

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: P214589

Luminaire Tested: **ARCH-AF24-40-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214589
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-AF24-40-D-U-T2R
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5282.5 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 40
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

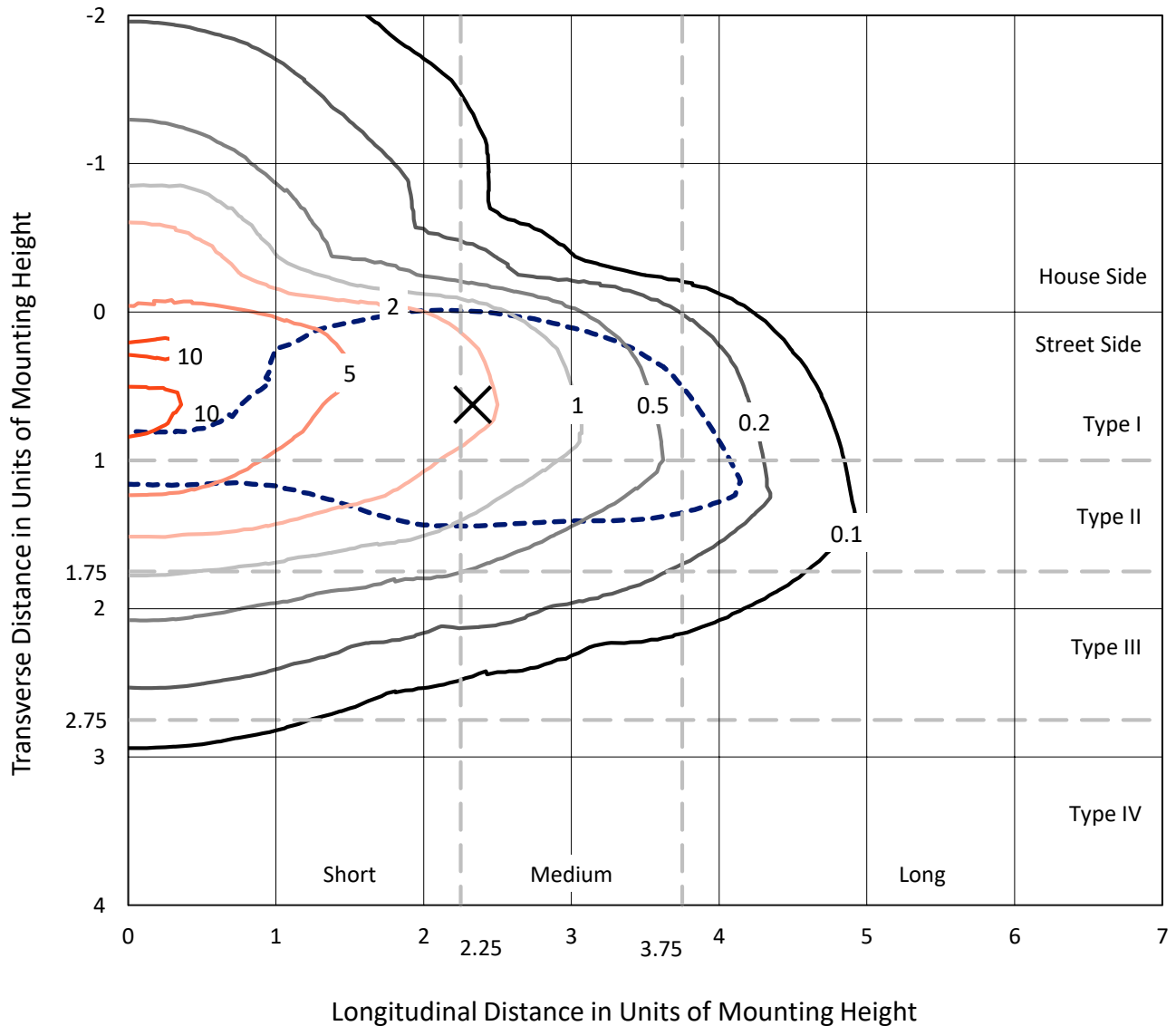


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

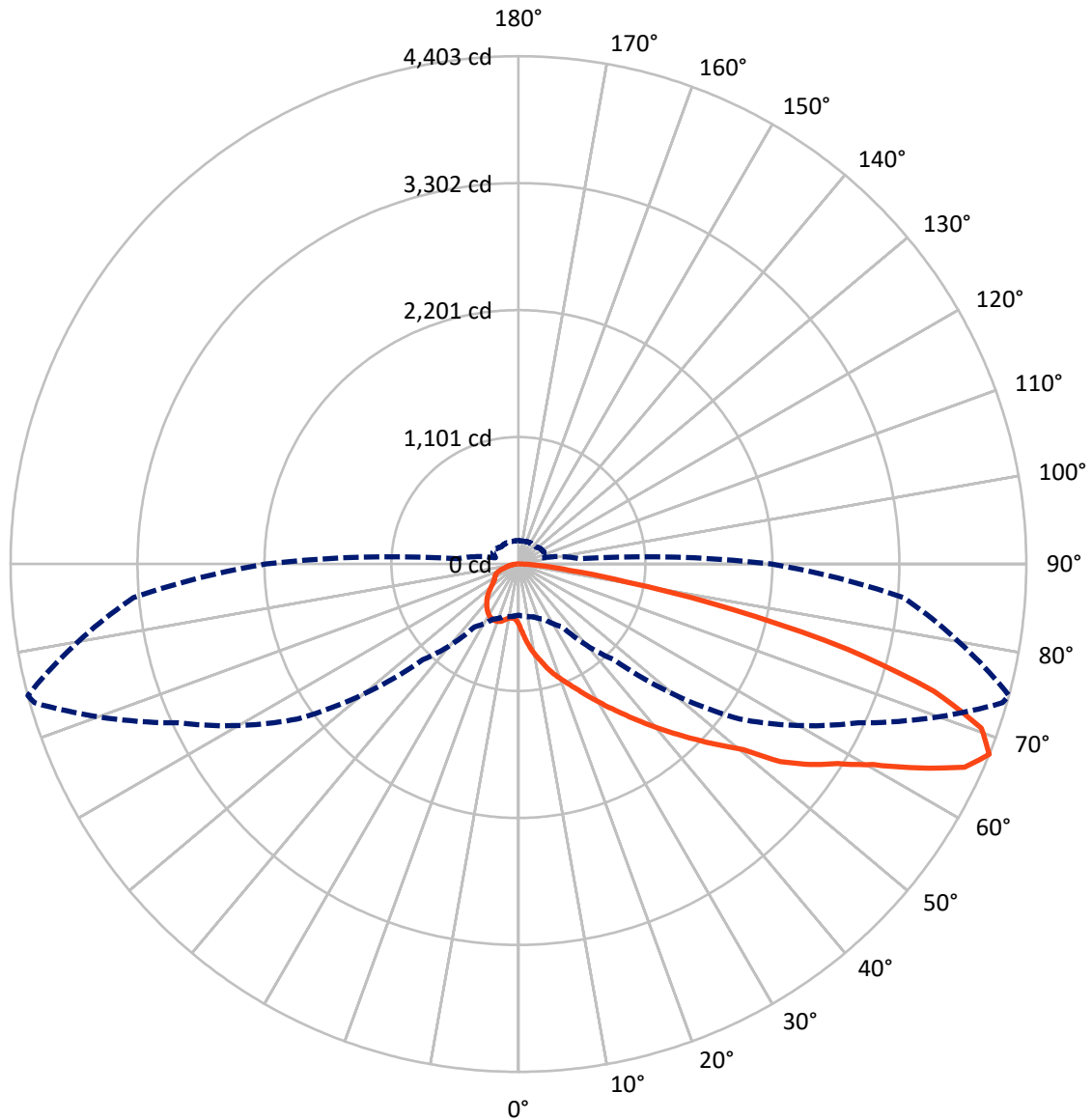


Based on 10 foot mounting height. Maximum calculated value = 11 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	902.0	0.0	902.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	4380.5	0.0	4380.5
	% Fixture	82.9	0.0	82.9
Total	Lumens	5282.5	0.0	5282.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.5	1.2
10°-20°	222.2	4.2
20°-30°	405.3	7.7
30°-40°	665.3	12.6
40°-50°	962.1	18.2
50°-60°	1133.9	21.5
60°-70°	1101.9	20.9
70°-80°	612.5	11.6
80°-90°	117.8	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°	5282.5	100.0
0°-180°	5282.5	100.0



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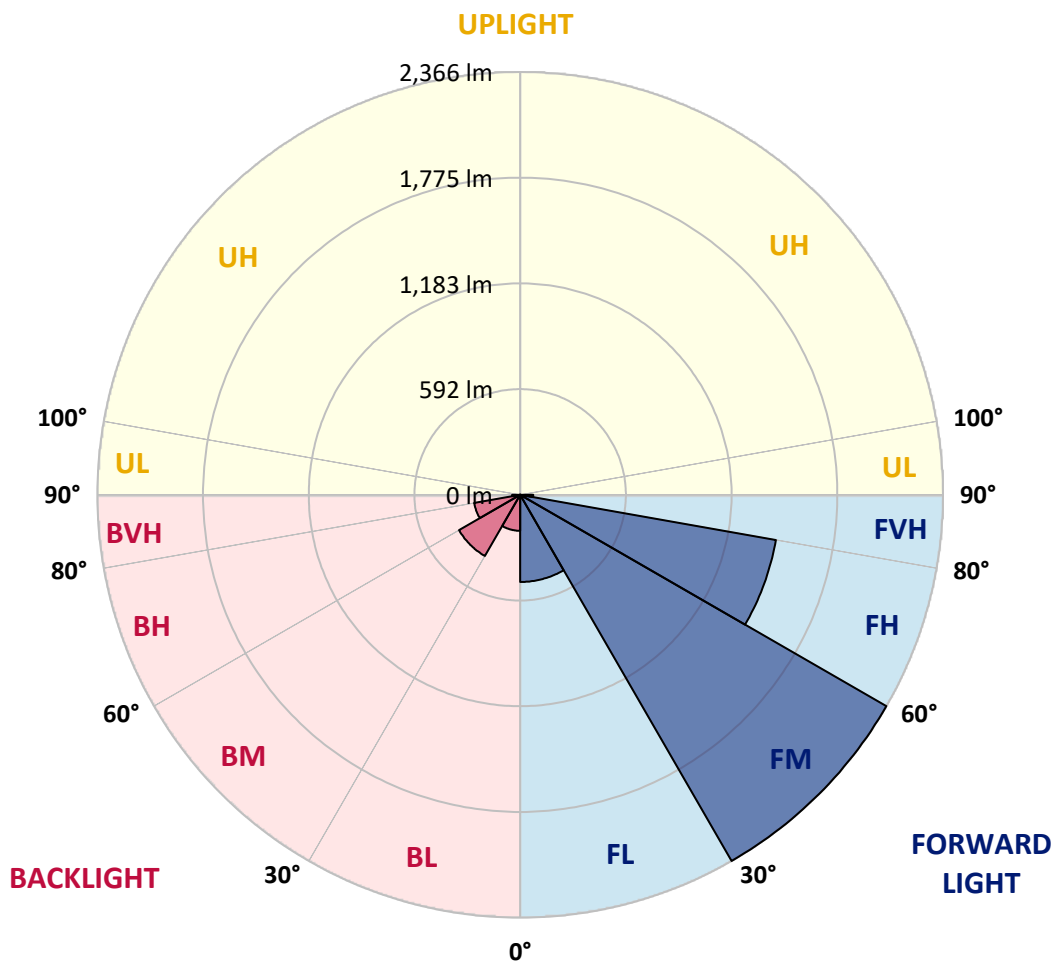
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	487.7	9.2			
FM (30°-60°)	2366.3	44.8			
FH (60°-80°)	1453.1	27.5			G1/1800
FVH (80°-90°)	73.3	1.4			G1/100
BL (0°-30°)	201.3	3.8	B1/500		
