

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: P258180

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258180  
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-AF48-70-D-U-T2U-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 470mA 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: 6695.4 lumens  
Efficiency: N/A  
Efficacy: 91.7 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): 73  
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

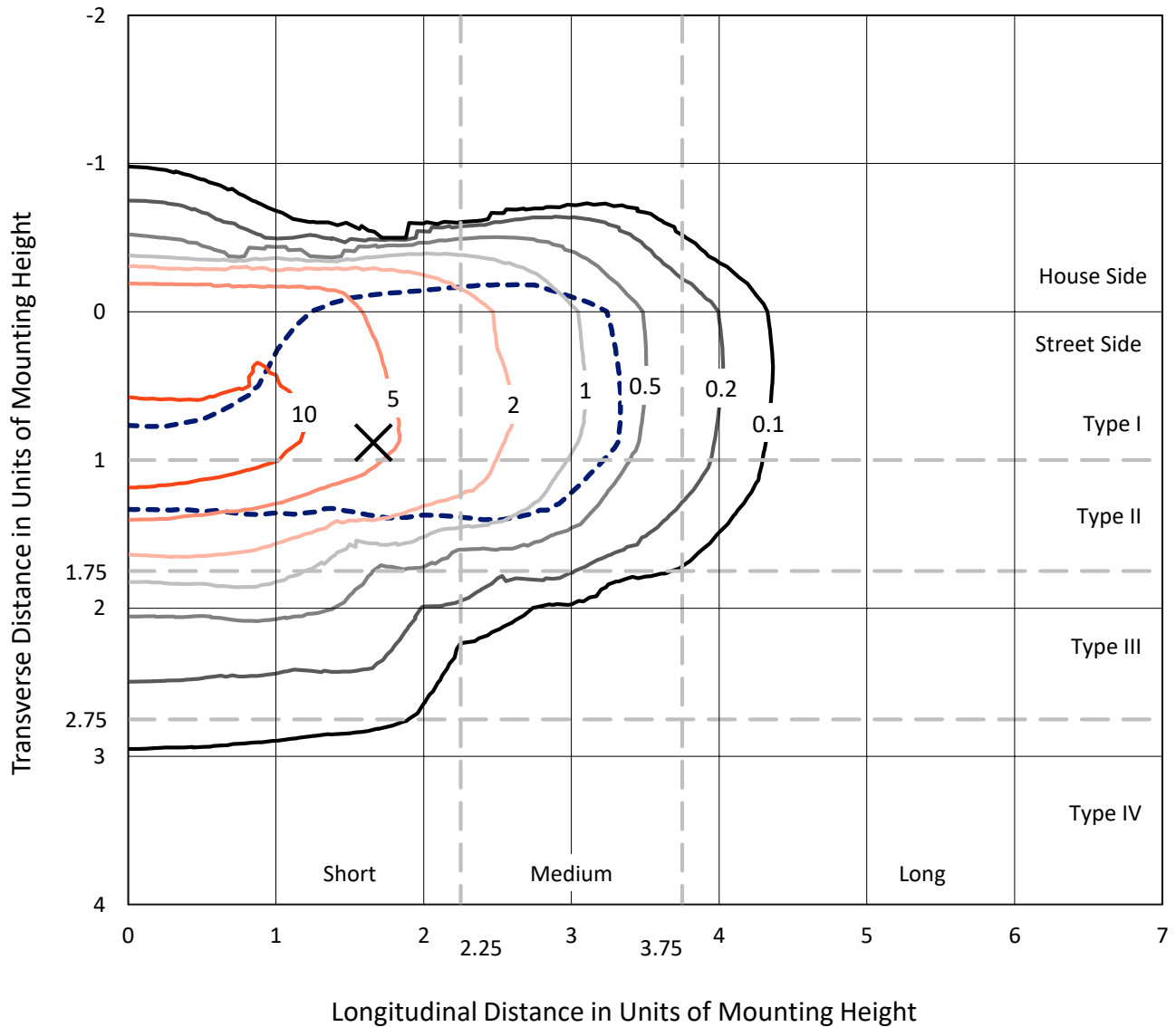


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

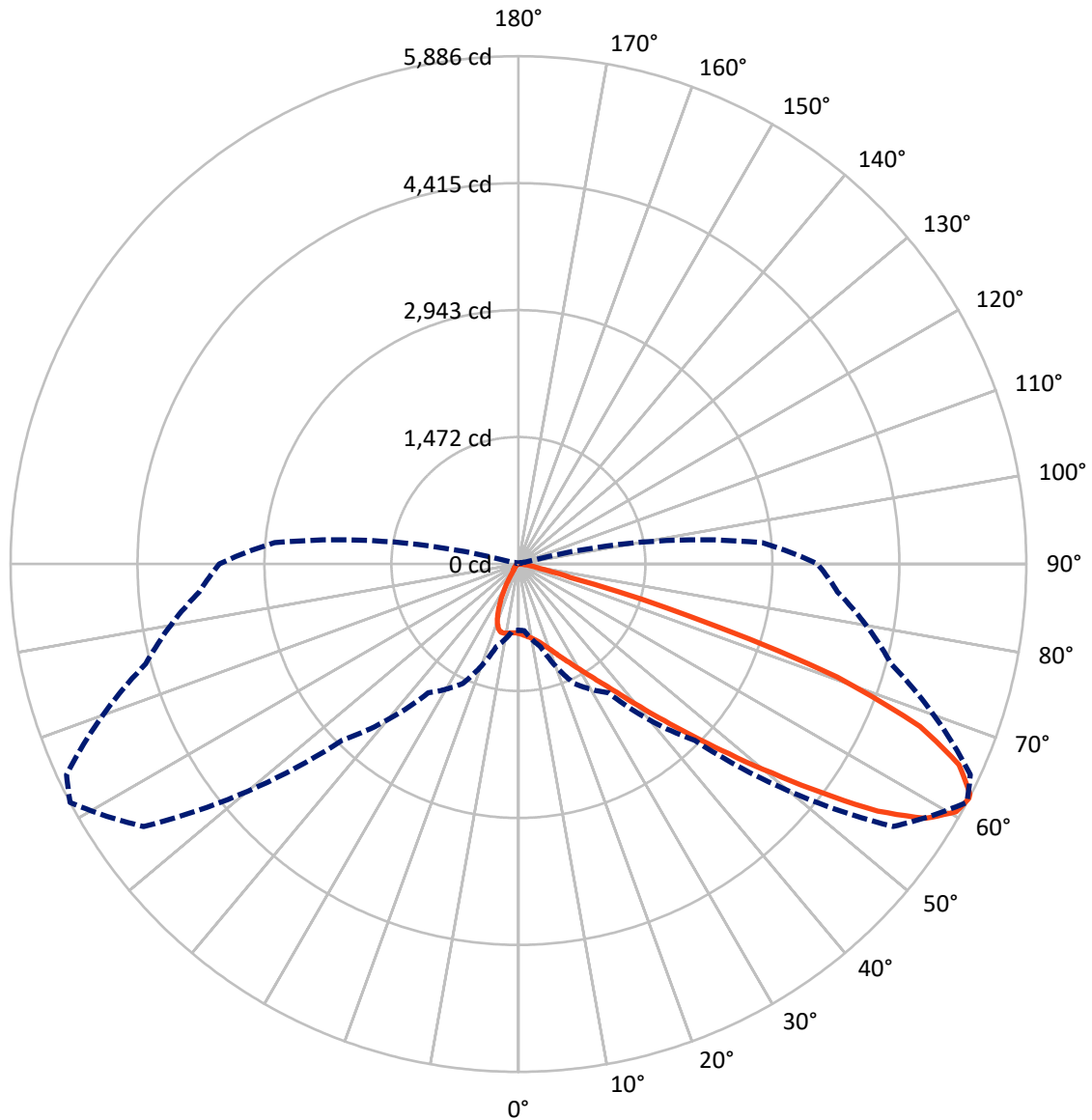


Based on 10 foot mounting height. Maximum calculated value = 15.4 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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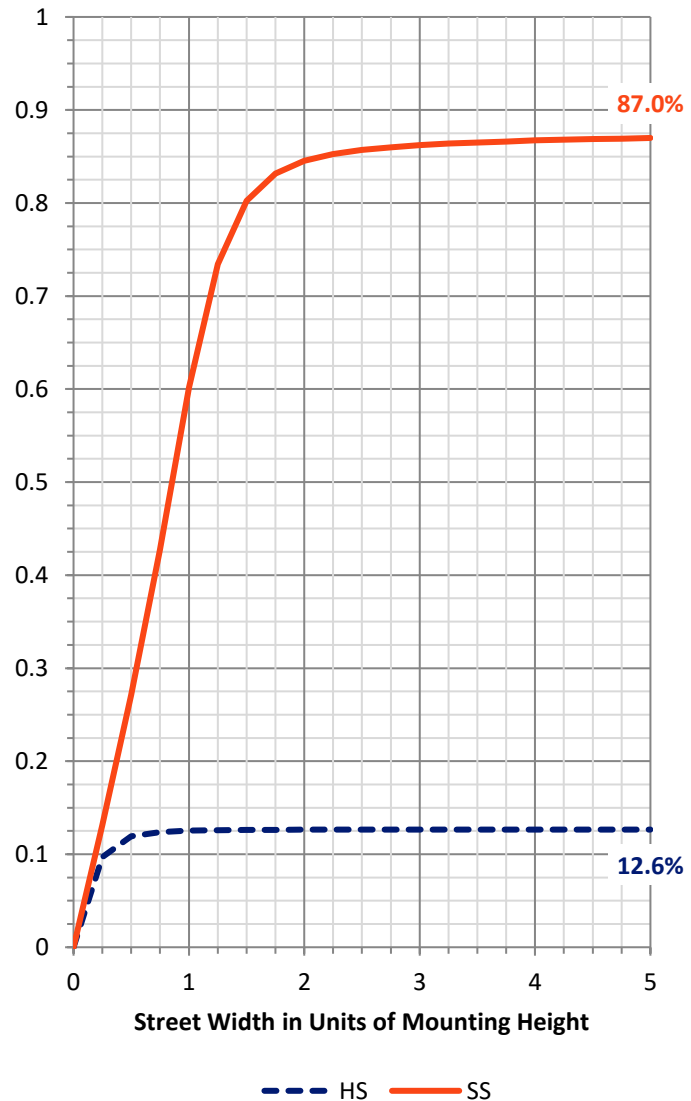
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	856.1	0.0	856.1
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	5839.3	0.0	5839.3
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	6695.4	0.0	6695.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.6	1.2
10°-20°	216.8	3.2
20°-30°	364.0	5.4
30°-40°	697.8	10.4
