

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: P265965

Luminaire Tested: **ARCH-AF24-70-D-U-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265965  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-70-D-U-T4W-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7315.9 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 74  
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

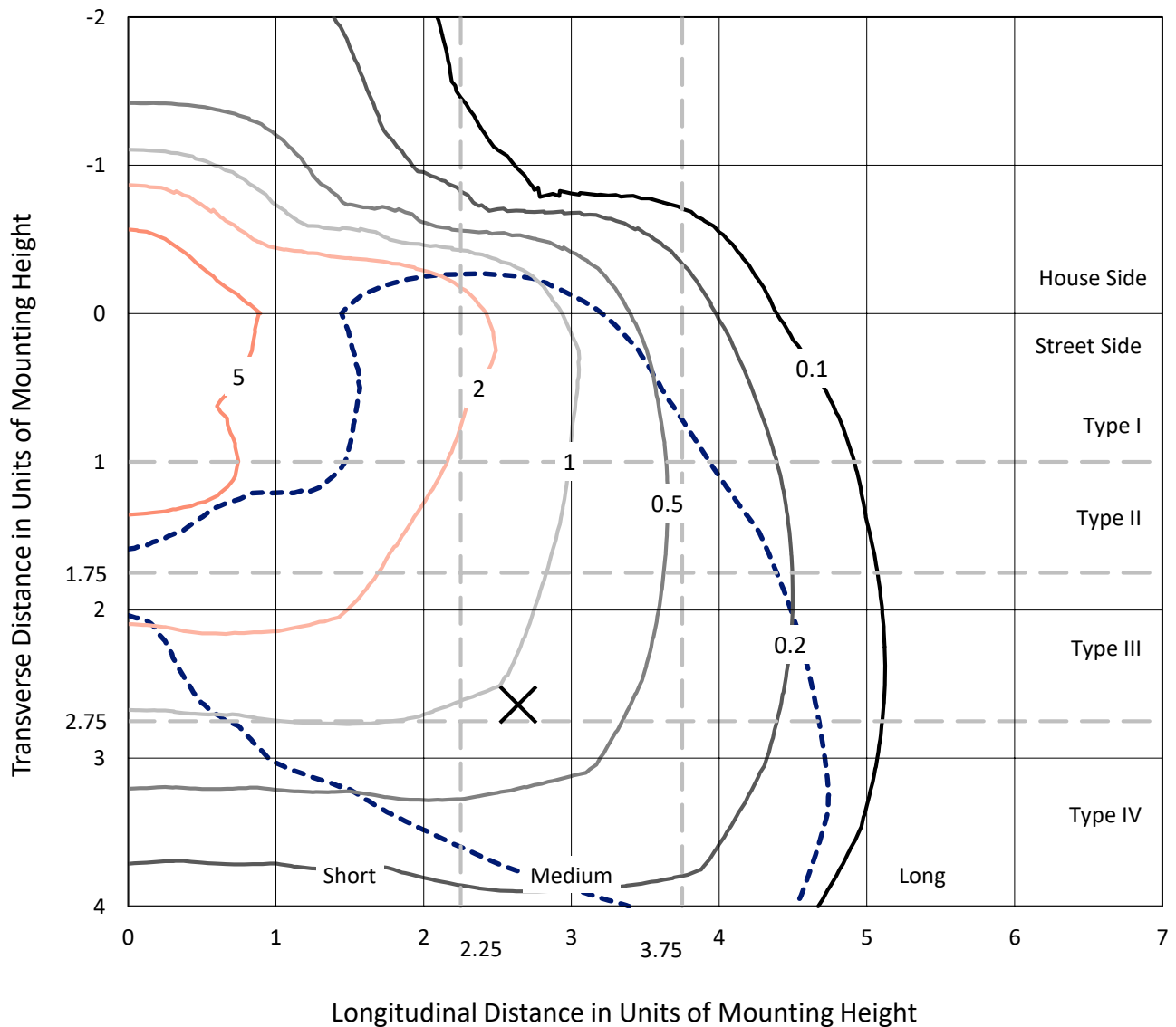


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

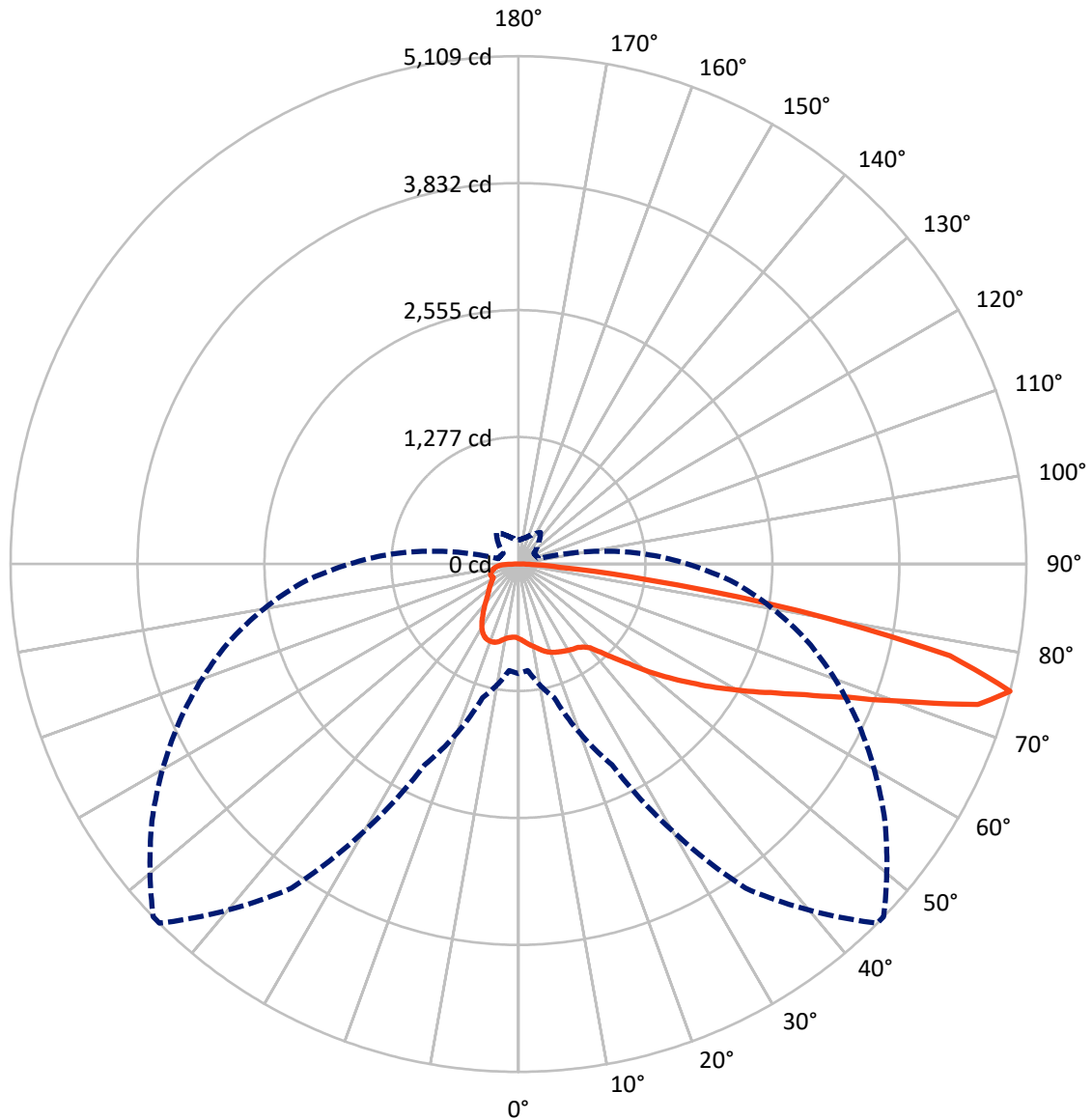


Based on 10 foot mounting height. Maximum calculated value = 8.8 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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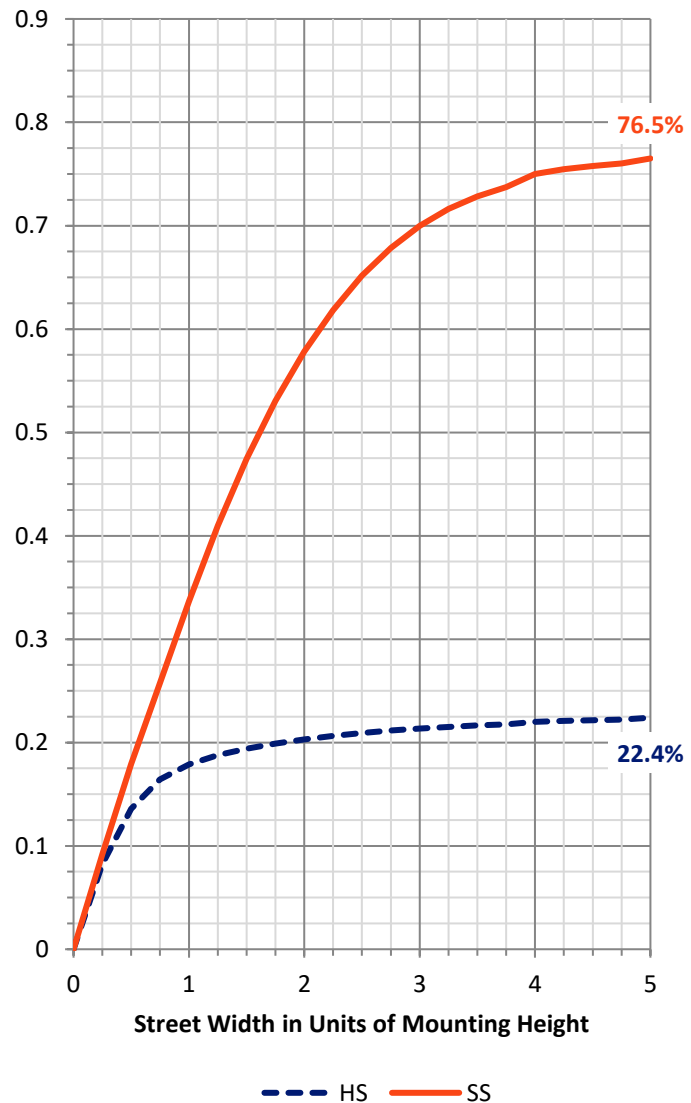
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1694.8	0.0	1694.8
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	5621.1	0.0	5621.1
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	7315.9	0.0	7315.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.3	1.0
10°-20°	240.8	3.3
20°-30°	413.3	5.6
30°-40°	578.0	7.9
40°-50°	847.9	11.6
50°-60°	1320.9	18.1
60°-70°	1900.6	26.0
70°-80°	1655.6	22.6
80°-90°	284.3	3.9
