

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: P214957

Luminaire Tested: **ARCH-AF24-80-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214957  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-80-D-U-T4W-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6450 lumens  
Efficiency: N/A  
Efficacy: 77.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 83  
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

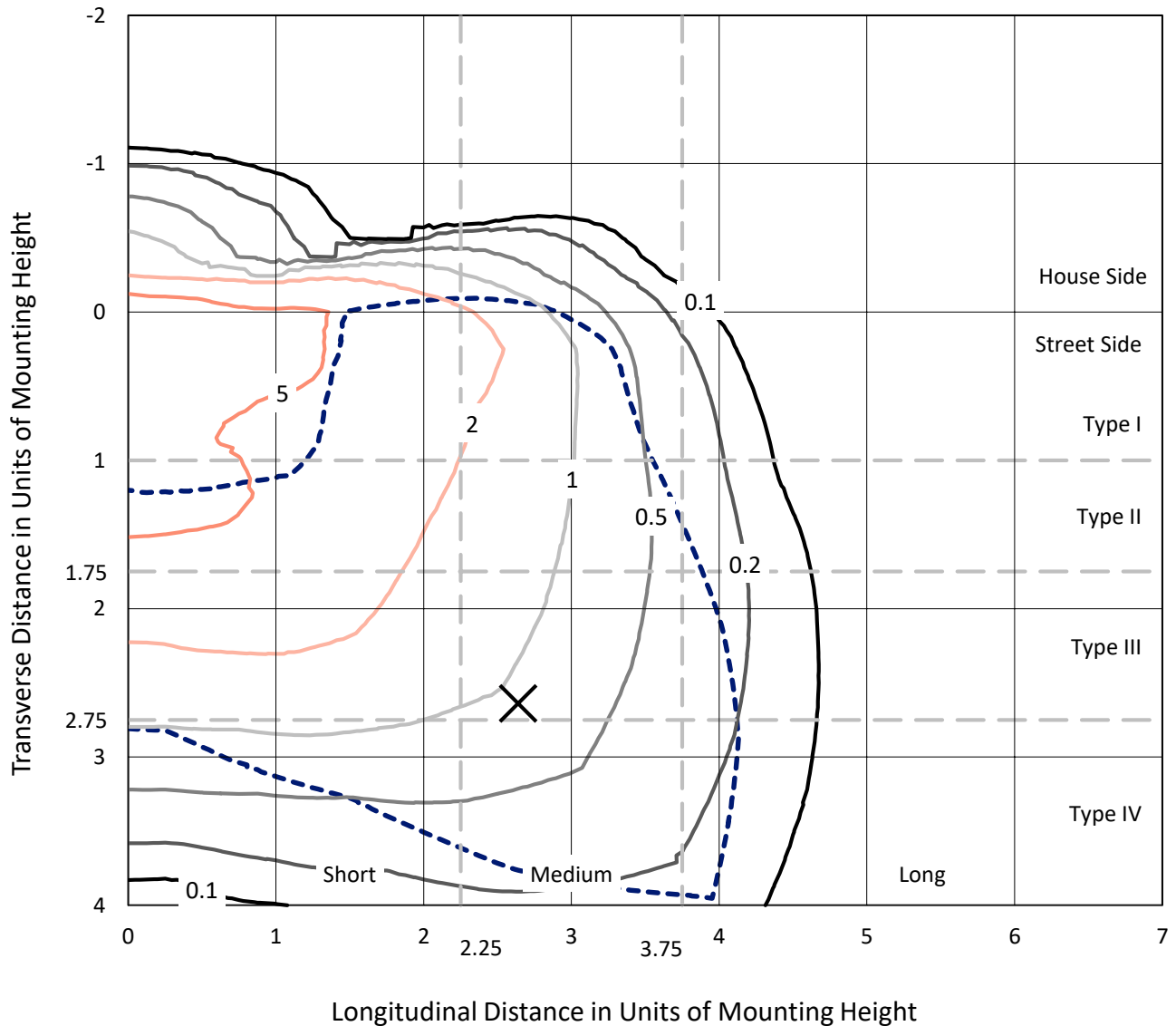


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

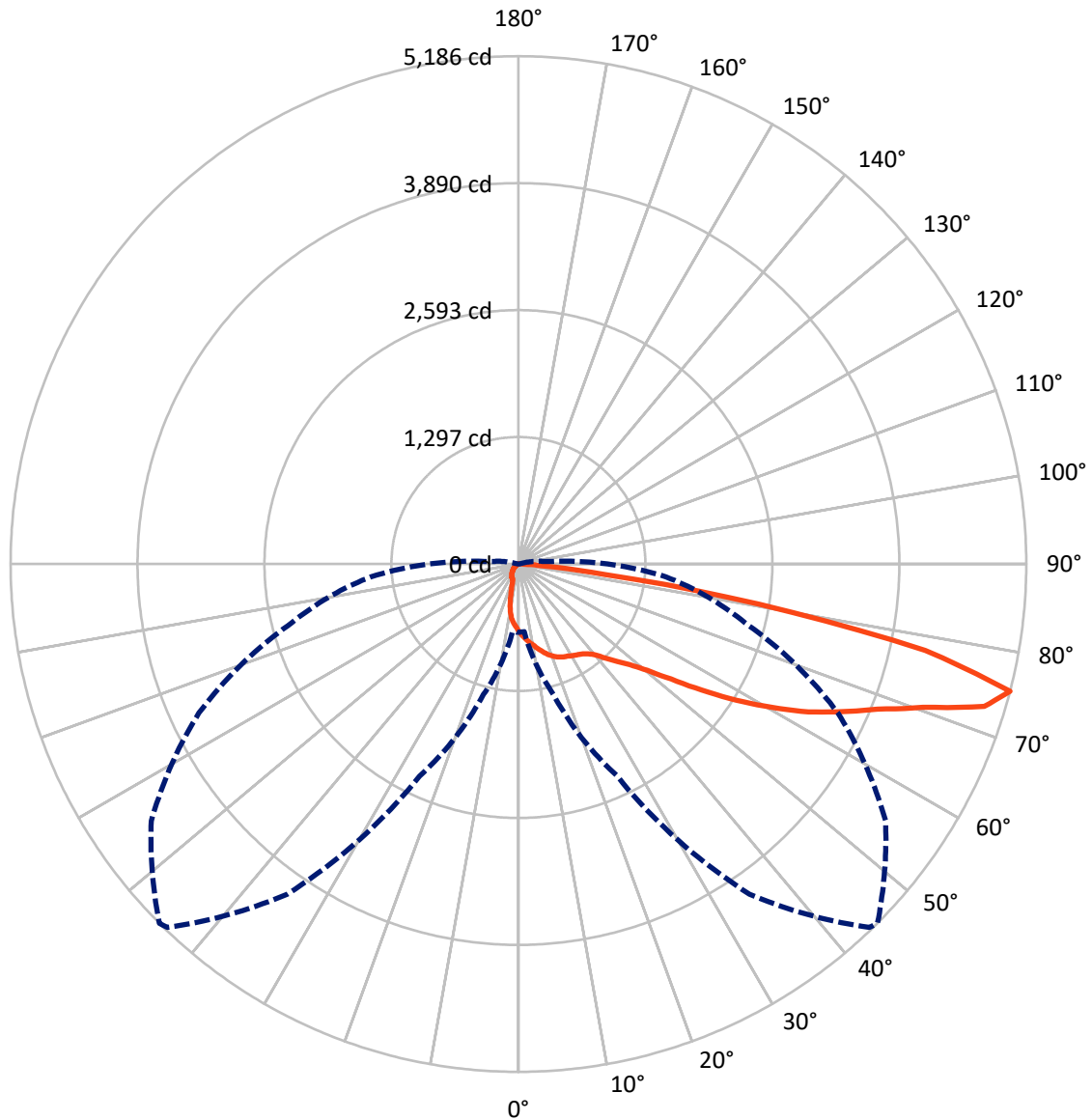


Based on 10 foot mounting height. Maximum calculated value = 9.2 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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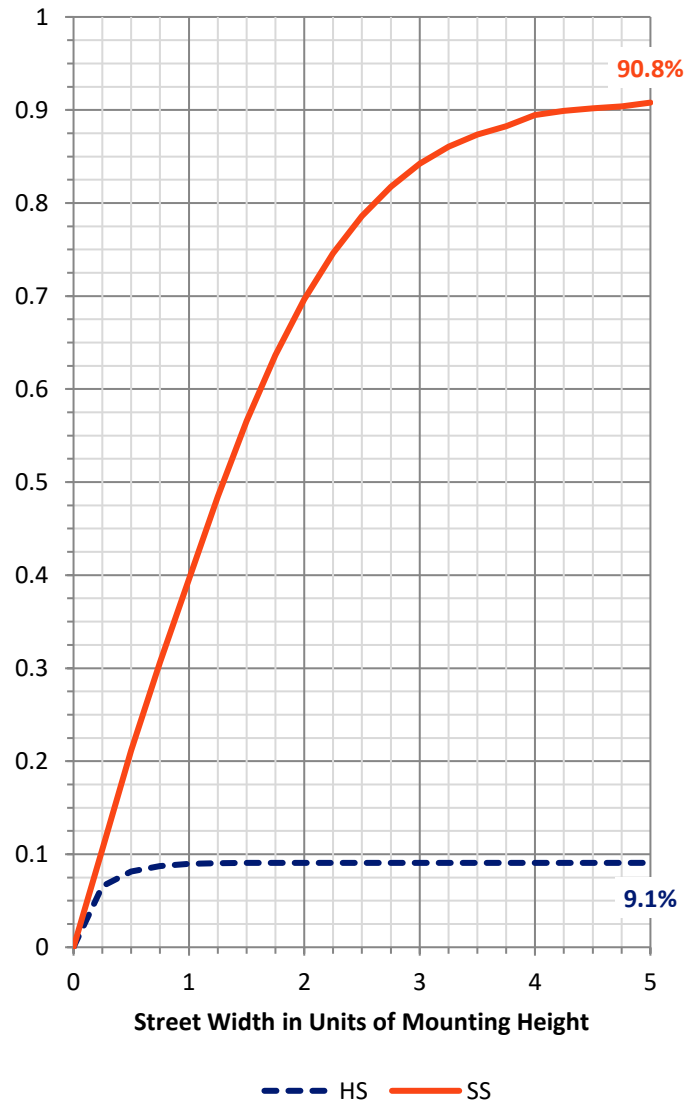
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	590.0	0.0	590.0
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	5860.0	0.0	5860.0
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	6450.0	0.0	6450.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.1	1.0
10°-20°	184.5	2.9
20°-30°	305.5	4.7
30°-40°	442.1	6.9
40°-50°	723.9	11.2
