

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: P234780

Luminaire Tested: **ARCH-M-AF48-50-D-U-T2R-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234780  
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-AF48-50-D-U-T2R-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5272 lumens  
Efficiency: N/A  
Efficacy: 109.8 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

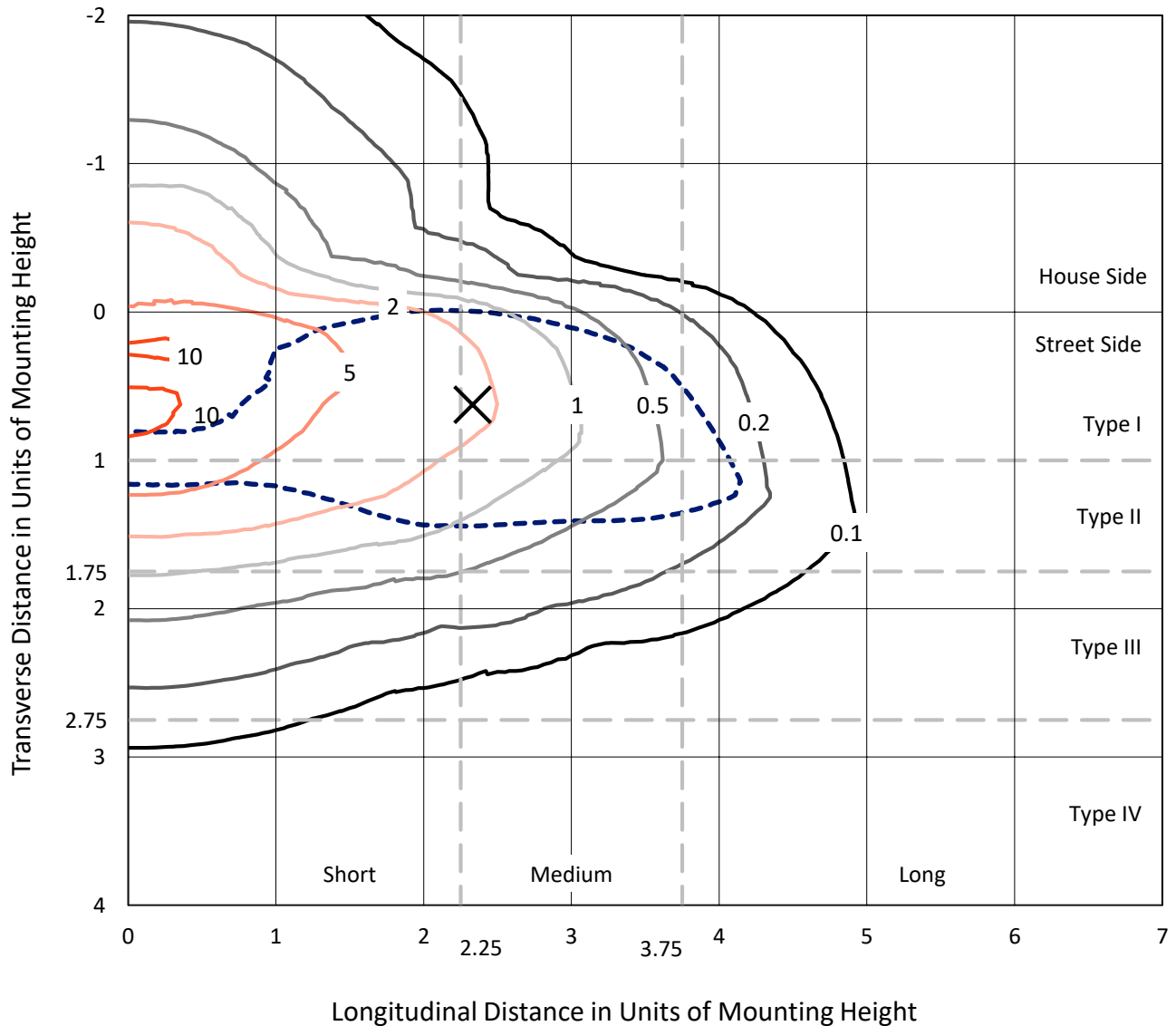
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