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°	7315.9	100.0
0°-180°	7315.9	100.0



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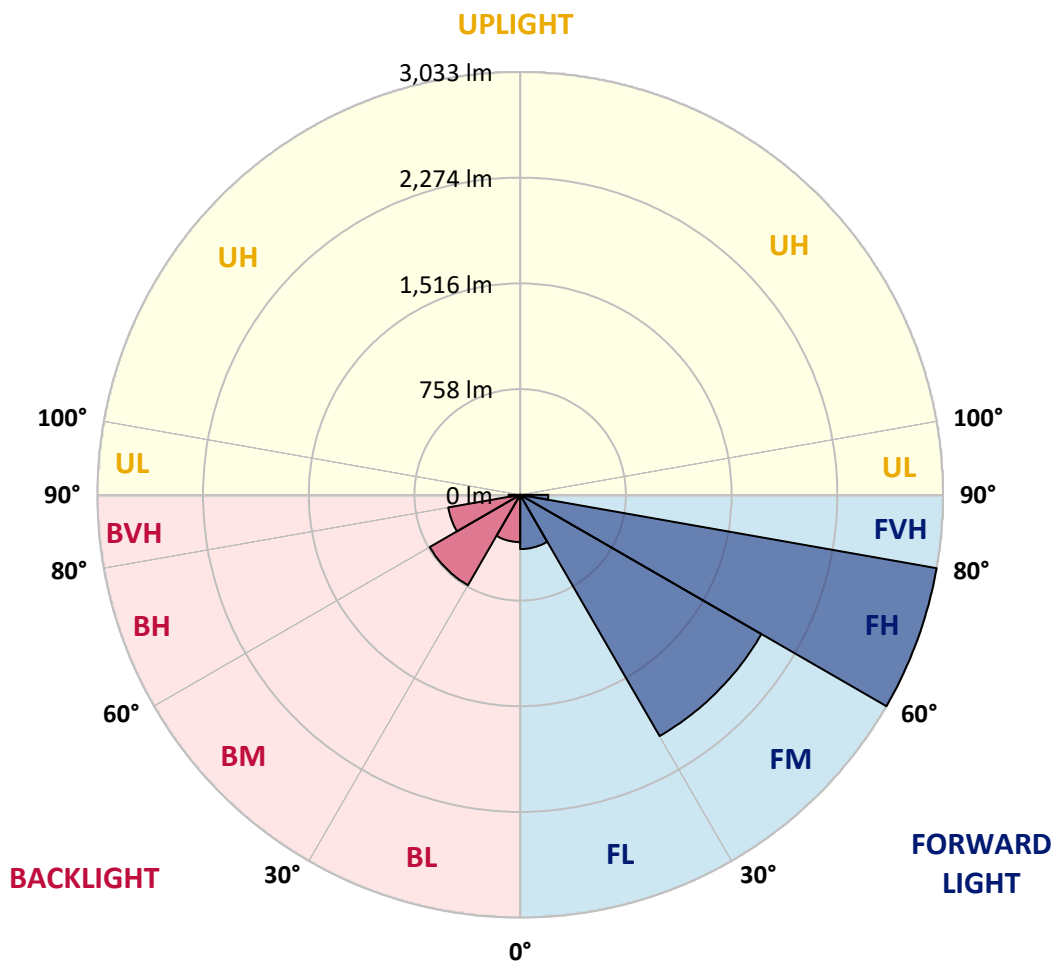
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	389.0	5.3			
FM	(30°-60°)	1997.8	27.3			
FH	(60°-80°)	3032.5	41.5			G2/5000
FVH	(80°-90°)	201.7	2.8			G2/225
BL	(0°-30°)	339.4	4.6	B1/500		
BM	(30°-60°)	749.0	10.2	B1/1000		
BH	(60°-80°)	523.7	7.2	B2/1000		G2/1000
BVH	(80°-90°)	82.6	1.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	749.9	749.9	749.9	749.9	749.9	749.9	749.9	749.9	749.9	749.9	749.9
2.5°	786.9	781.3	781.3	777.0	777.0	769.8	767.1	765.6	758.4	754.2	749.9
5°	832.5	825.5	823.9	814.0	809.7	794.1	792.7	782.8	769.8	757.1	747.1
7.5°	873.8	869.5	862.5	852.4	839.6	819.8	818.3	802.6	781.3	764.2	749.9
10°	903.7	900.8	890.8	878.1	863.8	843.9	842.5	825.5	799.9	779.9	760.0
12.5°	939.3	935.0	922.2	905.1	889.4	870.9	869.5	855.2	826.8	801.2	775.5
15°	973.5	967.7	952.1	935.0	917.9	902.3	902.3	886.5	856.8	826.8	796.9
17.5°	990.6	987.6	972.0	953.6	939.3	927.9	926.4	912.1	882.3	851.1	818.3
20°	996.2	997.6	983.4	963.4	953.6	947.8	946.4	936.5	903.7	873.8	842.5
22.5°	994.8	999.0	987.6	966.2	963.4	963.4	963.4	952.1	926.4	896.6	865.2
