

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: P234735

Luminaire Tested: **ARCH-AF24-80-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234735  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
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-T3-8027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5104 lumens  
Efficiency: N/A  
Efficacy: 61.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-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

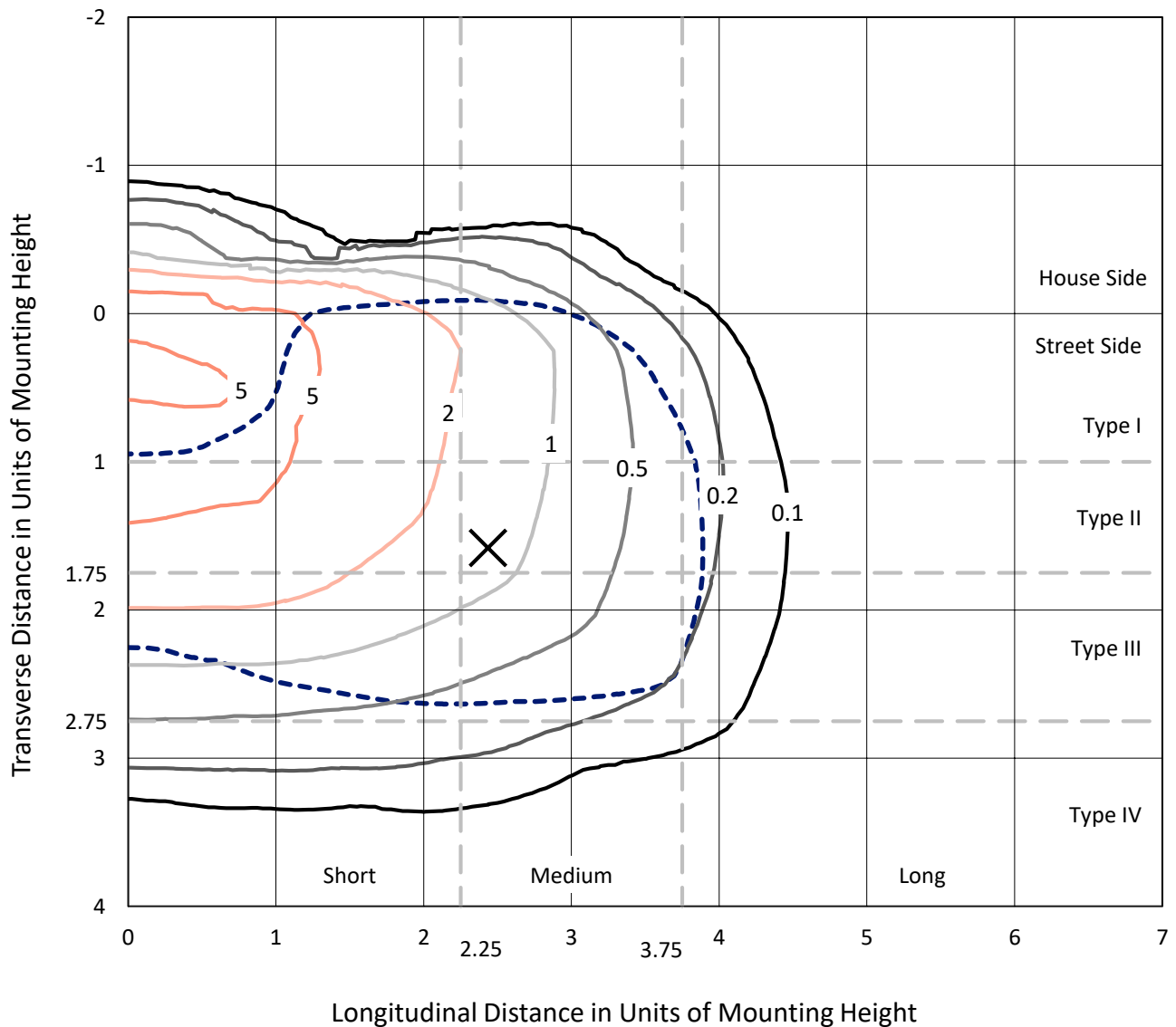


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

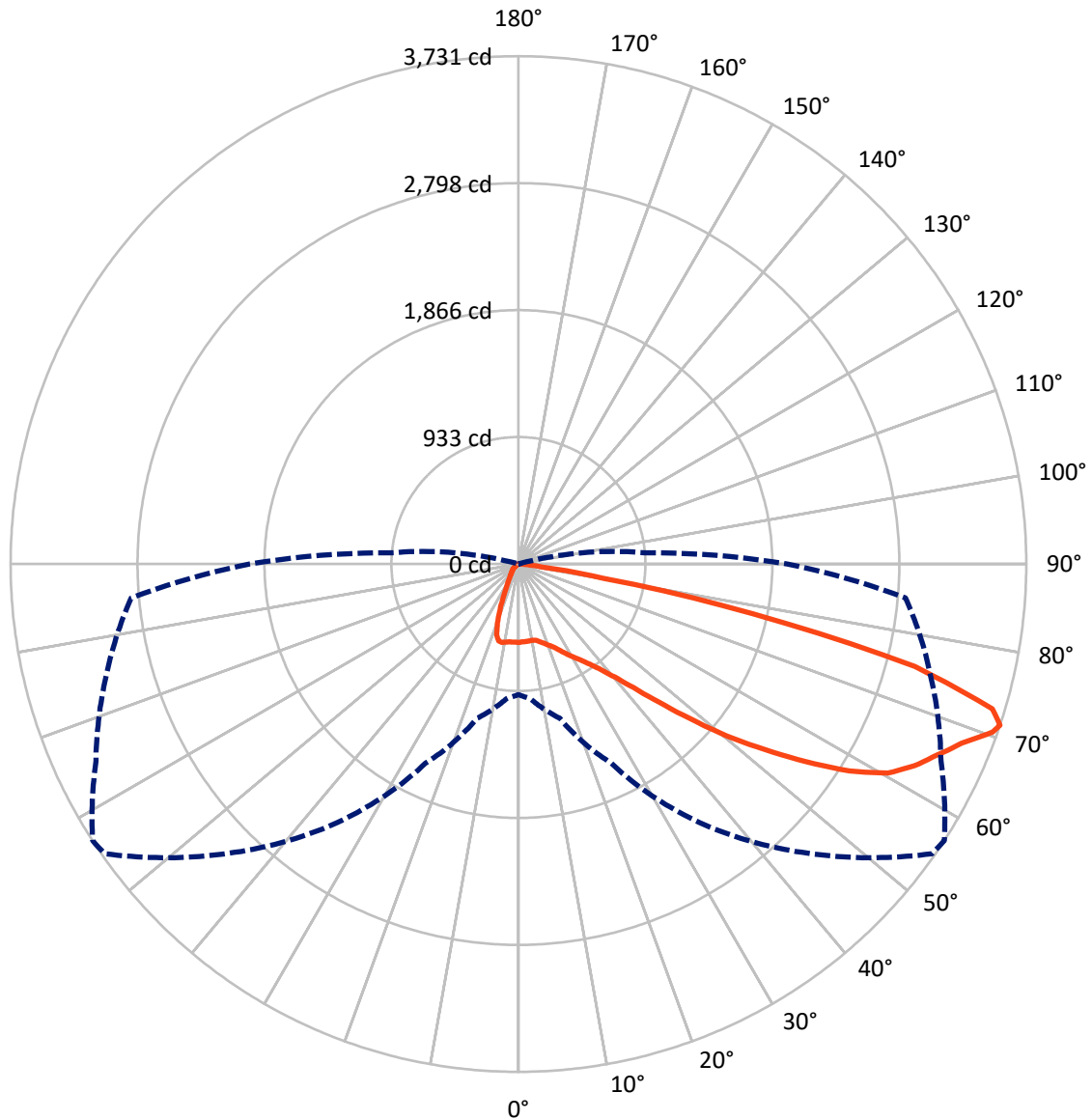


Based on 10 foot mounting height. Maximum calculated value = 7.2 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical



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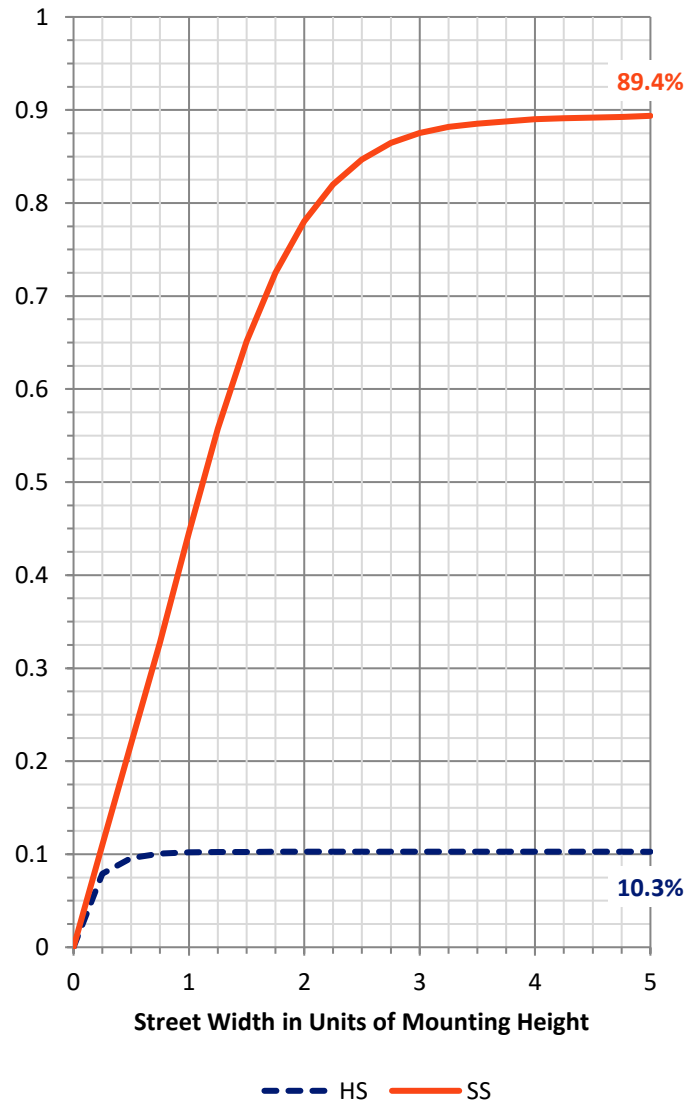
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	528.9	0.0	528.9
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	4575.1	0.0	4575.1
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	5104.0	0.0	5104.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.2	1.1
10°-20°	144.8	2.8
20°-30°	226.0	4.4
