

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: P214956

Luminaire Tested: **ARCH-AF24-70-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214956  
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-AF24-70-D-U-T4W-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 930mA 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: 5969 lumens  
Efficiency: N/A  
Efficacy: 80.7 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): 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

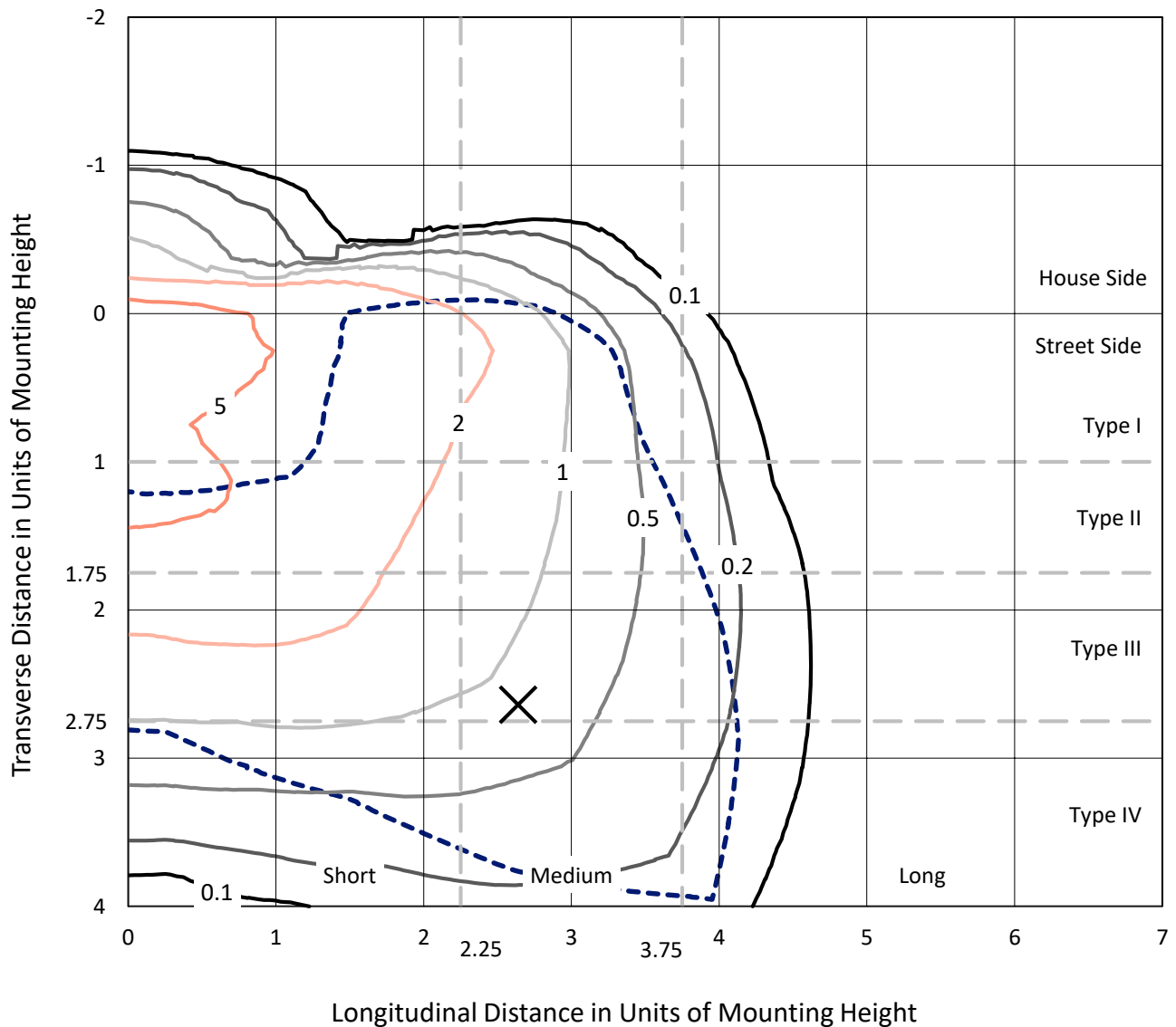


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

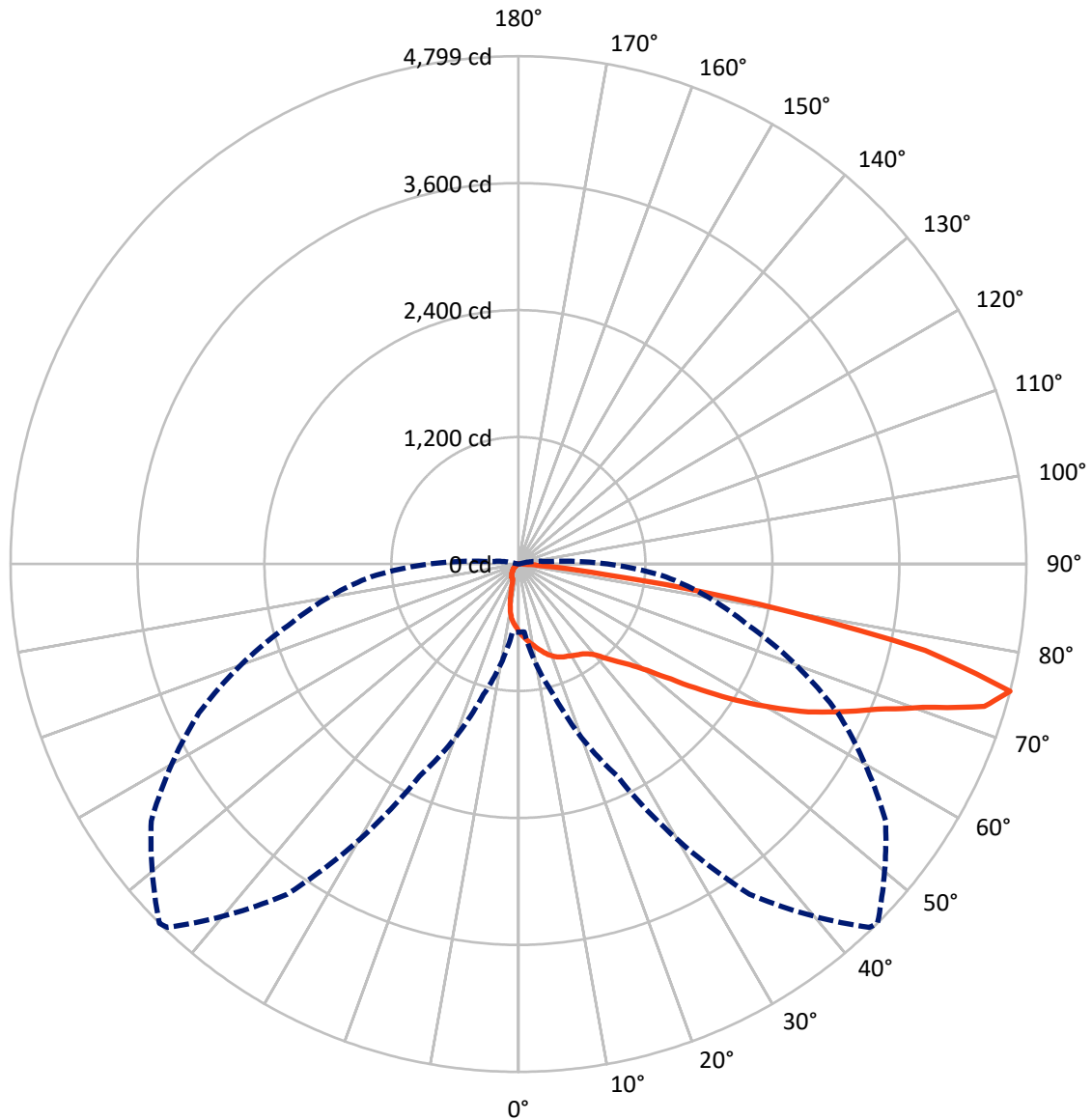


Based on 10 foot mounting height. Maximum calculated value = 8.5 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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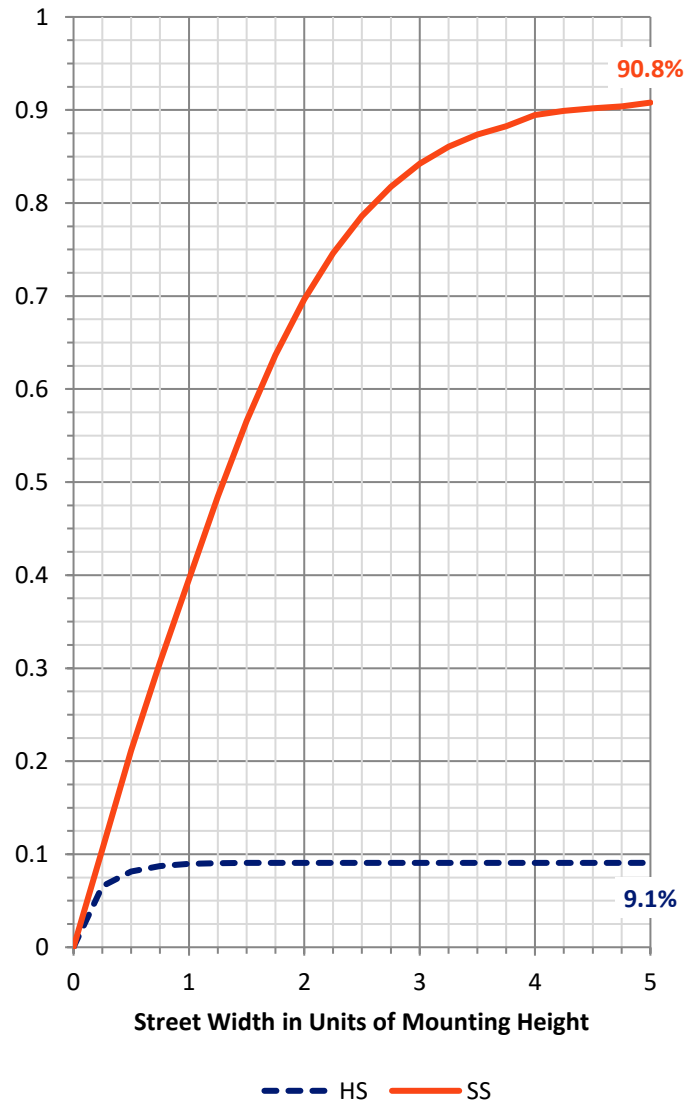
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	546.0	0.0	546.0
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	5423.0	0.0	5423.0
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	5969.0	0.0	5969.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.3	1.0
10°-20°	170.7	2.9
