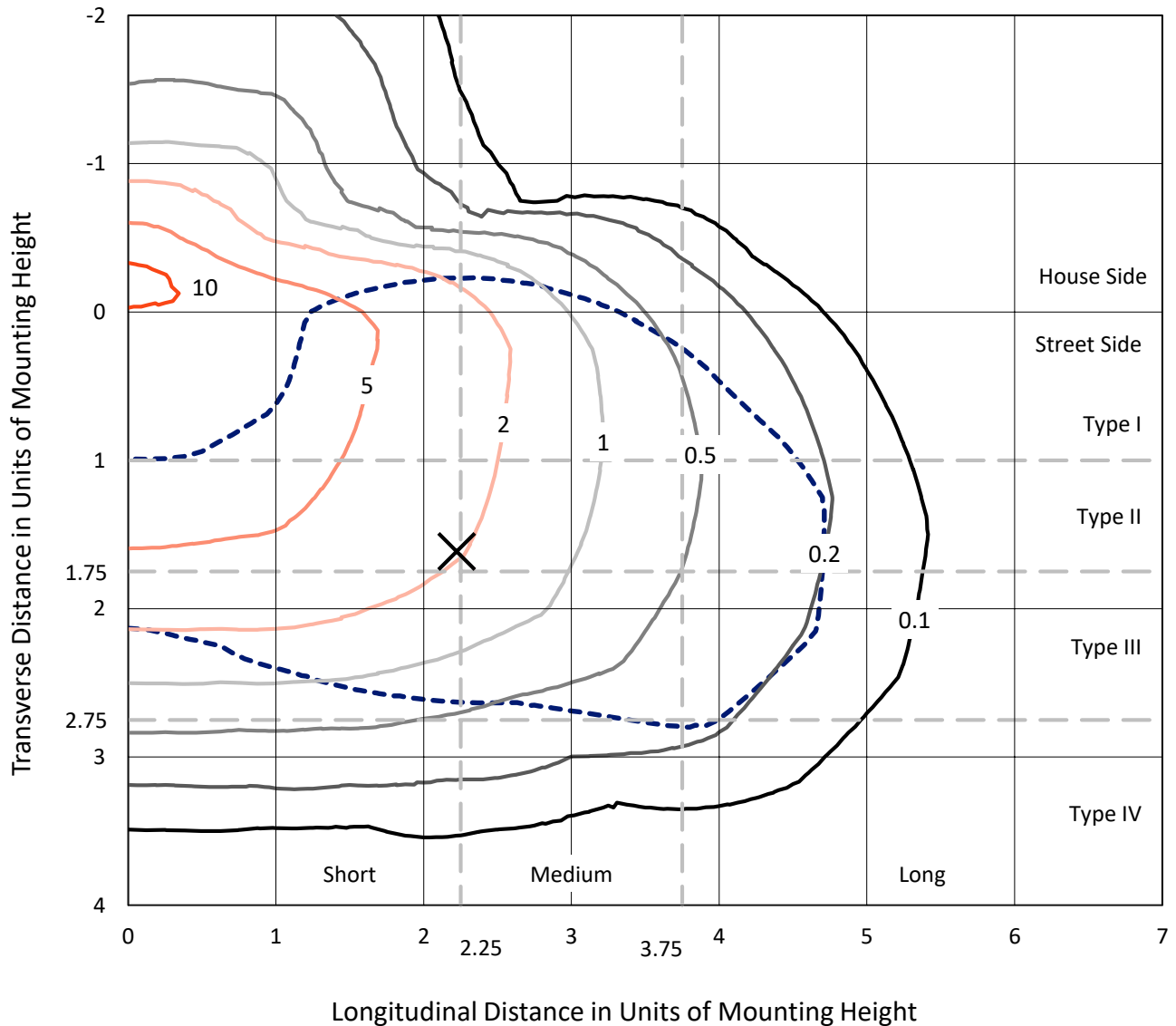
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

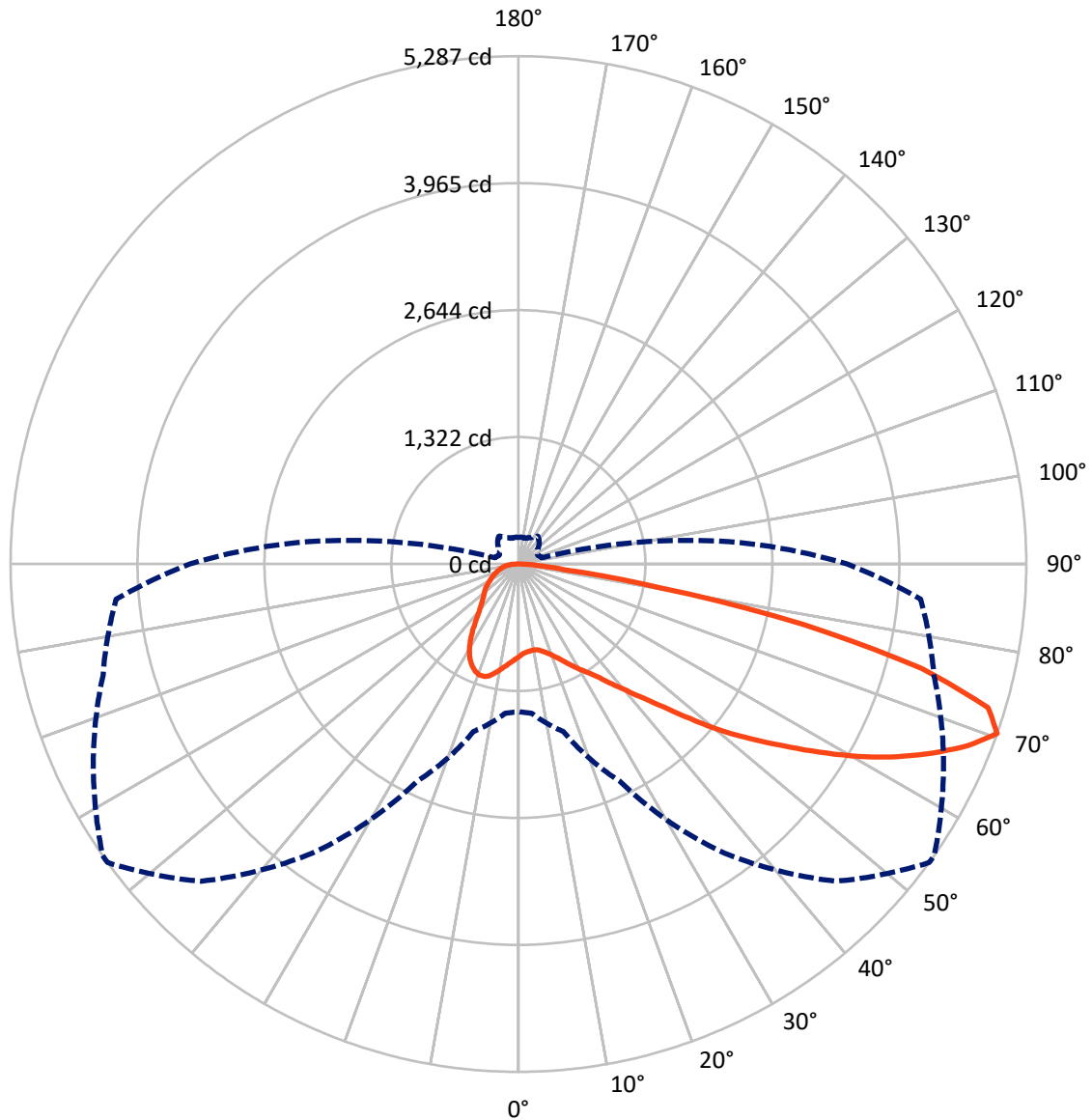
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.2 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	1954.2	0.0	1954.2
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	6662.3	0.0	6662.3
	% Fixture	77.3	0.0	77.3
Total	Lumens	8616.4	0.0	8616.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.6	1.1
10°-20°	302.3	3.5
20°-30°	525.2	6.1
30°-40°	767.5	8.9
40°-50°	1204.5	14.0
50°-60°	1852.3	21.5
60°-70°	2263.1	26.3
70°-80°	1403.1	16.3
80°-90°	203.8	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°	8616.4	100.0
0°-180°	8616.4	100.0

Coefficient of Utilization



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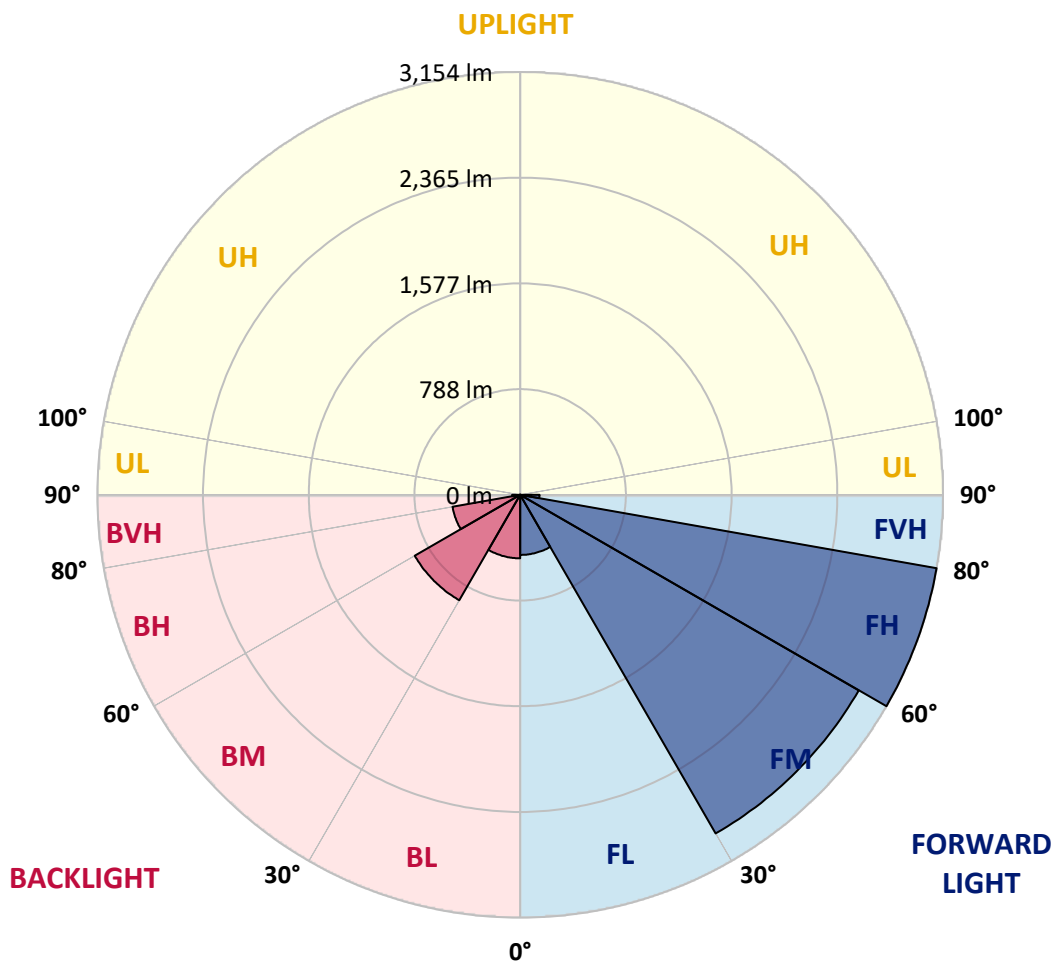
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	448.3	5.2			
FM	(30°-60°)	2916.3	33.8			
FH	(60°-80°)	3153.7	36.6			G2/5000
FVH	(80°-90°)	143.9	1.7			G2/225
BL	(0°-30°)	473.8	5.5	B1/500		
BM	(30°-60°)	908.1	10.5	B1/1000		
BH	(60°-80°)	512.4	5.9	B2/1000		G2/1000
BVH	(80°-90°)	59.9	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°	964.1	964.1	964.1	964.1	964.1	964.1	964.1	964.1	964.1	964.1	964.1
2.5°	926.2	923.0	923.0	927.7	929.2	934.0	934.0	935.7	940.3	948.3	957.8
5°	897.8	896.1	897.8	904.1	907.2	916.7	919.9	921.4	930.9	943.5	957.8