30°-40°	381.9	7.5
40°-50°	741.7	14.5
50°-60°	1245.6	24.4
60°-70°	1486.5	29.1
70°-80°	783.4	15.3
80°-90°	39.8	0.8
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°	5104.0	100.0
0°-180°	5104.0	100.0

**Coefficient of Utilization**



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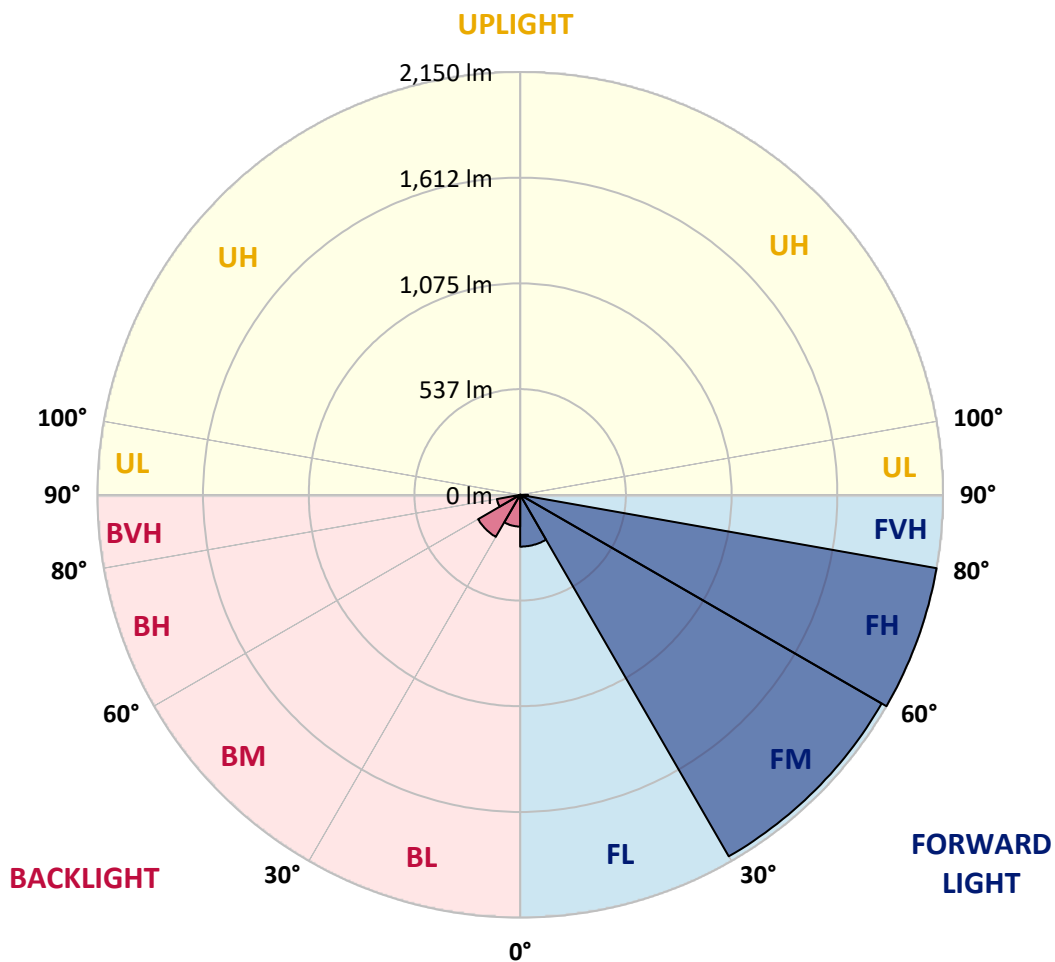
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	263.5	5.2			
FM	(30°-60°)	2122.3	41.6			
FH	(60°-80°)	2149.8	42.1			G2/5000
FVH	(80°-90°)	39.4	0.8			G1/100
BL	(0°-30°)	161.5	3.2	B1/500		
BM	(30°-60°)	247.0	4.8	B1/1000		
BH	(60°-80°)	120.1	2.4	B1/500		G1/500
BVH	(80°-90°)	0.4	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	576.8	576.8	576.8	576.8	576.8	576.8	576.8	576.8	576.8	576.8	576.8
2.5°	568.5	568.5	568.5	569.7	570.9	570.9	573.3	572.1	572.1	572.1	574.5
5°	553.0	554.2	555.4	557.8	562.6	566.1	572.1	572.1	573.3	575.6	576.8
7.5°	531.6	532.8	536.4	541.1	550.7	559.0	568.5	570.9	574.5	580.4	582.8
10°	518.6	520.9	525.7	531.6	542.3	553.0	564.9	568.5	579.2	589.9	595.9
12.5°	515.0	516.2	520.9	530.4	543.5	556.6	572.1	575.6	591.1	607.8	617.3
15°	520.9	522.1	524.5	535.2	550.7	567.3	587.5	592.3	611.3	630.3	642.2