20°-30°	282.7	4.7
30°-40°	409.1	6.9
40°-50°	669.9	11.2
50°-60°	1193.7	20.0
60°-70°	1754.9	29.4
70°-80°	1323.9	22.2
80°-90°	103.9	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°	5969.0	100.0
0°-180°	5969.0	100.0



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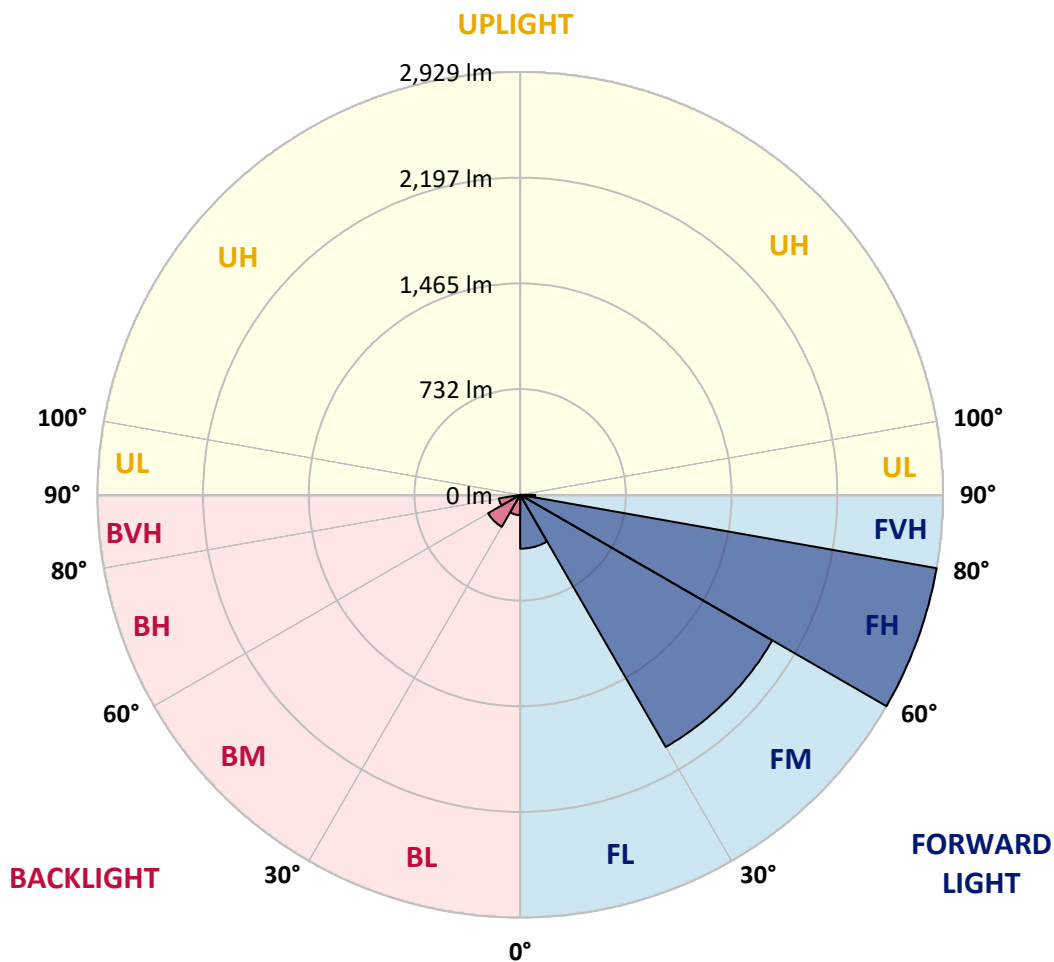
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	373.3	6.3			
FM	(30°-60°)	2016.9	33.8			
FH	(60°-80°)	2929.2	49.1			G2/5000
FVH	(80°-90°)	103.6	1.7			G2/225
BL	(0°-30°)	140.3	2.4	B1/500		
BM	(30°-60°)	255.8	4.3	B1/1000		
BH	(60°-80°)	149.5	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°	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4
2.5°	693.5	693.5	692.1	690.7	683.6	676.6	675.1	670.9	658.2	649.7	641.2
5°	751.4	752.8	750.0	742.9	727.4	711.9	710.5	699.2	675.1	658.2	639.8
7.5°	806.5	809.3	802.3	789.5	771.2	748.6	747.2	726.0	694.9	670.9	644.1
10°	853.1	853.1	843.2	827.7	807.9	783.9	781.1	757.1	721.8	692.1	656.8
12.5°	904.0	902.5	888.4	867.2	844.6	822.0	820.6	791.0	757.1	718.9	675.1
15°	950.6	947.7	929.4	909.6	885.6	861.6	860.2	830.5	795.2	750.0	702.0
17.5°	976.0	974.6	957.6	937.9	918.1	899.7	898.3	867.2	829.1	782.5	728.8
