

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: P214887

Luminaire Tested: **ARCH-AF24-80-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214887
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-80-D-U-T4W-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9100 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 83
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

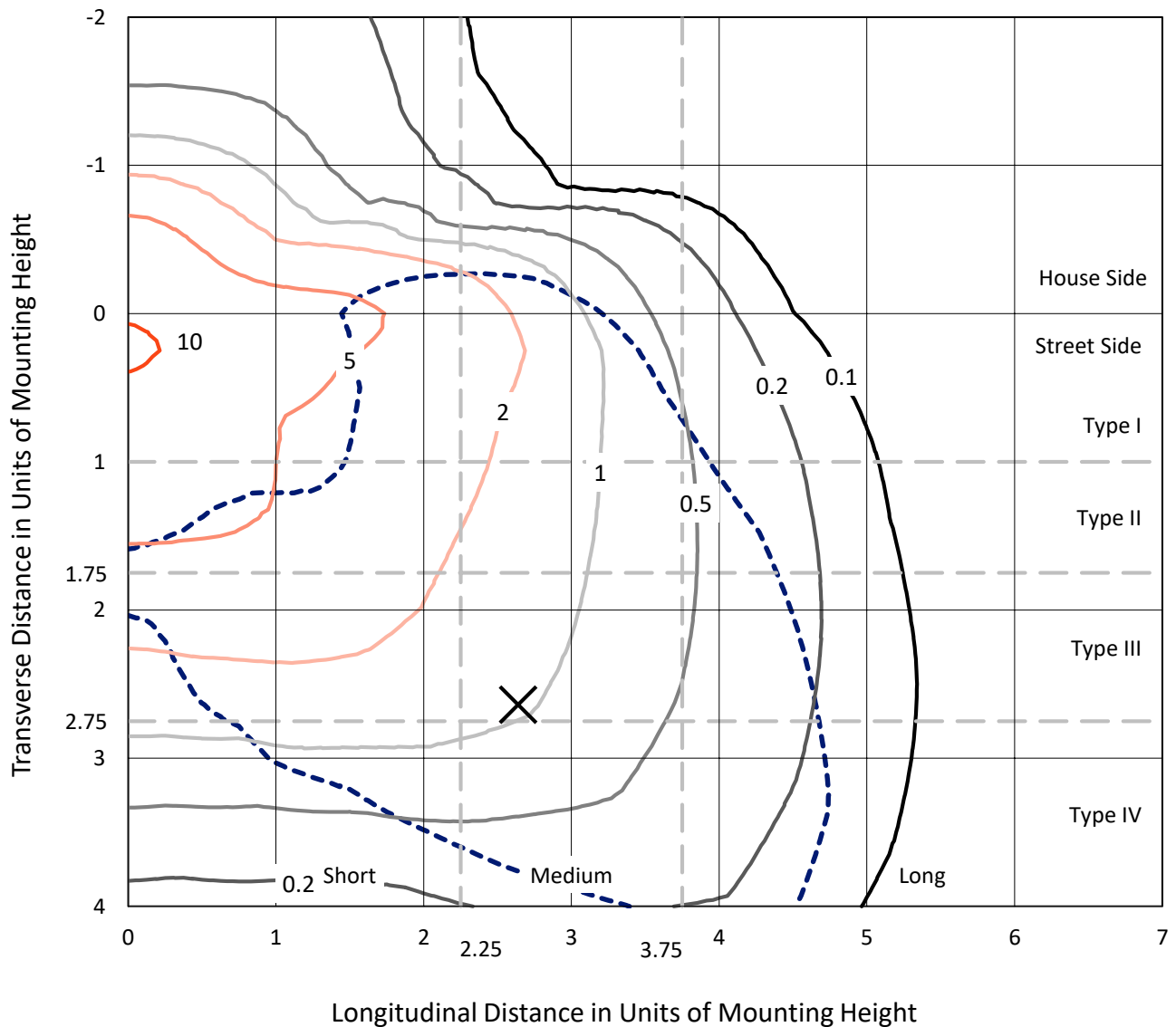


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

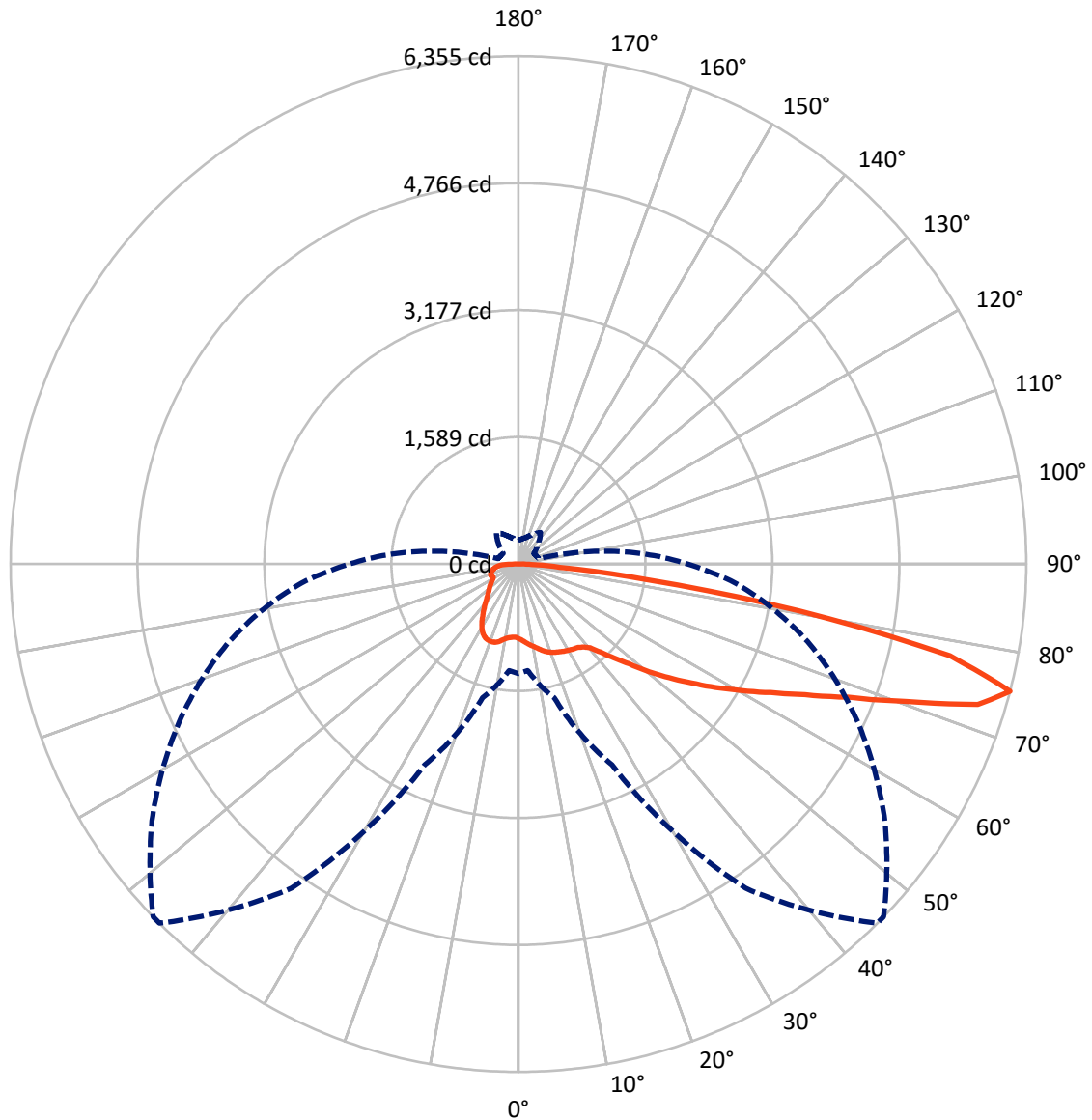


Based on 10 foot mounting height. Maximum calculated value = 10.9 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2108.1	0.0	2108.1
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	6991.9	0.0	6991.9
	% Fixture	76.8	0.0	76.8
Total	Lumens	9100.0	0.0	9100.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.4	1.0
10°-20°	299.6	3.3
20°-30°	514.1	5.6
30°-40°	719.0	7.9
40°-50°	1054.7	11.6
50°-60°	1643.0	18.1
60°-70°	2364.1	26.0
70°-80°	2059.4	22.6
80°-90°	353.7	3.9
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°	9100.0	100.0
0°-180°	9100.0	100.0

Coefficient of Utilization



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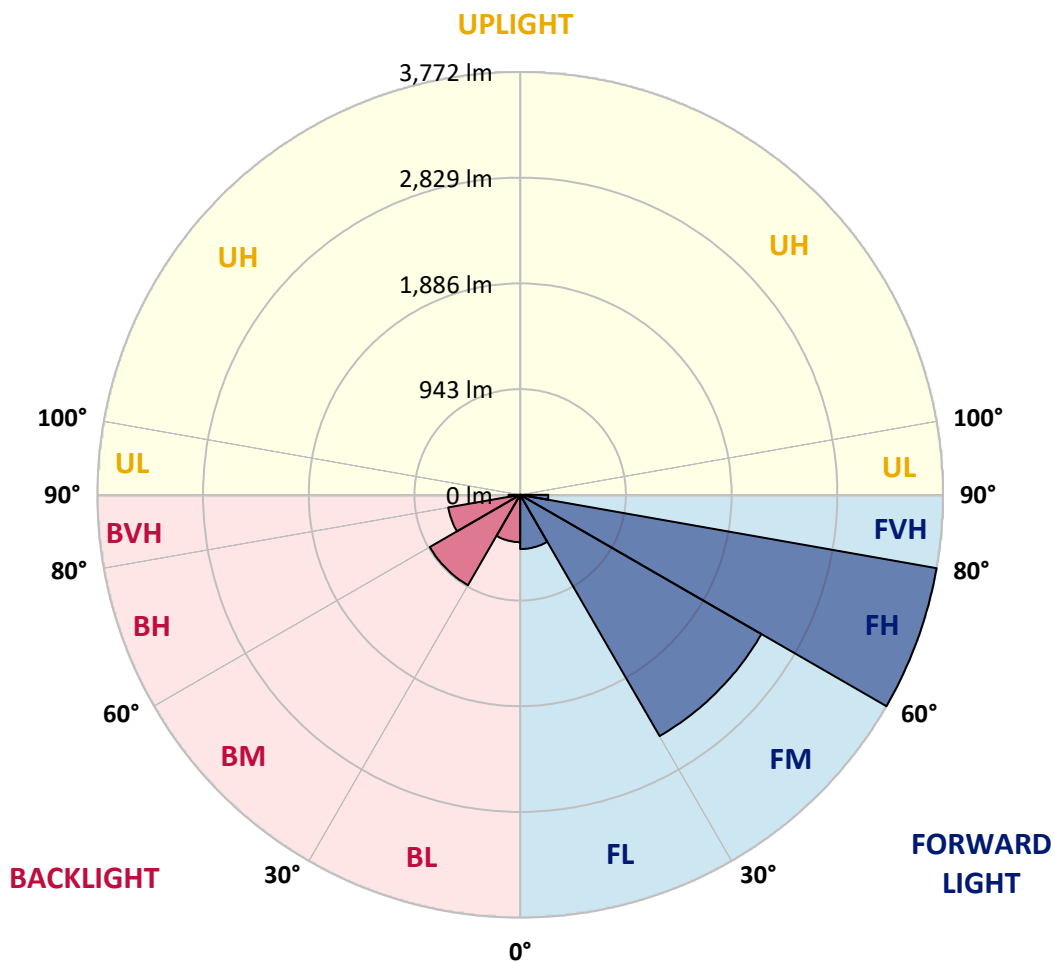
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	483.9	5.3			
FM	(30°-60°)	2485.0	27.3			
FH	(60°-80°)	3772.0	41.5			G2/5000
FVH	(80°-90°)	250.9	2.8			G3/500
BL	(0°-30°)	422.2	4.6	B1/500		
