

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: P234690

Luminaire Tested: **ARCH-AF24-50-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234690
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-AF24-50-D-U-T2R-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5173 lumens
Efficiency: N/A
Efficacy: 95.8 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

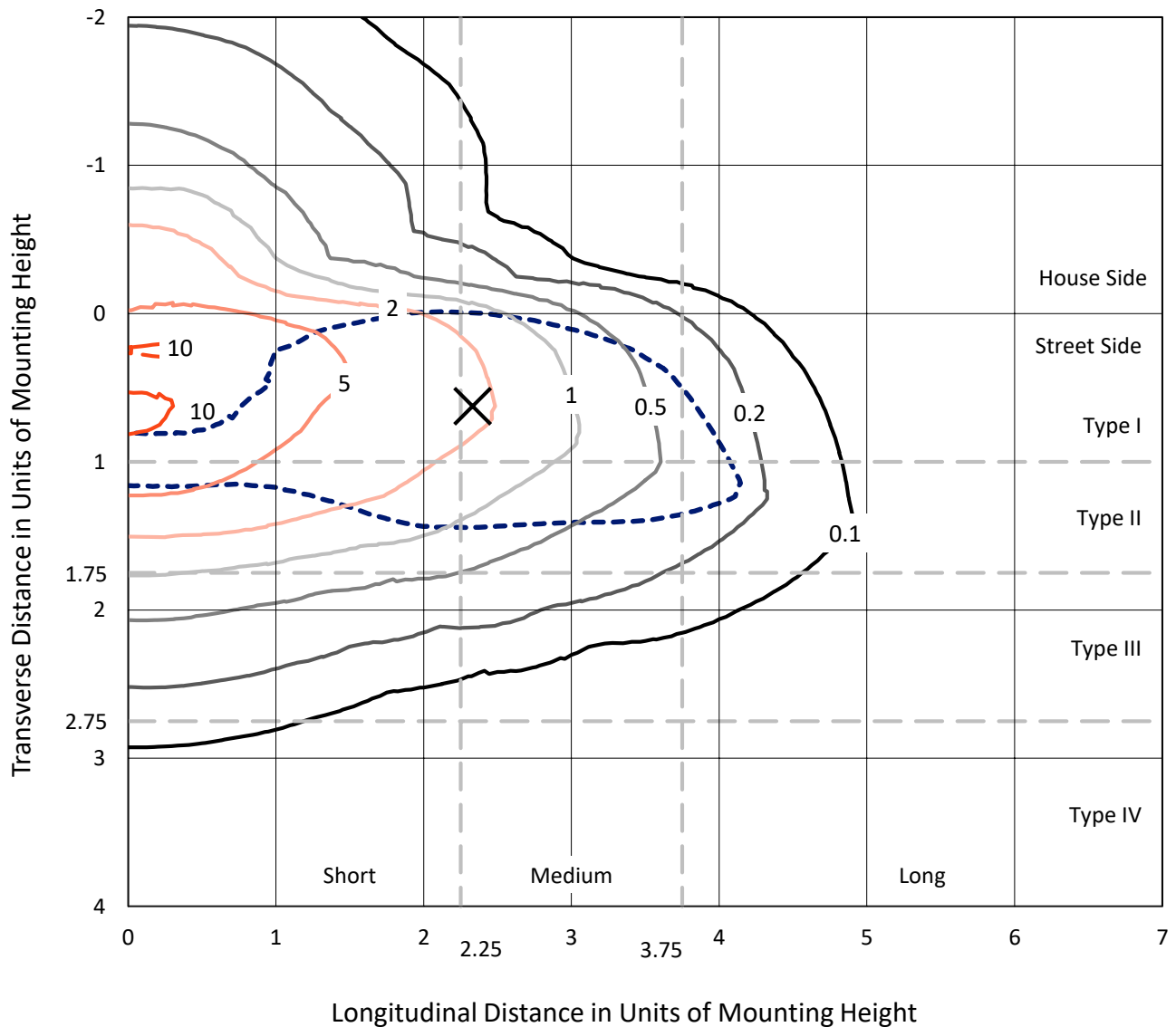
Input Watts (W): 54
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

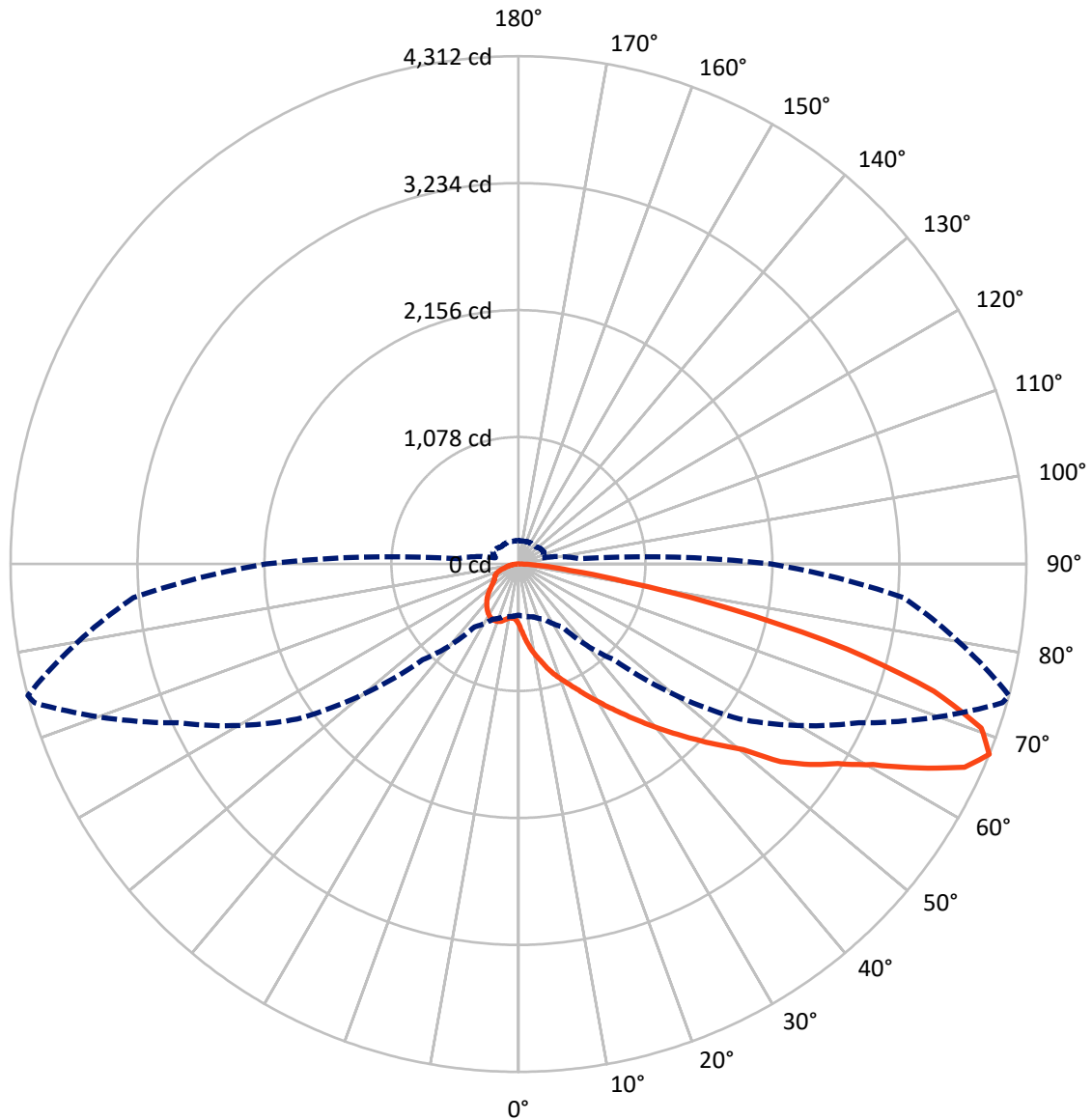
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.7 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	883.3	0.0	883.3
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	4289.6	0.0	4289.6
	% Fixture	82.9	0.0	82.9
Total	Lumens	5173.0	0.0	5173.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.2	1.2
10°-20°	217.6	4.2
20°-30°	396.9	7.7
30°-40°	651.5	12.6
40°-50°	942.2	18.2
50°-60°	1110.4	21.5
60°-70°	1079.0	20.9
70°-80°	599.8	11.6
80°-90°	115.3	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°	5173.0	100.0
0°-180°	5173.0	100.0

Coefficient of Utilization



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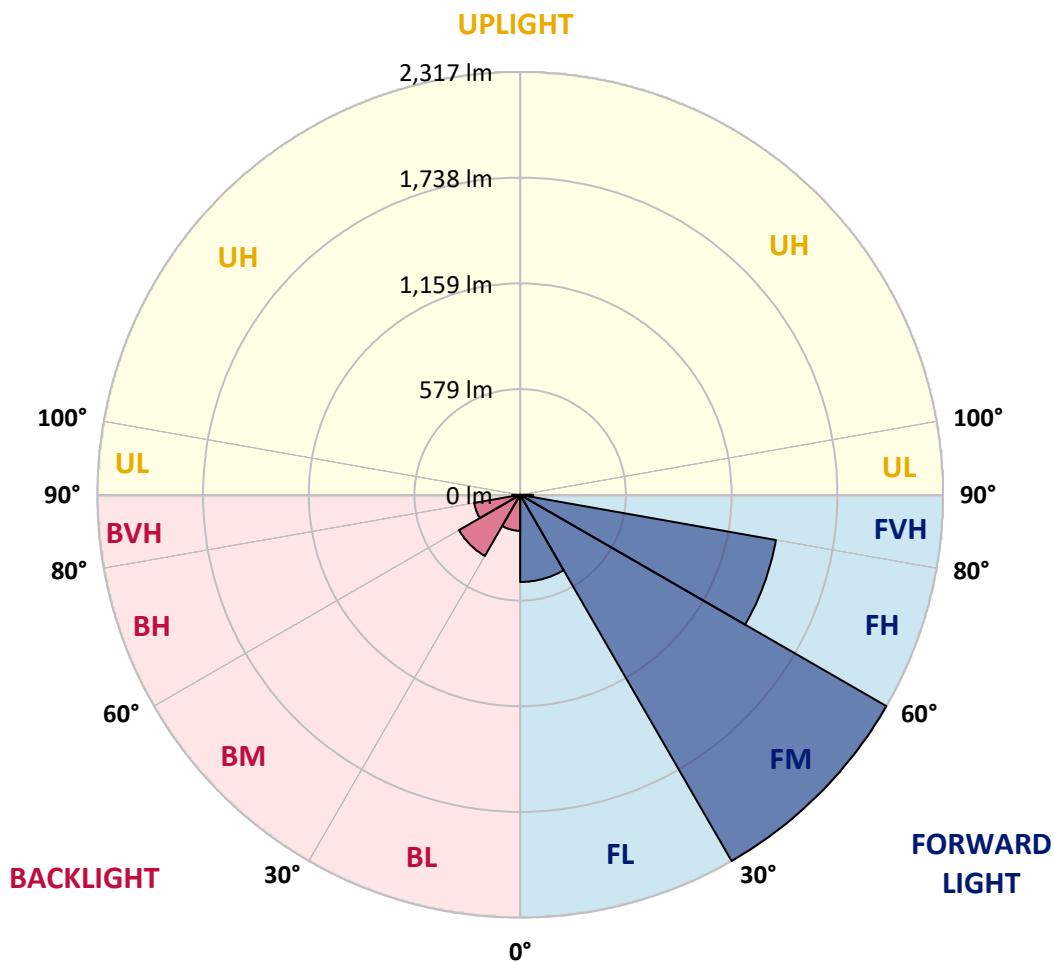
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	477.6	9.2			
FM (30°-60°)	2317.2	44.8			
FH (60°-80°)	1423.0	27.5			G1/1800
FVH (80°-90°)	71.8	1.4			G1/100
BL (0°-30°)	197.2	3.8	B1/500		