BM (30°-60°)	395.1	7.5	B1/1000		
BH (60°-80°)	261.2	4.9	B1/500		G1/500
BVH (80°-90°)	44.5	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	523.4	523.4	523.4	523.4	523.4	523.4	523.4	523.4	523.4	523.4	523.4
2.5°	742.2	744.3	739.9	730.0	715.6	689.1	665.9	625.0	588.6	584.2	545.5
5°	872.4	874.6	869.1	856.9	841.5	812.7	780.7	727.7	669.2	658.2	576.4
7.5°	961.9	963.0	956.4	944.2	932.0	903.4	871.3	811.7	739.9	731.1	616.2
10°	1038.1	1040.2	1031.4	1023.7	1010.5	981.7	948.6	885.7	811.7	799.5	657.0
12.5°	1108.8	1110.9	1105.4	1098.8	1094.4	1067.9	1031.4	956.4	876.9	863.6	705.6
15°	1156.2	1158.4	1159.5	1168.4	1173.9	1155.1	1118.7	1037.0	947.5	935.4	763.1
17.5°	1142.9	1148.5	1165.0	1197.1	1231.3	1232.5	1202.6	1116.4	1017.1	1003.8	821.6
20°	1104.3	1108.8	1128.6	1177.2	1244.5	1283.2	1281.0	1197.1	1082.2	1067.9	875.7
22.5°	1136.3	1141.8	1141.8	1171.7	1238.0	1309.7	1338.4	1276.5	1147.3	1134.1	929.9
25°	1273.3	1276.5	1253.4	1241.2	1265.6	1331.8	1385.9	1362.8	1226.9	1211.5	988.4
27.5°	1464.4	1458.8	1430.1	1381.5	1355.0	1372.7	1427.8	1444.4	1318.6	1299.8	1049.1
30°	1654.3	1650.9	1617.8	1552.6	1493.0	1455.5	1474.3	1517.3	1417.9	1395.8	1107.7
32.5°	1832.1	1826.6	1790.1	1713.9	1646.5	1577.0	1540.6	1583.6	1524.0	1498.5	1172.8
35°	1995.5	1981.1	1944.7	1865.1	1795.6	1729.4	1639.9	1646.5	1638.8	1612.3	1244.5
37.5°	2128.0	2117.0	2077.2	2003.2	1929.3	1866.3	1772.5	1718.4	1762.4	1737.1	1327.4
