

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: P214670

Luminaire Tested: **ARCH-AF16-60-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214670  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-60-D-U-T2R-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5198 lumens  
Efficiency: N/A  
Efficacy: 82.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 63  
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

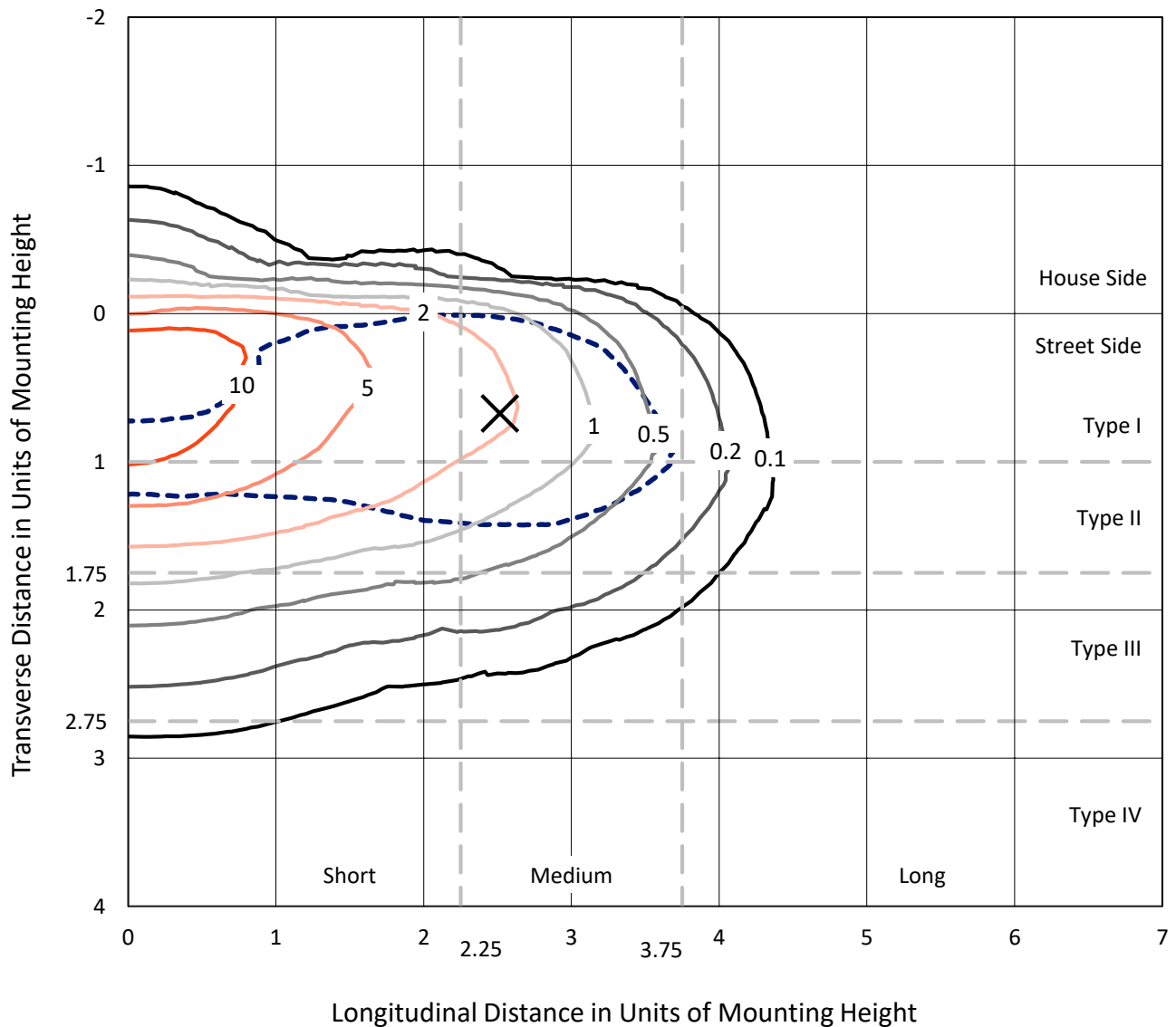


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

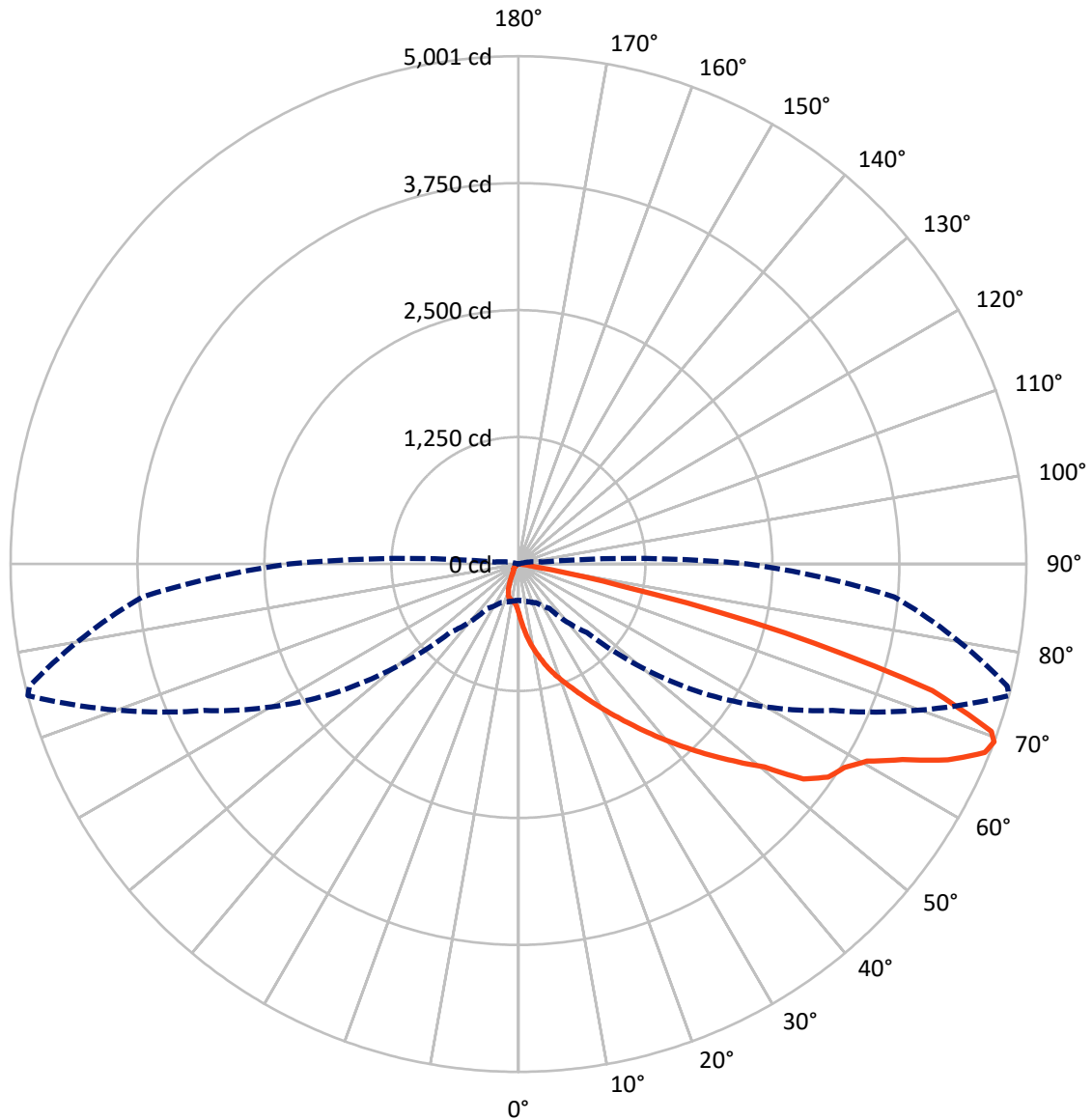


Based on 10 foot mounting height. Maximum calculated value = 13.2 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical



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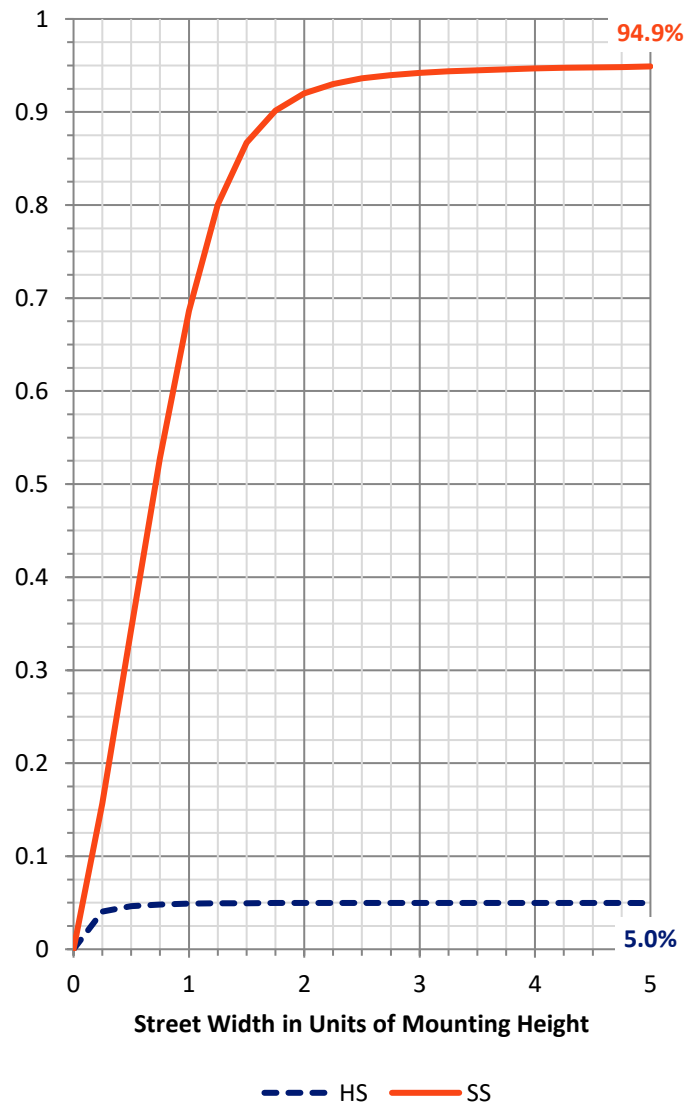
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	259.3	0.0	259.3
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	4938.7	0.0	4938.7
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	5198.0	0.0	5198.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	1.1
10°-20°	201.6	3.9
20°-30°	384.9	7.4
30°-40°	690.5	13.3
40°-50°	1057.9	20.4
50°-60°	1229.5	23.7