20°	980.2	981.6	967.5	950.6	939.3	929.4	929.4	901.1	860.2	810.7	757.1
22.5°	981.6	985.9	976.0	953.4	950.6	952.0	954.8	932.2	889.8	843.2	786.7
25°	991.5	997.2	990.1	963.3	960.5	970.3	973.2	963.3	925.1	878.5	820.6
27.5°	1011.3	1016.9	1011.3	977.4	973.2	983.0	985.9	991.5	963.3	912.4	855.9
30°	1050.8	1052.3	1039.5	997.2	988.7	1001.4	1005.6	1021.2	998.6	944.9	889.8
32.5°	1120.1	1105.9	1067.8	1011.3	1004.2	1018.4	1022.6	1039.5	1031.1	976.0	925.1
35°	1261.3	1187.9	1100.3	1031.1	1024.0	1038.1	1043.8	1067.8	1072.0	1019.8	968.9
37.5°	1259.9	1193.5	1176.6	1069.2	1059.3	1069.2	1076.3	1105.9	1122.9	1077.7	1032.5
40°	1348.9	1320.6	1320.6	1141.2	1108.8	1122.9	1129.9	1159.6	1189.3	1154.0	1107.3
42.5°	1628.5	1610.2	1590.4	1279.7	1178.0	1217.5	1221.7	1240.1	1275.4	1264.1	1209.0
45°	1940.7	1923.7	1847.5	1514.1	1296.6	1303.7	1313.6	1343.2	1394.1	1415.3	1350.3
47.5°	2185.0	2168.1	2103.1	1796.6	1481.6	1419.5	1419.5	1477.4	1556.5	1610.2	1548.0
50°	2381.4	2361.6	2322.0	2097.5	1785.3	1586.2	1577.7	1645.5	1762.7	1846.0	1803.7
52.5°	2572.0	2514.1	2490.1	2408.2	2128.5	1827.7	1805.1	1853.1	2015.5	2118.6	2083.3
