

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: P234686

Luminaire Tested: **ARCH-AF16-60-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234686
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-AF16-60-D-U-T2R-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5241 lumens
Efficiency: N/A
Efficacy: 83.2 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

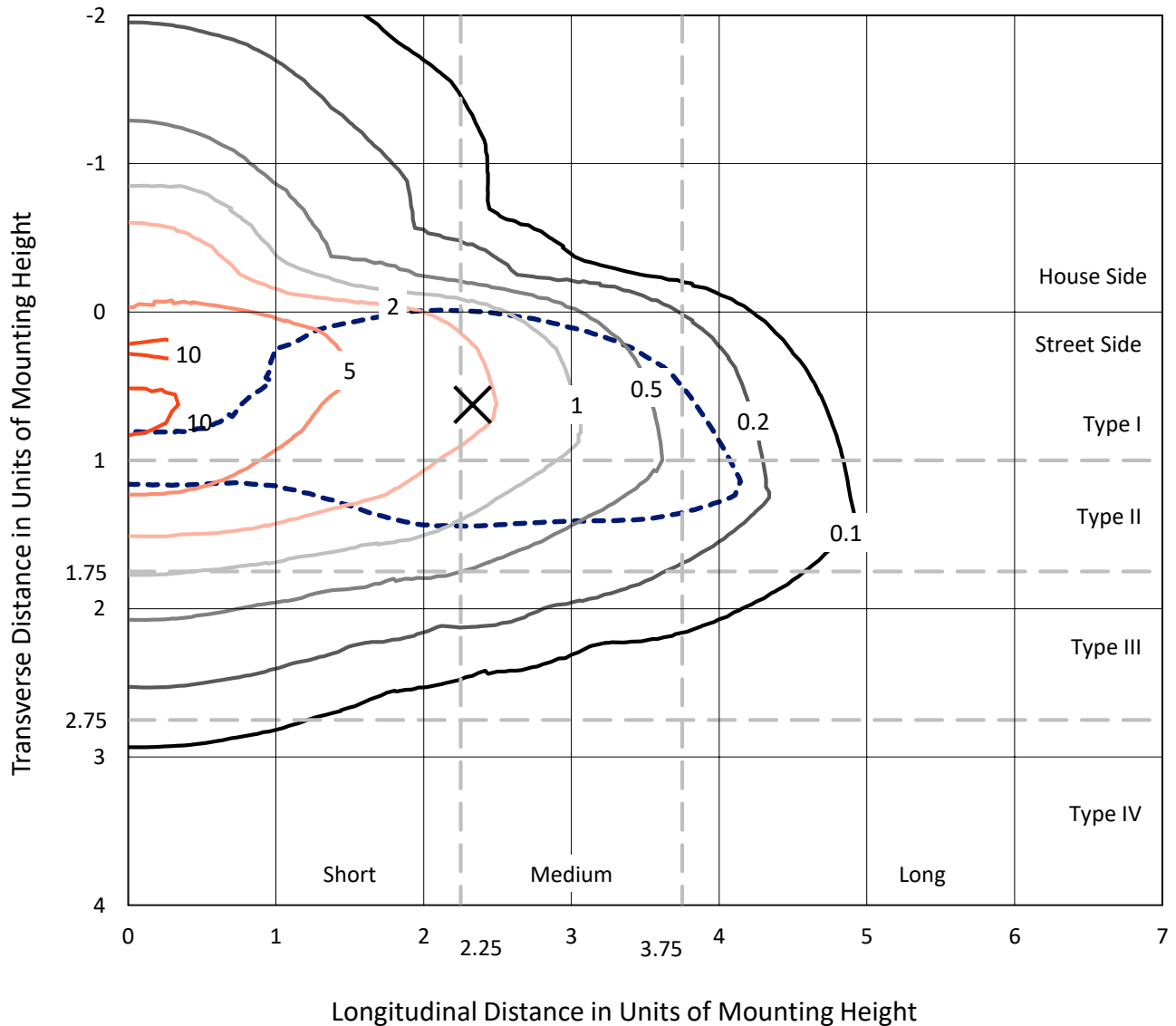
Input Watts (W): 63
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

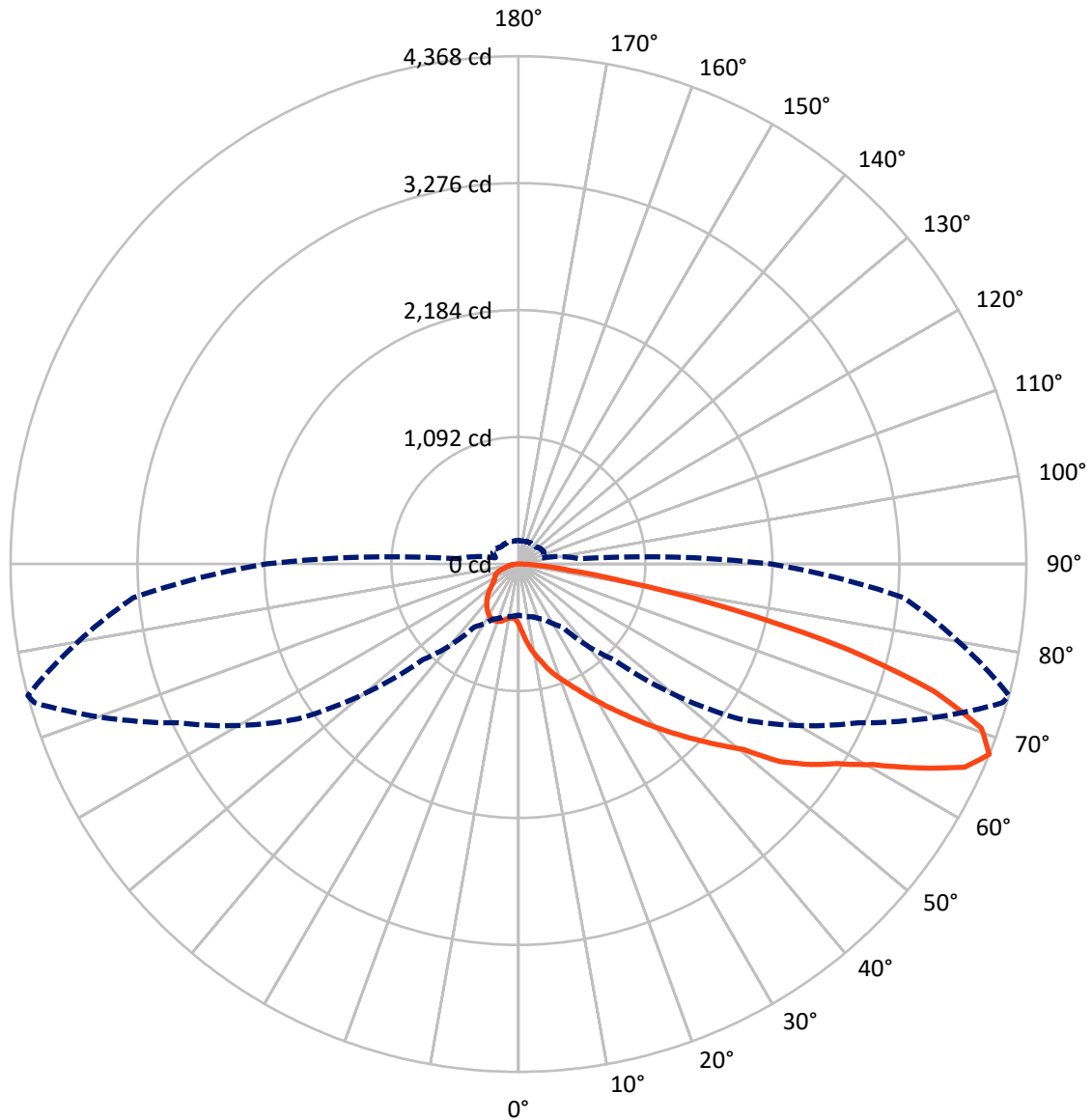
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.9 fc
 Type 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	895.0	0.0	895.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	4346.0	0.0	4346.0
	% Fixture	82.9	0.0	82.9
Total	Lumens	5241.0	0.0	5241.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.0	1.2
10°-20°	220.5	4.2
20°-30°	402.1	7.7
30°-40°	660.1	12.6
40°-50°	954.6	18.2
50°-60°	1125.0	21.5
60°-70°	1093.2	20.9
70°-80°	607.7	11.6
80°-90°	116.8	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°	5241.0	100.0
0°-180°	5241.0	100.0



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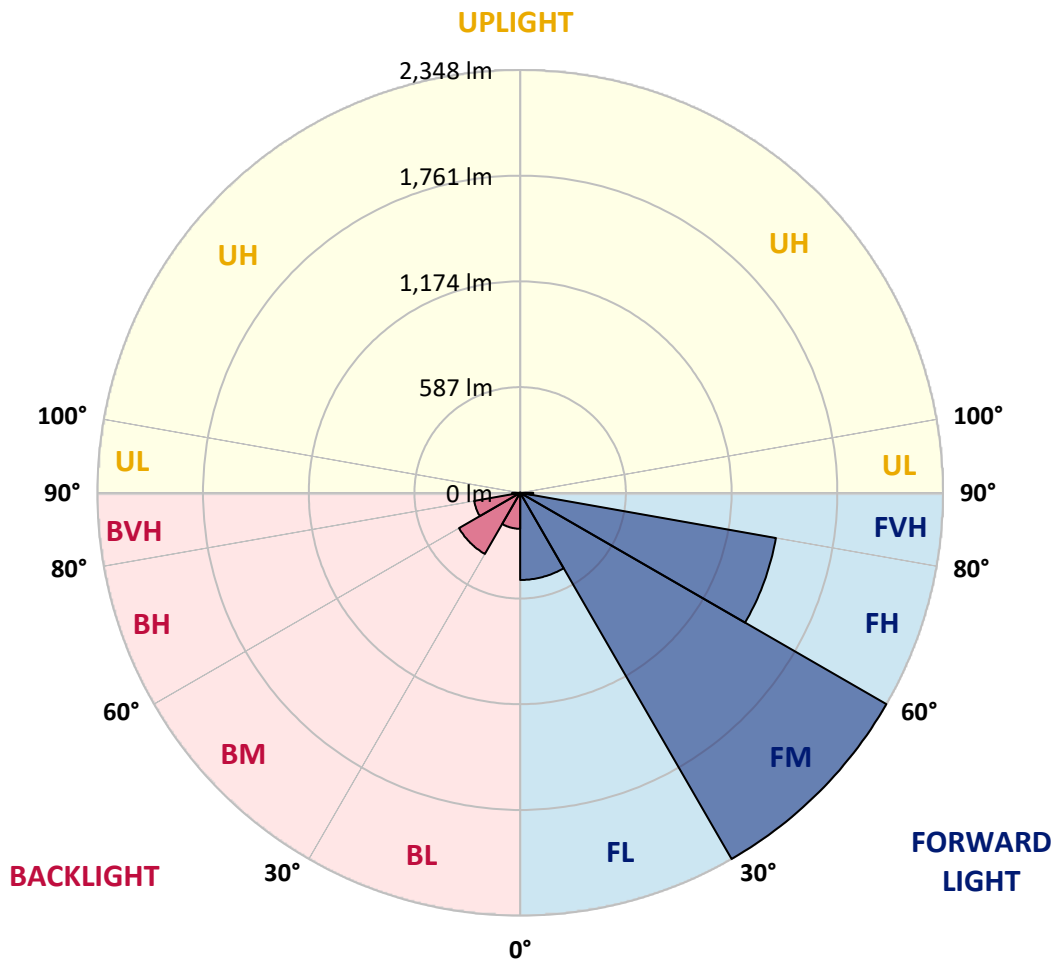
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	483.9	9.2			
FM (30°-60°)	2347.7	44.8			
FH (60°-80°)	1441.7	27.5			G1/1800
FVH (80°-90°)	72.7	1.4			G1/100
BL (0°-30°)	199.8	3.8	B1/500		
