

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: P214781

Luminaire Tested: **ARCH-AF16-50-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214781  
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-AF16-50-D-U-T3-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4149.7 lumens  
Efficiency: N/A  
Efficacy: 78.3 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 - G1

Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

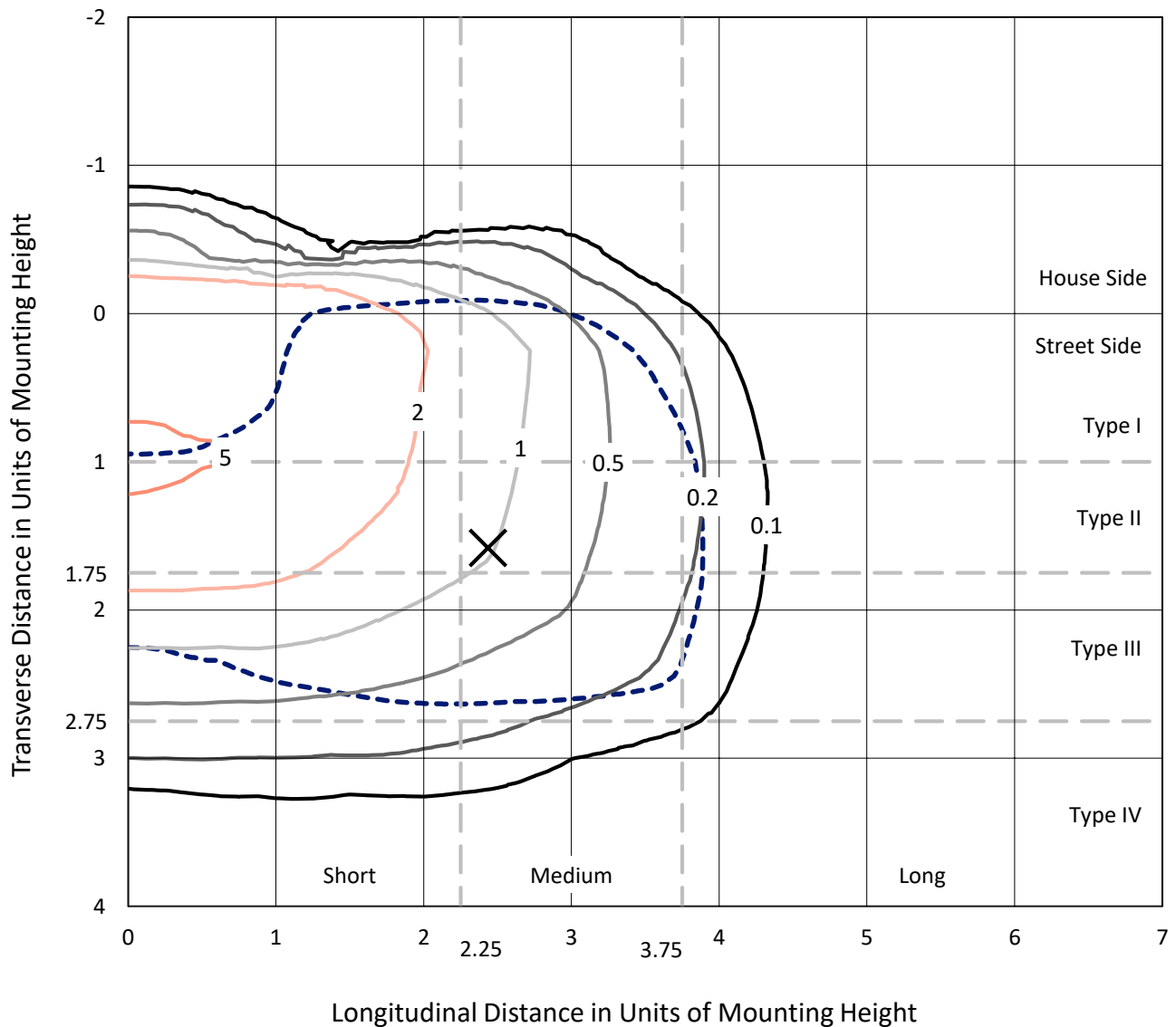


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

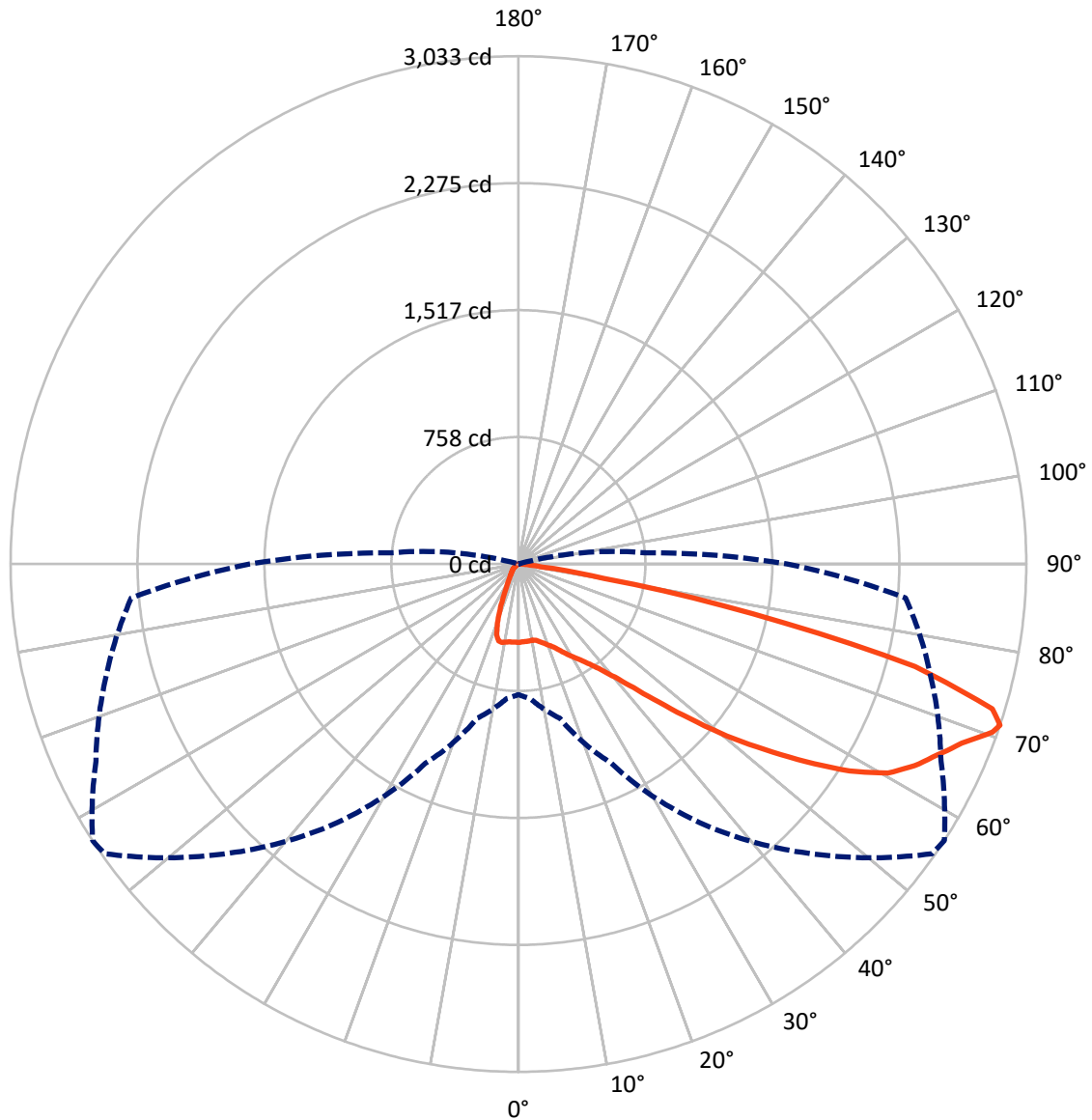


Based on 10 foot mounting height. Maximum calculated value = 5.8 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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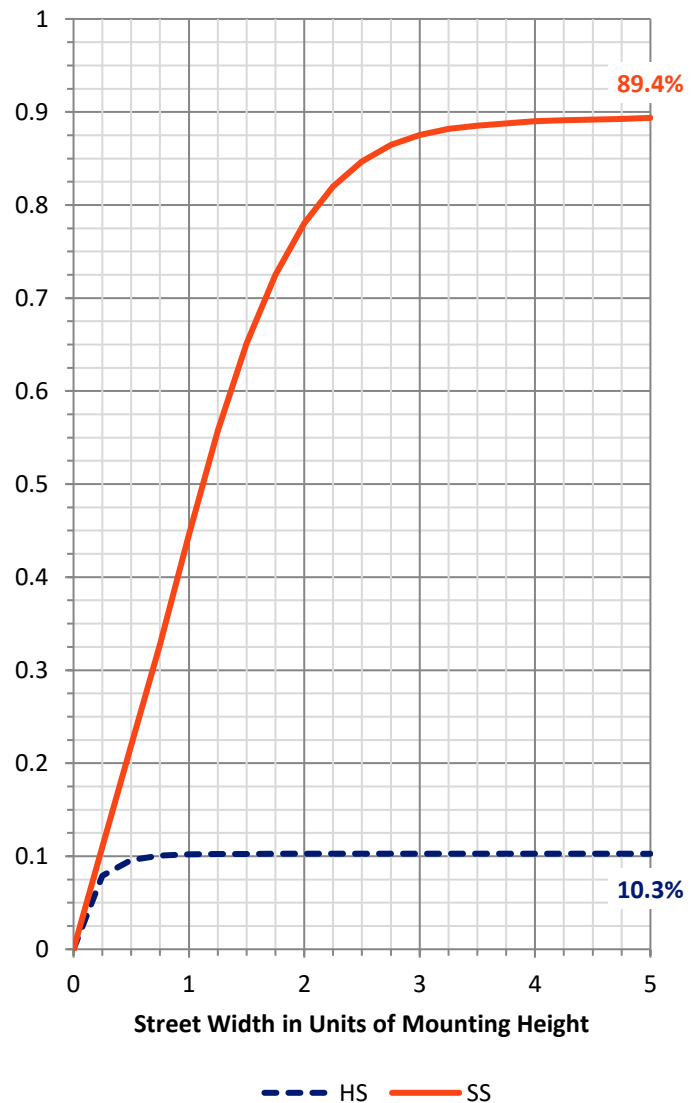
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	430.0	0.0	430.0
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	3719.6	0.0	3719.6
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	4149.7	0.0	4149.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.0	1.1
10°-20°	117.8	2.8
20°-30°	183.7	4.4
30°-40°	310.5	7.5
40°-50°	603.1	14.5