55°	2699.1	2690.7	2665.2	2693.5	2488.7	2121.5	2101.7	2111.6	2315.0	2384.2	2340.4
57.5°	2817.8	2816.4	2872.9	3004.2	2881.4	2457.6	2426.5	2411.0	2604.5	2587.6	2625.7
60°	2964.7	2939.3	3070.6	3258.5	3241.5	2785.3	2750.0	2718.9	2826.3	2778.2	2967.5
62.5°	2971.7	2964.7	3231.6	3501.4	3598.9	3118.6	3077.7	2966.1	3019.8	2964.7	3293.8
65°	2702.0	2737.3	3299.4	3629.9	3898.3	3411.0	3361.6	3187.8	3192.1	3155.4	3678.0
67.5°	2641.2	2659.6	3113.0	3768.4	4114.4	3706.2	3659.6	3443.5	3392.6	3395.5	3905.4
70°	2490.1	2518.4	2881.4	3758.5	4285.3	4100.3	4053.7	3819.2	3696.3	3559.3	3730.2
72.5°	1902.5	1950.6	2428.0	3295.2	4238.7	4615.8	4603.1	4295.2	3817.8	3268.4	2822.0
75°	644.1	642.7	1275.4	2213.3	3807.9	4774.0	4799.4	4235.9	3330.5	2254.2	1401.1
77.5°	138.4	139.8	262.7	896.9	2529.7	3833.3	3930.8	3194.9	2148.3	1004.2	320.6
80°	67.8	69.2	108.8	237.3	1011.3	2149.7	2302.3	1642.7	793.8	200.6	53.7
82.5°	33.9	35.3	56.5	125.7	374.3	764.1	816.4	604.5	227.4	113.0	26.8
85°	12.7	12.7	28.2	74.9	170.9	179.4	220.3	175.1	137.0	91.8	7.1
87.5°	2.8	2.8	15.5	36.7	76.3	56.5	56.5	53.7	83.3	62.1	2.8
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°	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4
