

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: P214739

Luminaire Tested: **ARCH-AF16-50-D-U-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214739  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-50-D-U-T3-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5982 lumens  
Efficiency: N/A  
Efficacy: 112.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

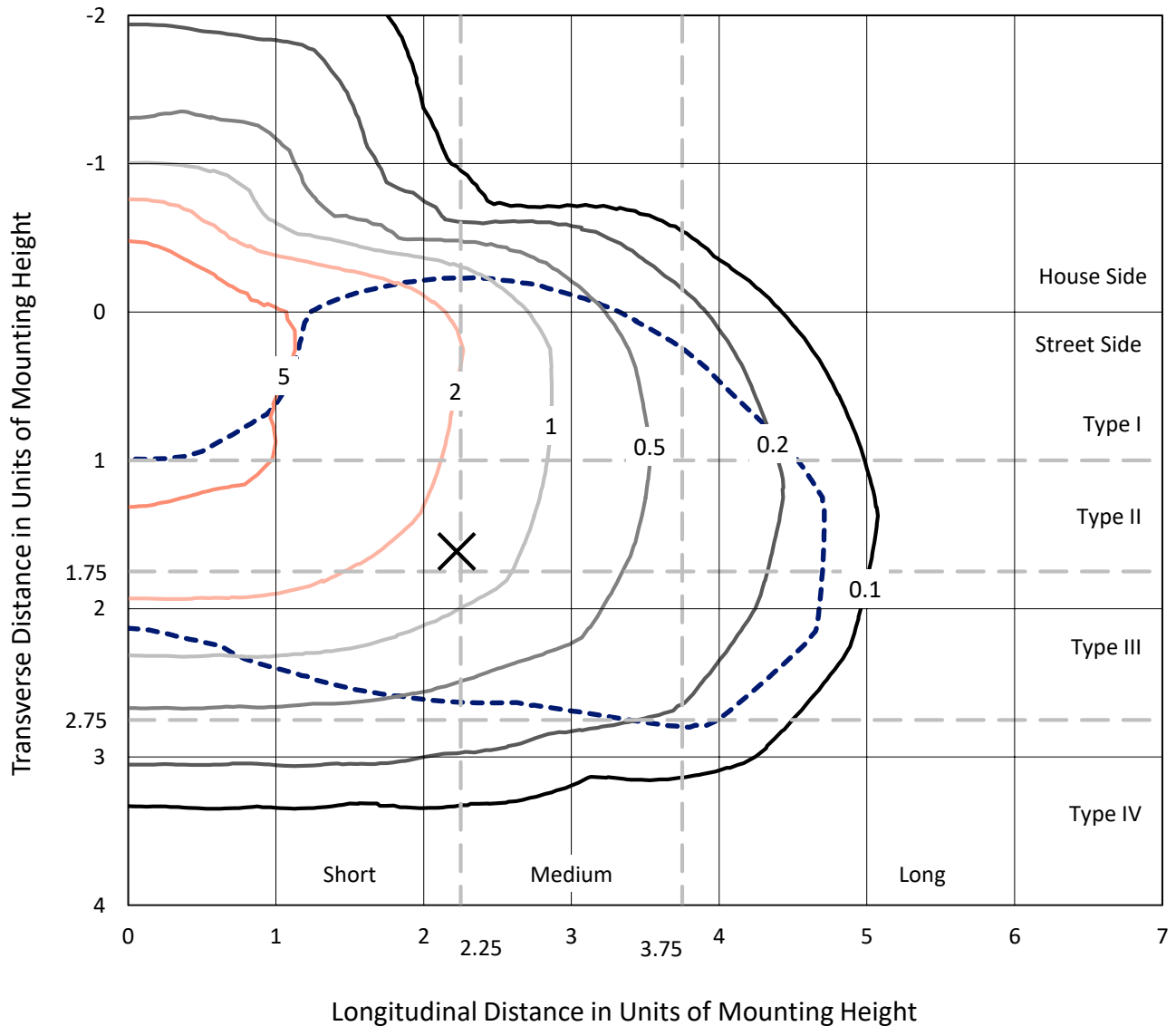


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### Iso-Footcandle Lines of Horizontal Illumination

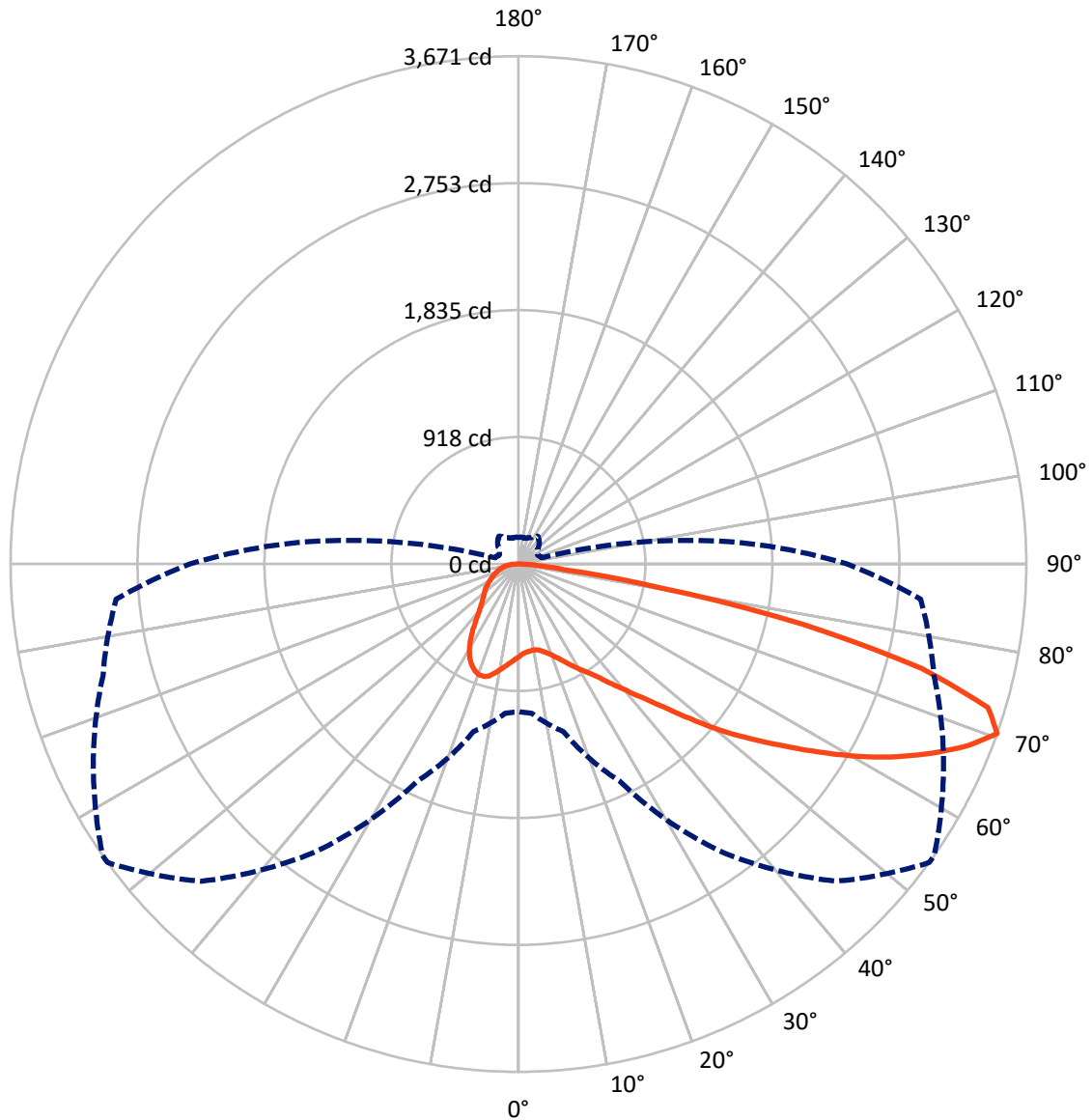
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.8 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical



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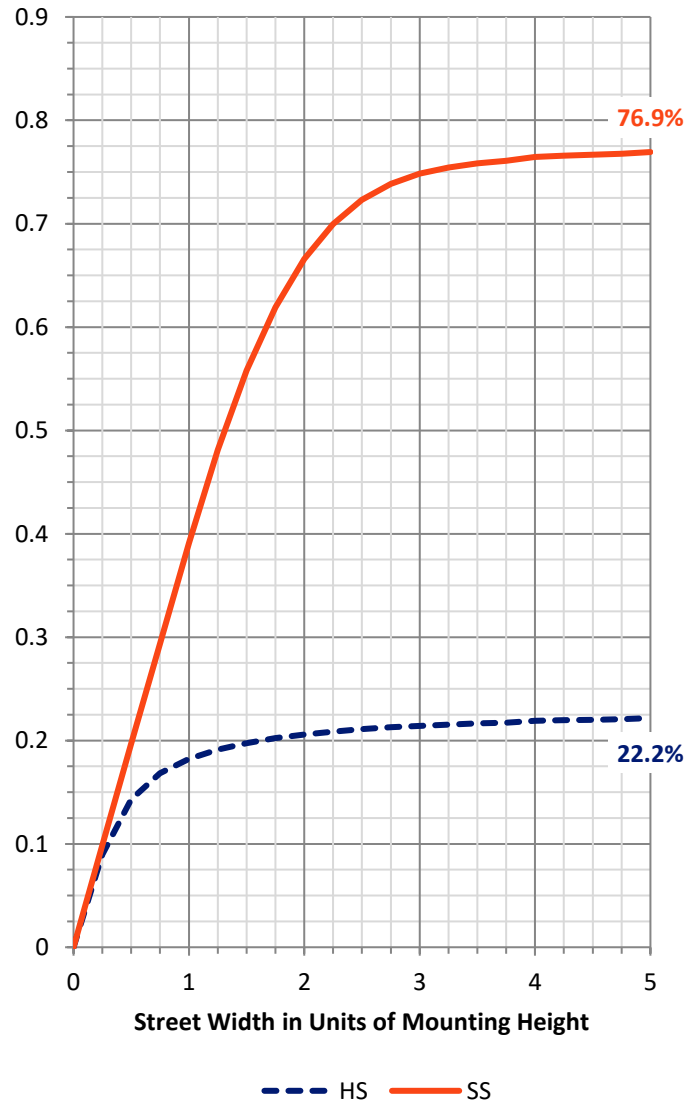
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1356.7	0.0	1356.7
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	4625.3	0.0	4625.3
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	5982.0	0.0	5982.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.7	1.1
10°-20°	209.9	3.5
20°-30°	364.6	6.1
30°-40°	532.8	8.9
40°-50°	836.3	14.0
50°-60°	1286.0	21.5
60°-70°	1571.2	26.3
70°-80°	974.1	16.3
