

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: P234779

Luminaire Tested: **ARCH-M-AF48-40-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234779
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-M-AF48-40-D-U-T2R-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4244 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 38
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

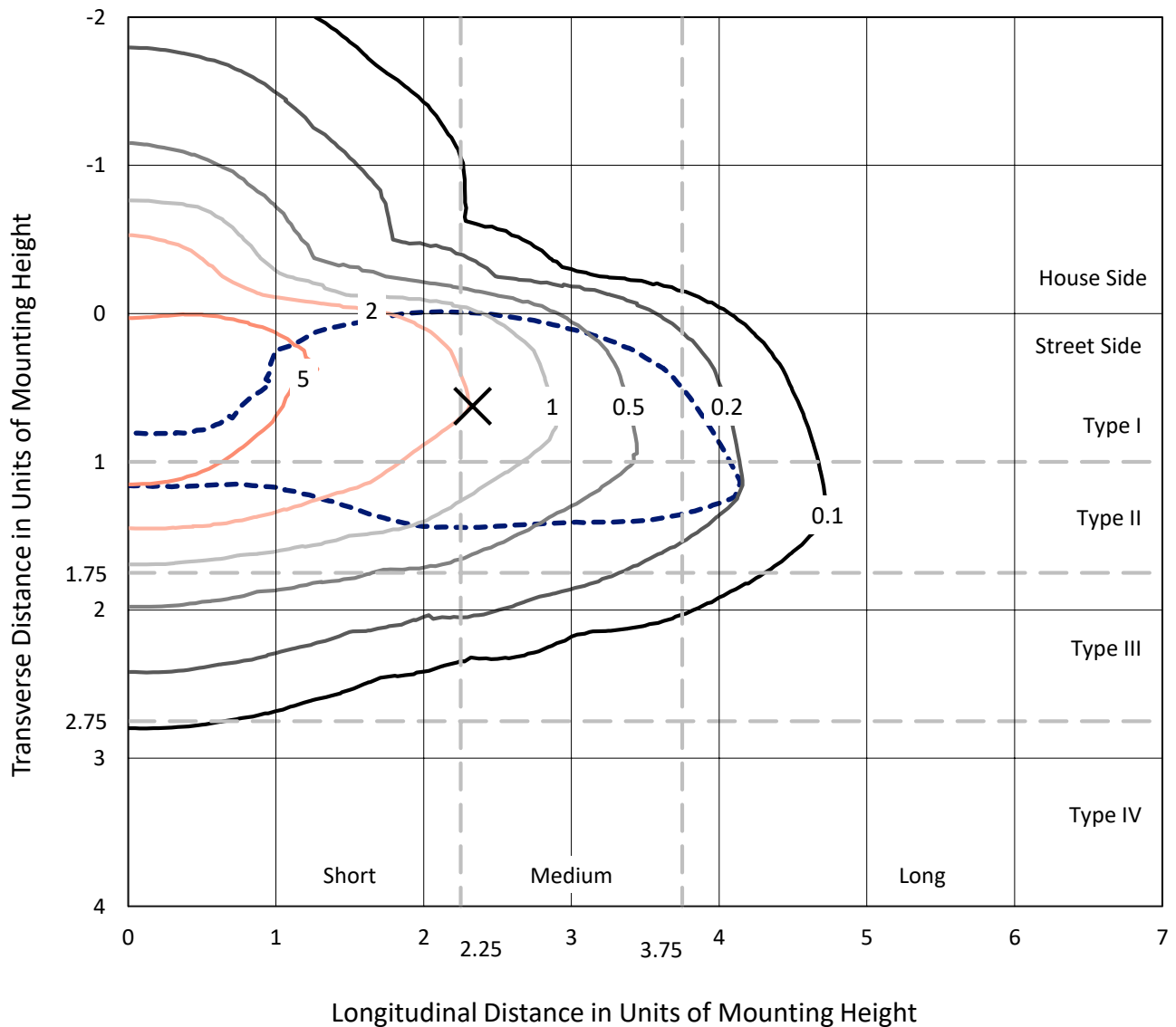


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Iso-Footcandle Lines of Horizontal Illumination

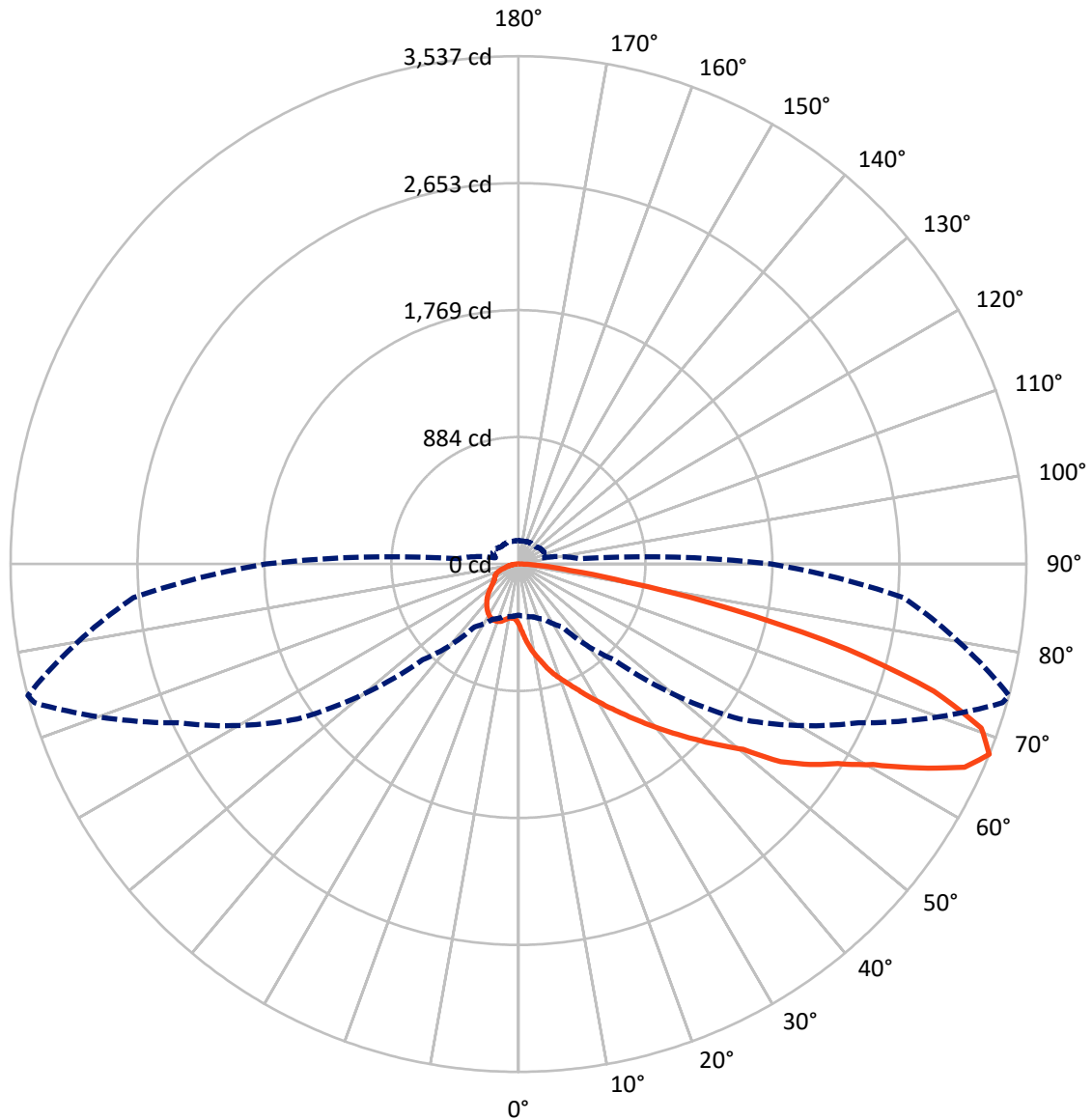
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 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	724.7	0.0	724.7
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	3519.3	0.0	3519.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	4244.0	0.0	4244.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.4	1.2
10°-20°	178.5	4.2
20°-30°	325.6	7.7
30°-40°	534.5	12.6
40°-50°	773.0	18.2
50°-60°	911.0	21.5
60°-70°	885.2	20.9
70°-80°	492.1	11.6
80°-90°	94.6	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°	4244.0	100.0
0°-180°	4244.0	100.0



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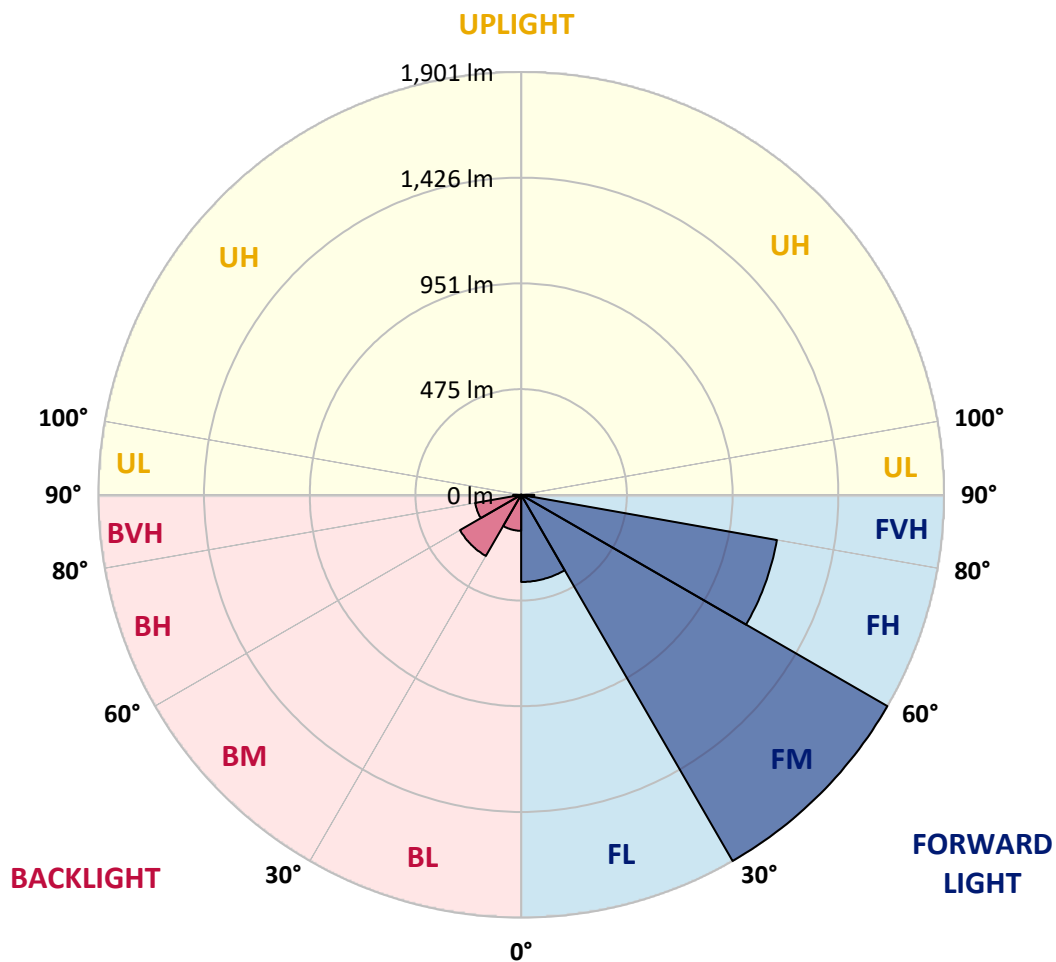
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	391.8	9.2			
FM	(30°-60°)	1901.1	44.8			
FH	(60°-80°)	1167.5	27.5			G1/1800