BM (30°-60°)	386.9	7.5	B1/1000		
BH (60°-80°)	255.8	4.9	B1/500		G1/500
BVH (80°-90°)	43.5	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°	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6
2.5°	726.7	728.9	724.6	714.8	700.8	674.8	652.1	612.1	576.4	572.1	534.2
5°	854.3	856.5	851.1	839.2	824.0	795.9	764.6	712.7	655.3	644.5	564.5
7.5°	941.9	943.0	936.5	924.6	912.7	884.6	853.2	794.8	724.6	715.9	603.4
10°	1016.5	1018.7	1010.0	1002.5	989.5	961.4	928.9	867.3	794.8	782.9	643.4
12.5°	1085.7	1087.9	1082.5	1076.0	1071.7	1045.7	1010.0	936.5	858.6	845.7	691.0
15°	1132.2	1134.4	1135.5	1144.1	1149.6	1131.2	1095.5	1015.5	927.9	916.0	747.3
17.5°	1119.3	1124.7	1140.9	1172.3	1205.8	1206.9	1177.7	1093.3	996.0	983.0	804.6
20°	1081.4	1085.7	1105.2	1152.8	1218.8	1256.6	1254.4	1172.3	1059.8	1045.7	857.6
22.5°	1112.8	1118.2	1118.2	1147.4	1212.3	1282.6	1310.7	1250.1	1123.6	1110.6	910.6
25°	1246.9	1250.1	1227.4	1215.5	1239.3	1304.2	1357.2	1334.5	1201.5	1186.3	967.9
27.5°	1434.0	1428.6	1400.4	1352.9	1326.9	1344.2	1398.3	1414.5	1291.2	1272.8	1027.4
30°	1620.0	1616.7	1584.3	1520.5	1462.1	1425.3	1443.7	1485.9	1388.5	1366.9	1084.7
32.5°	1794.1	1788.7	1753.0	1678.4	1612.4	1544.3	1508.6	1550.8	1492.4	1467.5	1148.5
35°	1954.1	1940.1	1904.4	1826.5	1758.4	1693.5	1605.9	1612.4	1604.8	1578.9	1218.8
37.5°	2083.9	2073.1	2034.2	1961.7	1889.2	1827.6	1735.7	1682.7	1725.9	1701.1	1299.9