BM	(30°-60°)	931.7	10.2	B1/1000		
BH	(60°-80°)	651.5	7.2	B2/1000		G2/1000
BVH	(80°-90°)	102.7	1.1			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9
2.5°	978.9	971.8	971.8	966.5	966.5	957.7	954.1	952.4	943.5	938.2	932.9
5°	1035.5	1026.7	1024.9	1012.5	1007.2	987.8	986.0	973.6	957.7	941.7	929.3
7.5°	1086.9	1081.6	1072.7	1060.3	1044.4	1019.6	1017.8	998.4	971.8	950.6	932.9
10°	1124.1	1120.5	1108.1	1092.2	1074.5	1049.7	1047.9	1026.7	994.8	970.1	945.3
12.5°	1168.3	1163.0	1147.1	1125.8	1106.4	1083.3	1081.6	1063.9	1028.5	996.6	964.7
15°	1210.8	1203.7	1184.2	1163.0	1141.8	1122.3	1122.3	1102.8	1065.6	1028.5	991.3
17.5°	1232.0	1228.5	1209.0	1186.0	1168.3	1154.2	1152.4	1134.7	1097.5	1058.6	1017.8
20°	1239.1	1240.9	1223.2	1198.4	1186.0	1178.9	1177.2	1164.8	1124.1	1086.9	1047.9
22.5°	1237.3	1242.7	1228.5	1201.9	1198.4	1198.4	1198.4	1184.2	1152.4	1115.2	1076.3
25°	1244.4	1251.5	1240.9	1209.0	1209.0	1216.1	1216.1	1209.0	1180.7	1148.8	1109.9
27.5°	1269.2	1274.5	1265.7	1221.4	1223.2	1233.8	1232.0	1233.8	1216.1	1186.0	1147.1
30°	1299.3	1306.4	1295.8	1240.9	1239.1	1249.7	1249.7	1258.6	1246.2	1214.3	1182.5
32.5°	1380.7	1379.0	1345.3	1262.1	1256.8	1267.4	1267.4	1276.3	1269.2	1244.4	1214.3
35°	1623.2	1596.7	1522.3	1331.2	1278.1	1283.4	1283.4	1299.3	1302.8	1283.4	1256.8
37.5°	1871.1	1862.2	1805.6	1515.3	1355.9	1317.0	1315.2	1338.2	1354.2	1338.2	1320.5
40°	2120.7	2113.6	2101.2	1761.3	1518.8	1377.2	1371.9	1391.4	1419.7	1409.1	1398.4