17.5°	531.6	531.6	534.0	543.5	560.2	579.2	605.4	612.5	633.9	655.3	668.4
20°	538.8	538.8	542.3	551.9	570.9	595.9	626.8	636.3	660.1	683.9	695.8
22.5°	545.9	547.1	550.7	561.4	582.8	617.3	652.9	662.5	689.8	714.8	726.7
25°	566.1	564.9	566.1	575.6	600.6	643.4	688.6	700.5	729.1	756.4	762.4
27.5°	622.0	619.6	604.2	598.2	617.3	670.8	733.8	745.7	779.0	806.4	806.4
30°	750.5	745.7	707.7	658.9	643.4	695.8	776.6	793.3	836.1	859.9	852.8
32.5°	913.4	902.7	853.9	770.7	708.8	729.1	821.8	840.9	895.6	915.8	900.3
35°	1091.8	1090.6	1030.0	922.9	834.9	798.0	880.1	902.7	971.7	989.5	964.6
37.5°	1280.9	1285.7	1245.2	1097.8	994.3	911.0	957.4	983.6	1068.0	1089.4	1065.6
40°	1491.4	1490.2	1474.8	1299.9	1185.8	1071.6	1069.2	1093.0	1195.3	1228.6	1195.3
42.5°	1757.8	1755.5	1699.6	1542.6	1417.7	1280.9	1232.2	1240.5	1354.7	1409.4	1360.6
45°	2029.0	2012.4	1948.1	1812.6	1701.9	1540.2	1447.4	1447.4	1545.0	1619.9	1543.8
47.5°	2180.1	2163.4	2137.2	2062.3	2029.0	1848.2	1711.5	1694.8	1770.9	1847.0	1740.0
50°	2378.7	2378.7	2313.3	2284.7	2341.8	2214.5	2002.8	1986.2	2023.1	2083.7	1943.4
52.5°	2535.7	2507.1	2460.7	2485.7	2648.7	2590.4	2294.2	2262.1	2290.7	2306.1	2120.6
