

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: P257676

Luminaire Tested: **ARCH-AF16-50-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257676  
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-AF16-50-D-U-T2U-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3934.4 lumens  
Efficiency: N/A  
Efficacy: 74.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 53  
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

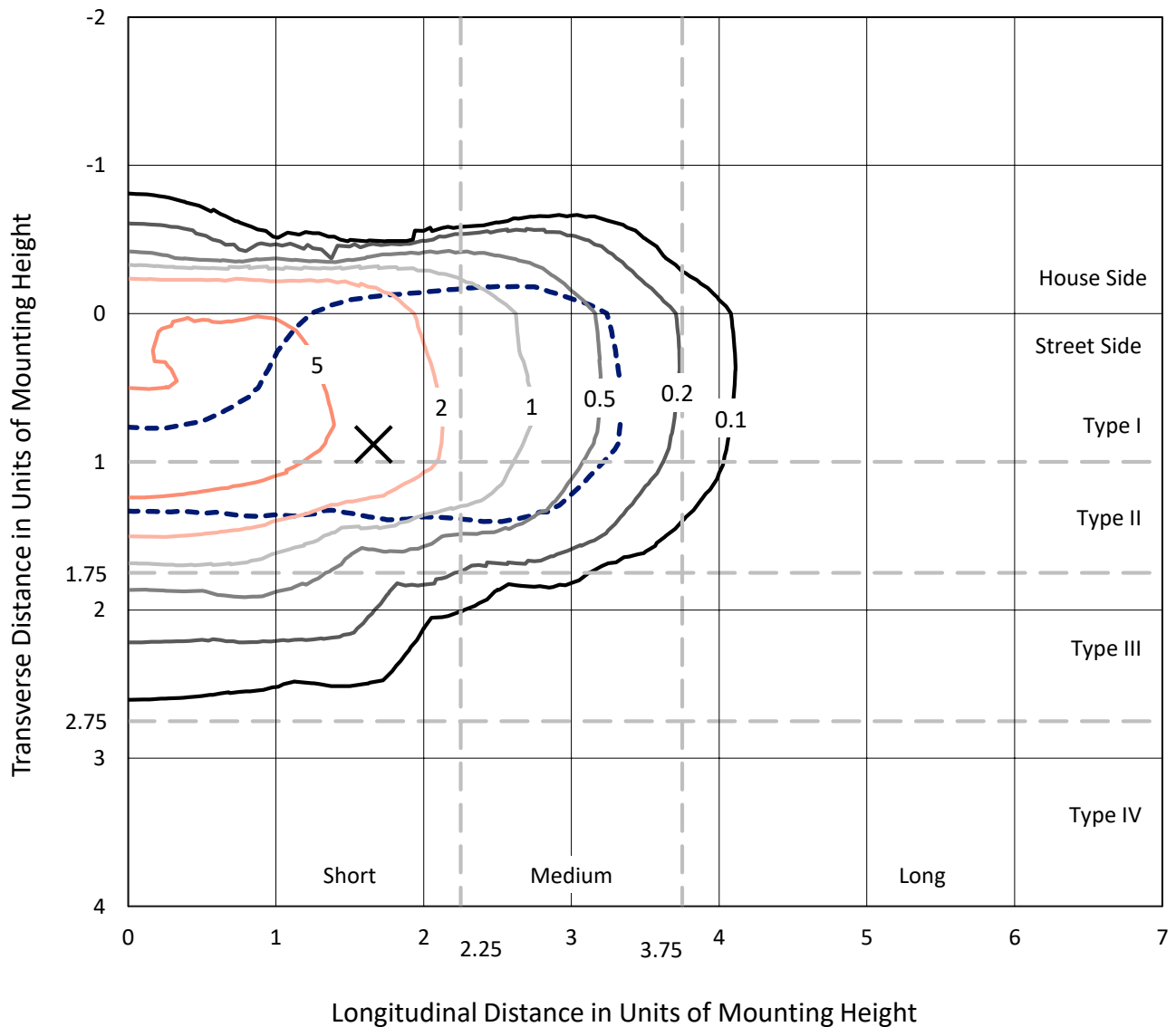


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

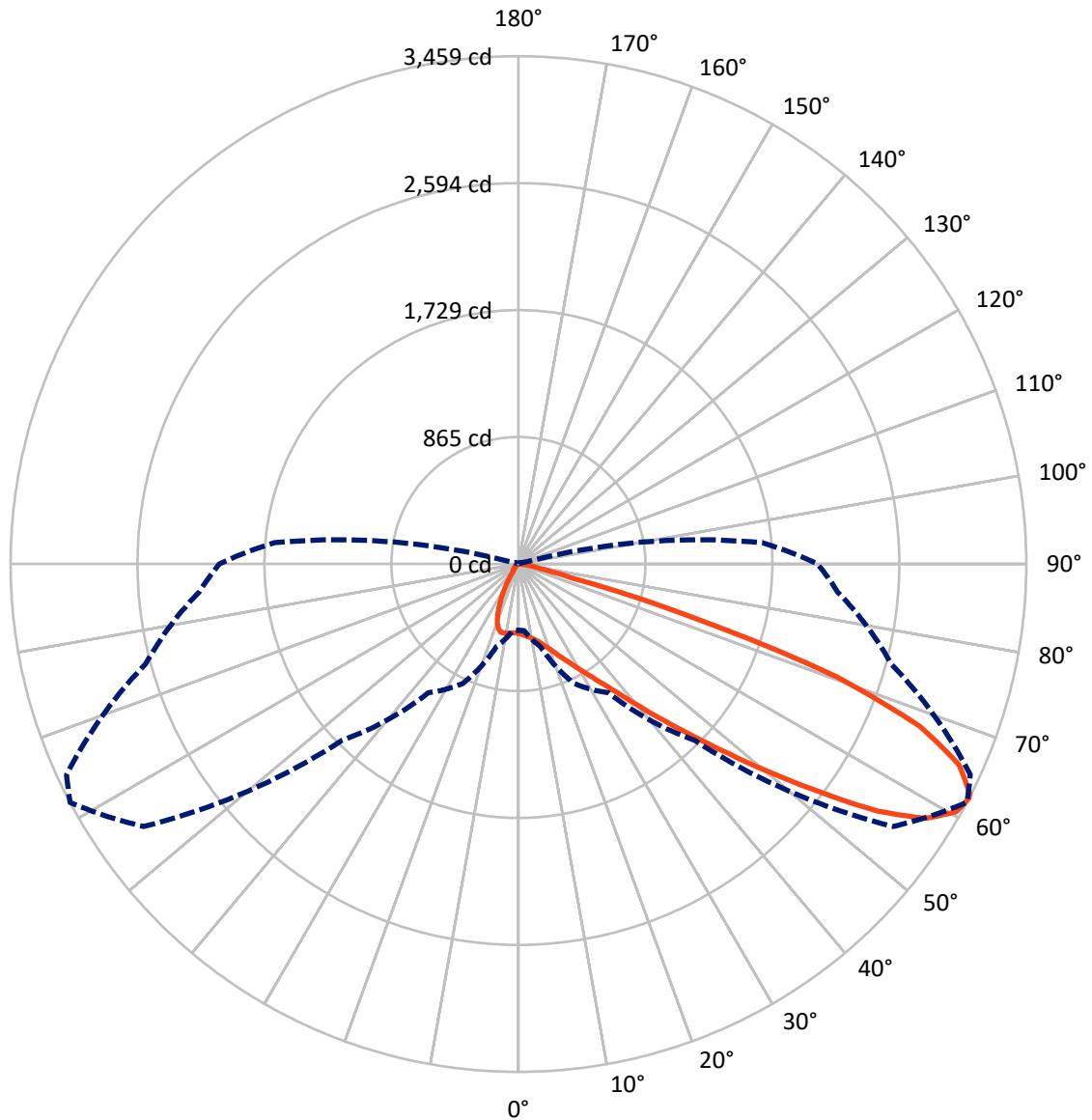


Based on 10 foot mounting height. Maximum calculated value = 9.1 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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



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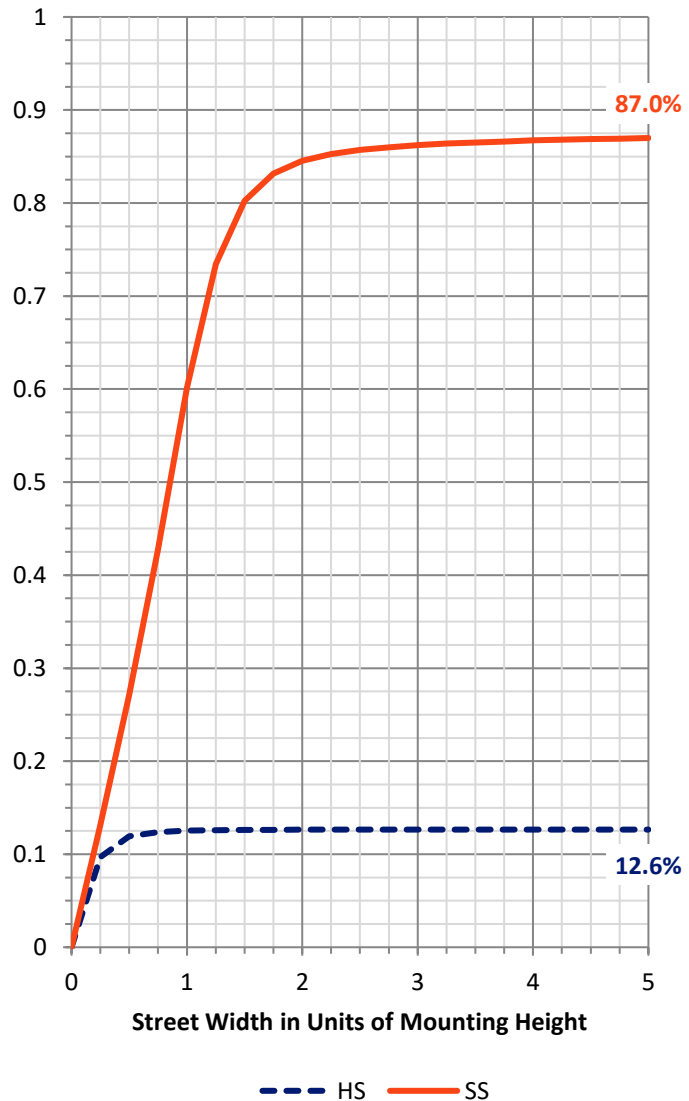
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	503.1	0.0	503.1
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	3431.4	0.0	3431.4
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	3934.4	0.0	3934.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.6	1.2
10°-20°	127.4	3.2
20°-30°	213.9	5.4