42.5°	2352.6	2349.0	2361.4	2003.8	1725.9	1506.4	1490.5	1467.5	1508.2	1504.6	1504.6
45°	2534.9	2543.7	2550.8	2230.4	1950.7	1672.8	1653.3	1575.5	1630.3	1644.5	1655.1
47.5°	2637.6	2644.6	2669.4	2451.7	2175.5	1865.8	1851.6	1724.1	1796.7	1839.2	1869.3
50°	2784.5	2765.0	2786.2	2667.6	2446.4	2117.1	2078.2	1924.2	2016.2	2090.6	2161.4
52.5°	2926.1	2894.2	2911.9	2917.2	2754.4	2363.2	2322.5	2159.6	2274.7	2391.5	2517.2
55°	3053.5	3051.8	3069.5	3159.8	3051.8	2626.9	2580.9	2419.8	2586.2	2711.9	2924.3
57.5°	3156.2	3173.9	3251.8	3441.2	3395.2	2913.7	2862.4	2722.5	2919.0	3044.7	3397.0
60°	3276.6	3304.9	3434.1	3680.2	3708.5	3214.6	3161.5	3060.6	3260.7	3388.1	3943.9
62.5°	3317.3	3358.0	3623.5	3931.5	4036.0	3543.9	3496.1	3428.8	3620.0	3735.1	4489.1
65°	3046.5	3124.3	3728.0	4060.8	4388.2	3940.4	3899.7	3841.3	3977.6	4053.7	4859.1
67.5°	2972.1	3007.5	3524.4	4246.6	4719.3	4450.2	4409.5	4308.6	4312.1	4280.3	4979.5
70°	2867.7	2906.6	3315.5	4386.5	5193.7	5147.7	5098.1	4800.7	4618.4	4425.4	4742.3
72.5°	2442.8	2430.4	2857.1	4009.4	5422.0	6011.5	5953.1	5330.0	4845.0	4299.7	4002.4
75°	1371.9	1336.5	1733.0	2773.9	4951.2	6354.9	6353.1	5597.3	4685.6	3745.7	2724.3
77.5°	398.3	387.7	571.8	1163.0	3333.2	5521.2	5588.4	5048.5	3910.3	2690.7	1495.8
80°	187.6	191.2	246.1	384.1	1423.2	3563.4	3756.3	3324.4	2336.6	1240.9	617.8
82.5°	118.6	120.4	168.2	247.8	601.9	1617.9	1777.2	1495.8	925.8	536.4	272.6
85°	74.3	74.3	111.5	162.9	359.3	516.9	561.1	509.8	396.5	292.1	148.7