40°-50°	1425.3	21.3
50°-60°	1886.1	28.2
60°-70°	1465.2	21.9
70°-80°	528.9	7.9
80°-90°	33.7	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°	6695.4	100.0
0°-180°	6695.4	100.0



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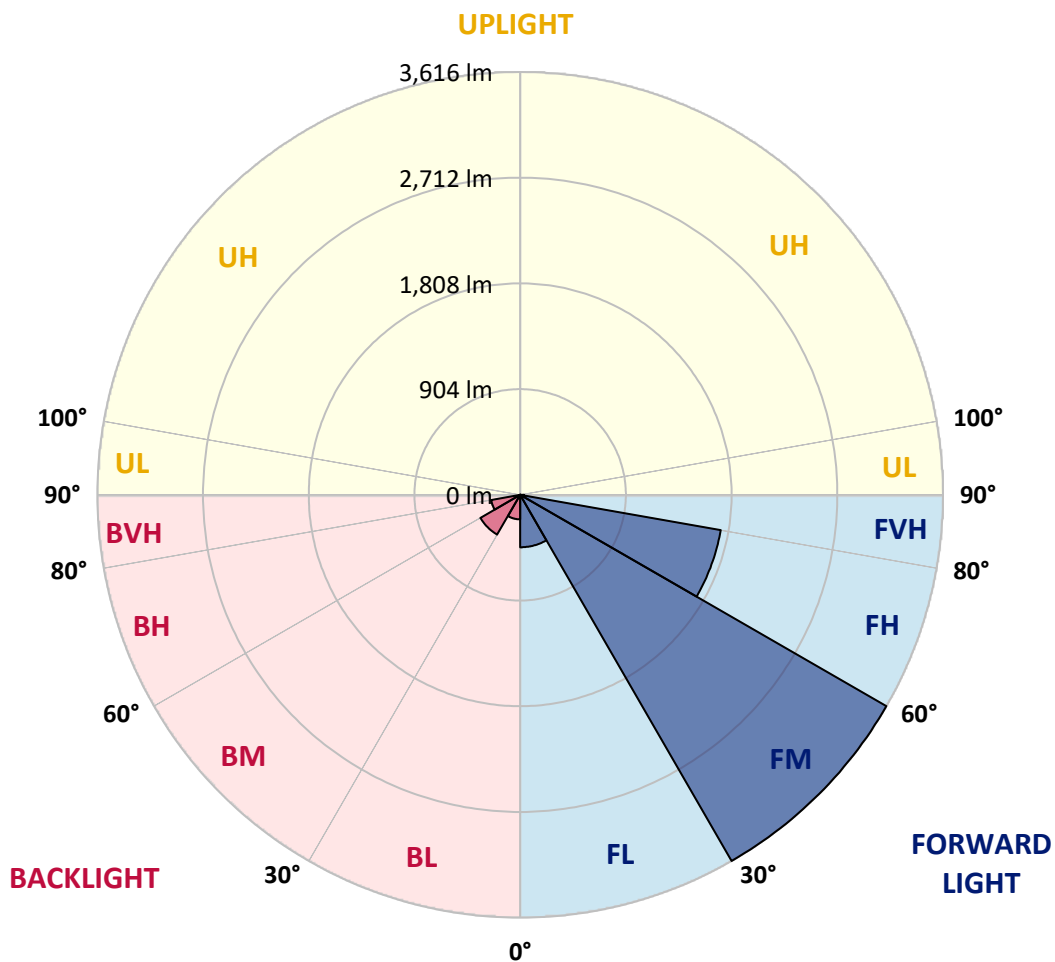
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	448.9	6.7			
FM	(30°-60°)	3616.2	54.0			
FH	(60°-80°)	1742.0	26.0			G1/1800
FVH	(80°-90°)	32.2	0.5			G1/100
BL	(0°-30°)	209.5	3.1	B1/500		
BM	(30°-60°)	393.0	5.9	B1/1000		
BH	(60°-80°)	252.1	3.8	B1/500		G1/500
BVH	(80°-90°)	1.5	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6
2.5°	827.9	826.3	824.7	823.0	823.0	821.4	819.7	816.3	813.1	809.8	808.2
5°	842.7	841.1	839.4	841.1	839.4	839.4	837.8	834.5	831.3	826.3	821.4
7.5°	854.3	852.7	851.0	852.7	854.3	855.9	857.5	854.3	852.7	846.1	841.1
10°	869.0	867.4	865.8	869.0	869.0	877.4	879.0	877.4	875.7	870.8	862.5
12.5°	890.5	892.1	892.1	895.4	898.7	908.6	911.9	907.0	907.0	900.4	890.5
15°	930.1	930.1	930.1	933.3	934.9	948.2	951.4	946.5	949.8	938.2	928.3
17.5°	967.8	969.4	972.9	979.4	979.4	990.9	997.5	997.5	1004.1	989.3	976.1
20°	1005.7	1007.4	1012.3	1027.1	1027.1	1041.9	1053.5	1058.4	1065.0	1050.2	1027.1
