

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: P265974

Luminaire Tested: **ARCH-AF24-80-D-U-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265974
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-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 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: 7905.8 lumens
Efficiency: N/A
Efficacy: 95.3 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 - G2

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

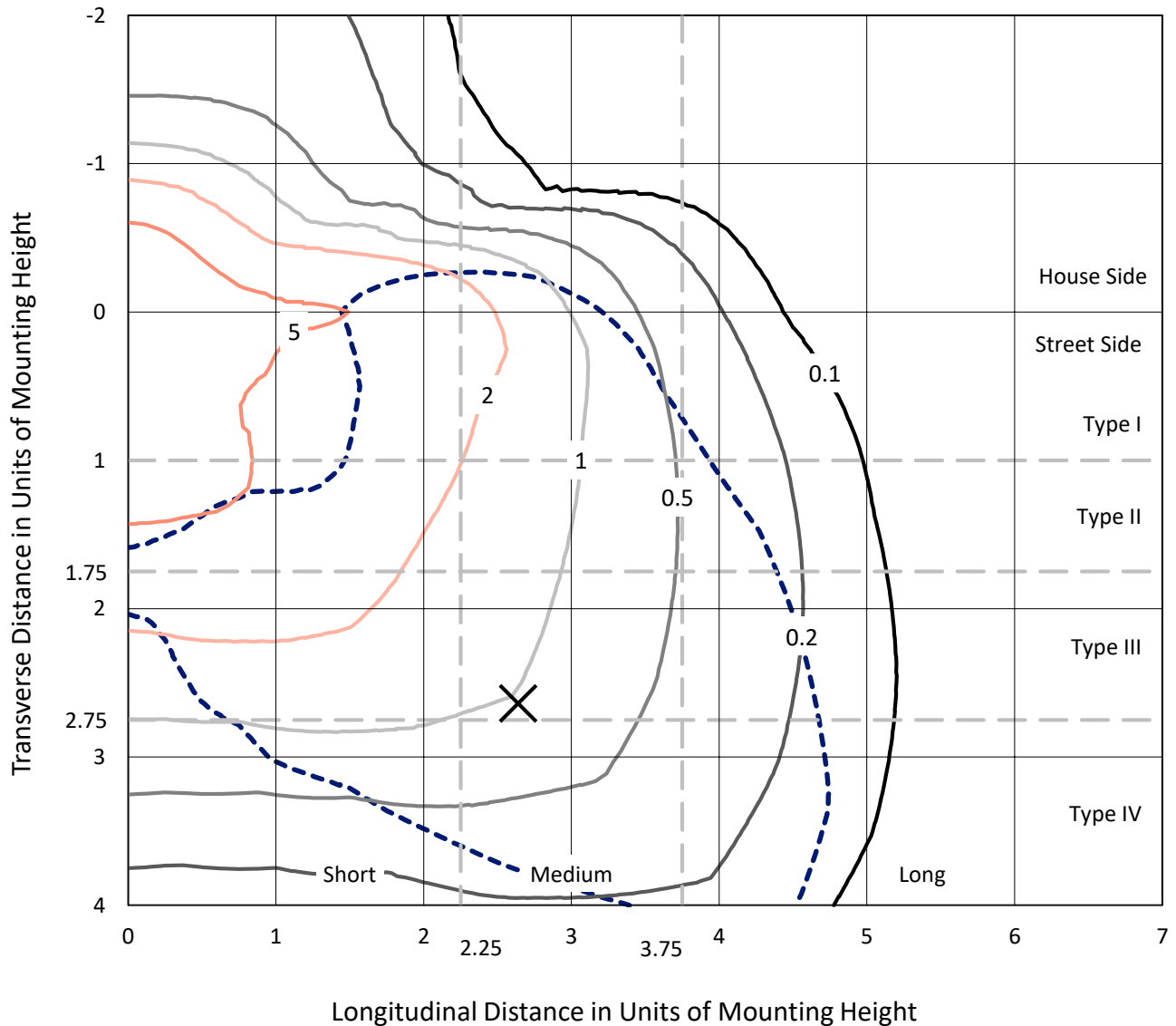


REPORT NUMBER: P265974

CATALOG NUMBER: ARCH-AF24-80-D-U-T4W-7027

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

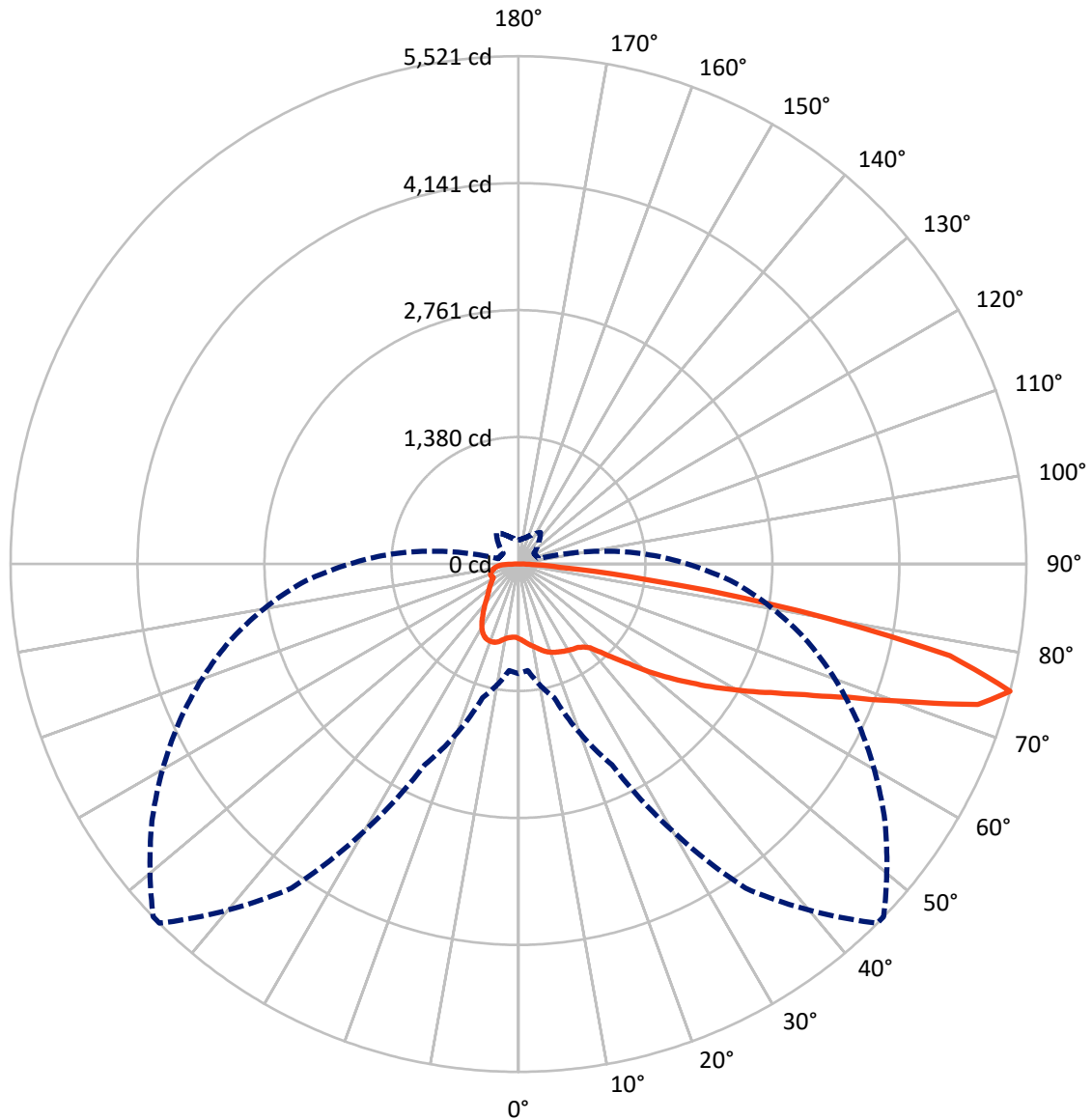


Based on 10 foot mounting height. Maximum calculated value = 9.5 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P265974

CATALOG NUMBER: ARCH-AF24-80-D-U-T4W-7027

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: ARCH-AF24-80-D-U-T4W-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1831.4	0.0	1831.4
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	6074.4	0.0	6074.4
	% Fixture	76.8	0.0	76.8
Total	Lumens	7905.8	0.0	7905.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.3	1.0
10°-20°	260.3	3.3
20°-30°	446.6	5.6
30°-40°	624.7	7.9
40°-50°	916.3	11.6
50°-60°	1427.4	18.1
60°-70°	2053.9	26.0
70°-80°	1789.1	22.6
80°-90°	307.3	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°	7905.8	100.0
0°-180°	7905.8	100.0

