

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: P214668

Luminaire Tested: **ARCH-AF16-40-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214668
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-AF16-40-D-U-T2R-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 740mA 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: 3687 lumens
Efficiency: N/A
Efficacy: 87.8 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): 42
Input Voltage (V): NR
Input Current (A_{in}): 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

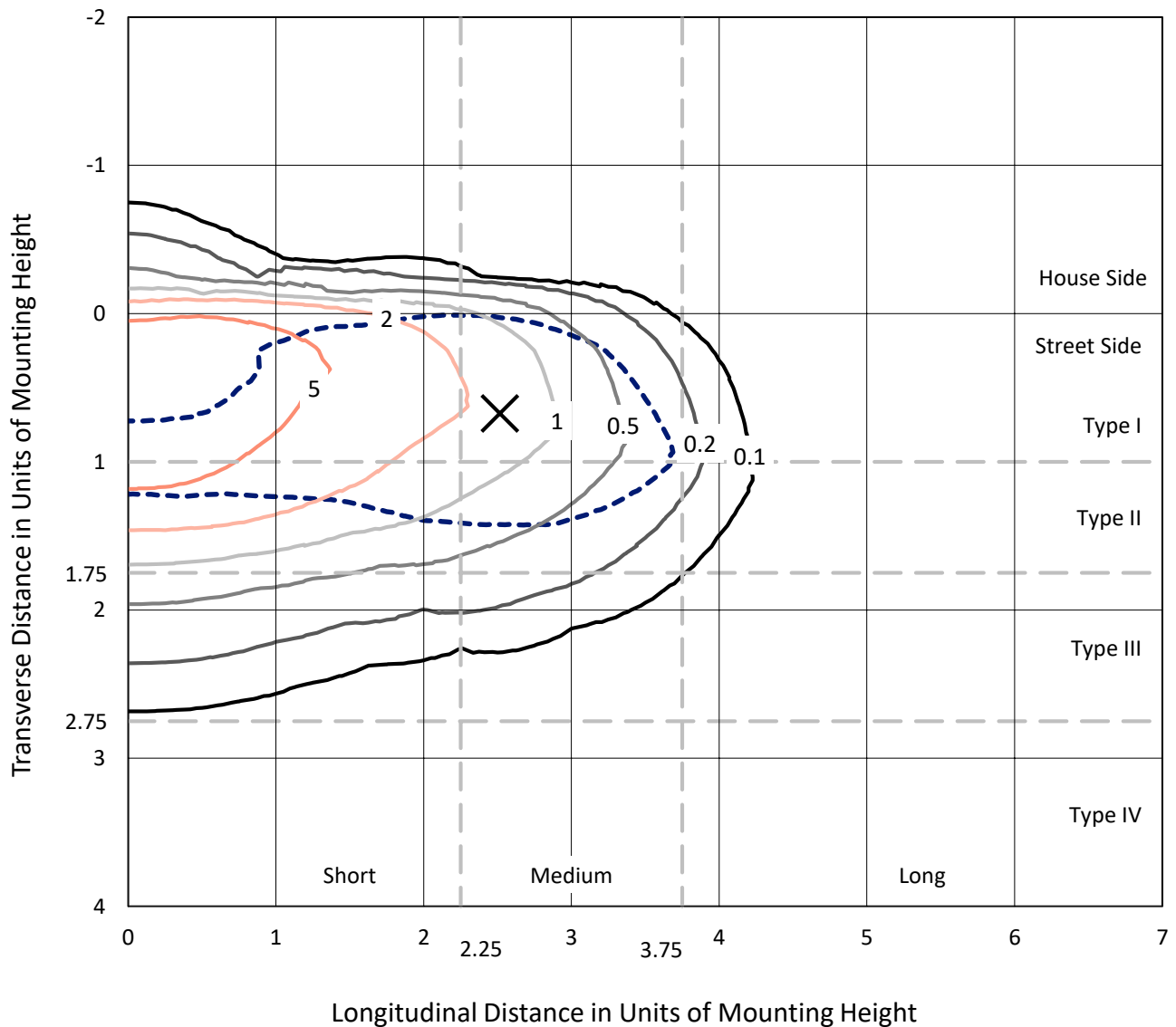


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

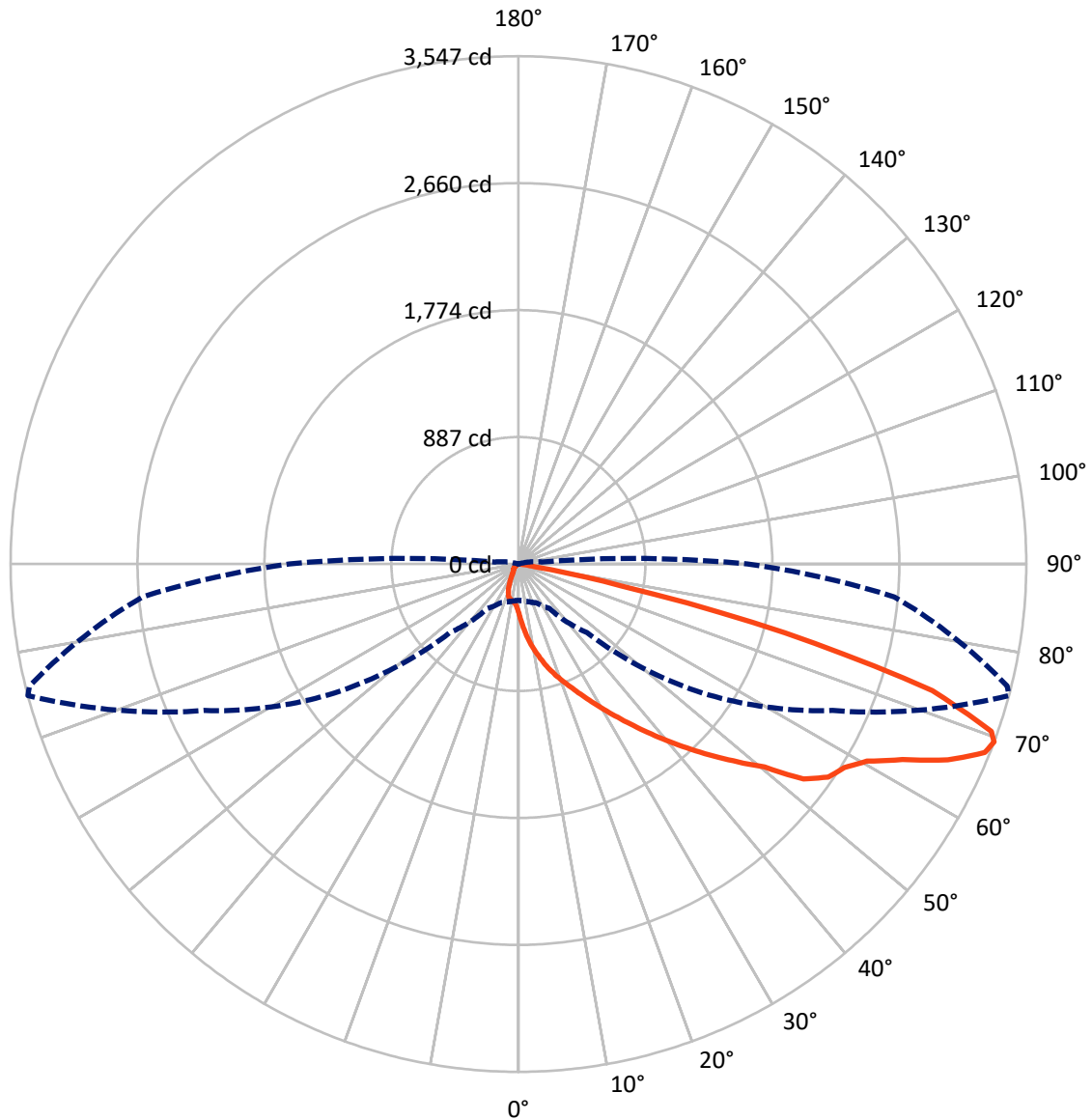


Based on 10 foot mounting height. Maximum calculated value = 9.4 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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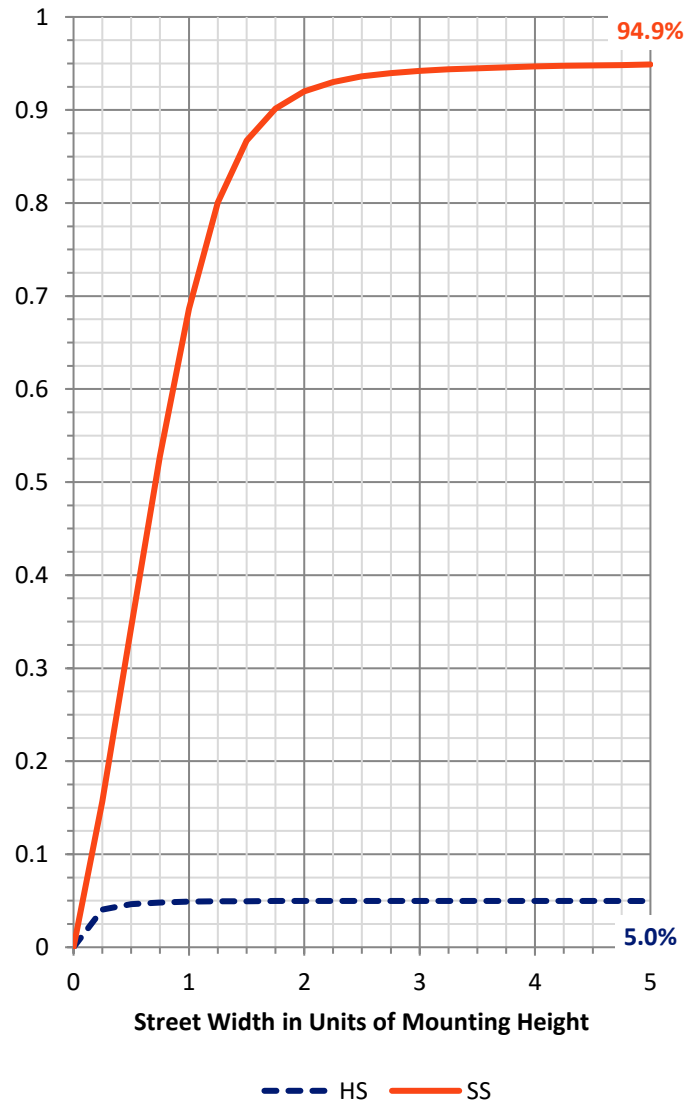
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	184.0	0.0	184.0
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	3503.0	0.0	3503.0
	% Fixture	95.0	0.0	95.0
Total	Lumens	3687.0	0.0	3687.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.0	1.1
10°-20°	143.0	3.9
20°-30°	273.0	7.4
30°-40°	489.8	13.3
40°-50°	750.4	20.4
50°-60°	872.1	23.7