22.5°	1046.9	1046.9	1055.1	1078.2	1073.3	1102.9	1124.3	1132.5	1139.0	1119.3	1083.1
25°	1109.4	1102.9	1109.4	1130.9	1127.5	1168.6	1208.2	1216.4	1224.7	1201.7	1147.2
27.5°	1228.0	1218.0	1195.0	1196.6	1196.6	1244.4	1300.4	1311.8	1316.8	1297.0	1229.6
30°	1464.9	1464.9	1379.4	1321.7	1283.9	1326.7	1405.7	1425.5	1432.1	1402.5	1313.6
32.5°	1878.0	1878.0	1720.1	1573.6	1430.4	1430.4	1520.9	1557.2	1563.7	1529.2	1425.5
35°	2404.8	2401.5	2164.5	1963.7	1683.9	1578.6	1656.0	1716.8	1736.5	1690.5	1570.3
37.5°	2964.5	2943.1	2688.0	2457.5	2074.0	1815.6	1838.7	1919.2	1937.3	1899.5	1758.0
40°	3418.8	3394.1	3188.3	2995.8	2577.7	2194.2	2101.9	2176.0	2197.4	2144.8	1981.9
42.5°	3830.3	3769.3	3627.9	3489.5	3157.0	2849.3	2452.6	2482.2	2505.2	2449.3	2233.7
45°	4128.3	4034.4	3962.0	3919.1	3743.0	3568.5	2906.9	2847.7	2855.8	2786.6	2508.5
47.5°	4136.4	4070.6	4077.2	4189.1	4261.5	4255.0	3497.8	3287.1	3255.8	3140.6	2801.5
50°	3741.4	3779.3	3899.5	4218.7	4610.5	4847.5	4200.7	3807.2	3713.4	3506.0	3092.9
52.5°	3083.0	3142.3	3367.8	3906.0	4661.5	5237.7	4929.8	4401.4	4233.6	3868.1	3316.7
55°	2414.7	2418.0	2655.0	3203.2	4320.7	5308.4	5512.5	5054.9	4798.1	4143.0	3464.8