60°-70°	1088.7	20.9
70°-80°	469.6	9.0
80°-90°	18.8	0.4
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°	5198.0	100.0
0°-180°	5198.0	100.0

**Coefficient of Utilization**



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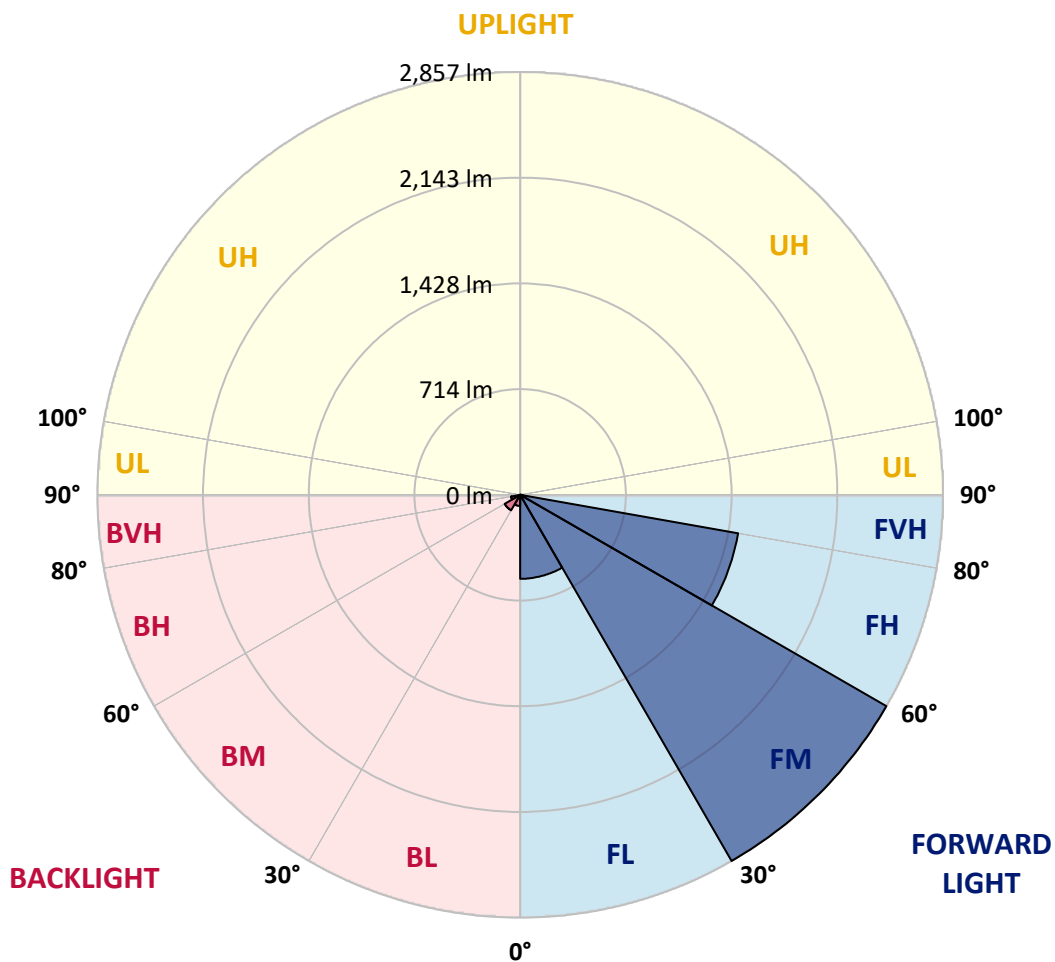
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	567.6	10.9			
FM	(30°-60°)	2857.0	55.0			
FH	(60°-80°)	1495.5	28.8			G1/1800
FVH	(80°-90°)	18.5	0.4			G1/100
BL	(0°-30°)	75.3	1.4	B0/110		
BM	(30°-60°)	120.9	2.3	B0/220		
BH	(60°-80°)	62.8	1.2	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: B0-U0-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	483.7	483.7	483.7	483.7	483.7	483.7	483.7	483.7	483.7	483.7	483.7
2.5°	796.8	788.9	781.1	772.1	751.9	717.1	673.3	626.2	567.8	557.7	510.6
5°	967.3	964.0	956.1	943.8	921.3	883.2	833.8	764.2	666.6	649.8	549.9
7.5°	1087.4	1085.2	1078.4	1063.9	1043.7	1005.5	953.9	878.7	765.3	746.3	599.3
10°	1195.2	1194.0	1188.4	1175.0	1154.8	1113.2	1058.2	979.7	859.6	838.3	656.5
12.5°	1292.8	1293.9	1291.7	1284.9	1270.3	1231.1	1168.2	1082.9	950.5	926.9	724.9
15°	1350.0	1353.4	1362.4	1375.8	1380.3	1348.9	1283.8	1189.5	1043.7	1023.5	803.5
