

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: P214941

Luminaire Tested: **ARCH-AF24-60-D-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214941  
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-AF24-60-D-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 800mA 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: 5476.9 lumens  
Efficiency: N/A  
Efficacy: 85.6 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

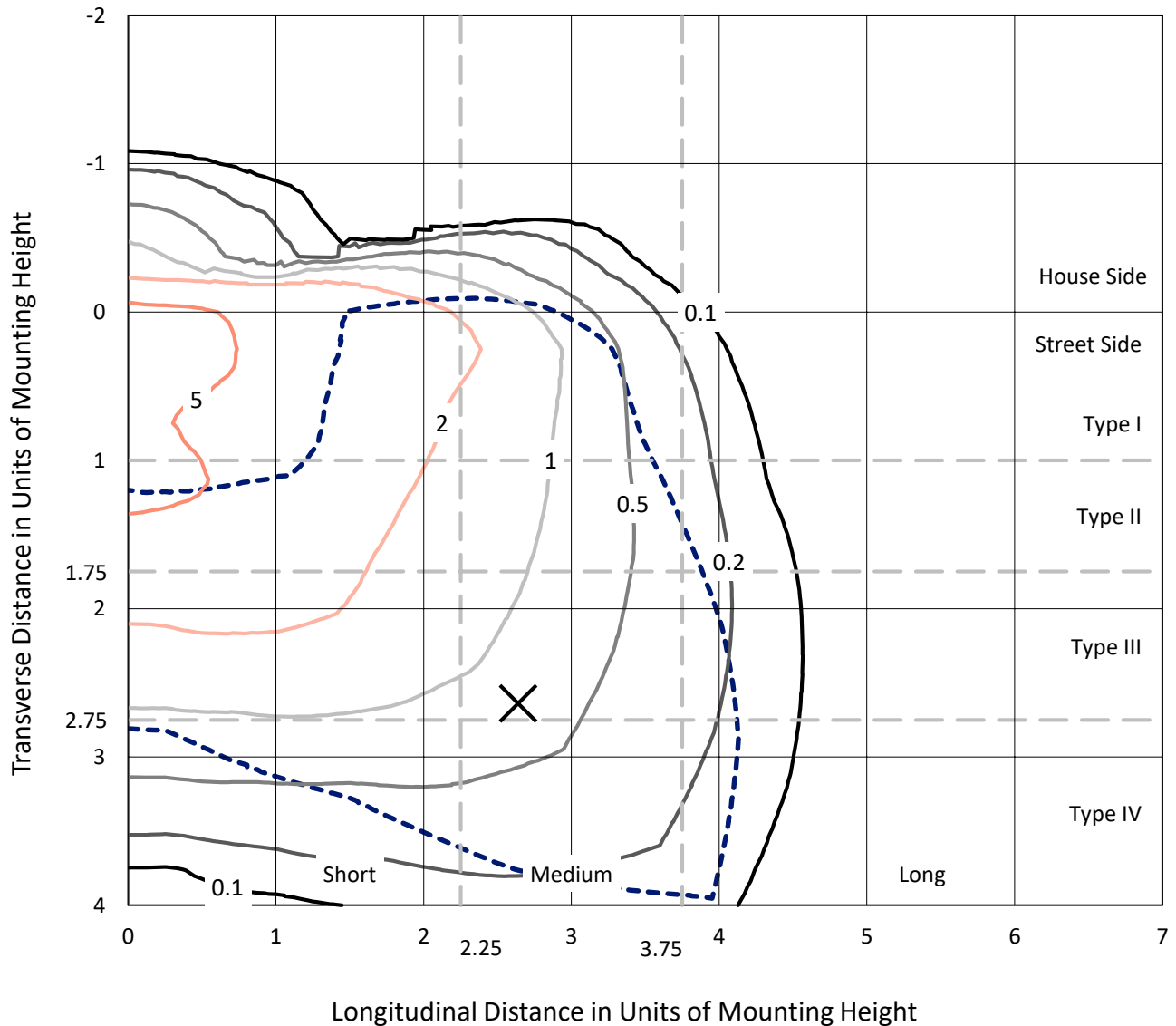
Input Watts (W): 64  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

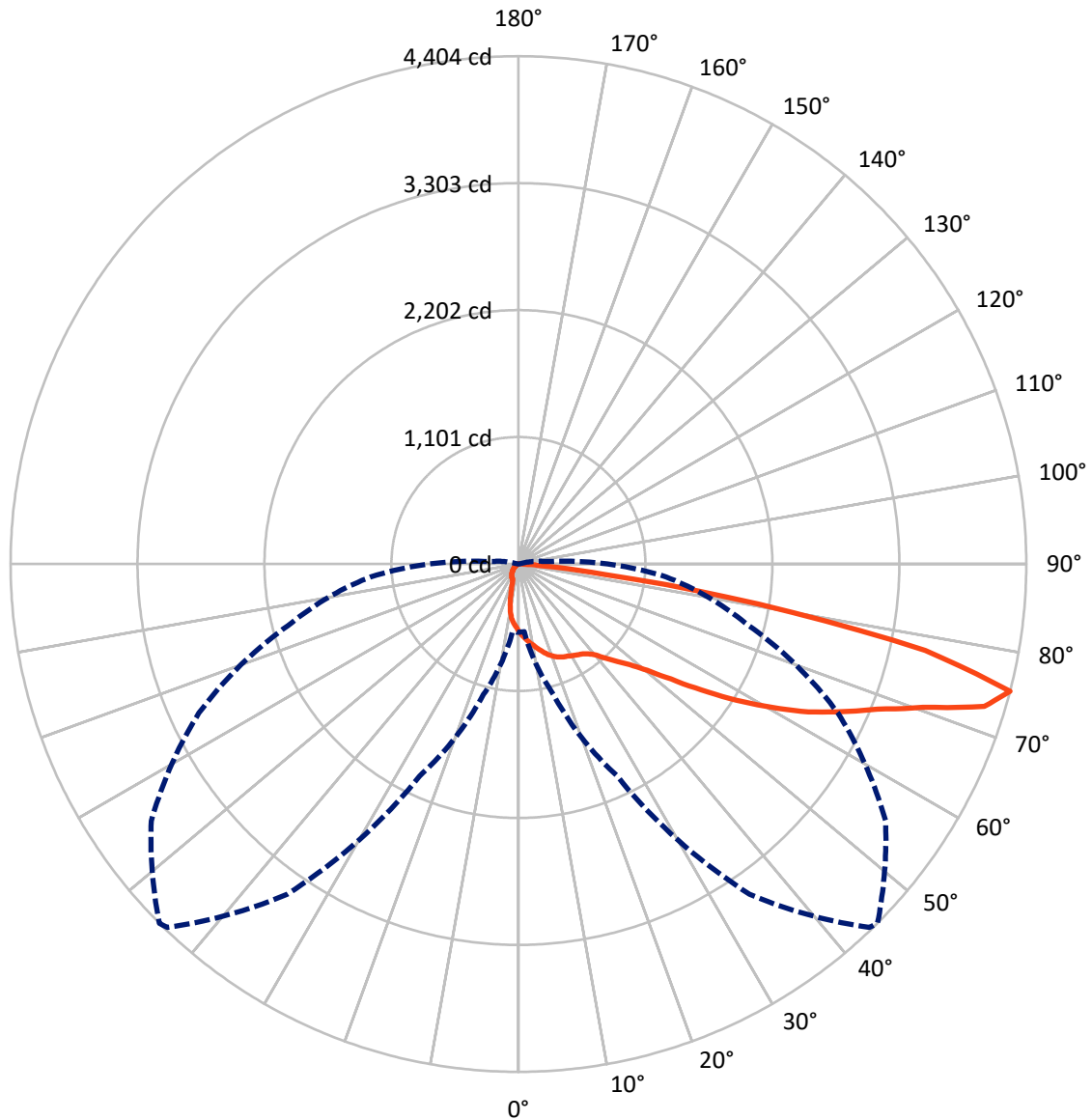
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.8 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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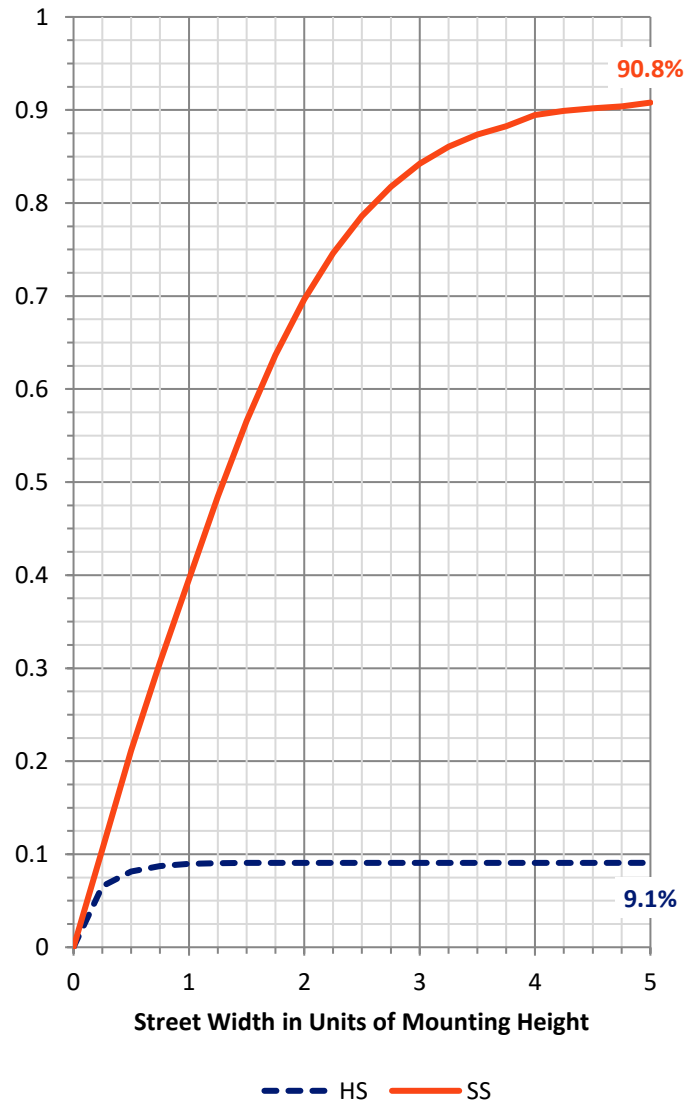
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	501.0	0.0	501.0
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	4975.9	0.0	4975.9
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	5476.9	0.0	5476.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.3	1.0
10°-20°	156.6	2.9
20°-30°	259.4	4.7
30°-40°	375.4	6.9