50°-60°	1289.9	20.0
60°-70°	1896.3	29.4
70°-80°	1430.6	22.2
80°-90°	112.2	1.7
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°	6450.0	100.0
0°-180°	6450.0	100.0



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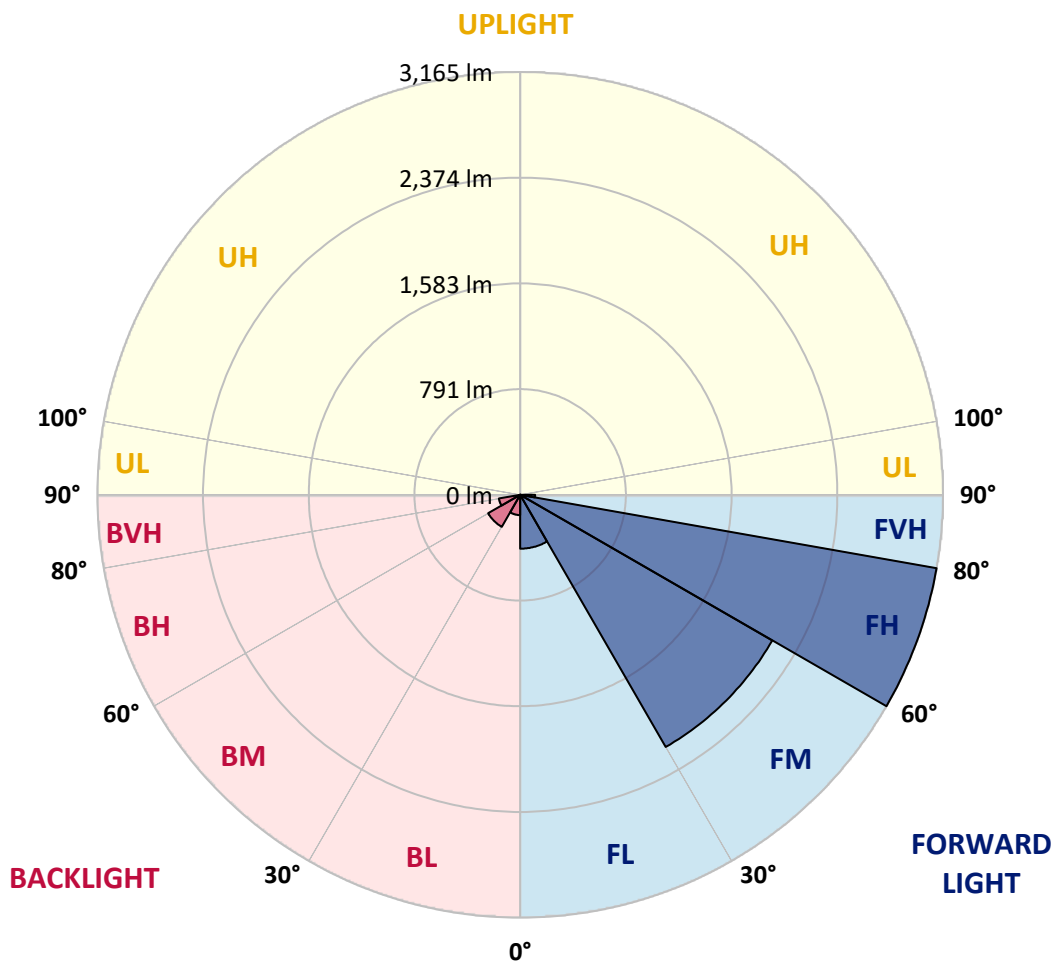
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	403.4	6.3			
FM	(30°-60°)	2179.4	33.8			
FH	(60°-80°)	3165.2	49.1			G2/5000
FVH	(80°-90°)	111.9	1.7			G2/225
BL	(0°-30°)	151.6	2.4	B1/500		
BM	(30°-60°)	276.5	4.3	B1/1000		
BH	(60°-80°)	161.6	2.5	B1/500		G1/500
BVH	(80°-90°)	0.3	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-G2**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9
2.5°	749.4	749.4	747.9	746.3	738.7	731.1	729.5	725.0	711.2	702.1	692.9
5°	812.0	813.5	810.4	802.8	786.0	769.2	767.7	755.5	729.5	711.2	691.4
7.5°	871.5	874.5	866.9	853.2	833.3	808.9	807.4	784.5	750.9	725.0	696.0
10°	921.9	921.9	911.2	894.4	873.0	847.1	844.0	818.1	779.9	747.9	709.7
12.5°	976.8	975.3	960.0	937.1	912.7	888.3	886.7	854.7	818.1	776.9	729.5
15°	1027.2	1024.1	1004.3	982.9	957.0	931.0	929.5	897.4	859.3	810.4	758.5
17.5°	1054.6	1053.1	1034.8	1013.4	992.1	972.2	970.7	937.1	895.9	845.5	787.5