7.5°	869.3	867.8	870.8	880.3	889.9	904.1	911.9	913.5	927.7	945.0	964.1
10°	859.9	858.3	863.0	870.8	880.3	896.1	908.7	910.3	930.9	951.3	978.3
12.5°	872.6	870.8	875.7	883.6	893.0	904.1	918.2	919.9	946.6	973.5	1001.9
15°	904.1	904.1	905.6	910.3	919.9	929.2	942.0	943.5	971.8	1003.4	1031.9
17.5°	952.9	949.8	949.8	948.3	954.4	959.3	975.0	976.6	1006.6	1034.9	1063.5
20°	1012.8	1011.3	1005.1	997.2	995.5	998.7	1014.5	1016.1	1046.0	1069.7	1096.6
22.5°	1085.5	1087.0	1072.8	1055.5	1047.7	1052.4	1066.6	1068.2	1090.3	1110.8	1134.4
25°	1181.7	1177.0	1156.5	1131.2	1115.4	1115.4	1129.7	1129.7	1150.2	1162.8	1178.5
27.5°	1273.3	1263.7	1244.8	1208.6	1183.2	1188.1	1202.2	1202.2	1221.2	1225.8	1233.8
30°	1372.6	1363.2	1339.6	1293.7	1260.6	1257.4	1274.9	1273.3	1298.5	1297.0	1290.5
32.5°	1494.2	1489.4	1450.0	1391.6	1347.4	1336.4	1352.0	1353.7	1369.5	1364.7	1344.3
35°	1664.5	1662.9	1626.7	1524.2	1465.8	1445.3	1454.6	1454.6	1465.8	1453.1	1418.5
37.5°	1879.2	1882.3	1850.7	1699.2	1617.2	1582.5	1584.0	1582.5	1585.7	1571.5	1535.2
40°	2093.7	2101.6	2100.0	1917.0	1812.8	1753.0	1730.8	1727.6	1735.5	1729.1	1694.6
42.5°	2376.0	2395.1	2350.9	2185.1	2068.4	1967.5	1907.6	1899.6	1917.0	1924.9	1891.7
45°	2669.6	2663.3	2593.9	2473.9	2368.2	2238.8	2125.2	2112.6	2125.2	2148.8	2114.3
47.5°	2822.6	2817.9	2800.5	2740.5	2724.7	2576.5	2404.6	2393.4	2369.8	2402.8	2362.0