87.5°	40.7	40.7	67.3	93.8	196.5	166.4	171.7	203.6	247.8	178.8	74.3
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°	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9
2.5°	931.1	927.6	922.3	920.5	918.7	916.9	918.7	922.3	918.7	918.7	920.5
5°	925.8	922.3	915.2	915.2	916.9	918.7	927.6	932.9	934.6	934.6	934.6
7.5°	925.8	920.5	915.2	916.9	920.5	927.6	941.7	950.6	957.7	959.4	959.4
10°	934.6	927.6	924.0	927.6	938.2	943.5	957.7	971.8	980.7	984.2	984.2
12.5°	950.6	943.5	943.5	950.6	964.7	971.8	984.2	994.8	1005.5	1010.8	1010.8
15°	977.1	968.3	970.1	982.4	998.4	1005.5	1014.3	1017.8	1026.7	1033.8	1033.8
17.5°	1001.9	993.1	996.6	1010.8	1021.4	1024.9	1030.2	1028.5	1032.0	1037.3	1039.1
20°	1030.2	1021.4	1023.2	1032.0	1033.8	1030.2	1030.2	1024.9	1023.2	1032.0	1035.5
22.5°	1058.6	1049.7	1047.9	1042.6	1033.8	1024.9	1019.6	1014.3	1010.8	1019.6	1023.2
25°	1092.2	1079.8	1071.0	1047.9	1024.9	1009.0	1001.9	998.4	996.6	1005.5	1009.0
27.5°	1129.4	1117.0	1090.4	1040.9	1003.7	977.1	971.8	971.8	975.4	980.7	984.2
30°	1164.8	1152.4	1104.6	1024.9	966.5	927.6	922.3	927.6	936.4	941.7	947.0
32.5°	1200.2	1187.8	1113.4	1000.1	911.6	862.1	858.5	867.4	881.5	885.1	888.6
35°	1248.0	1235.6	1124.1	964.7	842.6	789.5	786.0	791.3	803.7	809.0	814.3
37.5°	1315.2	1308.2	1140.0	925.8	778.9	720.5	709.8	706.3	713.4	711.6	718.7
40°	1403.7	1409.1	1168.3	874.5	716.9	656.7	633.7	623.1	616.0	601.9	608.9