20°	1059.2	1060.7	1045.5	1027.2	1015.0	1004.3	1004.3	973.7	929.5	876.1	818.1
22.5°	1060.7	1065.3	1054.6	1030.2	1027.2	1028.7	1031.7	1007.3	961.5	911.2	850.1
25°	1071.4	1077.5	1069.9	1040.9	1037.8	1048.5	1051.6	1040.9	999.7	949.3	886.7
27.5°	1092.8	1098.9	1092.8	1056.2	1051.6	1062.3	1065.3	1071.4	1040.9	986.0	924.9
30°	1135.5	1137.1	1123.3	1077.5	1068.4	1082.1	1086.7	1103.5	1079.1	1021.1	961.5
32.5°	1210.3	1195.0	1153.8	1092.8	1085.2	1100.4	1105.0	1123.3	1114.2	1054.6	999.7
35°	1362.9	1283.6	1188.9	1114.2	1106.5	1121.8	1127.9	1153.8	1158.4	1101.9	1047.0
37.5°	1361.4	1289.7	1271.4	1155.4	1144.7	1155.4	1163.0	1195.0	1213.4	1164.5	1115.7
40°	1457.6	1427.0	1427.0	1233.2	1198.1	1213.4	1221.0	1253.0	1285.1	1246.9	1196.6
42.5°	1759.8	1739.9	1718.6	1382.8	1272.9	1315.6	1320.2	1340.0	1378.2	1366.0	1306.5
45°	2097.1	2078.7	1996.3	1636.1	1401.1	1408.7	1419.4	1451.5	1506.4	1529.3	1459.1
47.5°	2361.1	2342.8	2272.6	1941.4	1601.0	1533.9	1533.9	1596.5	1681.9	1739.9	1672.8
50°	2573.2	2551.9	2509.1	2266.5	1929.2	1714.0	1704.8	1778.1	1904.8	1994.8	1949.0
52.5°	2779.3	2716.7	2690.8	2602.2	2300.1	1975.0	1950.5	2002.4	2178.0	2289.4	2251.2
