

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: P257847

Luminaire Tested: **ARCH-M-AF48-50-D-U-T2U-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257847  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-50-D-U-T2U-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4801.7 lumens  
Efficiency: N/A  
Efficacy: 100.0 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

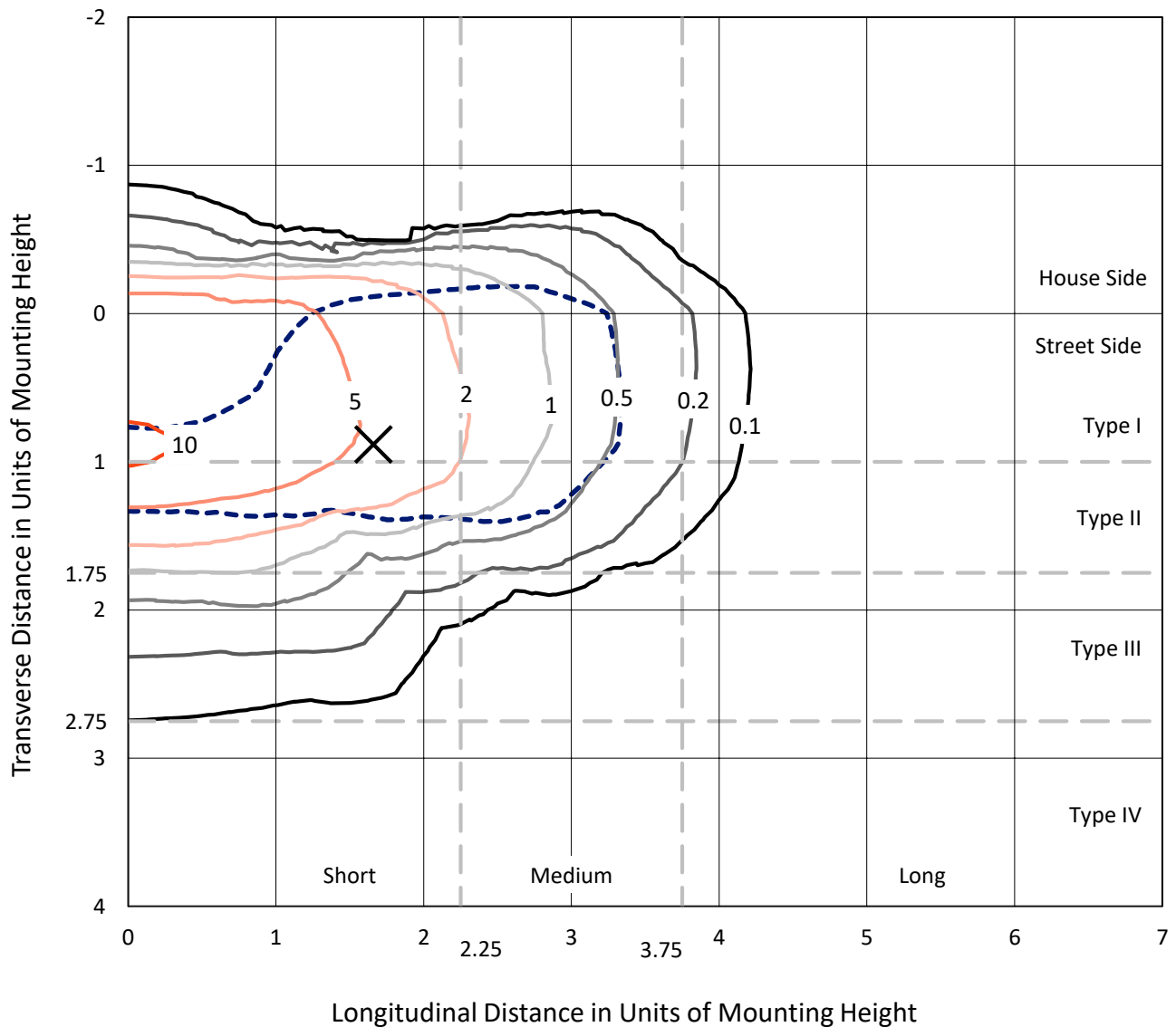
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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 CATALOG NUMBER: ARCH-M-AF48-50-D-U-T2U-HSS