57.5°	1660.8	1751.3	2052.6	2421.3	3552.1	4956.1	5731.4	5561.9	5231.0	4312.6	3568.5
60°	1088.0	1092.9	1443.6	1869.9	2418.0	4032.8	5598.1	5830.2	5581.6	4413.0	3639.3
62°	767.0	775.3	992.5	1527.6	1822.1	2890.5	5303.5	5886.2	5779.2	4472.2	3713.4
62.5°	711.1	717.7	900.4	1441.9	1711.9	2592.5	5198.1	5873.0	5808.8	4491.9	3739.7
65°	521.8	521.8	589.2	990.9	1254.3	1400.8	4404.8	5611.2	5769.3	4650.0	3838.5
67.5°	403.2	406.6	429.6	610.6	946.5	849.4	2811.3	5022.0	5357.7	4883.8	3894.4
70°	347.3	345.7	362.0	405.0	683.1	564.6	1237.8	3919.1	4487.1	4824.5	3843.4
72.5°	256.8	258.4	296.3	355.5	475.8	367.1	559.6	2080.6	2910.1	3776.0	3293.7
75°	164.7	166.3	209.0	279.8	342.4	240.4	322.7	620.6	1191.7	2093.7	2014.7
77.5°	110.3	113.6	136.6	195.9	299.6	149.8	202.4	260.0	358.8	785.1	722.6
80°	74.1	74.1	87.2	131.6	189.3	125.1	108.6	172.8	186.0	243.6	121.9
82.5°	49.3	49.3	57.6	87.2	123.5	111.9	65.9	93.9	108.6	121.9	42.8
85°	29.6	29.6	39.6	54.3	80.7	62.5	42.8	52.7	55.9	77.3	23.1
87.5°	18.1	16.5	26.3	37.9	42.8	37.9	28.0	28.0	29.6	42.8	11.5
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°	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6