17.5°	1330.9	1334.3	1362.4	1408.4	1452.1	1456.6	1398.3	1290.5	1135.7	1115.5	880.9
20°	1284.9	1289.4	1318.6	1381.4	1466.7	1526.2	1502.6	1400.5	1223.2	1198.5	955.0
22.5°	1336.6	1336.6	1345.5	1383.7	1461.1	1554.3	1585.7	1510.5	1313.0	1282.7	1029.1
25°	1513.9	1510.5	1491.4	1475.7	1500.4	1583.4	1648.5	1622.7	1418.5	1383.7	1107.6
27.5°	1738.3	1754.0	1718.1	1660.9	1604.8	1640.7	1704.6	1733.8	1535.2	1499.3	1188.4
30°	1989.7	1996.4	1953.8	1877.5	1778.7	1743.9	1770.8	1829.2	1662.0	1622.7	1272.6
32.5°	2216.4	2210.8	2174.8	2095.2	1972.8	1897.7	1856.1	1905.5	1800.0	1755.1	1359.0
35°	2417.2	2421.7	2378.0	2285.9	2165.9	2086.2	1987.4	1991.9	1954.9	1903.3	1458.9
37.5°	2597.9	2590.1	2548.5	2456.5	2347.7	2261.3	2156.9	2081.7	2124.3	2070.5	1571.1
40°	2744.9	2737.1	2693.3	2603.5	2501.4	2430.7	2348.8	2201.8	2302.8	2241.1	1691.2
42.5°	2861.6	2852.7	2815.6	2729.2	2630.5	2567.6	2528.3	2349.9	2493.5	2431.8	1825.8
45°	2918.9	2911.0	2888.6	2823.5	2737.1	2682.1	2701.2	2520.5	2697.8	2646.2	1974.0
47.5°	2851.5	2848.2	2874.0	2862.8	2813.4	2784.2	2850.4	2706.8	2912.1	2861.6	2144.5
50°	2647.3	2652.9	2728.1	2821.2	2844.8	2879.6	2972.7	2903.2	3142.2	3088.3	2340.9