80°-90°	141.5	2.4
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°	5982.0	100.0
0°-180°	5982.0	100.0

**Coefficient of Utilization**



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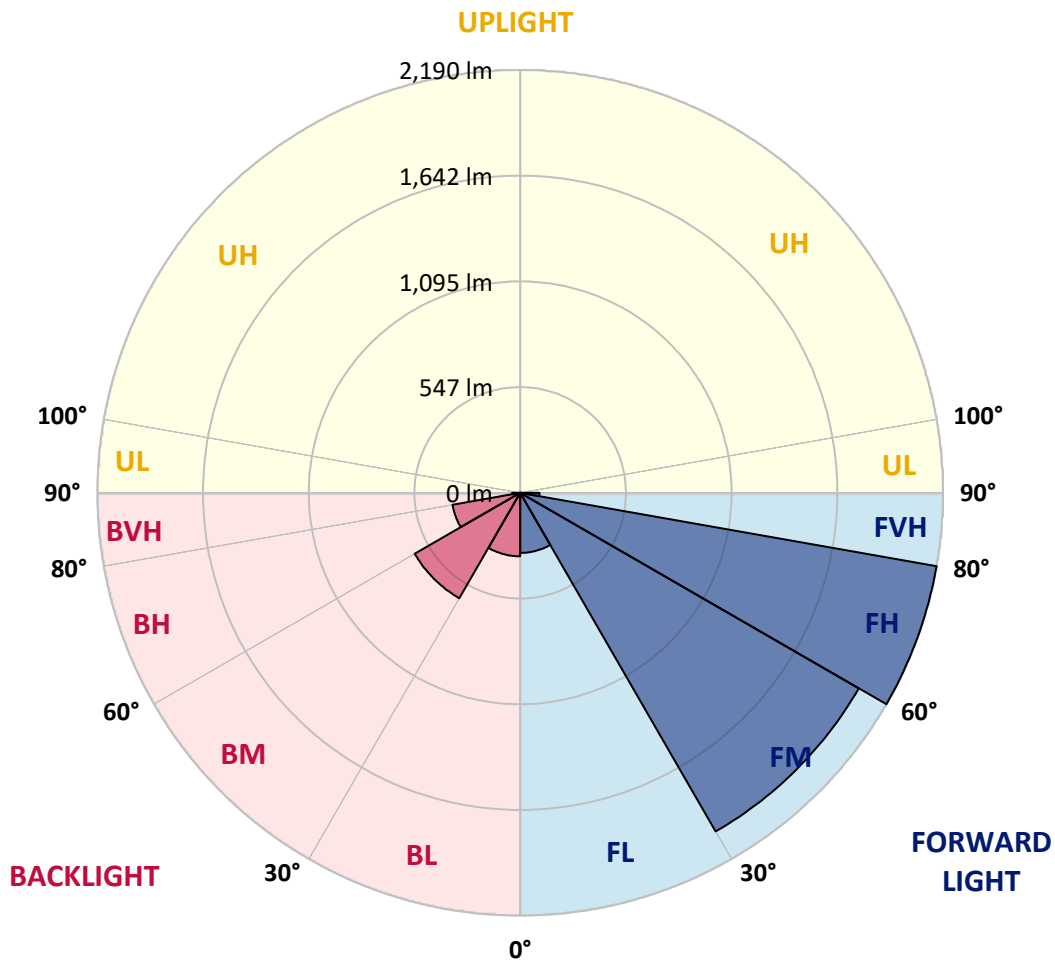
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	311.2	5.2			
FM	(30°-60°)	2024.6	33.8			
FH	(60°-80°)	2189.5	36.6			G2/5000
FVH	(80°-90°)	99.9	1.7			G1/100
BL	(0°-30°)	328.9	5.5	B1/500		
BM	(30°-60°)	630.4	10.5	B1/1000		
BH	(60°-80°)	355.8	5.9	B1/500		G1/500
BVH	(80°-90°)	41.6	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	669.3	669.3	669.3	669.3	669.3	669.3	669.3	669.3	669.3	669.3	669.3
2.5°	643.0	640.8	640.8	644.1	645.2	648.5	648.5	649.5	652.8	658.3	664.9
5°	623.3	622.2	623.3	627.6	629.8	636.4	638.6	639.7	646.3	655.0	664.9
7.5°	603.5	602.4	604.6	611.2	617.8	627.6	633.1	634.2	644.1	656.1	669.3
10°	597.0	595.9	599.2	604.6	611.2	622.2	630.9	632.0	646.3	660.5	679.1
12.5°	605.7	604.6	607.9	613.4	620.0	627.6	637.5	638.6	657.2	675.8	695.6
15°	627.6	627.6	628.7	632.0	638.6	645.2	653.9	655.0	674.7	696.6	716.4
17.5°	661.6	659.4	659.4	658.3	662.7	666.0	676.9	678.0	698.8	718.6	738.3
20°	703.2	702.1	697.7	692.3	691.2	693.4	704.3	705.4	726.2	742.7	761.3