2.5°	804.9	803.3	801.6	798.3	793.3	790.1	786.7	783.5	780.2	780.2	785.1
5°	819.7	814.7	808.2	801.6	791.7	785.1	780.2	773.7	770.4	770.4	772.0
7.5°	837.8	832.9	821.4	809.8	795.1	783.5	772.0	757.1	745.7	740.7	745.7
10°	857.5	851.0	834.5	816.3	800.0	770.4	732.5	686.3	647.0	628.8	637.0
12.5°	882.3	874.1	854.3	829.6	791.7	719.4	625.5	518.6	451.0	419.8	426.3
15°	918.5	907.0	879.0	841.1	757.1	600.8	447.8	324.3	261.6	235.4	238.6
17.5°	961.3	946.5	908.6	837.8	668.2	432.8	266.7	189.3	162.9	156.3	156.3
20°	1007.4	987.6	938.2	813.1	533.3	271.6	166.3	144.9	134.9	130.0	130.0
22.5°	1055.1	1028.7	962.9	755.5	380.2	169.6	136.6	121.9	110.3	105.3	105.3
25°	1112.7	1078.2	987.6	655.1	242.0	136.6	116.9	102.0	90.5	83.9	85.5
27.5°	1180.2	1135.8	1009.0	530.0	156.3	118.5	97.1	82.3	72.4	69.2	69.2
30°	1251.0	1198.3	1013.9	396.7	126.7	102.0	80.7	67.5	60.8	57.6	57.6
32.5°	1348.0	1279.0	999.1	263.4	107.0	85.5	67.5	55.9	51.1	49.3	49.3
35°	1476.5	1384.4	964.5	162.9	90.5	70.8	55.9	49.3	44.5	42.8	42.8
37.5°	1639.4	1530.8	903.7	111.9	77.3	57.6	47.7	42.8	39.6	37.9	37.9
40°	1856.8	1708.6	824.7	97.1	65.9	49.3	41.2	37.9	34.5	34.5	34.5
42.5°	2087.2	1924.2	722.6	85.5	55.9	42.8	36.2	32.9	31.2	29.6	29.6