55°	2601.1	2573.7	2570.2	2661.7	2913.9	2833.0	2592.8	2564.2	2561.8	2485.7	2275.2
57.5°	2614.2	2590.4	2635.6	2796.1	3172.0	3031.6	2890.1	2868.7	2802.1	2611.8	2433.4
60°	2503.6	2515.5	2624.9	2869.9	3324.2	3204.1	3141.0	3118.4	2965.0	2718.8	2609.4
62.5°	2276.4	2304.9	2509.5	2877.0	3268.3	3274.3	3280.2	3264.7	3091.1	2816.4	2786.6
65°	2007.6	2015.9	2262.1	2778.3	3170.8	3252.8	3382.5	3381.3	3187.4	2925.8	2986.4
67.5°	1654.4	1668.6	1881.5	2445.3	2975.7	3243.3	3516.9	3513.3	3296.8	3050.7	3105.4
70°	1231.0	1248.8	1421.3	1901.8	2540.4	3124.4	3692.9	3695.3	3412.2	3145.8	3023.3
71°	959.8	991.9	1172.7	1615.1	2318.0	3004.3	3709.5	3731.0	3425.3	3132.7	2854.4
72.5°	471.0	509.0	736.2	1137.0	1907.7	2735.5	3600.1	3641.8	3343.2	2969.8	2440.5
75°	122.5	129.6	220.0	465.0	1022.8	1812.6	2903.2	3009.0	2733.1	2260.9	1491.4
77.5°	77.3	79.7	103.5	180.8	383.0	688.6	1705.5	1757.8	1561.6	1145.3	525.7
80°	54.7	55.9	65.4	116.6	223.6	201.0	613.7	636.3	564.9	303.3	94.0
82.5°	33.3	33.3	47.6	74.9	138.0	109.4	161.8	172.5	152.2	84.4	30.9
85°	19.0	20.2	29.7	51.1	65.4	53.5	60.7	64.2	65.4	55.9	13.1
87.5°	15.5	16.7	26.2	42.8	35.7	26.2	26.2	27.4	28.5	33.3	5.9