50°-60°	1012.7	24.4
60°-70°	1208.6	29.1
70°-80°	636.9	15.3
80°-90°	32.4	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°	4149.7	100.0
0°-180°	4149.7	100.0

**Coefficient of Utilization**



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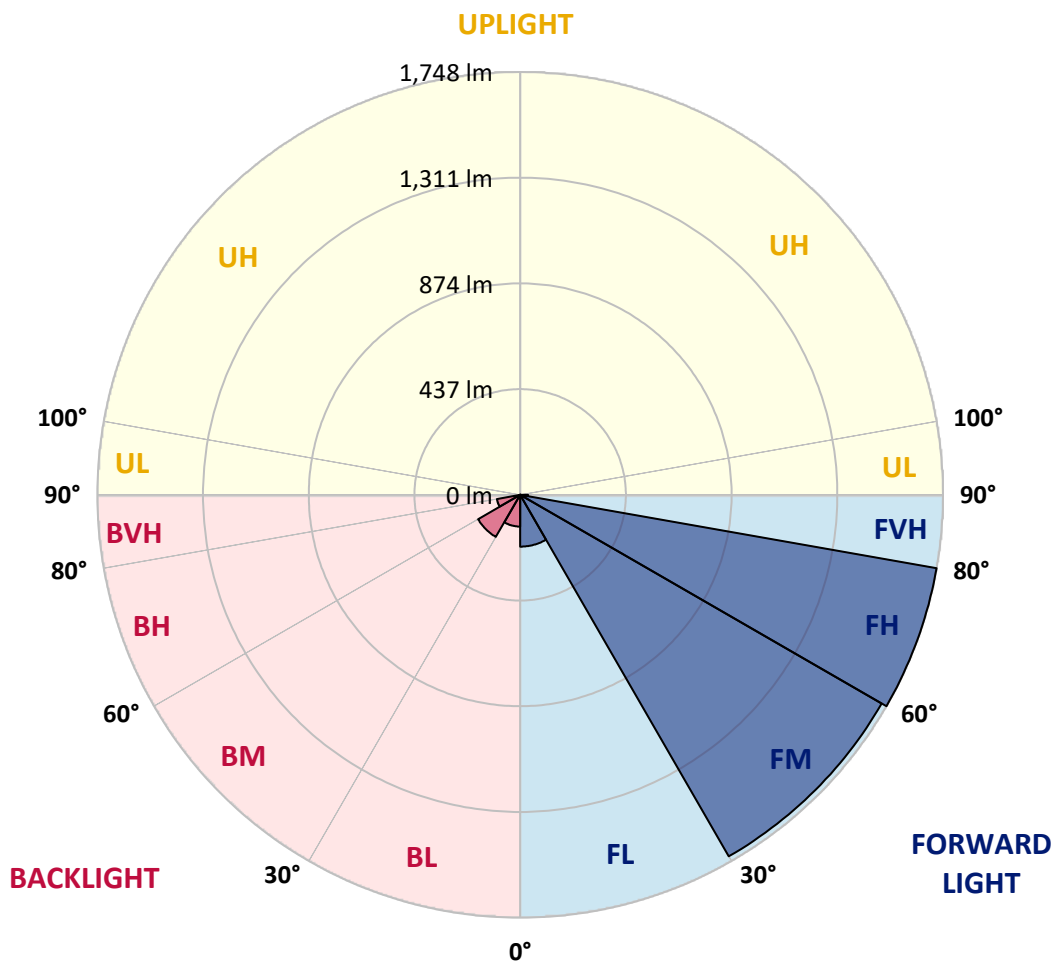
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	214.2	5.2			
FM	(30°-60°)	1725.5	41.6			
FH	(60°-80°)	1747.9	42.1			G1/1800
FVH	(80°-90°)	32.1	0.8			G1/100
BL	(0°-30°)	131.3	3.2	B1/500		
BM	(30°-60°)	200.8	4.8	B0/220		
BH	(60°-80°)	97.7	2.4	B0/110		G0/110
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-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9
2.5°	462.1	462.1	462.1	463.2	464.2	464.2	466.1	465.1	465.1	465.1	467.1
5°	449.6	450.5	451.6	453.5	457.4	460.3	465.1	465.1	466.1	467.9	468.9
7.5°	432.2	433.2	436.1	440.0	447.8	454.5	462.1	464.2	467.1	471.9	473.8
10°	421.6	423.5	427.4	432.2	441.0	449.6	459.3	462.1	470.9	479.6	484.4
12.5°	418.7	419.7	423.5	431.2	442.0	452.6	465.1	467.9	480.6	494.1	501.8
15°	423.5	424.5	426.4	435.2	447.8	461.3	477.7	481.5	497.0	512.5	522.1
17.5°	432.2	432.2	434.2	442.0	455.4	470.9	492.2	498.0	515.3	532.7	543.4