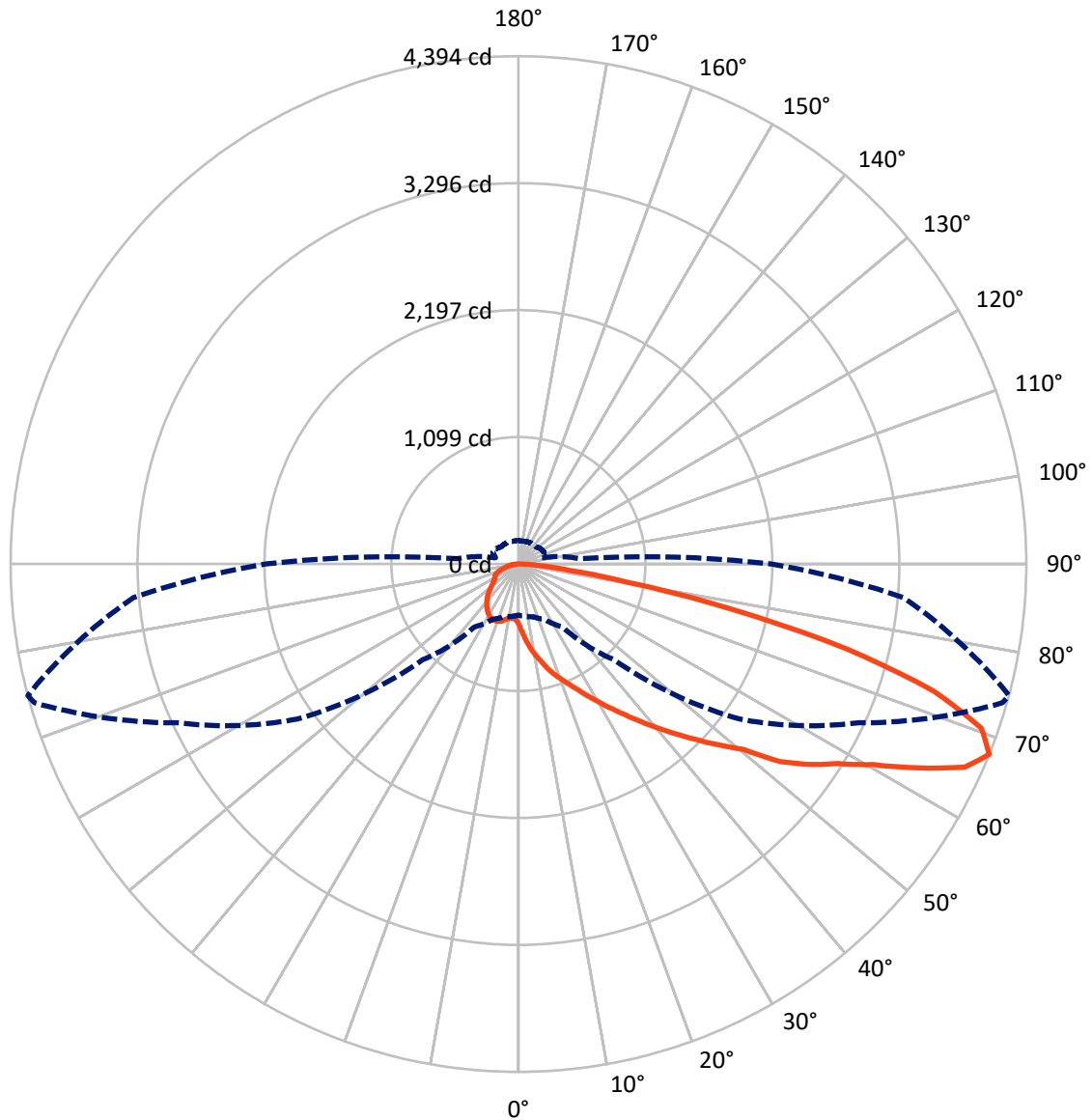


Based on 10 foot mounting height. Maximum calculated value = 10.9 fc  
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P234780

CATALOG NUMBER: ARCH-M-AF48-50-D-U-T2R-8027

### 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
<b>House Side</b>	Lumens	900.3	0.0	900.3
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	4371.7	0.0	4371.7
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	5272.0	0.0	5272.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.4	1.2
10°-20°	221.8	4.2
20°-30°	404.5	7.7
30°-40°	664.0	12.6
40°-50°	960.2	18.2
50°-60°	1131.6	21.5
60°-70°	1099.7	20.9
70°-80°	611.3	11.6
80°-90°	117.5	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°	5272.0	100.0
0°-180°	5272.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P234780