### Iso-Footcandle Lines of Horizontal Illumination

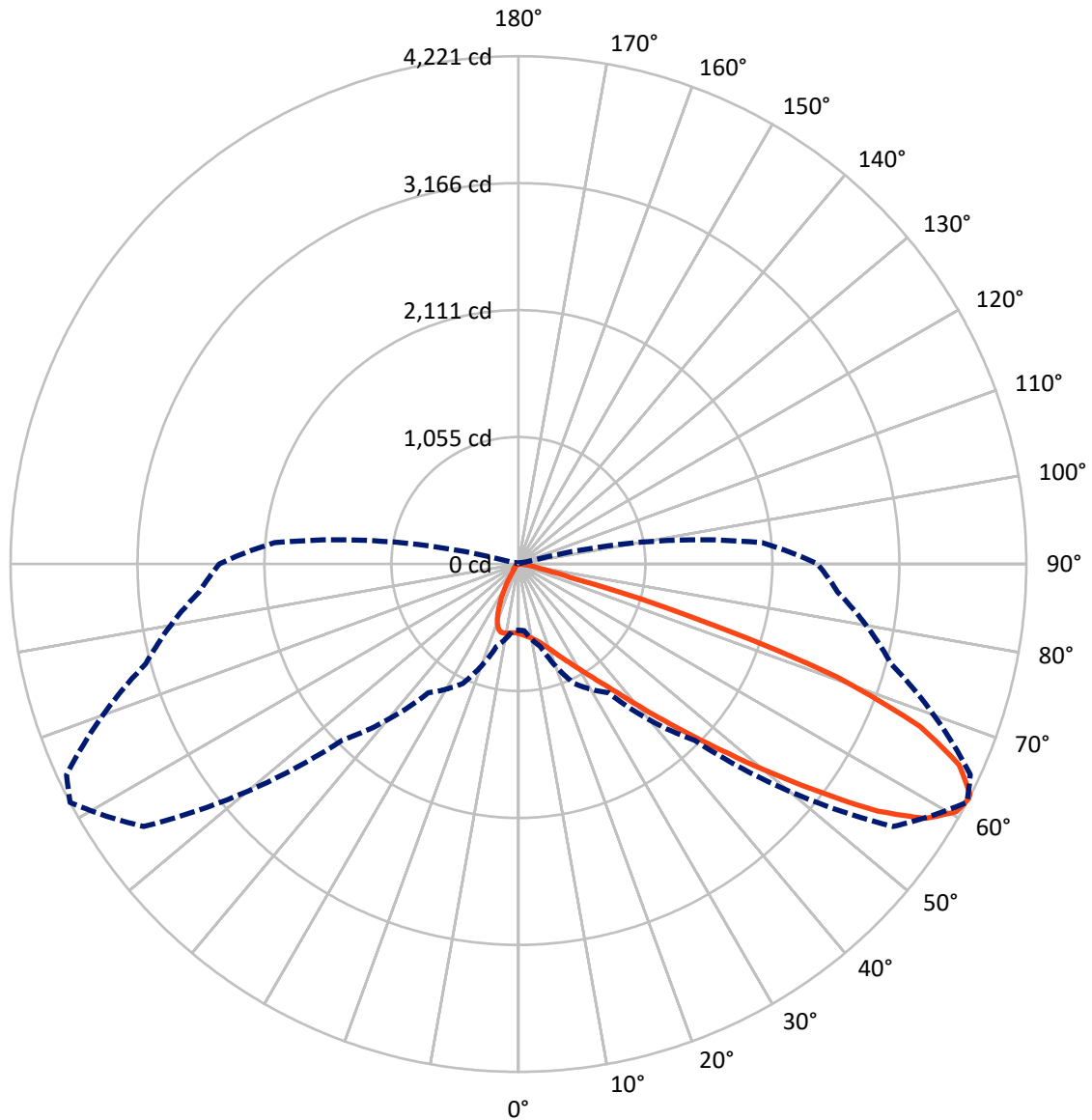
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P257847  
CATALOG NUMBER: ARCH-M-AF48-50-D-U-T2U-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral      - - - Horizontal Cone Through 62-Deg Vertical