20°	438.0	438.0	441.0	448.6	464.2	484.4	509.5	517.4	536.7	556.0	565.6
22.5°	443.8	444.8	447.8	456.3	473.8	501.8	530.9	538.6	560.8	581.1	590.8
25°	460.3	459.3	460.3	467.9	488.3	523.2	559.9	569.6	592.7	615.0	619.8
27.5°	505.8	503.8	491.2	486.4	501.8	545.3	596.7	606.3	633.3	655.5	655.5
30°	610.1	606.3	575.4	535.7	523.2	565.6	631.4	644.9	679.8	699.1	693.4
32.5°	742.6	733.9	694.3	626.6	576.4	592.7	668.1	683.6	728.1	744.6	732.0
35°	887.6	886.7	837.4	750.4	678.8	648.8	715.5	733.9	790.1	804.4	784.2
37.5°	1041.5	1045.3	1012.4	892.5	808.4	740.7	778.4	799.7	868.3	885.8	866.4
40°	1212.6	1211.5	1199.0	1056.9	964.1	871.3	869.2	888.6	971.8	998.8	971.8
42.5°	1429.2	1427.3	1381.8	1254.2	1152.5	1041.5	1001.8	1008.6	1101.4	1145.8	1106.2
45°	1649.6	1636.0	1583.9	1473.7	1383.8	1252.2	1176.8	1176.8	1256.1	1317.0	1255.1
47.5°	1772.4	1758.8	1737.7	1676.7	1649.6	1502.7	1391.4	1377.9	1439.8	1501.7	1414.7
50°	1933.9	1933.9	1880.8	1857.5	1904.0	1800.5	1628.4	1614.9	1644.8	1694.1	1580.0
52.5°	2061.5	2038.3	2000.6	2021.0	2153.4	2106.1	1865.3	1839.2	1862.4	1874.9	1724.1
55°	2114.7	2092.6	2089.6	2164.1	2369.1	2303.3	2107.9	2084.7	2082.8	2021.0	1849.8