40°-50°	614.7	11.2
50°-60°	1095.3	20.0
60°-70°	1610.2	29.4
70°-80°	1214.7	22.2
80°-90°	95.3	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°	5476.9	100.0
0°-180°	5476.9	100.0

**Coefficient of Utilization**



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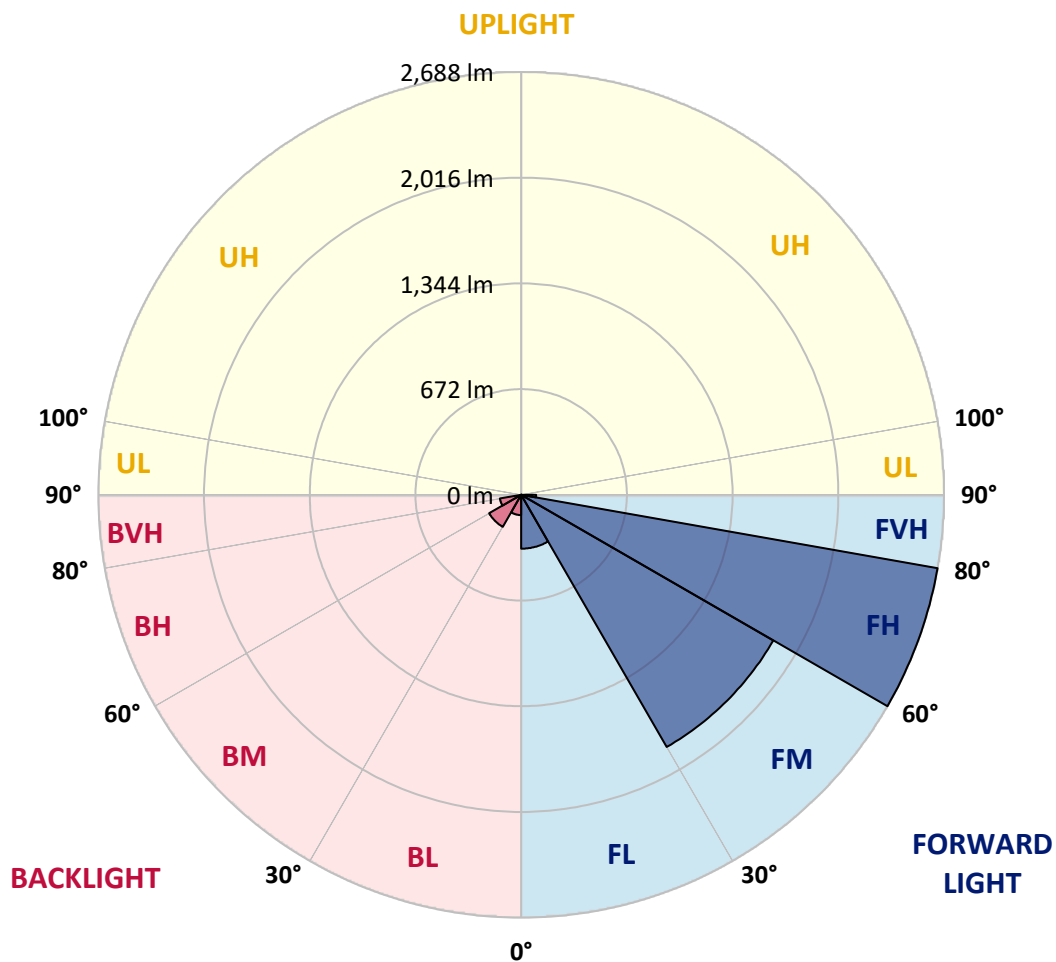
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	342.6	6.3			
FM	(30°-60°)	1850.6	33.8			
FH	(60°-80°)	2687.7	49.1			G2/5000
FVH	(80°-90°)	95.0	1.7			G1/100
BL	(0°-30°)	128.7	2.4	B1/500		
BM	(30°-60°)	234.7	4.3	B1/1000		
BH	(60°-80°)	137.2	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°	585.7	585.7	585.7	585.7	585.7	585.7	585.7	585.7	585.7	585.7	585.7
2.5°	636.3	636.3	635.0	633.7	627.3	620.7	619.5	615.6	604.0	596.2	588.4
5°	689.5	690.8	688.1	681.7	667.5	653.2	651.9	641.5	619.5	604.0	587.1
7.5°	740.0	742.6	736.1	724.5	707.6	686.9	685.6	666.1	637.6	615.6	591.0
10°	782.8	782.8	773.7	759.4	741.3	719.2	716.7	694.7	662.3	635.0	602.6
12.5°	829.4	828.1	815.2	795.8	775.0	754.2	753.0	725.8	694.7	659.7	619.5
15°	872.2	869.6	852.7	834.6	812.5	790.5	789.2	762.0	729.7	688.1	644.0