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CATALOG NUMBER: ARCH-M-AF48-50-D-U-T2U-HSS

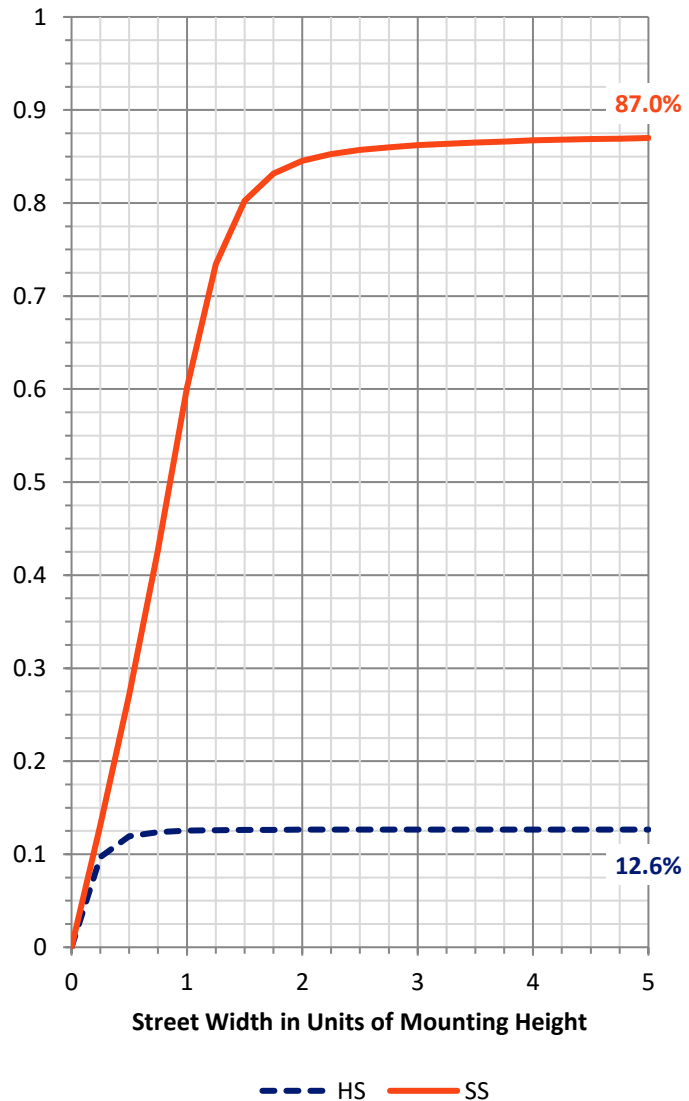
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	614.0	0.0	614.0
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	4187.8	0.0	4187.8
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	4801.7	0.0	4801.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.7	1.2
10°-20°	155.4	3.2
20°-30°	261.1	5.4
30°-40°	500.4	10.4
40°-50°	1022.2	21.3
50°-60°	1352.7	28.2
60°-70°	1050.8	21.9
70°-80°	379.3	7.9
80°-90°	24.2	0.5
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°	4801.7	100.0
0°-180°	4801.7	100.0