25°	1000.4	1006.1	997.6	972.0	972.0	977.6	977.6	972.0	949.1	923.5	892.2
27.5°	1020.4	1024.6	1017.5	981.9	983.4	991.9	990.6	991.9	977.6	953.6	922.2
30°	1044.5	1050.3	1041.8	997.6	996.2	1004.8	1004.8	1011.9	1001.9	976.3	950.6
32.5°	1110.0	1108.6	1081.6	1014.6	1010.5	1018.9	1018.9	1026.0	1020.4	1000.4	976.3
35°	1305.0	1283.7	1223.9	1070.2	1027.5	1031.8	1031.8	1044.5	1047.5	1031.8	1010.5
37.5°	1504.2	1497.1	1451.7	1218.2	1090.2	1058.8	1057.3	1075.9	1088.7	1075.9	1061.6
40°	1705.0	1699.2	1689.3	1416.0	1221.1	1107.3	1102.8	1118.6	1141.3	1132.9	1124.3
42.5°	1891.3	1888.4	1898.5	1611.0	1387.5	1211.0	1198.2	1179.7	1212.5	1209.7	1209.7
45°	2038.0	2045.0	2050.7	1793.1	1568.4	1344.9	1329.2	1266.6	1310.6	1322.0	1330.6
47.5°	2120.4	2126.2	2146.1	1971.1	1749.0	1500.0	1488.6	1386.2	1444.5	1478.6	1502.9
50°	2238.5	2222.9	2240.1	2144.7	1966.7	1702.1	1670.8	1546.9	1620.9	1680.6	1737.6
52.5°	2352.4	2326.8	2341.1	2345.4	2214.4	1899.8	1867.1	1736.2	1828.7	1922.6	2023.7
55°	2454.9	2453.5	2467.7	2540.2	2453.5	2111.9	2074.9	1945.4	2079.1	2180.2	2351.0
57.5°	2537.4	2551.6	2614.2	2766.6	2729.6	2342.5	2301.2	2188.8	2346.7	2447.8	2730.9
60°	2634.2	2656.9	2760.9	2958.7	2981.5	2584.5	2541.8	2460.5	2621.4	2723.9	3170.7