50°	3075.1	3079.7	3008.8	3002.4	3068.7	2986.7	2720.1	2694.7	2652.2	2679.0	2644.3
52.5°	3258.1	3237.5	3193.4	3248.6	3455.3	3411.1	3016.7	3005.5	2966.2	2959.8	2944.0
55°	3332.3	3332.3	3340.1	3467.8	3762.9	3704.5	3338.6	3349.6	3295.9	3251.8	3272.3
57.5°	3354.4	3363.8	3431.5	3643.0	4124.2	3933.3	3693.6	3709.3	3631.9	3543.6	3608.3
60°	3245.4	3273.9	3436.3	3742.3	4327.8	4176.3	4067.4	4072.1	3960.2	3830.8	3944.4
62.5°	2966.2	3000.9	3291.2	3783.4	4294.6	4425.6	4420.9	4431.9	4278.8	4117.9	4259.9
65°	2623.8	2658.5	2967.7	3668.3	4269.4	4603.9	4744.3	4774.2	4577.0	4360.9	4457.1
67.5°	2120.4	2166.3	2459.6	3280.2	4146.3	4750.5	5047.1	5078.7	4807.4	4487.2	4439.9
70°	1536.7	1558.7	1805.0	2492.8	3644.7	4670.1	5287.1	5285.4	4883.1	4477.6	4203.1
72.5°	739.9	757.4	970.3	1547.8	2606.4	3963.3	5113.5	5143.4	4779.1	4340.4	3661.9
75°	304.5	321.9	392.9	653.2	1367.8	2619.1	4334.1	4405.1	4340.4	3895.5	2865.2
77.5°	189.4	195.7	230.3	337.7	624.9	1222.8	3034.0	3130.2	3439.5	3120.8	1891.7
80°	142.0	146.8	171.9	236.7	394.4	451.2	1506.7	1628.3	2084.2	1790.7	856.8
82.5°	118.3	120.0	137.4	171.9	268.2	258.7	482.7	538.1	971.8	683.3	295.1
85°	110.4	113.5	123.1	123.1	170.4	162.6	200.4	209.8	282.3	233.5	102.5
87.5°	56.9	53.7	108.9	96.3	88.4	79.0	85.2	91.4	105.7	112.0	45.8
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°	964.1	964.1	964.1	964.1	964.1	964.1	964.1	964.1	964.1	964.1	964.1