REPORT NUMBER: P257847

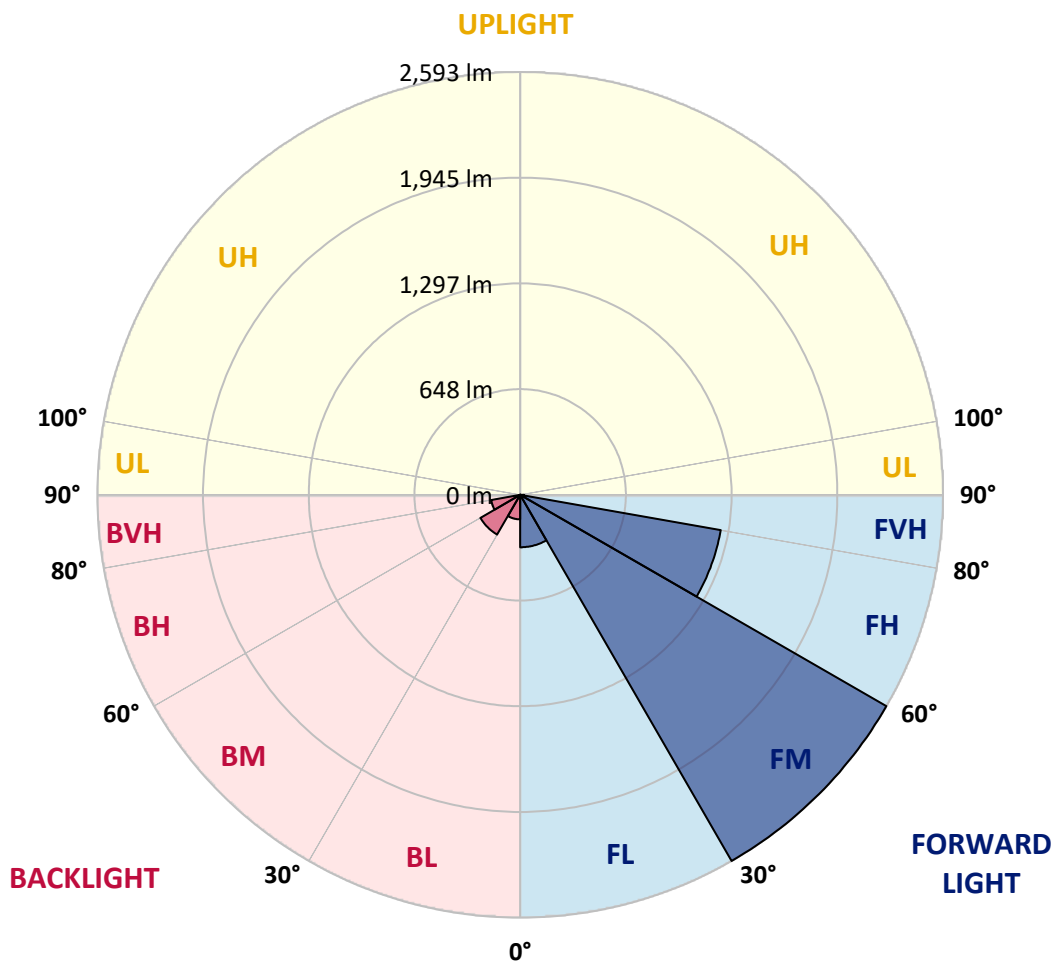
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	321.9	6.7			
FM	(30°-60°)	2593.4	54.0			
FH	(60°-80°)	1249.3	26.0			G1/1800
FVH	(80°-90°)	23.1	0.5			G1/100
BL	(0°-30°)	150.3	3.1	B1/500		
BM	(30°-60°)	281.8	5.9	B1/1000		
BH	(60°-80°)	180.8	3.8	B1/500		G1/500
BVH	(80°-90°)	1.1	0.0			G0/10
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 Short





