

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: P234706

Luminaire Tested: **ARCH-AF24-70-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234706  
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-AF24-70-D-U-T2R-8027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5103 lumens  
Efficiency: N/A  
Efficacy: 69.0 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): 74  
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

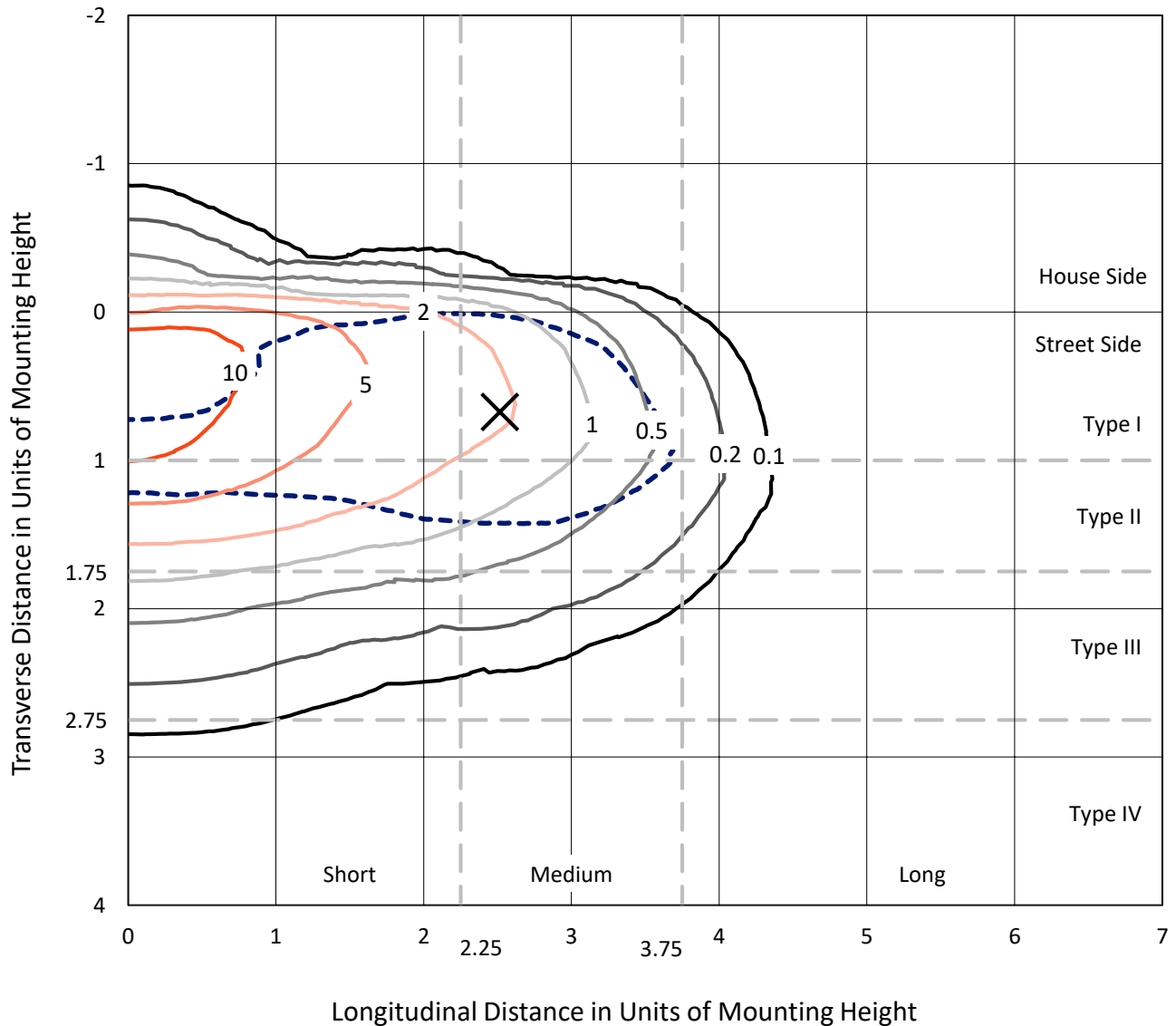


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

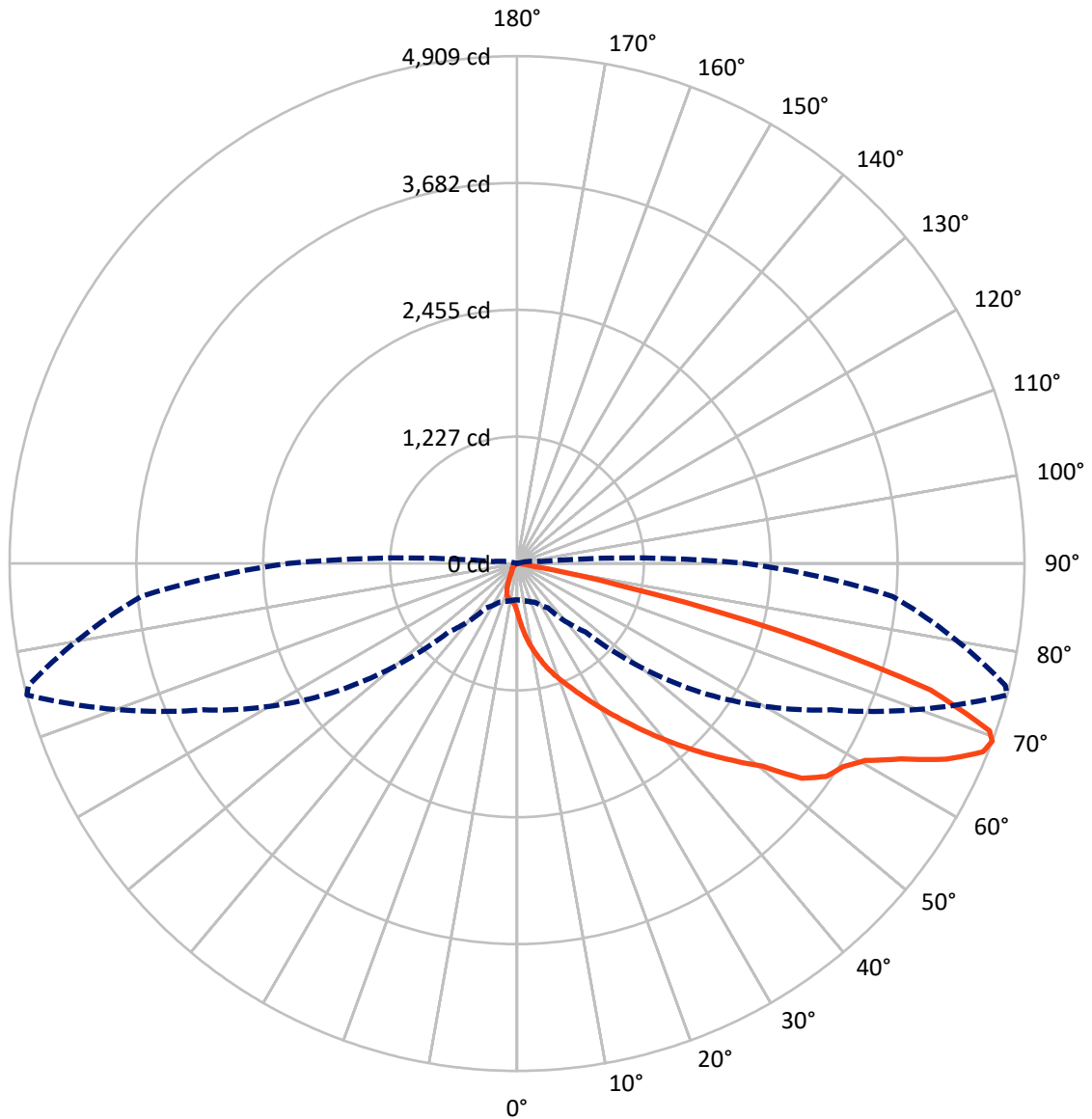


Based on 10 foot mounting height. Maximum calculated value = 13 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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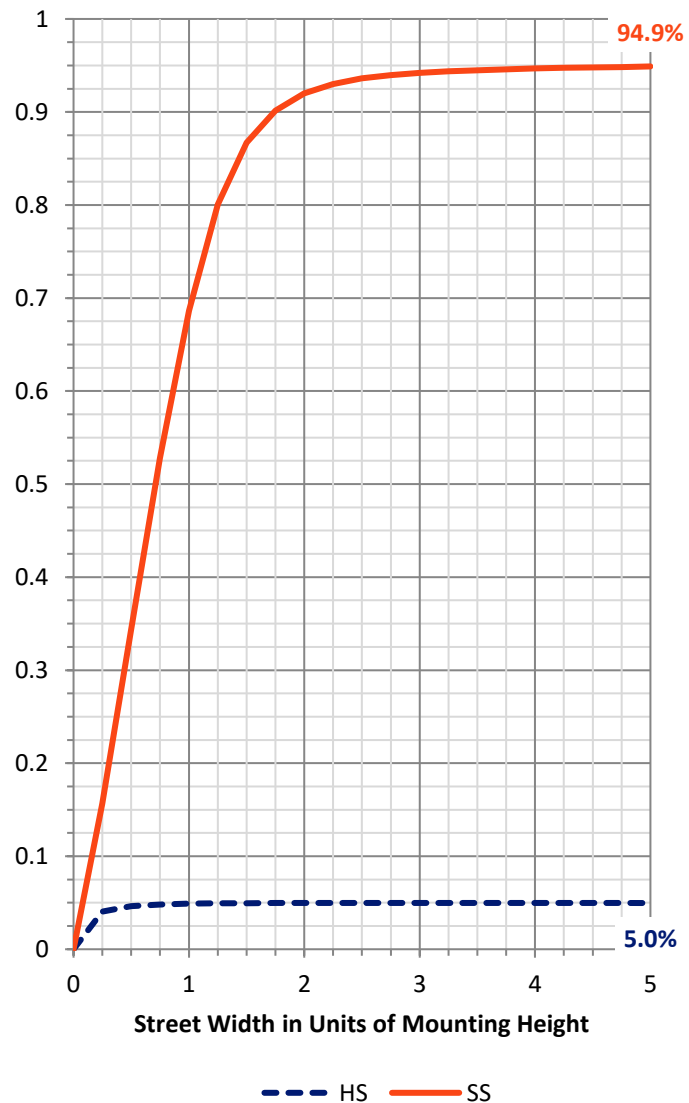
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	254.6	0.0	254.6
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	4848.4	0.0	4848.4
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	5103.0	0.0	5103.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.4	1.1
10°-20°	197.9	3.9
20°-30°	377.9	7.4
30°-40°	677.9	13.3