2.5°	960.8	965.6	973.5	981.4	990.8	1001.9	1008.2	1016.1	1022.5	1019.2	1017.6
5°	965.6	973.5	990.8	1006.6	1025.5	1047.7	1061.8	1077.5	1090.3	1093.3	1088.7
7.5°	973.5	987.6	1011.3	1039.8	1065.0	1093.3	1115.4	1137.6	1153.3	1156.5	1156.5
10°	992.4	1008.2	1039.8	1077.5	1107.6	1137.6	1162.8	1180.2	1194.3	1200.7	1200.7
12.5°	1019.2	1038.1	1076.0	1121.8	1155.0	1183.2	1197.5	1205.3	1211.8	1218.0	1219.5
15°	1050.7	1071.3	1117.0	1166.0	1200.7	1214.9	1214.9	1213.3	1213.3	1216.5	1219.5
17.5°	1082.4	1104.5	1151.7	1203.8	1225.8	1218.0	1207.1	1202.2	1199.1	1197.5	1202.2
20°	1115.4	1137.6	1184.9	1233.8	1227.4	1194.3	1178.5	1167.5	1158.0	1153.3	1159.6
22.5°	1151.7	1172.3	1221.2	1254.4	1207.1	1156.5	1126.6	1109.1	1093.3	1084.0	1090.3
25°	1194.3	1214.9	1262.2	1260.6	1170.8	1099.6	1052.4	1024.0	1006.6	997.2	997.2
27.5°	1244.8	1262.2	1307.9	1244.8	1120.1	1024.0	954.4	927.7	923.0	915.2	915.2
30°	1297.0	1311.0	1350.5	1208.6	1050.7	924.5	848.8	836.2	837.8	829.9	831.6
32.5°	1350.5	1364.7	1375.8	1155.0	960.8	812.5	762.0	752.6	751.1	744.7	738.3
35°	1426.2	1446.8	1379.0	1082.4	852.0	719.5	683.3	673.6	664.2	642.2	642.2
37.5°	1541.4	1563.5	1371.1	992.4	739.9	646.9	613.7	601.1	585.3	563.2	555.3
40°	1699.2	1699.2	1353.7	891.4	650.1	588.5	556.9	541.1	523.8	501.8	497.0
42.5°	1885.5	1841.3	1326.8	788.9	583.8	549.0	520.7	503.3	482.7	457.5	454.5