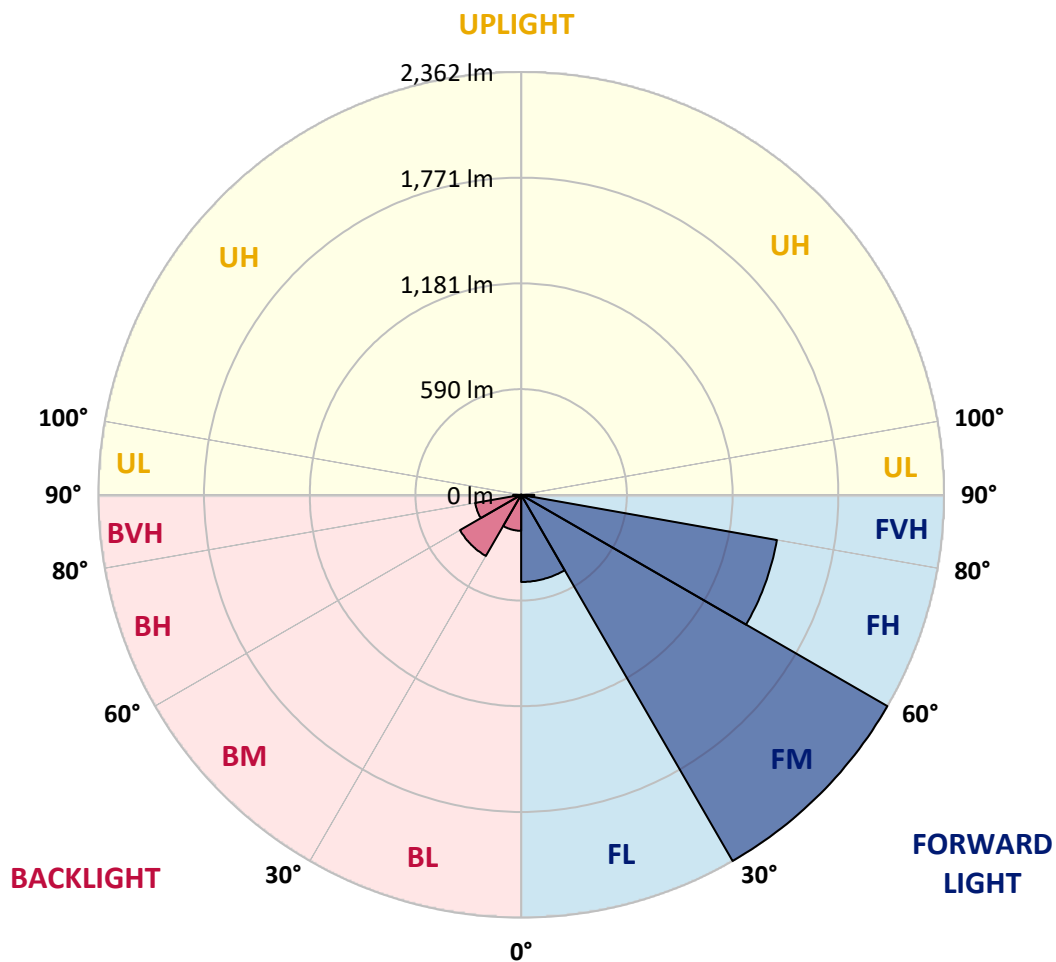
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	486.7	9.2			
FM	(30°-60°)	2361.6	44.8			
FH	(60°-80°)	1450.3	27.5			G1/1800
FVH	(80°-90°)	73.1	1.4			G1/100
BL	(0°-30°)	200.9	3.8	B1/500		
BM	(30°-60°)	394.3	7.5	B1/1000		
BH	(60°-80°)	260.7	4.9	B1/500		G1/500
BVH	(80°-90°)	44.4	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