40°-50°	1038.5	20.4
50°-60°	1207.0	23.7
60°-70°	1068.8	20.9
70°-80°	461.0	9.0
80°-90°	18.5	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°	5103.0	100.0
0°-180°	5103.0	100.0

**Coefficient of Utilization**



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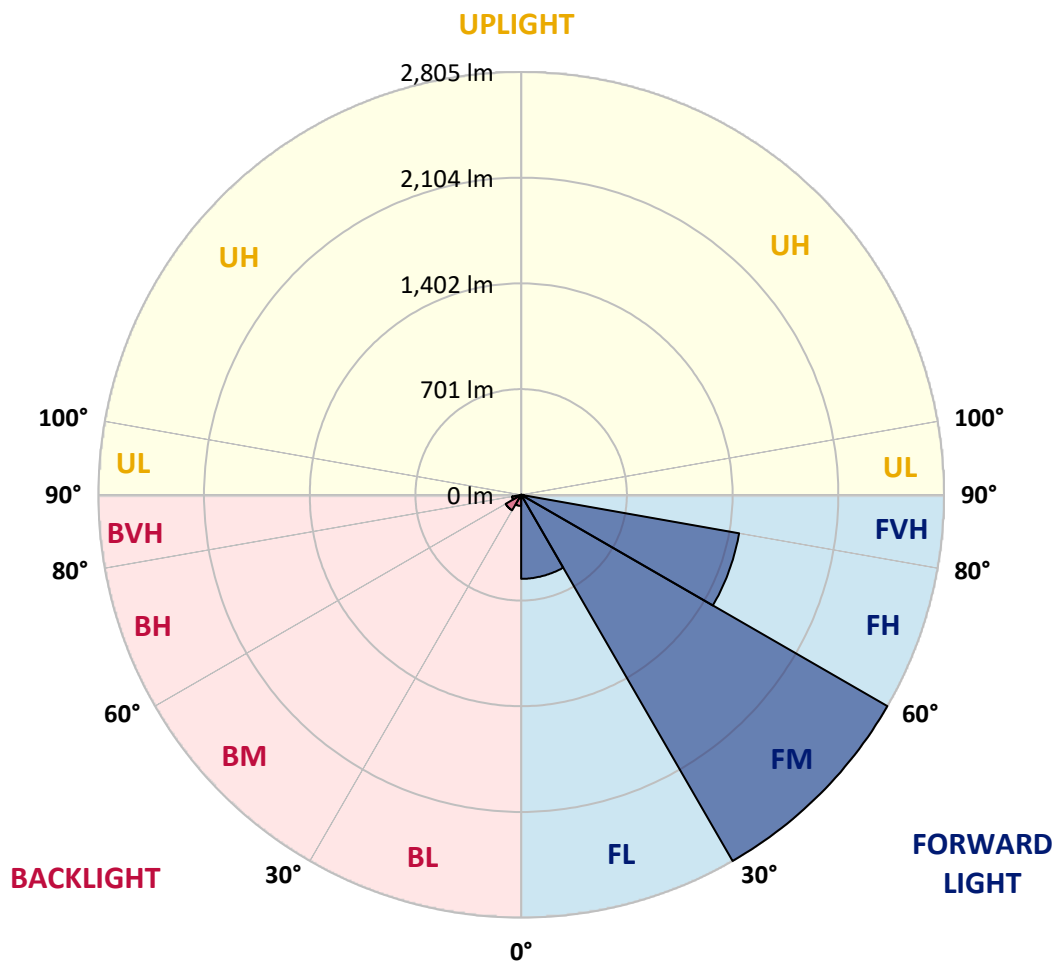
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	557.3	10.9			
FM	(30°-60°)	2804.7	55.0			
FH	(60°-80°)	1468.2	28.8			G1/1800
FVH	(80°-90°)	18.2	0.4			G1/100
BL	(0°-30°)	73.9	1.4	B0/110		
BM	(30°-60°)	118.7	2.3	B0/220		
BH	(60°-80°)	61.7	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°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8
2.5°	782.2	774.5	766.8	758.0	738.1	704.0	661.0	614.7	557.5	547.5	501.3
5°	949.7	946.4	938.6	926.5	904.5	867.0	818.6	750.3	654.4	637.9	539.8
7.5°	1067.5	1065.3	1058.7	1044.4	1024.6	987.1	936.4	862.6	751.4	732.6	588.3
10°	1173.3	1172.2	1166.7	1153.5	1133.6	1092.9	1038.9	961.8	843.9	823.0	644.5
12.5°	1269.2	1270.3	1268.1	1261.4	1247.1	1208.6	1146.9	1063.1	933.1	910.0	711.7
15°	1325.3	1328.6	1337.5	1350.7	1355.1	1324.2	1260.3	1167.8	1024.6	1004.7	788.8