BM (30°-60°)	391.9	7.5	B1/1000		
BH (60°-80°)	259.1	4.9	B1/500		G1/500
BVH (80°-90°)	44.1	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°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3
2.5°	736.3	738.5	734.1	724.2	710.0	683.7	660.7	620.1	584.0	579.6	541.2
5°	865.6	867.7	862.3	850.2	834.9	806.4	774.6	722.0	664.0	653.0	571.9
7.5°	954.3	955.4	948.8	936.8	924.7	896.2	864.5	805.3	734.1	725.3	611.4
10°	1029.9	1032.1	1023.3	1015.7	1002.5	974.0	941.2	878.7	805.3	793.2	651.9
12.5°	1100.0	1102.2	1096.7	1090.2	1085.8	1059.5	1023.3	948.8	869.9	856.8	700.1
15°	1147.1	1149.3	1150.4	1159.2	1164.7	1146.0	1109.9	1028.8	940.1	928.0	757.1
17.5°	1134.0	1139.5	1155.9	1187.7	1221.6	1222.7	1193.1	1107.7	1009.1	995.9	815.2
20°	1095.6	1100.0	1119.7	1167.9	1234.8	1273.1	1270.9	1187.7	1073.7	1059.5	868.8
22.5°	1127.4	1132.9	1132.9	1162.5	1228.2	1299.4	1327.9	1266.6	1138.4	1125.2	922.5
25°	1263.3	1266.6	1243.5	1231.5	1255.6	1321.3	1375.0	1352.0	1217.3	1201.9	980.6
27.5°	1452.8	1447.3	1418.8	1370.6	1344.3	1361.9	1416.7	1433.1	1308.2	1289.6	1040.9
30°	1641.3	1638.0	1605.1	1540.5	1481.3	1444.0	1462.7	1505.4	1406.8	1384.9	1098.9
32.5°	1817.7	1812.2	1776.0	1700.4	1633.6	1564.6	1528.4	1571.1	1512.0	1486.8	1163.6
35°	1979.8	1965.6	1929.4	1850.5	1781.5	1715.8	1627.0	1633.6	1625.9	1599.6	1234.8
37.5°	2111.3	2100.3	2060.9	1987.5	1914.1	1851.6	1758.5	1704.8	1748.6	1723.4	1317.0