22.5°	753.6	754.7	744.8	732.8	727.3	730.6	740.5	741.6	756.9	771.1	787.6
25°	820.4	817.1	802.9	785.4	774.4	774.4	784.3	784.3	798.5	807.3	818.2
27.5°	884.0	877.4	864.2	839.0	821.5	824.8	834.7	834.7	847.8	851.1	856.6
30°	953.0	946.4	930.0	898.2	875.2	873.0	885.1	884.0	901.5	900.4	896.0
32.5°	1037.3	1034.0	1006.6	966.1	935.4	927.8	938.7	939.8	950.8	947.5	933.2
35°	1155.6	1154.5	1129.3	1058.1	1017.6	1003.3	1009.9	1009.9	1017.6	1008.8	984.7
37.5°	1304.6	1306.8	1284.9	1179.7	1122.7	1098.6	1099.7	1098.6	1100.8	1091.0	1065.8
40°	1453.5	1459.0	1457.9	1330.9	1258.6	1216.9	1201.6	1199.4	1204.9	1200.5	1176.4
42.5°	1649.6	1662.8	1632.1	1517.1	1436.0	1365.9	1324.3	1318.8	1330.9	1336.3	1313.3
45°	1853.3	1849.0	1800.8	1717.5	1644.1	1554.3	1475.4	1466.7	1475.4	1491.9	1467.8
47.5°	1959.6	1956.3	1944.3	1902.6	1891.7	1788.7	1669.3	1661.7	1645.2	1668.2	1639.8
50°	2134.9	2138.1	2088.9	2084.5	2130.5	2073.5	1888.4	1870.9	1841.3	1859.9	1835.8
52.5°	2261.9	2247.7	2217.0	2255.3	2398.8	2368.2	2094.3	2086.7	2059.3	2054.9	2043.9
55°	2313.4	2313.4	2318.9	2407.6	2612.4	2571.9	2317.8	2325.4	2288.2	2257.5	2271.8
57.5°	2328.7	2335.3	2382.4	2529.2	2863.3	2730.7	2564.2	2575.2	2521.5	2460.2	2505.1