45°	2103.1	1983.2	1289.0	697.4	534.9	525.4	508.0	478.1	443.4	416.5	411.9
47.5°	2314.6	2111.0	1252.7	632.6	493.9	515.9	501.8	451.2	403.9	366.0	361.3
50°	2546.4	2224.7	1210.1	579.0	462.3	509.6	493.9	411.9	359.7	332.9	329.8
52.5°	2778.4	2339.7	1164.4	522.3	435.5	497.0	474.9	383.3	358.2	321.9	317.1
55°	3022.9	2473.9	1110.8	459.2	403.9	471.7	449.6	381.8	369.3	321.9	310.9
57.5°	3261.1	2622.2	1024.0	397.6	369.3	433.9	440.2	372.3	345.5	318.7	306.1
60°	3524.7	2780.0	880.3	345.5	339.2	402.4	427.6	351.9	318.7	309.2	302.9
62.5°	3736.1	2921.9	687.9	309.2	314.0	377.1	411.9	339.2	307.7	299.8	298.1
65°	3827.6	2925.2	493.9	277.7	288.7	353.5	396.1	328.2	298.1	295.1	293.4
67.5°	3731.4	2764.3	347.1	247.8	261.9	331.4	375.5	317.1	288.7	290.3	287.2
70°	3420.6	2425.1	254.0	219.2	236.7	307.7	353.5	302.9	277.7	280.8	276.0
72.5°	2862.0	1890.2	203.6	195.7	216.1	282.3	331.4	287.2	260.2	261.9	252.5
75°	2114.3	1252.7	170.4	175.1	192.4	258.7	302.9	266.6	241.5	235.0	228.8
77.5°	1257.4	643.7	140.4	153.0	171.9	230.3	271.4	241.5	221.0	209.8	205.2
80°	519.1	260.2	115.2	129.4	149.8	205.2	239.8	211.5	197.2	186.2	179.9
82.5°	206.7	127.7	91.4	105.7	126.2	178.3	209.8	186.2	171.9	164.1	146.8
85°	79.0	63.2	61.5	74.2	94.7	137.4	173.6	156.1	145.2	124.7	120.0
87.5°	31.6	28.3	28.3	36.3	53.7	86.7	124.7	108.9	113.5	89.9	91.4
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)