40°	2227.4	2215.4	2174.8	2101.4	2033.5	1974.3	1900.9	1791.4	1886.7	1858.2	1409.0
42.5°	2315.1	2306.3	2273.4	2201.1	2135.4	2081.7	2045.6	1900.9	2030.2	2002.8	1509.8
45°	2362.2	2353.4	2335.9	2277.8	2217.6	2175.9	2179.2	2031.3	2180.3	2157.3	1629.2
47.5°	2304.1	2310.7	2326.0	2315.1	2277.8	2258.1	2298.6	2166.1	2347.9	2326.0	1758.5
50°	2148.5	2155.1	2216.5	2292.1	2305.2	2329.3	2406.0	2321.7	2525.4	2507.9	1918.5
52.5°	1766.2	1802.3	1972.1	2152.9	2276.7	2376.4	2525.4	2552.8	2824.6	2824.6	2201.1
55°	1334.5	1366.3	1560.2	1875.7	2166.1	2380.8	2613.1	2709.5	3040.4	3044.8	2349.0
57.5°	1081.4	1101.1	1196.4	1519.6	1933.8	2326.0	2717.2	2844.3	3220.1	3239.8	2539.7
60°	877.6	888.6	951.0	1175.6	1612.8	2178.1	2791.7	3037.1	3476.5	3503.8	2782.9
62.5°	705.6	716.5	758.2	892.9	1265.5	1900.9	2778.5	3237.6	3818.3	3863.2	3101.7
65°	563.2	575.2	602.6	685.9	937.9	1556.9	2643.8	3340.6	4172.2	4216.0	3313.2
67.5°	439.4	450.3	468.9	523.7	660.7	1164.7	2324.9	3232.1	4331.1	4368.3	3324.2
70°	332.0	337.5	352.8	387.9	472.2	773.5	1819.9	2868.4	4188.6	4222.6	3105.0
72.5°	257.5	256.4	265.1	282.7	329.8	532.5	1206.3	2332.6	3703.3	3738.3	2649.2
75°	210.4	209.3	214.7	220.2	238.8	357.2	712.2	1756.3	2988.9	2922.1	1987.5
77.5°	177.5	176.4	181.9	183.0	190.6	246.5	405.4	1155.9	1994.1	1879.0	1119.7
80°	150.1	149.0	155.6	157.8	163.2	180.8	233.4	625.6	1001.4	948.8	534.7
82.5°	112.9	117.2	129.3	134.8	141.3	133.7	144.6	276.1	464.5	443.7	232.3