62.5°	2667.0	2699.6	2913.2	3160.7	3244.8	2849.2	2810.6	2756.5	2910.2	3002.9	3609.1
65°	2449.1	2511.8	2997.1	3264.7	3528.0	3168.0	3135.2	3088.3	3197.7	3259.1	3906.5
67.5°	2389.4	2417.9	2833.4	3414.1	3794.1	3577.8	3545.0	3464.0	3466.7	3441.1	4003.2
70°	2305.5	2336.9	2665.5	3526.6	4175.4	4138.4	4098.5	3859.6	3713.0	3557.8	3812.5
72.5°	1964.0	1954.0	2297.0	3223.4	4359.0	4832.9	4786.0	4285.1	3895.1	3456.8	3217.6
75°	1102.8	1074.5	1393.2	2230.0	3980.5	5109.0	5107.7	4499.9	3767.0	3011.4	2190.2
77.5°	320.2	311.6	459.7	935.0	2679.7	4438.7	4492.9	4058.8	3143.7	2163.2	1202.6
80°	150.8	153.7	197.7	308.7	1144.3	2864.8	3019.9	2672.6	1878.5	997.6	496.7
82.5°	95.3	96.7	135.1	199.2	483.8	1300.7	1428.8	1202.6	744.2	431.1	219.1
85°	59.7	59.7	89.7	131.0	288.9	415.6	451.0	409.8	318.8	234.7	119.6
87.5°	32.7	32.7	54.1	75.4	157.9	133.8	138.0	163.6	199.2	143.6	59.7
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°	749.9	749.9	749.9	749.9	749.9	749.9	749.9	749.9	749.9	749.9	749.9
2.5°	748.6	745.8	741.5	740.1	738.5	737.1	738.5	741.5	738.5	738.5	740.1
5°	744.2	741.5	735.7	735.7	737.1	738.5	745.8	749.9	751.4	751.4	751.4
7.5°	744.2	740.1	735.7	737.1	740.1	745.8	757.1	764.2	769.8	771.4	771.4