55°	2916.7	2907.5	2880.0	2910.5	2689.2	2292.4	2271.1	2281.7	2501.5	2576.3	2529.0
57.5°	3044.9	3043.3	3104.4	3246.3	3113.5	2655.7	2622.1	2605.3	2814.4	2796.1	2837.3
60°	3203.6	3176.1	3318.1	3521.0	3502.7	3009.8	2971.6	2938.0	3054.0	3002.1	3206.6
62.5°	3211.2	3203.6	3492.0	3783.6	3888.9	3369.9	3325.7	3205.1	3263.1	3203.6	3559.2
65°	2919.7	2957.9	3565.3	3922.4	4212.4	3685.9	3632.5	3444.7	3449.3	3409.6	3974.3
67.5°	2854.1	2873.9	3363.8	4072.0	4445.9	4004.9	3954.5	3721.0	3666.0	3669.1	4220.1
70°	2690.8	2721.3	3113.5	4061.3	4630.6	4430.7	4380.3	4127.0	3994.2	3846.1	4030.8
72.5°	2055.9	2107.7	2623.6	3560.7	4580.3	4987.8	4974.0	4641.3	4125.4	3531.7	3049.4
75°	696.0	694.4	1378.2	2391.6	4114.8	5158.7	5186.2	4577.2	3598.9	2435.9	1514.0
77.5°	149.6	151.1	283.9	969.2	2733.5	4142.2	4247.5	3452.4	2321.4	1085.2	346.5
80°	73.3	74.8	117.5	256.4	1092.8	2322.9	2487.8	1775.0	857.7	216.7	58.0
82.5°	36.6	38.2	61.0	135.8	404.5	825.7	882.2	653.2	245.7	122.1	29.0
85°	13.7	13.7	30.5	80.9	184.7	193.8	238.1	189.3	148.0	99.2	7.6
87.5°	3.1	3.1	16.8	39.7	82.4	61.0	61.0	58.0	90.0	67.2	3.1
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°	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9