17.5°	1306.6	1309.9	1337.5	1382.6	1425.6	1430.0	1372.7	1267.0	1114.9	1095.1	864.8
20°	1261.4	1265.9	1294.5	1356.2	1439.9	1498.3	1475.2	1374.9	1200.9	1176.6	937.5
22.5°	1312.1	1312.1	1320.9	1358.4	1434.4	1525.9	1556.7	1482.9	1289.0	1259.2	1010.3
25°	1486.2	1482.9	1464.2	1448.7	1473.0	1554.5	1618.4	1593.1	1392.5	1358.4	1087.4
27.5°	1706.5	1722.0	1686.7	1630.5	1575.4	1610.7	1673.5	1702.1	1507.1	1471.9	1166.7
30°	1953.3	1959.9	1918.1	1843.1	1746.2	1712.0	1738.5	1795.8	1631.6	1593.1	1249.3
32.5°	2175.9	2170.3	2135.1	2056.9	1936.8	1863.0	1822.2	1870.7	1767.1	1723.1	1334.2
35°	2373.1	2377.5	2334.5	2244.2	2126.3	2048.1	1951.1	1955.5	1919.2	1868.5	1432.2
37.5°	2550.4	2542.7	2502.0	2411.6	2304.8	2219.9	2117.5	2043.7	2085.5	2032.6	1542.4
40°	2694.8	2687.0	2644.1	2555.9	2455.7	2386.3	2305.9	2161.5	2260.7	2200.1	1660.3
42.5°	2809.3	2800.5	2764.2	2679.3	2582.4	2520.7	2482.1	2307.0	2448.0	2387.4	1792.5
45°	2865.5	2857.8	2835.8	2771.9	2687.0	2633.1	2651.8	2474.4	2648.5	2597.8	1937.9
47.5°	2799.4	2796.1	2821.5	2810.4	2762.0	2733.3	2798.3	2657.3	2858.9	2809.3	2105.3
50°	2598.9	2604.4	2678.2	2769.7	2792.8	2827.0	2918.4	2850.1	3084.8	3031.9	2298.1