57.5°	2125.4	2106.1	2142.8	2273.3	2578.8	2464.8	2349.7	2332.3	2278.2	2123.5	1978.3
60°	2035.5	2045.2	2134.1	2333.2	2702.6	2605.0	2553.7	2535.4	2410.6	2210.5	2121.5
62.5°	1850.8	1874.1	2040.3	2339.0	2657.1	2662.0	2666.9	2654.4	2513.2	2289.7	2265.6
65°	1632.3	1639.0	1839.2	2258.8	2577.9	2644.6	2750.0	2749.1	2591.4	2378.7	2428.1
67.5°	1345.1	1356.7	1529.7	1988.1	2419.3	2636.9	2859.4	2856.4	2680.4	2480.3	2524.8
70°	1000.9	1015.3	1155.5	1546.1	2065.4	2540.2	3002.5	3004.3	2774.2	2557.6	2458.0
71°	780.3	806.5	953.4	1313.1	1884.6	2442.5	3016.0	3033.4	2784.8	2547.0	2320.6
72.5°	383.0	413.9	598.5	924.5	1551.1	2224.0	2926.9	2960.8	2718.2	2414.5	1984.1
75°	99.7	105.4	178.8	378.0	831.6	1473.7	2360.3	2446.5	2222.2	1838.2	1212.6
77.5°	62.9	64.8	84.1	147.0	311.4	559.9	1386.6	1429.2	1269.6	931.2	427.4
80°	44.5	45.5	53.2	94.7	181.8	163.5	499.0	517.4	459.3	246.6	76.4
82.5°	27.1	27.1	38.7	60.9	112.2	88.9	131.5	140.2	123.8	68.7	25.1
85°	15.6	16.4	24.1	41.6	53.2	43.4	49.2	52.2	53.2	45.5	10.6
87.5°	12.6	13.5	21.3	34.9	29.1	21.3	21.3	22.3	23.2	27.1	4.8
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°	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9