FVH	(80°-90°)	58.9	1.4			G1/100
BL	(0°-30°)	161.8	3.8	B1/500		
BM	(30°-60°)	317.4	7.5	B1/1000		
BH	(60°-80°)	209.8	4.9	B1/500		G1/500
BVH	(80°-90°)	35.7	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°	420.5	420.5	420.5	420.5	420.5	420.5	420.5	420.5	420.5	420.5	420.5
2.5°	596.2	598.0	594.4	586.4	574.9	553.6	535.0	502.2	472.9	469.3	438.3
5°	700.9	702.7	698.2	688.5	676.1	653.0	627.3	584.7	537.7	528.8	463.1
7.5°	772.8	773.6	768.3	758.6	748.8	725.7	700.0	652.1	594.4	587.3	495.1
10°	834.0	835.8	828.7	822.4	811.8	788.7	762.1	711.5	652.1	642.3	527.9
12.5°	890.8	892.5	888.1	882.8	879.2	857.9	828.7	768.3	704.4	693.8	566.9
15°	928.9	930.7	931.6	938.7	943.1	928.0	898.7	833.1	761.2	751.5	613.1
17.5°	918.3	922.7	936.0	961.7	989.2	990.1	966.2	897.0	817.1	806.5	660.1
20°	887.2	890.8	906.7	945.8	999.9	1030.9	1029.2	961.7	869.5	857.9	703.6
22.5°	912.9	917.4	917.4	941.3	994.6	1052.2	1075.3	1025.6	921.8	911.2	747.0
25°	1023.0	1025.6	1007.0	997.2	1016.7	1070.0	1113.5	1094.8	985.7	973.3	794.1
27.5°	1176.4	1172.0	1148.9	1109.9	1088.6	1102.8	1147.2	1160.5	1059.3	1044.2	842.9
30°	1329.0	1326.4	1299.8	1247.4	1199.5	1169.3	1184.4	1219.0	1139.2	1121.4	889.9
32.5°	1471.9	1467.4	1438.2	1377.0	1322.8	1266.9	1237.7	1272.3	1224.4	1203.9	942.2
35°	1603.2	1591.7	1562.4	1498.5	1442.6	1389.4	1317.5	1322.8	1316.6	1295.3	999.9
37.5°	1709.7	1700.8	1668.8	1609.4	1550.0	1499.4	1424.0	1380.5	1416.0	1395.6	1066.4