REPORT NUMBER: P257847

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5
2.5°	593.8	592.6	591.4	590.2	590.2	589.0	587.9	585.5	583.2	580.8	579.6
5°	604.4	603.2	602.0	603.2	602.0	602.0	600.9	598.5	596.2	592.6	589.0
7.5°	612.6	611.5	610.3	611.5	612.6	613.9	615.0	612.6	611.5	606.7	603.2
10°	623.3	622.2	620.9	623.3	623.3	629.2	630.3	629.2	628.0	624.5	618.6
12.5°	638.6	639.9	639.9	642.2	644.6	651.6	654.0	650.4	650.4	645.7	638.6
15°	667.0	667.0	667.0	669.3	670.5	680.0	682.3	678.7	681.2	672.9	665.7
17.5°	694.1	695.3	697.7	702.4	702.4	710.6	715.3	715.3	720.1	709.4	700.0
20°	721.3	722.4	726.0	736.6	736.6	747.3	755.6	759.0	763.7	753.1	736.6
22.5°	750.7	750.7	756.7	773.2	769.7	790.9	806.3	812.1	816.9	802.7	776.7
25°	795.7	790.9	795.7	811.0	808.6	838.1	866.4	872.4	878.3	861.7	822.8
27.5°	880.7	873.6	857.0	858.2	858.2	892.4	932.5	940.8	944.4	930.2	881.8
30°	1050.6	1050.6	989.2	948.0	920.8	951.4	1008.1	1022.3	1027.0	1005.8	942.0
32.5°	1346.9	1346.9	1233.6	1128.5	1025.8	1025.8	1090.8	1116.8	1121.5	1096.7	1022.3
35°	1724.7	1722.3	1552.3	1408.3	1207.6	1132.1	1187.5	1231.2	1245.4	1212.3	1126.2
37.5°	2126.0	2110.7	1927.8	1762.4	1487.4	1302.0	1318.6	1376.4	1389.4	1362.3	1260.8
40°	2451.8	2434.1	2286.6	2148.5	1848.6	1573.6	1507.4	1560.6	1576.0	1538.1	1421.3
42.5°	2746.9	2703.2	2601.8	2502.6	2264.1	2043.4	1758.9	1780.1	1796.7	1756.5	1601.9
45°	2960.6	2893.3	2841.3	2810.7	2684.4	2559.2	2084.7	2042.2	2048.2	1998.5	1799.1
47.5°	2966.6	2919.3	2924.0	3004.3	3056.3	3051.6	2508.5	2357.4	2335.0	2252.3	2009.2
50°	2683.2	2710.4	2796.5	3025.6	3306.5	3476.5	3012.6	2730.5	2663.2	2514.4	2218.1
52.5°	2211.0	2253.6	2415.3	2801.2	3343.1	3756.3	3535.5	3156.6	3036.2	2774.1	2378.7
55°	1731.8	1734.1	1904.1	2297.2	3098.7	3807.0	3953.4	3625.2	3441.1	2971.3	2484.8
57.5°	1191.1	1256.0	1472.0	1736.5	2547.5	3554.4	4110.4	3988.8	3751.6	3092.8	2559.2
60°	780.3	783.8	1035.2	1341.0	1734.1	2892.2	4014.8	4181.2	4003.0	3164.8	2610.1
62°	550.1	556.0	711.9	1095.5	1306.8	2072.9	3803.4	4221.4	4144.6	3207.4	2663.2
62.5°	509.9	514.6	645.7	1034.1	1227.6	1859.2	3727.9	4211.9	4165.9	3221.5	2682.1
65°	374.2	374.2	422.6	710.6	899.5	1004.5	3159.0	4024.2	4137.5	3334.8	2752.9
67.5°	289.2	291.5	308.1	437.9	678.7	609.2	2016.2	3601.6	3842.4	3502.5	2793.0
70°	249.1	247.9	259.7	290.4	489.9	404.9	887.7	2810.7	3218.0	3459.9	2756.4
72.5°	184.1	185.4	212.5	255.0	341.2	263.2	401.4	1492.1	2087.0	2708.0	2362.1
75°	118.0	119.3	150.0	200.7	245.5	172.4	231.4	445.1	854.7	1501.6	1444.9
77.5°	79.1	81.4	98.0	140.5	214.8	107.4	145.2	186.5	257.4	563.1	518.2
80°	53.1	53.1	62.6	94.4	135.7	89.7	77.9	124.0	133.4	174.7	87.4
82.5°	35.4	35.4	41.3	62.6	88.5	80.3	47.3	67.3	77.9	87.4	30.7
85°	21.3	21.3	28.3	39.0	57.8	44.9	30.7	37.7	40.1	55.4	16.6
87.5°	13.0	11.8	18.9	27.1	30.7	27.1	20.0	20.0	21.3	30.7	8.3
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: P257847