52.5°	2104.2	2141.7	2364.2	2584.6	2755.3	2884.2	3059.4	3125.5	3452.7	3400.9	2598.9
55°	1571.0	1586.4	1828.8	2205.6	2604.4	2879.8	3164.1	3287.5	3634.5	3581.6	2678.2
57.5°	1246.0	1251.5	1371.6	1756.1	2293.7	2780.7	3219.2	3345.9	3713.8	3669.8	2796.1
60°	978.3	984.9	1072.0	1336.4	1856.4	2513.0	3139.8	3396.5	3869.2	3833.9	3002.1
62.5°	761.3	767.9	820.8	976.1	1392.5	2100.9	2980.1	3478.1	4164.4	4147.9	3339.2
65°	589.4	591.6	628.0	700.7	983.8	1654.8	2785.1	3554.1	4563.2	4548.9	3612.5
67.5°	435.2	438.5	463.8	509.0	664.3	1188.7	2465.6	3495.7	4864.0	4822.1	3711.6
69°	351.4	354.7	376.8	413.1	524.4	936.4	2173.7	3351.4	4909.2	4869.5	3648.8
70°	300.8	303.0	325.0	355.8	447.3	795.4	1942.3	3226.9	4849.7	4811.1	3505.6
72.5°	192.8	203.8	225.8	245.7	296.4	526.6	1311.0	2676.0	4184.3	4118.2	2745.4
75°	106.9	110.2	149.8	174.1	197.2	342.6	729.3	1669.1	2661.7	2615.4	1468.6
77.5°	88.1	90.3	105.8	132.2	132.2	191.7	275.4	657.7	1012.5	913.3	397.7
80°	61.7	63.9	80.4	87.0	94.7	108.0	89.2	144.3	156.4	138.8	59.5
82.5°	43.0	45.2	55.1	71.6	76.0	50.7	33.1	43.0	45.2	45.2	23.1
85°	7.7	11.0	40.8	59.5	45.2	15.4	18.7	15.4	14.3	15.4	5.5