2.5°	467.1	467.1	467.9	467.1	467.1	467.1	467.9	467.9	467.9	470.0	470.9
5°	468.9	468.9	468.9	467.9	467.1	467.1	468.9	470.0	470.0	472.9	472.9
7.5°	473.8	473.8	471.9	470.0	467.9	465.1	466.1	467.1	466.1	467.1	467.1
10°	484.4	484.4	481.5	477.7	471.9	463.2	451.6	437.0	423.5	418.7	416.8
12.5°	501.8	500.9	495.1	488.3	475.8	445.8	402.3	351.0	308.4	296.8	293.1
15°	521.1	519.3	512.5	500.9	467.1	387.8	296.8	231.1	190.4	180.9	178.8
17.5°	541.5	538.6	529.0	505.8	427.4	288.1	191.4	145.1	122.8	120.8	121.9
20°	562.8	558.9	545.3	496.0	345.2	192.4	123.8	112.2	110.3	110.3	111.2
22.5°	586.9	582.2	563.8	461.3	251.4	127.7	106.4	105.4	104.5	103.5	103.5
25°	615.0	609.2	581.1	398.4	173.0	104.5	101.5	98.7	96.7	94.7	93.8
27.5°	648.8	641.2	594.7	321.0	119.0	97.7	95.7	90.9	87.1	83.1	83.1
30°	682.7	673.0	590.8	241.8	96.7	90.9	87.1	81.2	75.4	71.6	70.6
32.5°	718.5	708.8	565.6	162.5	88.0	83.1	78.3	69.6	62.9	58.0	57.1
35°	771.6	763.9	516.4	107.3	79.3	73.5	66.7	58.0	49.2	44.5	43.4
37.5°	850.9	841.3	455.4	82.2	69.6	60.9	55.0	45.5	36.7	31.9	30.9
40°	957.3	928.2	383.0	72.5	60.9	50.3	42.5	32.9	26.1	23.2	23.2
42.5°	1081.0	1012.4	304.7	65.8	54.2	41.6	30.9	22.3	18.3	17.4	17.4