60°-70°	772.3	20.9
70°-80°	333.1	9.0
80°-90°	13.3	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°	3687.0	100.0
0°-180°	3687.0	100.0



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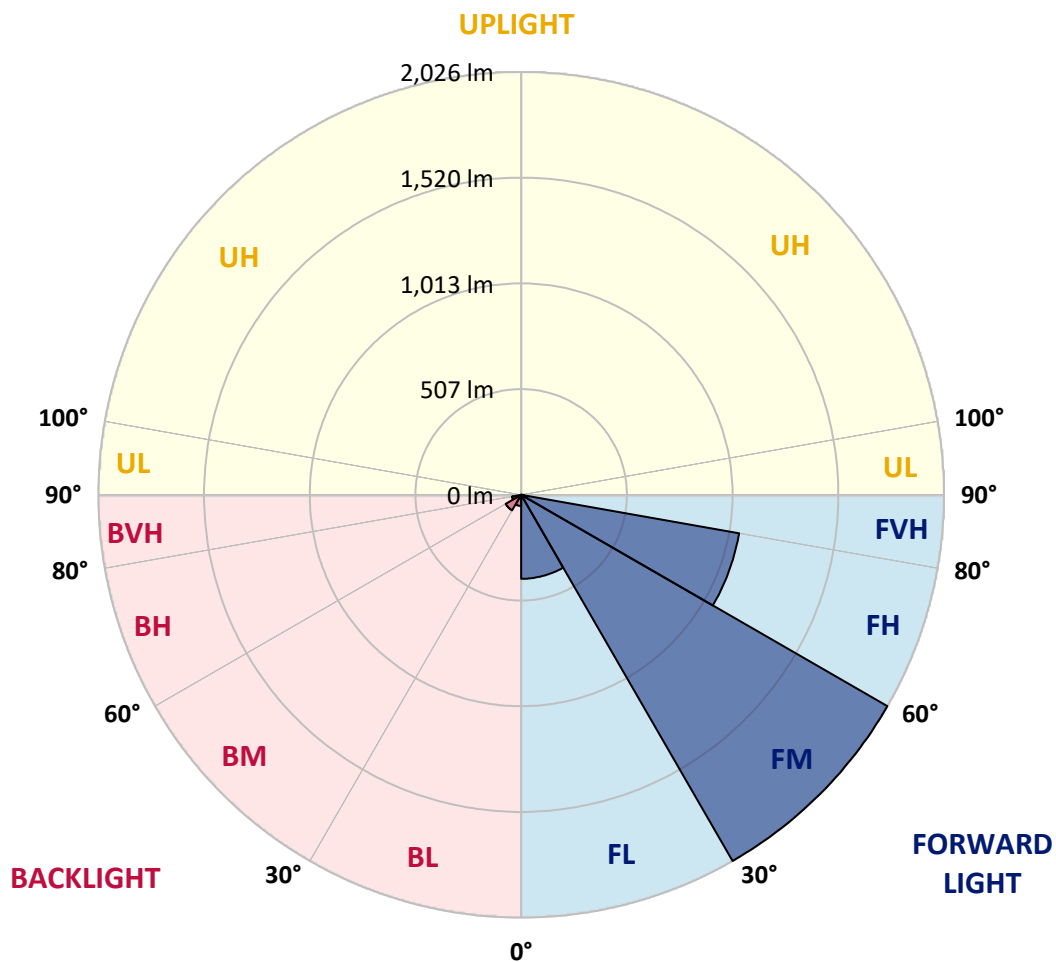
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	402.6	10.9			
FM	(30°-60°)	2026.5	55.0			
FH	(60°-80°)	1060.8	28.8			G1/1800
FVH	(80°-90°)	13.1	0.4			G1/100
BL	(0°-30°)	53.4	1.4	B0/110		
BM	(30°-60°)	85.8	2.3	B0/220		
BH	(60°-80°)	44.6	1.2	B0/110		G0/110
BVH	(80°-90°)	0.2	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°	343.1	343.1	343.1	343.1	343.1	343.1	343.1	343.1	343.1	343.1	343.1
2.5°	565.2	559.6	554.0	547.6	533.3	508.6	477.6	444.2	402.8	395.6	362.2
5°	686.1	683.8	678.2	669.4	653.5	626.4	591.4	542.1	472.8	460.9	390.0
7.5°	771.3	769.7	765.0	754.6	740.3	713.2	676.6	623.3	542.9	529.3	425.1
10°	847.7	846.9	843.0	833.4	819.1	789.6	750.6	694.9	609.7	594.6	465.7
12.5°	917.0	917.8	916.2	911.4	901.1	873.2	828.6	768.1	674.2	657.5	514.2
15°	957.6	960.0	966.3	975.9	979.1	956.8	910.6	843.8	740.3	725.9	569.9
17.5°	944.1	946.4	966.3	999.0	1030.0	1033.2	991.8	915.4	805.5	791.2	624.9
20°	911.4	914.6	935.3	979.9	1040.4	1082.6	1065.8	993.4	867.6	850.1	677.4