40°	2198.5	2186.6	2146.6	2074.2	2007.1	1948.7	1876.3	1768.1	1862.2	1834.1	1390.7
42.5°	2285.0	2276.4	2243.9	2172.6	2107.7	2054.7	2019.0	1876.3	2003.9	1976.8	1490.2
45°	2331.5	2322.9	2305.6	2248.3	2188.8	2147.7	2150.9	2005.0	2152.0	2129.3	1608.1
47.5°	2274.2	2280.7	2295.9	2285.0	2248.3	2228.8	2268.8	2138.0	2317.5	2295.9	1735.7
50°	2120.7	2127.2	2187.7	2262.3	2275.3	2299.1	2374.8	2291.5	2492.7	2475.4	1893.6
52.5°	1743.3	1778.9	1946.6	2125.0	2247.2	2345.6	2492.7	2519.7	2787.9	2787.9	2172.6
55°	1317.2	1348.5	1539.9	1851.4	2138.0	2349.9	2579.2	2674.4	3000.9	3005.3	2318.6
57.5°	1067.4	1086.8	1180.9	1499.9	1908.7	2295.9	2681.9	2807.4	3178.3	3197.8	2506.7
60°	866.2	877.0	938.7	1160.4	1591.9	2149.9	2755.5	2997.7	3431.3	3458.4	2746.8
62.5°	696.4	707.2	748.3	881.4	1249.0	1876.3	2742.5	3195.6	3768.8	3813.1	3061.5
65°	555.9	567.7	594.8	677.0	925.7	1536.7	2609.5	3297.3	4118.1	4161.3	3270.2
67.5°	433.6	444.5	462.8	516.9	652.1	1149.6	2294.8	3190.2	4274.9	4311.6	3281.0
70°	327.7	333.1	348.2	382.8	466.1	763.5	1796.2	2831.2	4134.3	4167.8	3064.7
72.5°	254.1	253.1	261.7	279.0	325.5	525.6	1190.6	2302.3	3655.2	3689.8	2614.9
75°	207.6	206.6	212.0	217.4	235.7	352.5	702.9	1733.5	2950.1	2884.2	1961.7
77.5°	175.2	174.1	179.5	180.6	188.2	243.3	400.1	1140.9	1968.2	1854.6	1105.2
80°	148.2	147.1	153.6	155.7	161.1	178.4	230.3	617.5	988.4	936.5	527.7
82.5°	111.4	115.7	127.6	133.0	139.5	131.9	142.7	272.5	458.5	438.0	229.3