10°	751.4	745.8	742.9	745.8	754.2	758.4	769.8	781.3	788.4	791.2	791.2
12.5°	764.2	758.4	758.4	764.2	775.5	781.3	791.2	799.9	808.4	812.5	812.5
15°	785.6	778.4	779.9	789.8	802.6	808.4	815.4	818.3	825.5	831.1	831.1
17.5°	805.5	798.4	801.2	812.5	821.1	823.9	828.2	826.8	829.7	833.9	835.3
20°	828.2	821.1	822.6	829.7	831.1	828.2	828.2	823.9	822.6	829.7	832.5
22.5°	851.1	843.9	842.5	838.2	831.1	823.9	819.8	815.4	812.5	819.8	822.6
25°	878.1	868.1	860.9	842.5	823.9	811.2	805.5	802.6	801.2	808.4	811.2
27.5°	907.9	897.9	876.7	836.9	806.9	785.6	781.3	781.3	784.1	788.4	791.2
30°	936.5	926.4	888.1	823.9	777.0	745.8	741.5	745.8	752.8	757.1	761.4
32.5°	964.9	954.9	895.2	804.1	732.8	693.0	690.2	697.4	708.8	711.5	714.4
35°	1003.2	993.3	903.7	775.5	677.4	634.7	631.9	636.1	646.2	650.4	654.7
37.5°	1057.3	1051.6	916.5	744.2	626.2	579.1	570.7	567.8	573.5	572.1	577.8
40°	1128.5	1132.9	939.3	703.1	576.4	527.9	509.5	501.0	495.2	483.8	489.5
42.5°	1232.5	1235.3	964.9	656.0	533.7	479.5	455.4	439.7	428.3	409.8	412.7
45°	1384.6	1360.6	994.8	606.3	495.2	441.2	412.7	394.1	378.5	362.8	364.4
47.5°	1586.8	1512.7	1027.5	564.9	456.8	409.8	384.2	362.8	344.4	331.6	333.0