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°	576.8	576.8	576.8	576.8	576.8	576.8	576.8	576.8	576.8	576.8	576.8
2.5°	574.5	574.5	575.6	574.5	574.5	574.5	575.6	575.6	575.6	578.0	579.2
5°	576.8	576.8	576.8	575.6	574.5	574.5	576.8	578.0	578.0	581.6	581.6
7.5°	582.8	582.8	580.4	578.0	575.6	572.1	573.3	574.5	573.3	574.5	574.5
10°	595.9	595.9	592.3	587.5	580.4	569.7	555.4	537.6	520.9	515.0	512.6
12.5°	617.3	616.1	608.9	600.6	585.2	548.3	494.8	431.7	379.4	365.1	360.4
15°	641.1	638.7	630.3	616.1	574.5	476.9	365.1	284.3	234.3	222.4	220.0
17.5°	666.0	662.5	650.6	622.0	525.7	354.4	235.5	178.4	151.0	148.7	149.9
20°	692.2	687.4	670.8	610.1	424.6	236.7	152.2	138.0	135.6	135.6	136.8
22.5°	721.9	716.0	693.4	567.3	309.2	157.0	130.8	129.6	128.4	127.3	127.3
25°	756.4	749.3	714.8	490.0	212.9	128.4	124.9	121.3	118.9	116.6	115.4
27.5°	798.0	788.5	731.4	394.9	146.3	120.1	117.7	111.8	107.0	102.3	102.3
30°	839.7	827.8	726.7	297.3	118.9	111.8	107.0	99.9	92.8	88.0	86.8
32.5°	883.7	871.8	695.8	199.8	108.2	102.3	96.3	85.6	77.3	71.4	70.2
35°	949.1	939.6	635.1	132.0	97.5	90.4	82.1	71.4	60.7	54.7	53.5
37.5°	1046.6	1034.7	560.2	101.1	85.6	74.9	67.8	55.9	45.2	39.2	38.1
40°	1177.4	1141.8	471.0	89.2	74.9	61.8	52.3	40.4	32.1	28.5	28.5