30°-40°	410.1	10.4
40°-50°	837.5	21.3
50°-60°	1108.3	28.2
60°-70°	861.0	21.9
70°-80°	310.8	7.9
80°-90°	19.8	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°	3934.4	100.0
0°-180°	3934.4	100.0

**Coefficient of Utilization**



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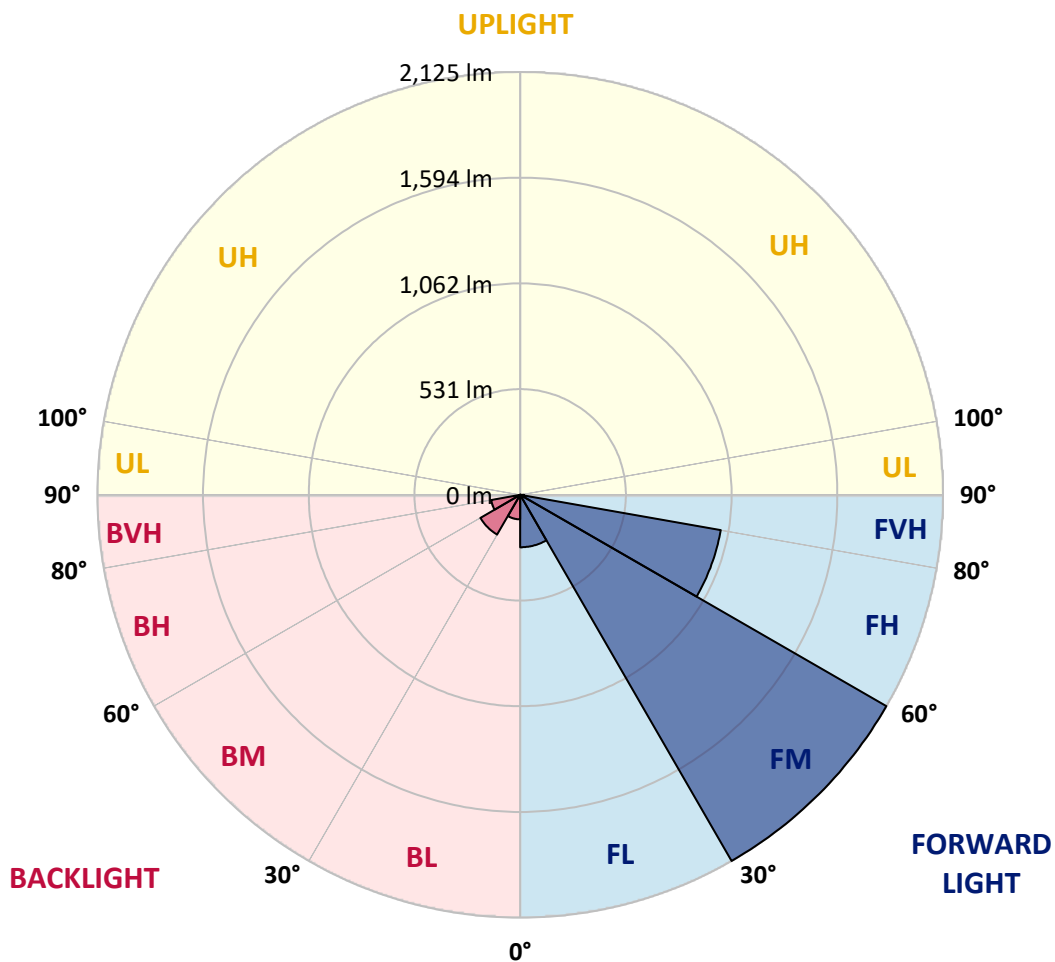
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	263.8	6.7			
FM	(30°-60°)	2125.0	54.0			
FH	(60°-80°)	1023.7	26.0			G1/1800
FVH	(80°-90°)	18.9	0.5			G1/100
BL	(0°-30°)	123.1	3.1	B1/500		
BM	(30°-60°)	230.9	5.9	B1/1000		
BH	(60°-80°)	148.1	3.8	B1/500		G1/500
BVH	(80°-90°)	0.9	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°	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9
2.5°	486.5	485.5	484.6	483.6	483.6	482.7	481.8	479.7	477.8	476.0	474.9
5°	495.3	494.3	493.3	494.3	493.3	493.3	492.3	490.3	488.5	485.5	482.7
7.5°	502.0	501.1	500.1	501.1	502.0	502.9	503.9	502.0	501.1	497.1	494.3
10°	510.7	509.7	508.8	510.7	510.7	515.6	516.5	515.6	514.6	511.7	506.9
12.5°	523.3	524.2	524.2	526.2	528.2	533.9	535.8	532.9	532.9	529.1	523.3
15°	546.6	546.6	546.6	548.5	549.3	557.1	559.1	556.1	558.1	551.3	545.5