2.5°	688.3	682.2	671.5	660.9	653.2	644.1	639.5	634.9	633.4	631.9	634.9
5°	680.7	671.5	651.7	634.9	619.7	607.4	598.3	589.1	584.6	581.5	583.0
7.5°	680.7	667.0	638.0	612.0	587.6	561.7	535.7	515.9	500.6	491.5	493.0
10°	688.3	670.0	631.9	596.8	551.0	496.0	439.6	396.8	367.8	351.0	351.0
12.5°	705.1	680.7	633.4	578.4	500.6	404.5	319.0	267.1	245.7	233.5	235.0
15°	728.0	699.0	641.0	554.0	430.4	300.7	222.8	189.3	189.3	192.3	193.8
17.5°	754.0	721.9	647.1	517.4	340.4	215.2	175.5	172.5	177.0	184.7	184.7
20°	779.9	744.8	650.2	459.4	254.9	170.9	166.4	166.4	169.4	177.0	178.6
22.5°	812.0	773.8	647.1	387.7	190.8	161.8	160.3	160.3	160.3	169.4	169.4
25°	845.5	807.4	634.9	311.4	161.8	155.7	154.2	152.6	152.6	160.3	161.8
27.5°	883.7	842.5	605.9	238.1	152.6	149.6	148.0	145.0	145.0	151.1	151.1
30°	921.9	882.2	561.7	180.1	145.0	143.5	140.4	137.4	134.3	140.4	140.4
32.5°	963.1	923.4	503.7	143.5	134.3	134.3	132.8	128.2	125.2	128.2	129.7
35°	1018.0	970.7	438.0	125.2	120.6	120.6	120.6	119.0	112.9	116.0	116.0
37.5°	1091.3	1036.3	361.7	116.0	109.9	106.8	106.8	106.8	102.3	103.8	103.8