87.5°	0.0	0.0	25.3	28.6	24.2	6.6	7.7	5.5	3.3	4.4	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°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8
2.5°	478.1	455.0	415.3	386.7	362.5	343.7	336.0	323.9	315.1	319.5	314.0
5°	491.4	450.6	386.7	345.9	317.3	293.1	273.2	257.8	245.7	243.5	241.3
7.5°	512.3	453.9	370.2	319.5	276.5	239.1	208.2	185.1	167.5	167.5	160.8
10°	540.9	462.7	360.3	293.1	229.2	178.5	147.6	125.6	116.8	115.7	113.5
12.5°	580.6	479.2	352.5	258.9	178.5	130.0	111.3	103.6	100.3	99.2	98.1
15°	634.6	503.5	343.7	217.0	135.5	106.9	99.2	92.5	89.2	88.1	87.0
17.5°	686.4	525.5	325.0	174.1	110.2	96.9	88.1	82.6	78.2	77.1	77.1
20°	734.8	544.2	293.1	135.5	99.2	87.0	78.2	71.6	67.2	66.1	66.1
22.5°	785.5	559.7	253.4	110.2	90.3	77.1	68.3	61.7	57.3	56.2	55.1
25°	839.5	570.7	208.2	98.1	81.5	68.3	58.4	52.9	49.6	48.5	47.4
27.5°	897.9	575.1	165.3	89.2	71.6	59.5	50.7	45.2	43.0	41.9	41.9
30°	950.8	570.7	127.8	79.3	62.8	51.8	44.1	39.7	37.5	36.4	36.4
32.5°	1005.9	559.7	102.5	70.5	55.1	44.1	37.5	34.2	33.1	31.9	31.9
35°	1064.2	545.3	88.1	62.8	47.4	38.6	33.1	30.8	29.7	28.6	28.6
37.5°	1132.5	527.7	80.4	56.2	41.9	34.2	28.6	27.5	26.4	26.4	26.4
40°	1209.7	505.7	74.9	50.7	37.5	29.7	25.3	24.2	23.1	23.1	23.1