45°	1212.6	1090.7	226.2	60.9	47.4	32.9	22.3	15.6	13.5	12.6	12.6
47.5°	1347.9	1154.6	157.7	55.0	39.7	25.1	15.6	11.6	9.8	8.7	8.7
50°	1474.6	1196.2	111.2	49.2	33.9	18.3	11.6	8.7	6.8	6.8	6.8
52.5°	1562.6	1192.2	80.3	42.5	26.1	12.6	7.7	5.8	5.8	5.8	5.8
55°	1640.0	1177.7	62.9	36.7	20.3	8.7	5.8	4.8	4.8	3.9	3.9
57.5°	1705.7	1154.6	53.2	29.9	14.5	6.8	3.9	3.9	2.9	2.9	2.9
60°	1761.8	1125.6	44.5	25.1	9.8	4.8	2.9	1.9	1.9	1.0	1.9
62.5°	1838.2	1107.2	38.7	19.3	6.8	2.9	1.9	1.0	1.0	0.0	0.0
65°	1894.2	1072.4	32.9	13.5	3.9	1.9	1.0	1.0	0.0	0.0	0.0
67.5°	1896.2	1009.5	24.1	7.7	2.9	1.9	1.0	0.0	0.0	0.0	0.0
70°	1743.4	860.6	15.6	3.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0
71°	1603.3	762.0	12.6	2.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1320.8	559.9	9.8	2.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0
75°	728.1	203.1	4.8	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	233.0	61.8	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	39.7	9.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.5	3.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	1.0	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)