Coefficient of Utilization



REPORT NUMBER: P265974

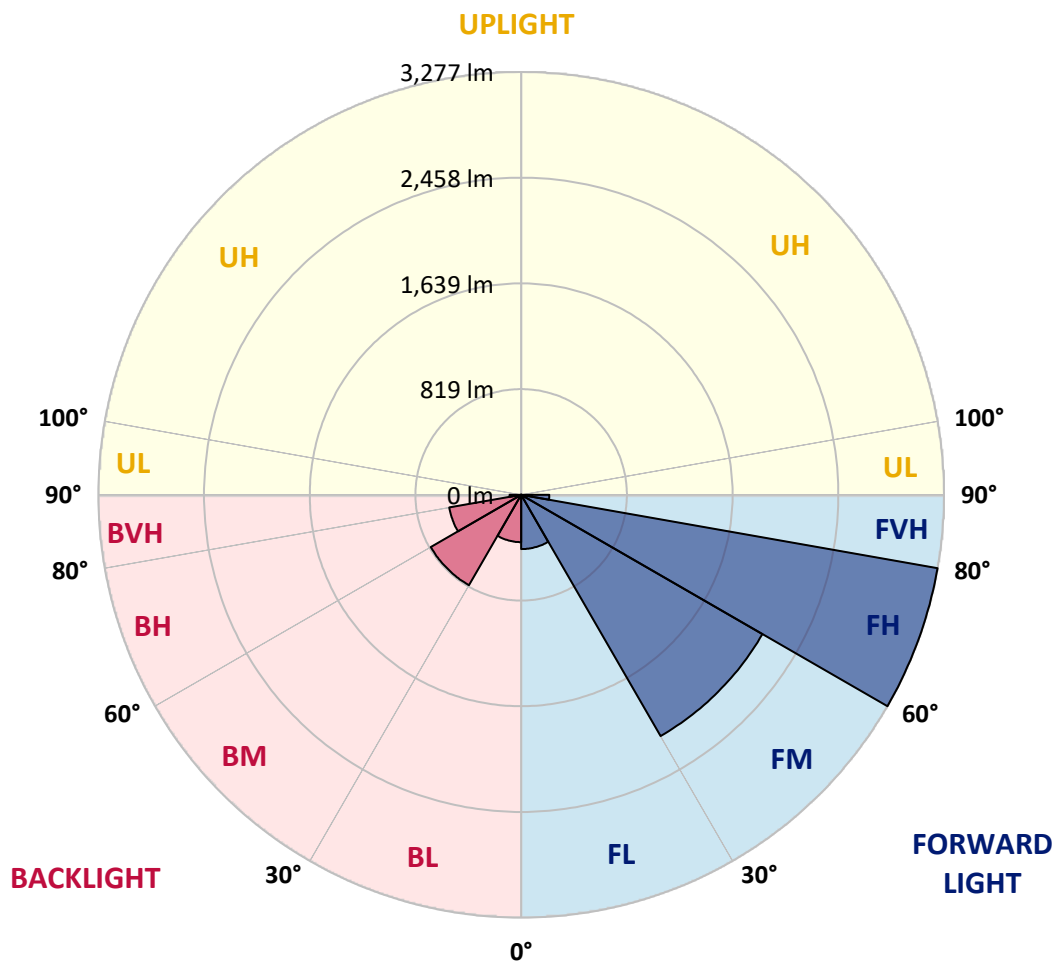
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	420.4	5.3			
FM	(30°-60°)	2158.9	27.3			
FH	(60°-80°)	3277.0	41.5			G2/5000
FVH	(80°-90°)	218.0	2.8			G2/225
BL	(0°-30°)	366.8	4.6	B1/500		
BM	(30°-60°)	809.4	10.2	B1/1000		
BH	(60°-80°)	566.0	7.2	B2/1000		G2/1000
BVH	(80°-90°)	89.3	1.1			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 IV Medium