85°	54.8	64.6	97.5	108.5	116.1	84.4	98.6	130.4	209.3	199.4	94.2
87.5°	18.6	16.4	58.1	69.0	75.6	38.3	54.8	72.3	86.6	78.9	29.6
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°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3
2.5°	524.8	508.4	484.3	465.6	453.6	443.7	439.4	438.3	436.1	435.0	435.0
5°	535.8	506.2	468.9	449.2	443.7	439.4	441.5	442.6	442.6	442.6	442.6
7.5°	552.2	510.6	465.6	452.5	451.4	451.4	458.0	461.3	463.5	463.5	463.5
10°	574.1	518.2	471.1	460.2	463.5	465.6	473.3	477.7	479.9	481.0	482.1
12.5°	603.7	534.7	482.1	473.3	477.7	478.8	484.3	486.5	488.7	489.7	489.7
15°	643.1	558.8	499.6	488.7	489.7	488.7	488.7	486.5	485.4	485.4	487.6
17.5°	683.7	581.8	514.9	499.6	495.2	486.5	479.9	474.4	471.1	468.9	470.0
20°	724.2	602.6	523.7	501.8	489.7	475.5	463.5	455.8	451.4	447.0	449.2
22.5°	764.8	622.3	527.0	495.2	477.7	456.9	443.7	431.7	421.8	415.2	416.3
25°	809.7	644.2	527.0	487.6	461.3	439.4	422.9	403.2	389.0	383.5	385.7
27.5°	854.6	662.9	521.5	473.3	442.6	420.7	396.6	373.6	364.8	361.6	362.7
30°	899.5	677.1	509.5	455.8	422.9	398.8	367.0	351.7	340.7	332.0	333.1
32.5°	944.4	687.0	493.0	433.9	402.1	371.4	345.1	327.6	307.9	296.9	298.0
35°	995.9	694.6	473.3	412.0	379.1	347.3	327.6	299.1	278.3	269.5	267.3
37.5°	1049.6	700.1	452.5	387.9	356.1	329.8	310.1	275.0	255.3	243.2	242.1
40°	1107.7	702.3	427.3	362.7	334.2	318.8	287.1	260.8	226.8	219.1	219.1