85°	54.1	63.8	96.2	107.1	114.6	83.3	97.3	128.7	206.6	196.8	93.0
87.5°	18.4	16.2	57.3	68.1	74.6	37.8	54.1	71.4	85.4	77.9	29.2
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°	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6
2.5°	518.0	501.8	478.0	459.6	447.7	438.0	433.6	432.6	430.4	429.3	429.3
5°	528.8	499.6	462.8	443.4	438.0	433.6	435.8	436.9	436.9	436.9	436.9
7.5°	545.0	503.9	459.6	446.6	445.5	445.5	452.0	455.3	457.4	457.4	457.4
10°	566.7	511.5	465.0	454.2	457.4	459.6	467.2	471.5	473.7	474.7	475.8
12.5°	595.9	527.7	475.8	467.2	471.5	472.6	478.0	480.2	482.3	483.4	483.4
15°	634.8	551.5	493.1	482.3	483.4	482.3	482.3	480.2	479.1	479.1	481.2
17.5°	674.8	574.2	508.3	493.1	488.8	480.2	473.7	468.3	465.0	462.8	463.9
20°	714.8	594.8	516.9	495.3	483.4	469.3	457.4	449.9	445.5	441.2	443.4
22.5°	754.8	614.2	520.2	488.8	471.5	451.0	438.0	426.1	416.3	409.9	410.9
25°	799.2	635.9	520.2	481.2	455.3	433.6	417.4	398.0	383.9	378.5	380.7
27.5°	843.5	654.3	514.8	467.2	436.9	415.3	391.5	368.8	360.1	356.9	358.0
30°	887.8	668.3	502.9	449.9	417.4	393.6	362.3	347.1	336.3	327.7	328.8
32.5°	932.2	678.1	486.6	428.2	396.9	366.6	340.6	323.3	303.9	293.1	294.1
35°	983.0	685.6	467.2	406.6	374.2	342.8	323.3	295.2	274.7	266.0	263.9
37.5°	1036.0	691.0	446.6	382.8	351.5	325.5	306.0	271.4	252.0	240.1	239.0
40°	1093.3	693.2	421.8	358.0	329.8	314.7	283.3	257.4	223.9	216.3	216.3