17.5°	568.7	569.7	571.7	575.5	575.5	582.3	586.1	586.1	590.0	581.4	573.6
20°	591.0	591.9	594.8	603.5	603.5	612.3	619.1	621.9	625.8	617.1	603.5
22.5°	615.1	615.1	620.0	633.6	630.7	648.0	660.6	665.5	669.3	657.7	636.4
25°	651.9	648.0	651.9	664.6	662.5	686.7	709.9	714.8	719.6	706.2	674.1
27.5°	721.5	715.7	702.2	703.2	703.2	731.3	764.2	771.0	773.8	762.2	722.5
30°	860.9	860.9	810.6	776.8	754.4	779.6	826.0	837.7	841.6	824.2	771.9
32.5°	1103.6	1103.6	1010.7	924.7	840.5	840.5	893.7	915.0	918.9	898.5	837.7
35°	1413.2	1411.2	1271.9	1153.9	989.5	927.6	973.1	1008.8	1020.5	993.3	922.8
37.5°	1742.0	1729.5	1579.6	1444.1	1218.8	1066.9	1080.5	1127.8	1138.5	1116.2	1033.0
40°	2009.0	1994.4	1873.6	1760.3	1514.7	1289.4	1235.1	1278.7	1291.2	1260.3	1164.6
42.5°	2250.7	2215.0	2131.8	2050.6	1855.2	1674.3	1441.2	1458.6	1472.2	1439.3	1312.5
45°	2425.9	2370.7	2328.2	2303.0	2199.5	2097.0	1708.2	1673.3	1678.2	1637.6	1474.1
47.5°	2430.7	2392.0	2395.8	2461.6	2504.2	2500.3	2055.3	1931.6	1913.2	1845.5	1646.2
50°	2198.6	2220.8	2291.3	2479.1	2709.3	2848.6	2468.3	2237.3	2182.1	2060.2	1817.4
52.5°	1811.6	1846.5	1979.0	2295.3	2739.2	3077.9	2896.9	2586.3	2487.8	2273.0	1948.9