REPORT NUMBER: P265974

CATALOG NUMBER: ARCH-AF24-80-D-U-T4W-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5
2.5°	850.4	844.2	844.2	839.6	839.6	832.0	829.0	827.3	819.8	815.1	810.5
5°	899.7	891.9	890.4	879.7	875.0	858.2	856.7	845.8	832.0	818.1	807.3
7.5°	944.3	939.6	931.9	921.2	907.4	885.8	884.3	867.4	844.2	825.8	810.5
10°	976.5	973.5	962.8	948.9	933.5	912.0	910.4	891.9	864.3	842.8	821.2
12.5°	1014.9	1010.4	996.5	978.1	961.1	941.2	939.6	924.3	893.5	865.8	838.2
15°	1051.9	1045.7	1028.9	1010.4	991.9	975.0	975.0	958.1	925.9	893.5	861.2
17.5°	1070.4	1067.2	1050.4	1030.4	1014.9	1002.7	1001.2	985.8	953.6	919.7	884.3
20°	1076.4	1078.1	1062.7	1041.1	1030.4	1024.2	1022.7	1011.9	976.5	944.3	910.4
22.5°	1075.0	1079.7	1067.2	1044.2	1041.1	1041.1	1041.1	1028.9	1001.2	968.8	935.0
25°	1081.1	1087.3	1078.1	1050.4	1050.4	1056.5	1056.5	1050.4	1025.8	998.0	964.2
27.5°	1102.7	1107.3	1099.5	1061.2	1062.7	1071.9	1070.4	1071.9	1056.5	1030.4	996.5
30°	1128.8	1135.0	1125.8	1078.1	1076.4	1085.7	1085.7	1093.4	1082.6	1055.0	1027.3
32.5°	1199.5	1198.0	1168.8	1096.6	1091.9	1101.1	1101.1	1108.8	1102.7	1081.1	1055.0
35°	1410.2	1387.2	1322.6	1156.5	1110.3	1114.9	1114.9	1128.8	1131.9	1114.9	1091.9
37.5°	1625.6	1617.8	1568.6	1316.5	1177.9	1144.3	1142.6	1162.6	1176.5	1162.6	1147.2
40°	1842.3	1836.2	1825.4	1530.3	1319.5	1196.5	1191.8	1208.8	1233.4	1224.1	1214.9
42.5°	2043.9	2040.8	2051.5	1740.8	1499.5	1308.7	1294.8	1275.0	1310.3	1307.3	1307.3
45°	2202.3	2209.9	2216.1	1937.7	1694.7	1453.3	1436.4	1368.7	1416.4	1428.7	1437.8
47.5°	2291.4	2297.5	2319.2	2129.9	1890.0	1620.9	1608.7	1498.0	1561.0	1597.8	1624.0
50°	2419.0	2402.2	2420.7	2317.5	2125.3	1839.3	1805.5	1671.7	1751.7	1816.3	1877.7
52.5°	2542.2	2514.4	2529.7	2534.4	2392.9	2053.0	2017.8	1876.2	1976.2	2077.7	2186.8
55°	2652.9	2651.3	2666.7	2745.1	2651.3	2282.2	2242.2	2102.3	2246.8	2356.1	2540.5
57.5°	2742.0	2757.3	2825.1	2989.6	2949.7	2531.3	2486.8	2365.2	2535.9	2645.1	2951.2
60°	2846.5	2871.3	2983.5	3197.2	3221.9	2792.8	2746.7	2659.1	2832.7	2943.4	3426.3
62.5°	2882.0	2917.3	3148.0	3415.6	3506.4	3078.9	3037.3	2978.9	3145.0	3244.9	3900.0
65°	2646.6	2714.4	3238.7	3527.9	3812.3	3423.4	3388.0	3337.3	3455.6	3521.7	4221.4
67.5°	2582.1	2612.8	3062.0	3689.3	4100.0	3866.2	3830.8	3743.1	3746.2	3718.5	4326.1
70°	2491.4	2525.1	2880.4	3810.9	4512.1	4472.1	4429.1	4170.7	4012.3	3844.7	4119.9
72.5°	2122.2	2111.5	2482.1	3483.3	4710.5	5222.7	5171.9	4630.6	4209.2	3735.5	3477.1
75°	1191.8	1161.1	1505.6	2409.9	4301.4	5521.0	5519.5	4862.7	4070.8	3254.1	2366.8
77.5°	346.0	336.8	496.8	1010.4	2895.9	4796.6	4855.1	4386.1	3397.2	2337.6	1299.5
80°	163.0	166.0	213.7	333.7	1236.4	3095.7	3263.4	2888.1	2030.0	1078.1	536.6
82.5°	103.0	104.6	146.2	215.4	522.9	1405.6	1544.0	1299.5	804.3	466.0	236.9
85°	64.6	64.6	96.8	141.6	312.3	449.1	487.5	443.0	344.5	253.7	129.1
87.5°	35.4	35.4	58.4	81.4	170.7	144.5	149.2	176.8	215.4	155.3	64.6
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: P265974