52.5°	2143.4	2181.6	2408.3	2632.7	2806.6	2937.9	3116.4	3183.7	3517.0	3464.3	2647.3
55°	1600.3	1616.0	1862.9	2246.7	2652.9	2933.5	3223.0	3348.7	3702.2	3648.3	2728.1
57.5°	1269.2	1274.8	1397.1	1788.8	2336.4	2832.5	3279.1	3408.1	3783.0	3738.1	2848.2
60°	996.5	1003.3	1091.9	1361.2	1890.9	2559.8	3198.3	3459.8	3941.2	3905.3	3058.0
62.5°	775.4	782.2	836.0	994.3	1418.5	2140.1	3035.6	3542.8	4241.9	4225.1	3401.4
65°	600.4	602.6	639.7	713.7	1002.1	1685.6	2836.9	3620.2	4648.2	4633.6	3679.7
67.5°	443.3	446.6	472.4	518.5	676.7	1210.9	2511.5	3560.8	4954.6	4911.9	3780.7
69°	358.0	361.4	383.8	420.8	534.2	953.9	2214.1	3413.8	5000.6	4960.2	3716.8
70°	306.4	308.6	331.1	362.5	455.6	810.2	1978.5	3286.9	4940.0	4900.7	3570.9
72.5°	196.4	207.6	230.1	250.3	301.9	536.4	1335.4	2725.8	4262.1	4194.8	2796.5
75°	108.9	112.2	152.6	177.3	200.9	349.0	742.9	1700.1	2711.3	2664.1	1495.9
77.5°	89.8	92.0	107.7	134.7	134.7	195.3	280.6	670.0	1031.3	930.3	405.1
80°	62.8	65.1	81.9	88.7	96.5	110.0	90.9	147.0	159.4	141.4	60.6
82.5°	43.8	46.0	56.1	72.9	77.4	51.6	33.7	43.8	46.0	46.0	23.6
85°	7.9	11.2	41.5	60.6	46.0	15.7	19.1	15.7	14.6	15.7	5.6
87.5°	0.0	0.0	25.8	29.2	24.7	6.7	7.9	5.6	3.4	4.5	2.2