42.5°	1161.4	692.1	396.9	333.1	306.0	289.8	267.1	255.2	226.0	218.4	214.1
45°	1239.3	692.1	369.8	303.9	282.3	258.5	248.7	241.2	221.7	224.9	227.1
47.5°	1328.0	689.9	337.4	280.1	262.8	242.2	236.8	220.6	213.0	215.2	217.4
50°	1450.2	693.2	308.2	260.6	248.7	231.4	224.9	216.3	213.0	214.1	213.0
52.5°	1620.0	682.4	280.1	248.7	237.9	215.2	215.2	214.1	215.2	214.1	214.1
55°	1713.0	658.6	259.5	242.2	230.3	207.6	212.0	214.1	216.3	215.2	215.2
57.5°	1844.9	642.4	243.3	237.9	226.0	205.5	209.8	214.1	215.2	214.1	214.1
60°	2000.6	631.5	232.5	239.0	222.8	205.5	210.9	214.1	213.0	212.0	212.0
62.5°	2181.2	627.2	224.9	242.2	219.5	206.6	210.9	214.1	209.8	208.7	208.7
65°	2249.4	588.3	215.2	244.4	221.7	206.6	209.8	210.9	205.5	204.4	203.3
67.5°	2144.5	521.2	201.1	240.1	228.2	206.6	206.6	205.5	199.0	197.9	195.7
70°	1909.8	432.6	179.5	226.0	232.5	207.6	202.2	196.8	190.3	190.3	186.0
72.5°	1563.7	340.6	151.4	201.1	229.3	210.9	193.6	186.0	178.4	178.4	174.1
75°	1126.8	254.1	121.1	167.6	215.2	209.8	182.8	173.0	164.4	163.3	157.9
77.5°	642.4	178.4	98.4	130.9	191.4	204.4	173.0	157.9	148.2	144.9	141.7
80°	329.8	120.0	80.0	102.7	159.0	189.2	165.5	140.6	129.8	124.4	119.0
82.5°	156.8	80.0	61.6	75.7	120.0	165.5	155.7	121.1	109.2	102.7	96.2
85°	70.3	47.6	41.1	48.7	85.4	128.7	137.3	99.5	85.4	107.1	78.9
87.5°	22.7	21.6	21.6	22.7	41.1	56.2	100.6	73.5	68.1	56.2	47.6
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)