42.5°	1176.7	701.2	402.1	337.5	310.1	293.6	270.6	258.6	229.0	221.3	216.9
45°	1255.6	701.2	374.7	307.9	286.0	261.9	252.0	244.3	224.6	227.9	230.1
47.5°	1345.4	699.0	341.8	283.8	266.2	245.4	239.9	223.5	215.8	218.0	220.2
50°	1469.2	702.3	312.3	264.0	252.0	234.5	227.9	219.1	215.8	216.9	215.8
52.5°	1641.3	691.3	283.8	252.0	241.0	218.0	218.0	216.9	218.0	216.9	216.9
55°	1735.5	667.2	263.0	245.4	233.4	210.4	214.7	216.9	219.1	218.0	218.0
57.5°	1869.2	650.8	246.5	241.0	229.0	208.2	212.6	216.9	218.0	216.9	216.9
60°	2026.9	639.9	235.6	242.1	225.7	208.2	213.6	216.9	215.8	214.7	214.7
62.5°	2209.9	635.5	227.9	245.4	222.4	209.3	213.6	216.9	212.6	211.5	211.5
65°	2278.9	596.0	218.0	247.6	224.6	209.3	212.6	213.6	208.2	207.1	206.0
67.5°	2172.6	528.1	203.8	243.2	231.2	209.3	209.3	208.2	201.6	200.5	198.3
70°	1934.9	438.3	181.9	229.0	235.6	210.4	204.9	199.4	192.8	192.8	188.4
72.5°	1584.3	345.1	153.4	203.8	232.3	213.6	196.1	188.4	180.8	180.8	176.4
75°	1141.7	257.5	122.7	169.8	218.0	212.6	185.2	175.3	166.5	165.4	160.0
77.5°	650.8	180.8	99.7	132.6	193.9	207.1	175.3	160.0	150.1	146.8	143.5
80°	334.2	121.6	81.1	104.1	161.1	191.7	167.6	142.4	131.5	126.0	120.5
82.5°	158.9	81.1	62.5	76.7	121.6	167.6	157.8	122.7	110.7	104.1	97.5
85°	71.2	48.2	41.6	49.3	86.6	130.4	139.1	100.8	86.6	108.5	80.0
87.5°	23.0	21.9	21.9	23.0	41.6	57.0	101.9	74.5	69.0	57.0	48.2
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)