22.5°	948.0	948.0	954.4	981.5	1036.4	1102.5	1124.7	1071.4	931.3	909.8	729.9
25°	1073.8	1071.4	1057.9	1046.7	1064.2	1123.1	1169.3	1151.0	1006.1	981.5	785.6
27.5°	1233.0	1244.1	1218.7	1178.1	1138.3	1163.7	1209.1	1229.8	1088.9	1063.4	843.0
30°	1411.3	1416.1	1385.8	1331.7	1261.7	1237.0	1256.1	1297.5	1178.9	1151.0	902.7
32.5°	1572.1	1568.1	1542.6	1486.1	1399.4	1346.0	1316.6	1351.6	1276.8	1244.9	964.0
35°	1714.6	1717.8	1686.7	1621.4	1536.3	1479.8	1409.7	1412.9	1386.6	1350.0	1034.8
37.5°	1842.7	1837.2	1807.7	1742.4	1665.2	1603.9	1529.9	1476.6	1506.8	1468.6	1114.4
40°	1947.0	1941.4	1910.4	1846.7	1774.3	1724.1	1666.0	1561.7	1633.4	1589.6	1199.6
42.5°	2029.8	2023.4	1997.2	1935.9	1865.8	1821.2	1793.4	1666.8	1768.7	1724.9	1295.1
45°	2070.4	2064.8	2048.9	2002.7	1941.4	1902.4	1916.0	1787.8	1913.6	1877.0	1400.2
47.5°	2022.6	2020.2	2038.5	2030.6	1995.6	1974.9	2021.8	1919.9	2065.6	2029.8	1521.1
50°	1877.8	1881.7	1935.1	2001.1	2017.8	2042.5	2108.6	2059.2	2228.8	2190.6	1660.4
52.5°	1520.4	1547.4	1708.2	1867.4	1990.8	2083.9	2210.5	2258.2	2494.6	2457.2	1877.8
55°	1135.1	1146.2	1321.4	1593.6	1881.7	2080.7	2286.1	2375.2	2626.0	2587.8	1935.1
57.5°	900.3	904.3	991.0	1268.8	1657.3	2009.1	2325.9	2417.4	2683.3	2651.5	2020.2
60°	706.8	711.6	774.5	965.5	1341.3	1815.7	2268.6	2454.1	2795.5	2770.1	2169.1