40°	1184.4	1112.6	288.5	108.4	102.3	94.6	91.6	93.1	90.0	90.0	88.5
42.5°	1311.0	1195.0	216.7	102.3	96.2	85.5	79.4	77.8	74.8	73.3	73.3
45°	1492.7	1295.8	155.7	96.2	91.6	74.8	68.7	64.1	56.5	51.9	51.9
47.5°	1727.7	1410.2	116.0	90.0	87.0	65.6	58.0	48.8	38.2	35.1	35.1
50°	2014.6	1538.5	97.7	80.9	79.4	58.0	45.8	32.1	21.4	18.3	19.8
52.5°	2293.9	1659.0	87.0	71.7	70.2	50.4	33.6	16.8	9.2	9.2	9.2
55°	2529.0	1744.5	79.4	64.1	61.0	39.7	18.3	7.6	4.6	4.6	4.6
57.5°	2741.1	1793.3	71.7	56.5	48.8	27.5	7.6	3.1	3.1	1.5	1.5
60°	2935.0	1822.3	62.6	48.8	38.2	15.3	3.1	1.5	1.5	0.0	0.0
62.5°	3125.7	1843.7	53.4	39.7	29.0	6.1	1.5	1.5	0.0	0.0	0.0
65°	3270.7	1836.1	42.7	32.1	18.3	3.1	1.5	0.0	0.0	0.0	0.0
67.5°	3266.2	1732.3	32.1	24.4	9.2	1.5	0.0	0.0	0.0	0.0	0.0
70°	2921.2	1459.1	21.4	15.3	3.1	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2072.6	935.6	13.7	9.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	912.7	283.9	7.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	178.6	65.6	4.6	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	42.7	7.6	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	1.5	0.0	0.0	0.0	0.0	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)