42.5°	1291.2	480.3	69.4	45.2	33.1	25.3	22.0	22.0	20.9	20.9	19.8
45°	1382.6	455.0	63.9	39.7	28.6	22.0	18.7	17.6	17.6	16.5	16.5
47.5°	1490.6	431.9	58.4	35.3	25.3	18.7	16.5	15.4	14.3	13.2	13.2
50°	1642.6	429.7	51.8	30.8	23.1	15.4	13.2	12.1	11.0	9.9	9.9
52.5°	1793.6	409.8	44.1	25.3	18.7	13.2	9.9	8.8	7.7	7.7	6.6
55°	1827.7	376.8	38.6	22.0	14.3	9.9	7.7	5.5	5.5	4.4	4.4
57.5°	1902.6	361.4	33.1	17.6	11.0	7.7	4.4	3.3	3.3	3.3	3.3
60°	2050.3	357.0	28.6	15.4	7.7	5.5	3.3	2.2	2.2	1.1	1.1
62.5°	2254.1	352.5	24.2	13.2	5.5	3.3	2.2	1.1	0.0	0.0	0.0
65°	2366.4	322.8	19.8	9.9	4.4	3.3	1.1	0.0	0.0	0.0	0.0
67.5°	2336.7	266.6	17.6	6.6	3.3	2.2	1.1	0.0	0.0	0.0	0.0
69°	2212.2	224.7	14.3	5.5	3.3	2.2	1.1	0.0	0.0	0.0	0.0
70°	2062.4	193.9	13.2	4.4	2.2	1.1	1.1	0.0	0.0	0.0	0.0
72.5°	1464.2	101.4	8.8	3.3	2.2	1.1	0.0	0.0	0.0	0.0	0.0
75°	684.2	45.2	5.5	2.2	1.1	1.1	0.0	0.0	0.0	0.0	0.0
77.5°	150.9	20.9	3.3	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
80°	28.6	7.7	2.2	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	9.9	3.3	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.3	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)