CATALOG NUMBER: ARCH-AF24-80-D-U-T4W-7027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5
2.5°	809.0	805.9	801.3	799.8	798.1	796.5	798.1	801.3	798.1	798.1	799.8
5°	804.3	801.3	795.1	795.1	796.5	798.1	805.9	810.5	812.0	812.0	812.0
7.5°	804.3	799.8	795.1	796.5	799.8	805.9	818.1	825.8	832.0	833.5	833.5
10°	812.0	805.9	802.7	805.9	815.1	819.8	832.0	844.2	852.0	855.0	855.0
12.5°	825.8	819.8	819.8	825.8	838.2	844.2	855.0	864.3	873.5	878.2	878.2
15°	848.9	841.3	842.8	853.5	867.4	873.5	881.1	884.3	891.9	898.1	898.1
17.5°	870.5	862.7	865.8	878.2	887.3	890.4	895.0	893.5	896.6	901.2	902.7
20°	895.0	887.3	889.0	896.6	898.1	895.0	895.0	890.4	889.0	896.6	899.7
22.5°	919.7	912.0	910.4	905.9	898.1	890.4	885.8	881.1	878.2	885.8	889.0
25°	948.9	938.1	930.5	910.4	890.4	876.6	870.5	867.4	865.8	873.5	876.6
27.5°	981.2	970.3	947.4	904.2	872.0	848.9	844.2	844.2	847.5	852.0	855.0
30°	1011.9	1001.2	959.6	890.4	839.6	805.9	801.3	805.9	813.5	818.1	822.8
32.5°	1042.8	1032.0	967.4	868.9	791.9	748.9	745.9	753.6	765.9	768.9	772.1
35°	1084.3	1073.5	976.5	838.2	731.9	685.9	682.8	687.5	698.3	702.8	707.4
37.5°	1142.6	1136.4	990.4	804.3	676.7	625.8	616.6	613.6	619.8	618.3	624.4
40°	1219.4	1224.1	1014.9	759.6	622.9	570.6	550.5	541.3	535.2	522.9	529.0
42.5°	1331.7	1334.9	1042.8	708.9	576.7	518.2	492.1	475.3	462.8	443.0	446.0
45°	1496.3	1470.2	1075.0	655.1	535.2	476.7	446.0	425.9	409.1	392.2	393.6
47.5°	1714.8	1634.7	1110.3	610.6	493.7	443.0	415.2	392.2	372.2	358.3	360.0
50°	1983.8	1839.3	1145.7	568.9	452.1	416.8	392.2	367.5	347.6	333.7	332.2
52.5°	2339.0	2085.3	1168.8	522.9	410.6	393.6	372.2	349.1	324.5	307.6	306.1
55°	2708.2	2371.3	1188.7	467.5	370.6	367.5	356.7	330.7	301.4	279.9	276.8
57.5°	3114.2	2677.5	1204.2	413.7	339.9	346.0	343.0	312.3	279.9	259.9	258.4
60°	3483.3	2994.2	1155.0	366.0	312.3	324.5	327.5	301.4	284.6	289.2	290.6
62.5°	3855.4	3238.7	967.4	330.7	293.7	310.6	336.8	335.2	327.5	335.2	336.8
65°	3989.3	3289.6	685.9	301.4	275.3	316.8	366.0	362.9	327.5	313.7	310.6
67.5°	3913.8	3138.8	461.4	278.4	261.4	324.5	396.8	362.9	315.2	296.8	290.6
70°	3555.6	2768.1	338.3	255.3	249.1	322.9	413.7	361.4	309.0	289.2	281.3
72.5°	2835.8	2136.1	272.1	233.7	230.7	315.2	422.9	358.3	303.0	281.3	272.1
75°	1836.2	1328.8	229.2	212.2	202.9	303.0	418.3	349.1	295.3	267.5	261.4
77.5°	852.0	572.1	195.3	187.7	176.8	284.6	404.4	330.7	278.4	252.2	244.5
80°	396.8	270.7	164.6	163.0	158.5	269.1	386.0	309.0	258.4	236.9	224.5
82.5°	212.2	163.0	133.8	133.8	138.3	250.6	362.9	283.0	232.2	221.4	189.2
85°	112.3	93.9	96.8	104.6	118.4	221.4	332.2	255.3	202.9	169.2	164.6
87.5°	57.0	59.9	59.9	70.7	90.6	179.9	273.8	210.7	172.2	138.3	135.4
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)