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°	483.7	483.7	483.7	483.7	483.7	483.7	483.7	483.7	483.7	483.7	483.7
2.5°	487.0	463.5	423.1	393.9	369.2	350.1	342.3	329.9	321.0	325.4	319.8
5°	500.5	459.0	393.9	352.4	323.2	298.5	278.3	262.6	250.3	248.0	245.8
7.5°	521.8	462.3	377.1	325.4	281.7	243.5	212.1	188.5	170.6	170.6	163.8
10°	551.0	471.3	367.0	298.5	233.4	181.8	150.4	127.9	119.0	117.8	115.6
12.5°	591.4	488.2	359.1	263.7	181.8	132.4	113.3	105.5	102.1	101.0	99.9
15°	646.4	512.8	350.1	221.1	138.0	108.9	101.0	94.3	90.9	89.8	88.7
17.5°	699.1	535.3	331.1	177.3	112.2	98.8	89.8	84.2	79.7	78.6	78.6
20°	748.5	554.4	298.5	138.0	101.0	88.7	79.7	72.9	68.5	67.3	67.3
22.5°	800.1	570.1	258.1	112.2	92.0	78.6	69.6	62.8	58.4	57.2	56.1
25°	855.1	581.3	212.1	99.9	83.0	69.6	59.5	53.9	50.5	49.4	48.3
27.5°	914.6	585.8	168.3	90.9	72.9	60.6	51.6	46.0	43.8	42.6	42.6
30°	968.5	581.3	130.2	80.8	64.0	52.7	44.9	40.4	38.2	37.0	37.0
32.5°	1024.6	570.1	104.4	71.8	56.1	44.9	38.2	34.8	33.7	32.5	32.5
35°	1084.1	555.5	89.8	64.0	48.3	39.3	33.7	31.4	30.3	29.2	29.2
37.5°	1153.6	537.5	81.9	57.2	42.6	34.8	29.2	28.1	26.9	26.9	26.9
40°	1232.2	515.1	76.3	51.6	38.2	30.3	25.8	24.7	23.6	23.6	23.6