55°	1419.0	1420.9	1560.2	1882.3	2539.0	3119.4	3239.3	2970.4	2819.6	2434.7	2036.0
57.5°	975.9	1029.1	1206.1	1422.8	2087.3	2912.5	3367.9	3268.4	3073.9	2534.2	2097.0
60°	639.3	642.2	848.3	1098.8	1420.9	2369.8	3289.6	3426.1	3280.0	2593.2	2138.6
62°	450.7	455.6	583.2	897.6	1070.7	1698.6	3116.5	3458.9	3396.0	2628.0	2182.1
62.5°	417.8	421.7	529.1	847.3	1006.0	1523.4	3054.6	3451.2	3413.5	2639.6	2197.6
65°	306.6	306.6	346.3	582.3	737.1	823.2	2588.4	3297.3	3390.2	2732.5	2255.6
67.5°	237.0	239.0	252.5	358.8	556.1	499.1	1652.1	2951.1	3148.5	2869.8	2288.6
70°	204.1	203.1	212.8	237.9	401.4	331.8	727.3	2303.0	2636.8	2835.1	2258.5
72.5°	150.9	151.9	174.2	208.9	279.4	215.7	328.9	1222.6	1710.1	2218.8	1935.4
75°	96.7	97.7	122.8	164.4	201.1	141.3	189.6	364.7	700.3	1230.4	1184.0
77.5°	64.8	66.7	80.3	115.0	176.0	88.1	119.0	152.9	210.9	461.4	424.6
80°	43.4	43.4	51.3	77.3	111.2	73.5	63.8	101.6	109.3	143.1	71.6
82.5°	29.1	29.1	33.9	51.3	72.5	65.8	38.7	55.1	63.8	71.6	25.1
85°	17.4	17.4	23.2	31.9	47.4	36.7	25.1	30.9	32.9	45.5	13.5
87.5°	10.6	9.8	15.6	22.3	25.1	22.3	16.4	16.4	17.4	25.1	6.8
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°	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9	473.9