60°	2253.2	2272.9	2385.7	2598.2	3004.6	2899.4	2823.8	2827.1	2749.4	2659.5	2738.4
62.5°	2059.3	2083.4	2284.9	2626.7	2981.6	3072.5	3069.2	3076.9	2970.6	2858.9	2957.5
65°	1821.6	1845.7	2060.4	2546.7	2964.0	3196.3	3293.7	3314.6	3177.6	3027.6	3094.4
67.5°	1472.2	1503.9	1707.7	2277.3	2878.6	3298.1	3504.1	3526.0	3337.6	3115.2	3082.3
70°	1066.9	1082.2	1253.1	1730.7	2530.3	3242.3	3670.6	3669.5	3390.1	3108.6	2918.0
72.5°	513.7	525.8	673.6	1074.5	1809.5	2751.5	3550.1	3570.9	3317.8	3013.3	2542.3
75°	211.4	223.5	272.7	453.5	949.7	1818.3	3009.0	3058.2	3013.3	2704.4	1989.2
77.5°	131.4	135.8	159.9	234.4	433.8	848.9	2106.4	2173.2	2387.9	2166.6	1313.3
80°	98.6	101.9	119.4	164.3	273.8	313.3	1046.1	1130.4	1447.0	1243.2	594.8
82.5°	82.2	83.2	95.3	119.4	186.2	179.6	335.2	373.5	674.7	474.3	204.8
85°	76.7	78.9	85.4	85.4	118.3	112.8	139.1	145.7	196.1	162.1	71.2
87.5°	39.4	37.2	75.6	66.8	61.3	54.8	59.1	63.5	73.4	77.8	31.8
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°	669.3	669.3	669.3	669.3	669.3	669.3	669.3	669.3	669.3	669.3	669.3
2.5°	667.1	670.4	675.8	681.3	687.9	695.6	699.9	705.4	709.8	707.6	706.5
5°	670.4	675.8	687.9	698.8	712.0	727.3	737.2	748.1	756.9	759.1	755.8