17.5°	895.5	894.3	878.7	860.5	842.4	825.5	824.2	795.8	760.8	718.0	668.7
20°	899.4	900.7	887.7	872.2	861.8	852.7	852.7	826.9	789.2	743.9	694.7
22.5°	900.7	904.6	895.5	874.8	872.2	873.5	876.1	855.4	816.4	773.7	721.9
25°	909.8	914.9	908.5	883.8	881.3	890.4	892.9	883.8	848.8	806.1	753.0
27.5°	927.9	933.1	927.9	896.8	892.9	902.0	904.6	909.8	883.8	837.2	785.3
30°	964.2	965.5	953.8	914.9	907.2	918.8	922.7	937.0	916.3	867.1	816.4
32.5°	1027.8	1014.8	979.8	927.9	921.5	934.4	938.3	953.8	946.0	895.5	848.8
35°	1157.3	1090.0	1009.6	946.0	939.6	952.6	957.7	979.8	983.7	935.7	889.0
37.5°	1156.0	1095.1	1079.5	981.0	972.0	981.0	987.6	1014.8	1030.3	988.8	947.4
40°	1237.7	1211.8	1211.8	1047.2	1017.3	1030.3	1036.8	1064.0	1091.2	1058.9	1016.1
42.5°	1494.2	1477.4	1459.2	1174.1	1080.8	1117.2	1121.1	1137.8	1170.3	1159.9	1109.4
45°	1780.7	1765.1	1695.1	1389.3	1189.7	1196.1	1205.2	1232.5	1279.1	1298.5	1239.0
47.5°	2004.9	1989.3	1929.7	1648.5	1359.5	1302.4	1302.4	1355.6	1428.1	1477.4	1420.4
50°	2185.0	2166.9	2130.6	1924.5	1638.2	1455.4	1447.6	1509.8	1617.4	1693.8	1654.9
52.5°	2359.9	2306.9	2284.8	2209.7	1953.0	1677.0	1656.3	1700.3	1849.4	1944.0	1911.6