40°	1803.7	1793.9	1761.1	1701.7	1646.7	1598.8	1539.3	1450.6	1527.8	1504.7	1141.0
42.5°	1874.7	1867.6	1841.0	1782.4	1729.2	1685.7	1656.4	1539.3	1644.0	1621.8	1222.6
45°	1912.8	1905.7	1891.5	1844.5	1795.7	1762.0	1764.7	1644.9	1765.6	1746.9	1319.3
47.5°	1865.8	1871.1	1883.6	1874.7	1844.5	1828.5	1861.4	1754.0	1901.3	1883.6	1424.0
50°	1739.8	1745.1	1794.8	1856.0	1866.7	1886.2	1948.3	1880.0	2045.0	2030.8	1553.5
52.5°	1430.2	1459.5	1597.0	1743.4	1843.6	1924.4	2045.0	2067.2	2287.2	2287.2	1782.4
55°	1080.6	1106.4	1263.4	1518.9	1754.0	1927.9	2116.0	2194.1	2462.0	2465.6	1902.2
57.5°	875.7	891.6	968.8	1230.6	1565.9	1883.6	2200.3	2303.2	2607.5	2623.5	2056.6
60°	710.7	719.5	770.1	952.0	1306.0	1763.8	2260.6	2459.4	2815.1	2837.3	2253.5
62.5°	571.4	580.2	614.0	723.1	1024.7	1539.3	2250.0	2621.7	3091.9	3128.3	2511.7
65°	456.0	465.8	488.0	555.4	759.5	1260.7	2140.8	2705.1	3378.5	3414.0	2682.9
67.5°	355.8	364.6	379.7	424.1	535.0	943.1	1882.7	2617.3	3507.2	3537.3	2691.8
70°	268.8	273.3	285.7	314.1	382.4	626.4	1473.7	2322.7	3391.8	3419.3	2514.4
72.5°	208.5	207.6	214.7	228.9	267.1	431.2	976.8	1888.9	2998.8	3027.2	2145.3
75°	170.3	169.5	173.9	178.3	193.4	289.2	576.7	1422.2	2420.3	2366.2	1609.4
77.5°	143.7	142.8	147.3	148.2	154.4	199.6	328.3	936.0	1614.7	1521.6	906.7
80°	121.5	120.7	126.0	127.8	132.2	146.4	189.0	506.6	810.9	768.3	433.0
82.5°	91.4	94.9	104.7	109.1	114.5	108.2	117.1	223.6	376.2	359.3	188.1