40°	2245.1	2232.9	2192.1	2118.1	2049.6	1989.9	1916.0	1805.5	1901.7	1872.9	1420.2
42.5°	2333.5	2324.6	2291.4	2218.6	2152.3	2098.2	2061.8	1916.0	2046.3	2018.7	1521.7
45°	2380.9	2372.1	2354.4	2295.9	2235.1	2193.2	2196.5	2047.4	2197.6	2174.4	1642.1
47.5°	2322.4	2329.0	2344.5	2333.5	2295.9	2276.0	2316.9	2183.2	2366.6	2344.5	1772.5
50°	2165.6	2172.2	2234.0	2310.2	2323.5	2347.8	2425.1	2340.0	2545.4	2527.8	1933.7
52.5°	1780.1	1816.6	1987.8	2170.0	2294.8	2395.2	2545.4	2573.0	2847.0	2847.0	2218.6
55°	1345.1	1377.1	1572.6	1890.6	2183.2	2399.6	2633.8	2731.0	3064.5	3068.9	2367.6
57.5°	1090.0	1109.8	1206.0	1531.7	1949.1	2344.5	2738.7	2866.8	3245.6	3265.5	2559.8
60°	884.5	895.6	958.5	1184.9	1625.6	2195.4	2813.8	3061.2	3504.0	3531.6	2804.9
62.5°	711.2	722.2	764.1	900.0	1275.5	1916.0	2800.5	3263.2	3848.5	3893.9	3126.3
65°	567.6	579.8	607.3	691.3	945.3	1569.2	2664.7	3367.0	4205.2	4249.4	3339.4
67.5°	442.8	453.9	472.6	527.8	665.9	1173.9	2343.4	3257.7	4365.3	4402.9	3350.5
70°	334.6	340.1	355.6	391.0	476.0	779.7	1834.3	2891.1	4221.8	4256.0	3129.6
72.5°	259.5	258.4	267.2	284.9	332.4	536.7	1215.9	2351.0	3732.5	3767.9	2670.2
75°	212.1	210.9	216.5	222.0	240.7	360.0	717.8	1770.2	3012.6	2945.2	2003.2
77.5°	178.9	177.8	183.3	184.4	192.1	248.5	408.6	1165.0	2009.9	1893.9	1128.6
80°	151.3	150.2	156.8	159.1	164.6	182.2	235.2	630.5	1009.3	956.4	538.9
82.5°	113.8	118.2	130.3	135.8	142.5	134.7	145.8	278.2	468.2	447.2	234.2