2.5°	637.0	631.4	621.5	611.6	604.5	596.0	591.8	587.6	586.2	584.7	587.6
5°	629.9	621.5	603.1	587.6	573.4	562.1	553.7	545.2	541.0	538.1	539.5
7.5°	629.9	617.2	590.4	566.4	543.8	519.8	495.8	477.4	463.3	454.8	456.2
10°	637.0	620.1	584.7	552.3	509.9	459.0	406.8	367.2	340.4	324.9	324.9
12.5°	652.5	629.9	586.2	535.3	463.3	374.3	295.2	247.2	227.4	216.1	217.5
15°	673.7	646.9	593.2	512.7	398.3	278.2	206.2	175.1	175.1	178.0	179.4
17.5°	697.7	668.1	598.9	478.8	315.0	199.2	162.4	159.6	163.8	170.9	170.9
20°	721.8	689.3	601.7	425.1	235.9	158.2	154.0	154.0	156.8	163.8	165.3
22.5°	751.4	716.1	598.9	358.8	176.6	149.7	148.3	148.3	148.3	156.8	156.8
25°	782.5	747.2	587.6	288.1	149.7	144.1	142.7	141.2	141.2	148.3	149.7
27.5°	817.8	779.7	560.7	220.3	141.2	138.4	137.0	134.2	134.2	139.8	139.8
30°	853.1	816.4	519.8	166.7	134.2	132.8	129.9	127.1	124.3	129.9	129.9
32.5°	891.2	854.5	466.1	132.8	124.3	124.3	122.9	118.6	115.8	118.6	120.1
35°	942.1	898.3	405.4	115.8	111.6	111.6	111.6	110.2	104.5	107.3	107.3
37.5°	1009.9	959.0	334.7	107.3	101.7	98.9	98.9	98.9	94.6	96.0	96.0
40°	1096.0	1029.7	266.9	100.3	94.6	87.6	84.7	86.2	83.3	83.3	81.9