55°	2476.6	2468.8	2445.5	2471.4	2283.5	1946.6	1928.4	1937.5	2124.2	2187.6	2147.5
57.5°	2585.5	2584.2	2636.0	2756.5	2643.8	2255.0	2226.5	2212.2	2389.8	2374.3	2409.3
60°	2720.2	2696.9	2817.4	2989.8	2974.2	2555.6	2523.3	2494.8	2593.3	2549.2	2722.9
62.5°	2726.8	2720.2	2965.2	3212.7	3302.2	2861.5	2824.0	2721.6	2770.8	2720.2	3022.2
65°	2479.2	2511.7	3027.4	3330.6	3576.8	3129.8	3084.4	2925.0	2928.9	2895.3	3374.7
67.5°	2423.5	2440.4	2856.4	3457.7	3775.2	3400.6	3357.8	3159.6	3112.9	3115.5	3583.4
70°	2284.8	2310.7	2643.8	3448.6	3932.0	3762.2	3719.4	3504.3	3391.6	3265.9	3422.7
72.5°	1745.7	1789.8	2227.8	3023.5	3889.3	4235.2	4223.6	3941.0	3503.0	2998.9	2589.4
75°	591.0	589.6	1170.3	2030.8	3494.0	4380.4	4403.7	3886.6	3056.0	2068.4	1285.6
77.5°	127.1	128.3	241.0	823.0	2321.1	3517.3	3606.7	2931.5	1971.2	921.5	294.2
80°	62.2	63.5	99.8	217.7	927.9	1972.5	2112.4	1507.2	728.3	184.0	49.2
82.5°	31.1	32.4	51.9	115.4	343.4	701.1	749.1	554.6	208.7	103.7	24.7
85°	11.7	11.7	25.9	68.6	156.8	164.6	202.1	160.7	125.7	84.2	6.4
87.5°	2.6	2.6	14.2	33.7	70.0	51.9	51.9	49.2	76.4	57.0	2.6
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°	585.7	585.7	585.7	585.7	585.7	585.7	585.7	585.7	585.7	585.7	585.7