2.5°	473.0	472.0	471.0	469.2	466.2	464.3	462.3	460.4	458.5	458.5	461.4
5°	481.8	478.8	474.9	471.0	465.2	461.4	458.5	454.6	452.7	452.7	453.7
7.5°	492.3	489.5	482.7	476.0	467.2	460.4	453.7	444.9	438.1	435.3	438.1
10°	503.9	500.1	490.3	479.7	470.1	452.7	430.4	403.3	380.1	369.6	374.3
12.5°	518.4	513.6	502.0	487.6	465.2	422.8	367.5	304.8	265.1	246.6	250.5
15°	539.7	532.9	516.5	494.3	444.9	353.0	263.1	190.5	153.8	138.3	140.3
17.5°	564.9	556.1	533.9	492.3	392.7	254.3	156.7	111.2	95.7	91.9	91.9
20°	591.9	580.3	551.3	477.8	313.3	159.6	97.7	85.1	79.3	76.4	76.4
22.5°	620.0	604.5	565.9	443.9	223.4	99.7	80.3	71.6	64.8	62.0	62.0
25°	653.8	633.6	580.3	384.9	142.1	80.3	68.8	60.0	53.2	49.2	50.3
27.5°	693.5	667.3	592.9	311.5	91.9	69.6	57.1	48.4	42.6	40.7	40.7
30°	735.1	704.1	595.8	233.2	74.6	60.0	47.4	39.7	35.8	33.9	33.9
32.5°	792.1	751.6	587.2	154.7	62.9	50.3	39.7	32.9	29.9	29.1	29.1
35°	867.6	813.4	566.8	95.7	53.2	41.6	32.9	29.1	26.1	25.1	25.1
37.5°	963.3	899.5	531.0	65.8	45.5	33.9	28.1	25.1	23.2	22.3	22.3
40°	1091.1	1004.0	484.6	57.1	38.7	29.1	24.1	22.3	20.3	20.3	20.3
42.5°	1226.4	1130.8	424.6	50.3	32.9	25.1	21.3	19.3	18.3	17.4	17.4