85°	55.2	65.2	98.3	109.4	117.0	85.0	99.4	131.4	210.9	201.0	94.9
87.5°	18.8	16.6	58.5	69.6	76.2	38.7	55.2	72.8	87.3	79.5	29.8
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°	523.4	523.4	523.4	523.4	523.4	523.4	523.4	523.4	523.4	523.4	523.4
2.5°	529.0	512.4	488.2	469.3	457.2	447.2	442.8	441.7	439.6	438.4	438.4
5°	540.0	510.1	472.6	452.8	447.2	442.8	445.1	446.1	446.1	446.1	446.1
7.5°	556.6	514.6	469.3	456.0	455.0	455.0	461.6	464.9	467.1	467.1	467.1
10°	578.7	522.3	474.9	463.8	467.1	469.3	477.1	481.5	483.7	484.8	485.9
12.5°	608.5	538.9	485.9	477.1	481.5	482.6	488.2	490.3	492.6	493.7	493.7
15°	648.2	563.2	503.6	492.6	493.7	492.6	492.6	490.3	489.2	489.2	491.4
17.5°	689.1	586.4	519.0	503.6	499.2	490.3	483.7	478.1	474.9	472.6	473.7
20°	730.0	607.3	527.8	505.7	493.7	479.3	467.1	459.4	455.0	450.6	452.8
22.5°	770.8	627.3	531.2	499.2	481.5	460.5	447.2	435.1	425.1	418.5	419.6
25°	816.1	649.4	531.2	491.4	464.9	442.8	426.3	406.4	392.0	386.5	388.7
27.5°	861.3	668.1	525.7	477.1	446.1	424.0	399.8	376.5	367.8	364.4	365.5
30°	906.6	682.5	513.5	459.4	426.3	402.0	369.9	354.5	343.4	334.6	335.7
32.5°	952.0	692.4	496.9	437.3	405.3	374.4	347.9	330.2	310.4	299.3	300.3
35°	1003.8	700.1	477.1	415.2	382.1	350.1	330.2	301.5	280.5	271.7	269.4
37.5°	1057.9	705.6	456.0	391.0	359.0	332.4	312.5	277.2	257.3	245.2	244.1
40°	1116.4	707.9	430.7	365.5	336.9	321.3	289.3	262.8	228.6	220.9	220.9