42.5°	1533.0	1536.5	1200.2	816.0	663.8	596.5	566.5	547.0	532.8	509.8	513.3
45°	1722.4	1692.3	1237.3	754.1	616.0	548.8	513.3	490.3	470.9	451.4	453.2
47.5°	1973.7	1881.7	1278.1	702.8	568.2	509.8	477.9	451.4	428.4	412.4	414.2
50°	2283.5	2117.1	1318.8	655.0	520.4	479.7	451.4	423.1	400.1	384.1	382.4
52.5°	2692.4	2400.3	1345.3	601.9	472.6	453.2	428.4	401.8	373.5	354.0	352.3
55°	3117.3	2729.6	1368.3	538.1	426.6	423.1	410.7	380.6	347.0	322.2	318.6
57.5°	3584.6	3081.9	1386.0	476.2	391.2	398.3	394.7	359.3	322.2	299.2	297.4
60°	4009.4	3446.5	1329.4	421.3	359.3	373.5	377.0	347.0	327.5	332.8	334.6
62.5°	4437.8	3728.0	1113.4	380.6	338.1	357.6	387.7	385.9	377.0	385.9	387.7
65°	4591.8	3786.4	789.5	347.0	316.9	364.7	421.3	417.8	377.0	361.1	357.6
67.5°	4505.1	3612.9	531.1	320.4	300.9	373.5	456.7	417.8	362.9	341.6	334.6
70°	4092.6	3186.3	389.4	293.8	286.8	371.7	476.2	416.0	355.8	332.8	323.9
72.5°	3264.2	2458.8	313.3	269.1	265.5	362.9	486.8	412.4	348.7	323.9	313.3
75°	2113.6	1529.4	263.8	244.3	233.7	348.7	481.5	401.8	339.9	308.0	300.9
77.5°	980.7	658.5	224.8	216.0	203.6	327.5	465.6	380.6	320.4	290.3	281.5
80°	456.7	311.5	189.4	187.6	182.3	309.8	444.3	355.8	297.4	272.6	258.4
82.5°	244.3	187.6	154.0	154.0	159.3	288.5	417.8	325.7	267.3	254.9	217.7
85°	129.2	108.0	111.5	120.4	136.3	254.9	382.4	293.8	233.7	194.7	189.4
87.5°	65.5	69.0	69.0	81.4	104.4	207.1	315.1	242.5	198.3	159.3	155.8
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)