7.5°	675.8	685.7	702.1	721.8	739.4	759.1	774.4	789.8	800.7	802.9	802.9
10°	689.0	699.9	721.8	748.1	768.9	789.8	807.3	819.3	829.2	833.6	833.6
12.5°	707.6	720.7	747.0	778.8	801.8	821.5	831.4	836.9	841.2	845.6	846.7
15°	729.5	743.7	775.5	809.5	833.6	843.4	843.4	842.3	842.3	844.5	846.7
17.5°	751.4	766.8	799.6	835.8	851.1	845.6	838.0	834.7	832.5	831.4	834.7
20°	774.4	789.8	822.6	856.6	852.2	829.2	818.2	810.6	804.0	800.7	805.1
22.5°	799.6	813.9	847.8	870.8	838.0	802.9	782.1	770.0	759.1	752.5	756.9
25°	829.2	843.4	876.3	875.2	812.8	763.5	730.6	710.9	698.8	692.3	692.3
27.5°	864.2	876.3	908.1	864.2	777.7	710.9	662.7	644.1	640.8	635.3	635.3
30°	900.4	910.2	937.6	839.0	729.5	641.9	589.3	580.5	581.6	576.2	577.3
32.5°	937.6	947.5	955.2	801.8	667.1	564.1	529.1	522.5	521.4	517.0	512.6
35°	990.2	1004.4	957.3	751.4	591.5	499.5	474.3	467.7	461.1	445.8	445.8
37.5°	1070.2	1085.5	951.9	689.0	513.7	449.1	426.1	417.3	406.4	391.0	385.6
40°	1179.7	1179.7	939.8	618.9	451.3	408.6	386.7	375.7	363.7	348.3	345.0
42.5°	1309.0	1278.3	921.2	547.7	405.3	381.2	361.5	349.4	335.2	317.7	315.5
45°	1460.1	1376.9	894.9	484.1	371.3	364.8	352.7	331.9	307.8	289.2	285.9
47.5°	1606.9	1465.6	869.7	439.2	342.8	358.2	348.3	313.3	280.4	254.1	250.8