62.5°	550.0	554.8	593.0	705.3	1006.1	1518.0	2153.2	2513.0	3008.9	2996.9	2412.7
65°	425.9	427.4	453.7	506.3	710.8	1195.6	2012.3	2567.9	3297.0	3286.7	2610.1
67.5°	314.4	316.8	335.1	367.7	480.0	858.9	1781.4	2525.7	3514.3	3484.1	2681.7
69°	253.9	256.3	272.2	298.5	378.9	676.6	1570.5	2421.4	3547.0	3518.3	2636.3
70°	217.3	218.9	234.8	257.1	323.2	574.7	1403.3	2331.5	3504.0	3476.1	2532.9
72.5°	139.3	147.3	163.2	177.5	214.1	380.5	947.2	1933.5	3023.2	2975.4	1983.6
75°	77.2	79.6	108.3	125.8	142.5	247.6	526.9	1205.9	1923.1	1889.7	1061.1
77.5°	63.7	65.3	76.4	95.5	95.5	138.5	199.0	475.2	731.5	659.9	287.4
80°	44.6	46.2	58.1	62.9	68.5	78.0	64.5	104.3	113.0	100.3	43.0
82.5°	31.0	32.6	39.8	51.7	54.9	36.6	23.9	31.0	32.6	32.6	16.7
85°	5.6	8.0	29.5	43.0	32.6	11.1	13.5	11.1	10.3	11.1	4.0
87.5°	0.0	0.0	18.3	20.7	17.5	4.8	5.6	4.0	2.4	3.2	1.6
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°	343.1	343.1	343.1	343.1	343.1	343.1	343.1	343.1	343.1	343.1	343.1
2.5°	345.5	328.7	300.1	279.4	261.9	248.4	242.8	234.0	227.7	230.8	226.9
5°	355.0	325.6	279.4	249.9	229.2	211.7	197.4	186.3	177.5	175.9	174.3
7.5°	370.1	328.0	267.5	230.8	199.8	172.7	150.4	133.7	121.0	121.0	116.2
10°	390.8	334.3	260.3	211.7	165.6	129.0	106.7	90.7	84.4	83.6	82.0