42.5°	1329.7	1245.2	374.6	80.9	66.6	51.1	38.1	27.4	22.6	21.4	21.4
45°	1491.4	1341.6	278.3	74.9	58.3	40.4	27.4	19.0	16.7	15.5	15.5
47.5°	1657.9	1420.1	193.9	67.8	48.8	30.9	19.0	14.3	11.9	10.7	10.7
50°	1813.7	1471.2	136.8	60.7	41.6	22.6	14.3	10.7	8.3	8.3	8.3
52.5°	1922.0	1466.5	98.7	52.3	32.1	15.5	9.5	7.1	7.1	7.1	7.1
55°	2017.1	1448.6	77.3	45.2	25.0	10.7	7.1	5.9	5.9	4.8	4.8
57.5°	2098.0	1420.1	65.4	36.9	17.8	8.3	4.8	4.8	3.6	3.6	3.6
60°	2167.0	1384.4	54.7	30.9	11.9	5.9	3.6	2.4	2.4	1.2	2.4
62.5°	2260.9	1361.8	47.6	23.8	8.3	3.6	2.4	1.2	1.2	0.0	0.0
65°	2329.9	1319.0	40.4	16.7	4.8	2.4	1.2	1.2	0.0	0.0	0.0
67.5°	2332.3	1241.7	29.7	9.5	3.6	2.4	1.2	0.0	0.0	0.0	0.0
70°	2144.4	1058.5	19.0	4.8	2.4	1.2	1.2	0.0	0.0	0.0	0.0
71°	1971.9	937.2	15.5	3.6	2.4	1.2	0.0	0.0	0.0	0.0	0.0
72.5°	1624.6	688.6	11.9	3.6	1.2	1.2	0.0	0.0	0.0	0.0	0.0
75°	895.6	249.8	5.9	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	286.6	76.1	3.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	48.8	11.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	16.7	4.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	1.2	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)