2.5°	584.5	579.3	570.2	561.2	554.6	546.9	543.0	539.1	537.9	536.5	539.1
5°	578.0	570.2	553.4	539.1	526.2	515.8	508.0	500.2	496.3	493.8	495.1
7.5°	578.0	566.3	541.8	519.7	499.0	476.9	454.9	438.0	425.0	417.3	418.6
10°	584.5	569.0	536.5	506.8	467.9	421.1	373.3	337.0	312.3	298.1	298.1
12.5°	598.7	578.0	537.9	491.2	425.0	343.4	270.9	226.8	208.7	198.2	199.6
15°	618.2	593.5	544.3	470.5	365.5	255.3	189.2	160.7	160.7	163.3	164.6
17.5°	640.2	613.0	549.5	439.4	289.0	182.7	149.0	146.5	150.4	156.8	156.8
20°	662.3	632.4	552.1	390.1	216.5	145.2	141.3	141.3	143.8	150.4	151.6
22.5°	689.5	657.0	549.5	329.2	162.0	137.4	136.1	136.1	136.1	143.8	143.8
25°	718.0	685.6	539.1	264.3	137.4	132.2	130.9	129.6	129.6	136.1	137.4
27.5°	750.3	715.3	514.5	202.1	129.6	127.1	125.7	123.2	123.2	128.3	128.3
30°	782.8	749.1	476.9	152.9	123.2	121.8	119.3	116.6	114.1	119.3	119.3
32.5°	817.7	784.1	427.7	121.8	114.1	114.1	112.7	108.8	106.3	108.8	110.2
35°	864.4	824.2	371.9	106.3	102.4	102.4	102.4	101.1	96.0	98.5	98.5
37.5°	926.6	879.9	307.2	98.5	93.3	90.7	90.7	90.7	86.8	88.1	88.1
40°	1005.7	944.8	244.9	92.0	86.8	80.3	77.7	79.1	76.4	76.4	75.2