42.5°	1213.3	1105.9	200.6	94.6	89.0	79.1	73.4	72.0	69.2	67.8	67.8
45°	1381.4	1199.2	144.1	89.0	84.7	69.2	63.6	59.3	52.3	48.0	48.0
47.5°	1598.9	1305.1	107.3	83.3	80.5	60.7	53.7	45.2	35.3	32.5	32.5
50°	1864.4	1423.7	90.4	74.9	73.4	53.7	42.4	29.7	19.8	16.9	18.4
52.5°	2122.9	1535.3	80.5	66.4	65.0	46.6	31.1	15.5	8.5	8.5	8.5
55°	2340.4	1614.4	73.4	59.3	56.5	36.7	16.9	7.1	4.2	4.2	4.2
57.5°	2536.7	1659.6	66.4	52.3	45.2	25.4	7.1	2.8	2.8	1.4	1.4
60°	2716.1	1686.4	57.9	45.2	35.3	14.1	2.8	1.4	1.4	0.0	0.0
62.5°	2892.7	1706.2	49.4	36.7	26.8	5.6	1.4	1.4	0.0	0.0	0.0
65°	3026.8	1699.1	39.5	29.7	16.9	2.8	1.4	0.0	0.0	0.0	0.0
67.5°	3022.6	1603.1	29.7	22.6	8.5	1.4	0.0	0.0	0.0	0.0	0.0
70°	2703.4	1350.3	19.8	14.1	2.8	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	1918.1	865.8	12.7	8.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	844.6	262.7	7.1	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	165.3	60.7	4.2	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	39.5	7.1	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	16.9	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.8	1.4	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)