50°	1835.9	1702.1	1060.2	526.5	418.4	385.6	362.8	340.1	321.7	308.7	307.4
52.5°	2164.6	1929.7	1081.6	483.8	380.0	364.4	344.4	323.0	300.3	284.7	283.1
55°	2506.1	2194.5	1100.1	432.7	343.0	340.1	330.1	306.0	279.0	259.0	256.1
57.5°	2881.9	2477.6	1114.3	382.8	314.4	320.2	317.3	288.9	259.0	240.4	239.0
60°	3223.4	2770.8	1068.8	338.8	288.9	300.3	303.1	279.0	263.3	267.5	269.0
62.5°	3567.8	2997.1	895.2	306.0	271.7	287.5	311.6	310.3	303.1	310.3	311.6
65°	3691.7	3044.0	634.7	279.0	254.7	293.1	338.8	335.8	303.1	290.3	287.5
67.5°	3621.8	2904.6	427.0	257.5	242.0	300.3	367.1	335.8	291.7	274.6	269.0
70°	3290.3	2561.6	313.1	236.3	230.5	298.9	382.8	334.3	286.0	267.5	260.4
72.5°	2624.3	1976.7	251.9	216.3	213.4	291.7	391.3	331.6	280.4	260.4	251.9
75°	1699.2	1229.6	212.0	196.4	187.8	280.4	387.1	323.0	273.3	247.7	242.0
77.5°	788.4	529.5	180.6	173.6	163.6	263.3	374.2	306.0	257.5	233.4	226.3
80°	367.1	250.4	152.3	150.8	146.6	249.0	357.2	286.0	239.0	219.1	207.8
82.5°	196.4	150.8	123.7	123.7	128.1	231.9	335.8	261.9	214.9	205.0	175.0
85°	103.8	86.7	89.7	96.7	109.6	205.0	307.4	236.3	187.8	156.6	152.3
87.5°	52.6	55.4	55.4	65.4	83.9	166.5	253.3	194.9	159.4	128.1	125.3
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)