REPORT NUMBER: P234780

CATALOG NUMBER: ARCH-M-AF48-50-D-U-T2R-8027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	522.4	522.4	522.4	522.4	522.4	522.4	522.4	522.4	522.4	522.4	522.4
2.5°	740.6	742.8	738.4	728.5	714.2	687.7	664.6	623.8	587.4	583.0	544.4
5°	870.7	872.9	867.4	855.2	839.8	811.2	779.2	726.3	667.9	656.9	575.3
7.5°	959.9	961.0	954.4	942.3	930.2	901.5	869.6	810.1	738.4	729.6	615.0
10°	1036.0	1038.2	1029.4	1021.7	1008.4	979.8	946.7	883.9	810.1	797.9	655.8
12.5°	1106.5	1108.7	1103.2	1096.6	1092.2	1065.7	1029.4	954.4	875.1	861.9	704.3
15°	1153.9	1156.1	1157.2	1166.0	1171.6	1152.8	1116.4	1034.9	945.6	933.5	761.6
17.5°	1140.7	1146.2	1162.7	1194.7	1228.9	1230.0	1200.2	1114.2	1015.0	1001.8	820.0
20°	1102.1	1106.5	1126.4	1174.9	1242.1	1280.7	1278.5	1194.7	1080.1	1065.7	874.0
22.5°	1134.1	1139.6	1139.6	1169.3	1235.5	1307.1	1335.8	1274.0	1145.1	1131.9	928.0
25°	1270.7	1274.0	1250.9	1238.8	1263.0	1329.2	1383.2	1360.0	1224.5	1209.0	986.4
27.5°	1461.4	1455.9	1427.2	1378.7	1352.3	1369.9	1425.0	1441.6	1315.9	1297.2	1047.0
30°	1651.0	1647.7	1614.6	1549.6	1490.1	1452.6	1471.3	1514.3	1415.1	1393.1	1105.4
32.5°	1828.4	1822.9	1786.5	1710.5	1643.3	1573.8	1537.5	1580.4	1520.9	1495.6	1170.4
35°	1991.5	1977.2	1940.8	1861.5	1792.0	1725.9	1636.6	1643.3	1635.5	1609.1	1242.1
37.5°	2123.8	2112.8	2073.1	1999.2	1925.4	1862.6	1768.9	1714.9	1759.0	1733.6	1324.7
40°	2240.6	2228.5	2187.7	2113.9	2045.5	1986.0	1912.2	1802.0	1897.8	1869.2	1417.3
42.5°	2328.8	2320.0	2286.9	2214.2	2148.0	2094.0	2057.7	1912.2	2042.2	2014.7	1518.7
45°	2376.2	2367.3	2349.7	2291.3	2230.7	2188.8	2192.1	2043.3	2193.2	2170.1	1638.8
47.5°	2317.8	2324.4	2339.8	2328.8	2291.3	2271.5	2312.2	2178.9	2361.8	2339.8	1768.9
50°	2161.3	2167.9	2229.6	2305.6	2318.9	2343.1	2420.2	2335.4	2540.4	2522.7	1929.8
52.5°	1776.6	1813.0	1983.8	2165.7	2290.2	2390.5	2540.4	2567.9	2841.3	2841.3	2214.2
55°	1342.4	1374.3	1569.4	1886.8	2178.9	2394.9	2628.5	2725.5	3058.4	3062.8	2362.9
57.5°	1087.8	1107.6	1203.5	1528.6	1945.2	2339.8	2733.3	2861.1	3239.1	3259.0	2554.7
60°	882.8	893.8	956.6	1182.6	1622.3	2191.0	2808.2	3055.1	3497.0	3524.6	2799.4
62.5°	709.8	720.8	762.7	898.2	1272.9	1912.2	2795.0	3256.8	3840.9	3886.1	3120.1
65°	566.5	578.6	606.2	689.9	943.4	1566.1	2659.4	3360.4	4196.9	4240.9	3332.8
67.5°	441.9	453.0	471.7	526.8	664.6	1171.6	2338.7	3251.2	4356.7	4394.1	3343.8
70°	333.9	339.5	354.9	390.1	475.0	778.1	1830.6	2885.3	4213.4	4247.6	3123.4
72.5°	259.0	257.9	266.7	284.3	331.7	535.6	1213.4	2346.4	3725.2	3760.4	2664.9
75°	211.6	210.5	216.0	221.5	240.3	359.3	716.4	1766.7	3006.6	2939.3	1999.2
77.5°	178.5	177.4	183.0	184.1	191.8	248.0	407.8	1162.7	2005.9	1890.1	1126.4
80°	151.0	149.9	156.5	158.7	164.2	181.8	234.8	629.3	1007.3	954.4	537.8
82.5°	113.5	117.9	130.0	135.6	142.2	134.5	145.5	277.7	467.3	446.4	233.6
85°	55.1	65.0	98.1	109.1	116.8	84.9	99.2	131.2	210.5	200.6	94.8
87.5°	18.7	16.5	58.4	69.4	76.0	38.6	55.1	72.7	87.1	79.4	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