50°	1767.9	1544.5	840.1	402.0	320.9	353.8	342.8	285.9	249.7	231.1	228.9
52.5°	1928.9	1624.4	808.4	362.6	302.3	345.0	329.7	266.2	248.6	223.5	220.2
55°	2098.7	1717.5	771.1	318.7	280.4	327.5	312.2	265.1	256.3	223.5	215.8
57.5°	2264.1	1820.5	710.9	276.0	256.3	301.2	305.6	258.5	239.9	221.3	212.5
60°	2447.0	1930.0	611.2	239.9	235.5	279.3	296.8	244.3	221.3	214.7	210.3
62.5°	2593.8	2028.6	477.6	214.7	218.0	261.8	285.9	235.5	213.6	208.1	207.0
65°	2657.3	2030.8	342.8	192.8	200.5	245.4	274.9	227.8	207.0	204.8	203.7
67.5°	2590.5	1919.1	241.0	172.0	181.8	230.0	260.7	220.2	200.5	201.5	199.4
70°	2374.7	1683.6	176.4	152.3	164.3	213.6	245.4	210.3	192.8	195.0	191.7
72.5°	1987.0	1312.2	141.3	135.8	150.1	196.1	230.0	199.4	180.7	181.8	175.3
75°	1467.8	869.7	118.3	121.6	133.6	179.6	210.3	185.1	167.6	163.2	158.8
77.5°	873.0	446.9	97.5	106.2	119.4	159.9	188.4	167.6	153.4	145.7	142.4
80°	360.4	180.7	80.0	89.8	104.1	142.4	166.5	146.8	136.9	129.3	124.9
82.5°	143.5	88.7	63.5	73.4	87.6	123.8	145.7	129.3	119.4	113.9	101.9
85°	54.8	43.8	42.7	51.5	65.7	95.3	120.5	108.4	100.8	86.5	83.2
87.5°	21.9	19.7	19.7	25.2	37.2	60.2	86.5	75.6	78.9	62.4	63.5
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)