85°	44.4	52.3	79.0	87.8	94.0	68.3	79.8	105.6	169.5	161.5	76.3
87.5°	15.1	13.3	47.0	55.9	61.2	31.1	44.4	58.6	70.1	63.9	24.0
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°	420.5	420.5	420.5	420.5	420.5	420.5	420.5	420.5	420.5	420.5	420.5
2.5°	425.0	411.7	392.1	377.1	367.3	359.3	355.8	354.9	353.1	352.2	352.2
5°	433.8	409.9	379.7	363.8	359.3	355.8	357.5	358.4	358.4	358.4	358.4
7.5°	447.2	413.4	377.1	366.4	365.5	365.5	370.9	373.5	375.3	375.3	375.3
10°	464.9	419.7	381.5	372.6	375.3	377.1	383.3	386.8	388.6	389.5	390.4
12.5°	488.9	433.0	390.4	383.3	386.8	387.7	392.1	393.9	395.7	396.6	396.6
15°	520.8	452.5	404.6	395.7	396.6	395.7	395.7	393.9	393.0	393.0	394.8
17.5°	553.6	471.1	417.0	404.6	401.0	393.9	388.6	384.2	381.5	379.7	380.6
20°	586.4	488.0	424.1	406.3	396.6	385.1	375.3	369.1	365.5	362.0	363.8
22.5°	619.3	503.9	426.7	401.0	386.8	370.0	359.3	349.6	341.6	336.3	337.1
25°	655.7	521.7	426.7	394.8	373.5	355.8	342.5	326.5	315.0	310.5	312.3
27.5°	692.0	536.8	422.3	383.3	358.4	340.7	321.2	302.5	295.4	292.8	293.7
30°	728.4	548.3	412.6	369.1	342.5	322.9	297.2	284.8	275.9	268.8	269.7
32.5°	764.8	556.3	399.2	351.3	325.6	300.8	279.5	265.3	249.3	240.4	241.3
35°	806.5	562.5	383.3	333.6	307.0	281.2	265.3	242.2	225.4	218.3	216.5
37.5°	849.9	566.9	366.4	314.1	288.3	267.1	251.1	222.7	206.7	197.0	196.1
40°	897.0	568.7	346.0	293.7	270.6	258.2	232.4	211.2	183.7	177.4	177.4