REPORT NUMBER: P234780

CATALOG NUMBER: ARCH-M-AF48-50-D-U-T2R-8027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	522.4	522.4	522.4	522.4	522.4	522.4	522.4	522.4	522.4	522.4	522.4
2.5°	527.9	511.4	487.1	468.4	456.3	446.4	441.9	440.8	438.6	437.5	437.5
5°	538.9	509.2	471.7	451.9	446.4	441.9	444.2	445.3	445.3	445.3	445.3
7.5°	555.5	513.6	468.4	455.2	454.1	454.1	460.7	464.0	466.2	466.2	466.2
10°	577.5	521.3	473.9	462.9	466.2	468.4	476.1	480.5	482.7	483.8	484.9
12.5°	607.3	537.8	484.9	476.1	480.5	481.6	487.1	489.3	491.5	492.6	492.6
15°	646.9	562.1	502.6	491.5	492.6	491.5	491.5	489.3	488.2	488.2	490.4
17.5°	687.7	585.2	518.0	502.6	498.2	489.3	482.7	477.2	473.9	471.7	472.8
20°	728.5	606.2	526.8	504.8	492.6	478.3	466.2	458.5	454.1	449.7	451.9
22.5°	769.3	626.0	530.1	498.2	480.5	459.6	446.4	434.2	424.3	417.7	418.8
25°	814.5	648.0	530.1	490.4	464.0	441.9	425.4	405.6	391.3	385.7	387.9
27.5°	859.7	666.8	524.6	476.1	445.3	423.2	399.0	375.8	367.0	363.7	364.8
30°	904.8	681.1	512.5	458.5	425.4	401.2	369.2	353.8	342.8	333.9	335.0
32.5°	950.0	691.0	496.0	436.4	404.5	373.6	347.2	329.5	309.7	298.7	299.8
35°	1001.8	698.7	476.1	414.4	381.3	349.4	329.5	300.9	279.9	271.1	268.9
37.5°	1055.8	704.3	455.2	390.1	358.2	331.7	311.9	276.6	256.8	244.7	243.6
40°	1114.2	706.5	429.8	364.8	336.1	320.7	288.8	262.3	228.1	220.4	220.4
42.5°	1183.7	705.4	404.5	339.5	311.9	295.4	272.2	260.1	230.3	222.6	218.2
45°	1263.0	705.4	376.9	309.7	287.7	263.4	253.5	245.8	225.9	229.2	231.4
47.5°	1353.4	703.2	343.9	285.4	267.8	246.9	241.4	224.8	217.1	219.3	221.5
50°	1477.9	706.5	314.1	265.6	253.5	235.9	229.2	220.4	217.1	218.2	217.1
52.5°	1651.0	695.4	285.4	253.5	242.5	219.3	219.3	218.2	219.3	218.2	218.2
55°	1745.8	671.2	264.5	246.9	234.8	211.6	216.0	218.2	220.4	219.3	219.3
57.5°	1880.2	654.7	248.0	242.5	230.3	209.4	213.8	218.2	219.3	218.2	218.2
60°	2038.9	643.6	237.0	243.6	227.0	209.4	214.9	218.2	217.1	216.0	216.0
62.5°	2223.0	639.2	229.2	246.9	223.7	210.5	214.9	218.2	213.8	212.7	212.7
65°	2292.4	599.6	219.3	249.1	225.9	210.5	213.8	214.9	209.4	208.3	207.2
67.5°	2185.5	531.2	205.0	244.7	232.5	210.5	210.5	209.4	202.8	201.7	199.5
70°	1946.3	440.8	183.0	230.3	237.0	211.6	206.1	200.6	194.0	194.0	189.6
72.5°	1593.7	347.2	154.3	205.0	233.6	214.9	197.3	189.6	181.8	181.8	177.4
75°	1148.4	259.0	123.4	170.8	219.3	213.8	186.3	176.3	167.5	166.4	160.9
77.5°	654.7	181.8	100.3	133.4	195.1	208.3	176.3	160.9	151.0	147.7	144.4
80°	336.1	122.3	81.6	104.7	162.0	192.9	168.6	143.3	132.3	126.7	121.2
82.5°	159.8	81.6	62.8	77.1	122.3	168.6	158.7	123.4	111.3	104.7	98.1
85°	71.6	48.5	41.9	49.6	87.1	131.2	140.0	101.4	87.1	109.1	80.5
87.5°	23.1	22.0	22.0	23.1	41.9	57.3	102.5	74.9	69.4	57.3	48.5
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)