42.5°	1315.2	489.3	70.7	46.0	33.7	25.8	22.4	22.4	21.3	21.3	20.2
45°	1408.4	463.5	65.1	40.4	29.2	22.4	19.1	18.0	18.0	16.8	16.8
47.5°	1518.3	439.9	59.5	35.9	25.8	19.1	16.8	15.7	14.6	13.5	13.5
50°	1673.2	437.7	52.7	31.4	23.6	15.7	13.5	12.3	11.2	10.1	10.1
52.5°	1827.0	417.5	44.9	25.8	19.1	13.5	10.1	9.0	7.9	7.9	6.7
55°	1861.7	383.8	39.3	22.4	14.6	10.1	7.9	5.6	5.6	4.5	4.5
57.5°	1938.1	368.1	33.7	18.0	11.2	7.9	4.5	3.4	3.4	3.4	3.4
60°	2088.4	363.6	29.2	15.7	7.9	5.6	3.4	2.2	2.2	1.1	1.1
62.5°	2296.0	359.1	24.7	13.5	5.6	3.4	2.2	1.1	0.0	0.0	0.0
65°	2410.5	328.8	20.2	10.1	4.5	3.4	1.1	0.0	0.0	0.0	0.0
67.5°	2380.2	271.6	18.0	6.7	3.4	2.2	1.1	0.0	0.0	0.0	0.0
69°	2253.4	228.9	14.6	5.6	3.4	2.2	1.1	0.0	0.0	0.0	0.0
70°	2100.8	197.5	13.5	4.5	2.2	1.1	1.1	0.0	0.0	0.0	0.0
72.5°	1491.4	103.2	9.0	3.4	2.2	1.1	0.0	0.0	0.0	0.0	0.0
75°	696.9	46.0	5.6	2.2	1.1	1.1	0.0	0.0	0.0	0.0	0.0
77.5°	153.7	21.3	3.4	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
80°	29.2	7.9	2.2	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.1	3.4	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	0.0	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)