42.5°	952.9	567.8	325.6	273.3	251.1	237.8	219.1	209.4	185.4	179.2	175.7
45°	1016.7	567.8	303.4	249.3	231.6	212.0	204.1	197.8	181.9	184.5	186.3
47.5°	1089.5	566.0	276.8	229.8	215.6	198.7	194.3	181.0	174.8	176.6	178.3
50°	1189.8	568.7	252.9	213.8	204.1	189.9	184.5	177.4	174.8	175.7	174.8
52.5°	1329.0	559.8	229.8	204.1	195.2	176.6	176.6	175.7	176.6	175.7	175.7
55°	1405.3	540.3	212.9	198.7	189.0	170.3	173.9	175.7	177.4	176.6	176.6
57.5°	1513.6	527.0	199.6	195.2	185.4	168.6	172.1	175.7	176.6	175.7	175.7
60°	1641.3	518.1	190.8	196.1	182.8	168.6	173.0	175.7	174.8	173.9	173.9
62.5°	1789.5	514.6	184.5	198.7	180.1	169.5	173.0	175.7	172.1	171.2	171.2
65°	1845.4	482.6	176.6	200.5	181.9	169.5	172.1	173.0	168.6	167.7	166.8
67.5°	1759.3	427.6	165.0	197.0	187.2	169.5	169.5	168.6	163.2	162.4	160.6
70°	1566.8	354.9	147.3	185.4	190.8	170.3	165.9	161.5	156.1	156.1	152.6
72.5°	1282.9	279.5	124.2	165.0	188.1	173.0	158.8	152.6	146.4	146.4	142.8
75°	924.5	208.5	99.4	137.5	176.6	172.1	149.9	142.0	134.9	134.0	129.5
77.5°	527.0	146.4	80.7	107.4	157.0	167.7	142.0	129.5	121.5	118.9	116.2
80°	270.6	98.5	65.7	84.3	130.4	155.3	135.7	115.3	106.5	102.0	97.6
82.5°	128.6	65.7	50.6	62.1	98.5	135.7	127.8	99.4	89.6	84.3	79.0
85°	57.7	39.0	33.7	39.9	70.1	105.6	112.7	81.6	70.1	87.8	64.8
87.5°	18.6	17.7	17.7	18.6	33.7	46.1	82.5	60.3	55.9	46.1	39.0
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)