42.5°	1113.3	1014.8	184.0	86.8	81.6	72.5	67.4	66.1	63.5	62.2	62.2
45°	1267.4	1100.3	132.2	81.6	77.7	63.5	58.3	54.4	48.0	44.1	44.1
47.5°	1467.0	1197.5	98.5	76.4	73.9	55.8	49.2	41.4	32.4	29.8	29.8
50°	1710.7	1306.3	83.0	68.6	67.4	49.2	38.9	27.2	18.1	15.5	16.9
52.5°	1947.9	1408.7	73.9	60.9	59.6	42.8	28.5	14.2	7.8	7.8	7.8
55°	2147.5	1481.3	67.4	54.4	51.9	33.7	15.5	6.4	3.9	3.9	3.9
57.5°	2327.6	1522.8	60.9	48.0	41.4	23.3	6.4	2.6	2.6	1.3	1.3
60°	2492.2	1547.4	53.1	41.4	32.4	13.0	2.6	1.3	1.3	0.0	0.0
62.5°	2654.1	1565.5	45.3	33.7	24.7	5.2	1.3	1.3	0.0	0.0	0.0
65°	2777.3	1559.1	36.3	27.2	15.5	2.6	1.3	0.0	0.0	0.0	0.0
67.5°	2773.4	1470.9	27.2	20.8	7.8	1.3	0.0	0.0	0.0	0.0	0.0
70°	2480.5	1239.0	18.1	13.0	2.6	1.3	0.0	0.0	0.0	0.0	0.0
72.5°	1760.0	794.4	11.7	7.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	775.0	241.0	6.4	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	151.6	55.8	3.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	36.3	6.4	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.5	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.6	1.3	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)