CATALOG NUMBER: ARCH-M-AF48-50-D-U-T2U-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5
2.5°	577.3	576.0	574.9	572.5	569.0	566.6	564.3	561.9	559.6	559.6	563.1
5°	587.9	584.3	579.6	574.9	567.8	563.1	559.6	554.8	552.5	552.5	553.6
7.5°	600.9	597.3	589.0	580.8	570.2	561.9	553.6	543.0	534.8	531.2	534.8
10°	615.0	610.3	598.5	585.5	573.7	552.5	525.3	492.2	463.9	450.9	456.8
12.5°	632.7	626.9	612.6	594.9	567.8	515.9	448.6	371.8	323.5	301.1	305.8
15°	658.7	650.4	630.3	603.2	543.0	430.9	321.1	232.5	187.7	168.8	171.1
17.5°	689.4	678.7	651.6	600.9	479.3	310.5	191.2	135.7	116.8	112.1	112.1
20°	722.4	708.3	672.9	583.2	382.5	194.8	119.3	103.9	96.8	93.3	93.3
22.5°	756.7	737.8	690.6	541.9	272.7	121.6	98.0	87.4	79.1	75.6	75.6
25°	798.0	773.2	708.3	469.8	173.5	98.0	83.8	73.1	65.0	60.3	61.4
27.5°	846.4	814.6	723.6	380.1	112.1	85.0	69.7	59.0	52.0	49.6	49.6
30°	897.1	859.4	727.2	284.5	90.9	73.1	57.8	48.4	43.7	41.3	41.3
32.5°	966.8	917.2	716.6	188.8	76.7	61.4	48.4	40.1	36.6	35.4	35.4
35°	1058.9	992.8	691.7	116.8	65.0	50.7	40.1	35.4	31.9	30.7	30.7
37.5°	1175.8	1097.8	648.0	80.3	55.4	41.3	34.3	30.7	28.3	27.1	27.1
40°	1331.6	1225.3	591.4	69.7	47.3	35.4	29.5	27.1	24.8	24.8	24.8
42.5°	1496.9	1380.0	518.2	61.4	40.1	30.7	26.0	23.6	22.4	21.3	21.3
45°	1677.4	1538.1	427.3	54.3	34.3	27.1	23.6	20.0	18.9	18.9	18.9
47.5°	1856.9	1701.1	328.2	47.3	29.5	23.6	20.0	17.7	16.6	15.3	15.3
50°	2041.0	1848.6	240.8	41.3	26.0	21.3	17.7	15.3	13.0	11.8	11.8
52.5°	2174.4	1937.2	175.8	35.4	22.4	17.7	14.1	11.8	9.4	8.3	8.3
55°	2272.4	1991.5	128.7	29.5	20.0	15.3	11.8	9.4	7.1	7.1	5.9
57.5°	2349.1	2017.5	96.8	26.0	17.7	13.0	9.4	7.1	5.9	4.7	4.7
60°	2408.1	2018.6	72.0	21.3	15.3	10.6	7.1	4.7	3.6	3.6	3.6
62°	2486.1	2033.9	59.0	17.7	14.1	9.4	5.9	3.6	2.4	1.2	1.2
62.5°	2508.5	2039.9	56.7	17.7	13.0	8.3	4.7	3.6	2.4	1.2	1.2
65°	2612.4	2050.5	43.7	14.1	10.6	7.1	3.6	2.4	0.0	0.0	0.0
67.5°	2706.8	2033.9	31.9	10.6	8.3	4.7	3.6	1.2	0.0	0.0	0.0
70°	2697.4	1920.6	22.4	7.1	5.9	3.6	2.4	0.0	0.0	0.0	0.0
72.5°	2222.9	1437.9	15.3	5.9	3.6	2.4	1.2	0.0	0.0	0.0	0.0
75°	1342.2	629.2	10.6	3.6	3.6	2.4	1.2	0.0	0.0	0.0	0.0
77.5°	440.3	227.8	7.1	2.4	2.4	1.2	1.2	0.0	0.0	0.0	0.0
80°	72.0	37.7	3.6	2.4	2.4	1.2	1.2	0.0	0.0	0.0	0.0
82.5°	22.4	9.4	2.4	2.4	1.2	1.2	0.0	0.0	0.0	0.0	0.0
85°	8.3	3.6	2.4	2.4	1.2	1.2	0.0	0.0	0.0	0.0	0.0
87.5°	3.6	2.4	2.4	2.4	1.2	1.2	0.0	0.0	0.0	0.0	0.0
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)