45°	2339.0	2144.8	595.9	75.7	47.7	37.9	32.9	28.0	26.3	26.3	26.3
47.5°	2589.2	2371.9	457.6	65.9	41.2	32.9	28.0	24.7	23.1	21.5	21.5
50°	2845.9	2577.7	335.8	57.6	36.2	29.6	24.7	21.5	18.1	16.5	16.5
52.5°	3032.0	2701.1	245.3	49.3	31.2	24.7	19.7	16.5	13.2	11.5	11.5
55°	3168.6	2776.9	179.4	41.2	28.0	21.5	16.5	13.2	9.9	9.9	8.2
57.5°	3275.6	2813.1	134.9	36.2	24.7	18.1	13.2	9.9	8.2	6.5	6.5
60°	3357.9	2814.7	100.4	29.6	21.5	14.9	9.9	6.5	4.9	4.9	4.9
62°	3466.5	2836.1	82.3	24.7	19.7	13.2	8.2	4.9	3.3	1.6	1.6
62.5°	3497.8	2844.3	79.0	24.7	18.1	11.5	6.5	4.9	3.3	1.6	1.6
65°	3642.6	2859.1	60.8	19.7	14.9	9.9	4.9	3.3	0.0	0.0	0.0
67.5°	3774.4	2836.1	44.5	14.9	11.5	6.5	4.9	1.6	0.0	0.0	0.0
70°	3761.1	2678.1	31.2	9.9	8.2	4.9	3.3	0.0	0.0	0.0	0.0
72.5°	3099.4	2004.8	21.5	8.2	4.9	3.3	1.6	0.0	0.0	0.0	0.0
75°	1871.5	877.4	14.9	4.9	4.9	3.3	1.6	0.0	0.0	0.0	0.0
77.5°	613.9	317.7	9.9	3.3	3.3	1.6	1.6	0.0	0.0	0.0	0.0
80°	100.4	52.7	4.9	3.3	3.3	1.6	1.6	0.0	0.0	0.0	0.0
82.5°	31.2	13.2	3.3	3.3	1.6	1.6	0.0	0.0	0.0	0.0	0.0
85°	11.5	4.9	3.3	3.3	1.6	1.6	0.0	0.0	0.0	0.0	0.0
87.5°	4.9	3.3	3.3	3.3	1.6	1.6	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)