45°	1374.5	1260.3	350.1	44.5	28.1	22.3	19.3	16.4	15.6	15.6	15.6
47.5°	1521.4	1393.8	268.9	38.7	24.1	19.3	16.4	14.5	13.5	12.6	12.6
50°	1672.3	1514.7	197.3	33.9	21.3	17.4	14.5	12.6	10.6	9.8	9.8
52.5°	1781.7	1587.2	144.1	29.1	18.3	14.5	11.6	9.8	7.7	6.8	6.8
55°	1862.0	1631.8	105.4	24.1	16.4	12.6	9.8	7.7	5.8	5.8	4.8
57.5°	1924.8	1653.0	79.3	21.3	14.5	10.6	7.7	5.8	4.8	3.9	3.9
60°	1973.2	1653.9	59.0	17.4	12.6	8.7	5.8	3.9	2.9	2.9	2.9
62°	2037.0	1666.5	48.4	14.5	11.6	7.7	4.8	2.9	1.9	1.0	1.0
62.5°	2055.3	1671.4	46.4	14.5	10.6	6.8	3.9	2.9	1.9	1.0	1.0
65°	2140.5	1680.1	35.8	11.6	8.7	5.8	2.9	1.9	0.0	0.0	0.0
67.5°	2217.9	1666.5	26.1	8.7	6.8	3.9	2.9	1.0	0.0	0.0	0.0
70°	2210.2	1573.8	18.3	5.8	4.8	2.9	1.9	0.0	0.0	0.0	0.0
72.5°	1821.4	1178.2	12.6	4.8	2.9	1.9	1.0	0.0	0.0	0.0	0.0
75°	1099.8	515.6	8.7	2.9	2.9	1.9	1.0	0.0	0.0	0.0	0.0
77.5°	360.8	186.8	5.8	1.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0
80°	59.0	30.9	2.9	1.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0
82.5°	18.3	7.7	1.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0
85°	6.8	2.9	1.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	1.9	1.9	1.9	1.0	1.0	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)