42.5°	1186.0	706.8	405.3	340.1	312.5	295.9	272.7	260.6	230.8	223.1	218.6
45°	1265.6	706.8	377.7	310.4	288.3	263.9	254.0	246.2	226.4	229.7	231.9
47.5°	1356.1	704.5	344.5	286.0	268.3	247.3	241.8	225.3	217.6	219.7	222.0
50°	1480.9	707.9	314.8	266.2	254.0	236.3	229.7	220.9	217.6	218.6	217.6
52.5°	1654.3	696.8	286.0	254.0	243.0	219.7	219.7	218.6	219.7	218.6	218.6
55°	1749.2	672.5	265.0	247.3	235.2	212.1	216.5	218.6	220.9	219.7	219.7
57.5°	1884.0	655.9	248.5	243.0	230.8	209.8	214.2	218.6	219.7	218.6	218.6
60°	2042.9	645.0	237.4	244.1	227.5	209.8	215.3	218.6	217.6	216.5	216.5
62.5°	2227.4	640.5	229.7	247.3	224.1	210.9	215.3	218.6	214.2	213.2	213.2
65°	2296.9	600.8	219.7	249.6	226.4	210.9	214.2	215.3	209.8	208.7	207.7
67.5°	2189.8	532.2	205.4	245.2	233.0	210.9	210.9	209.8	203.2	202.1	199.9
70°	1950.3	441.7	183.3	230.8	237.4	212.1	206.5	201.0	194.4	194.4	190.0
72.5°	1596.8	347.9	154.6	205.4	234.2	215.3	197.6	190.0	182.2	182.2	177.8
75°	1150.7	259.5	123.7	171.1	219.7	214.2	186.6	176.7	167.9	166.7	161.2
77.5°	655.9	182.2	100.5	133.6	195.5	208.7	176.7	161.2	151.3	148.0	144.6
80°	336.9	122.5	81.7	105.0	162.3	193.2	169.0	143.5	132.5	126.9	121.4
82.5°	160.1	81.7	62.9	77.3	122.5	169.0	159.1	123.7	111.5	105.0	98.3
85°	71.8	48.6	41.9	49.7	87.3	131.4	140.2	101.6	87.3	109.4	80.6
87.5°	23.2	22.1	22.1	23.2	41.9	57.4	102.7	75.1	69.6	57.4	48.6
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)