12.5°	419.5	346.3	254.7	187.1	129.0	93.9	80.4	74.8	72.4	71.6	70.8
15°	458.5	363.8	248.4	156.8	97.9	77.2	71.6	66.9	64.5	63.7	62.9
17.5°	495.9	379.7	234.8	125.8	79.6	70.0	63.7	59.7	56.5	55.7	55.7
20°	530.9	393.2	211.7	97.9	71.6	62.9	56.5	51.7	48.6	47.8	47.8
22.5°	567.5	404.4	183.1	79.6	65.3	55.7	49.4	44.6	41.4	40.6	39.8
25°	606.5	412.3	150.4	70.8	58.9	49.4	42.2	38.2	35.8	35.0	34.2
27.5°	648.7	415.5	119.4	64.5	51.7	43.0	36.6	32.6	31.0	30.2	30.2
30°	686.9	412.3	92.3	57.3	45.4	37.4	31.8	28.7	27.1	26.3	26.3
32.5°	726.7	404.4	74.0	50.9	39.8	31.8	27.1	24.7	23.9	23.1	23.1
35°	768.9	394.0	63.7	45.4	34.2	27.9	23.9	22.3	21.5	20.7	20.7
37.5°	818.3	381.3	58.1	40.6	30.2	24.7	20.7	19.9	19.1	19.1	19.1
40°	874.0	365.4	54.1	36.6	27.1	21.5	18.3	17.5	16.7	16.7	16.7
42.5°	932.9	347.1	50.1	32.6	23.9	18.3	15.9	15.9	15.1	15.1	14.3
45°	999.0	328.7	46.2	28.7	20.7	15.9	13.5	12.7	12.7	11.9	11.9
47.5°	1077.0	312.0	42.2	25.5	18.3	13.5	11.9	11.1	10.3	9.6	9.6
50°	1186.8	310.4	37.4	22.3	16.7	11.1	9.6	8.8	8.0	7.2	7.2
52.5°	1295.9	296.1	31.8	18.3	13.5	9.6	7.2	6.4	5.6	5.6	4.8
55°	1320.6	272.2	27.9	15.9	10.3	7.2	5.6	4.0	4.0	3.2	3.2
57.5°	1374.7	261.1	23.9	12.7	8.0	5.6	3.2	2.4	2.4	2.4	2.4
60°	1481.3	257.9	20.7	11.1	5.6	4.0	2.4	1.6	1.6	0.8	0.8
62.5°	1628.6	254.7	17.5	9.6	4.0	2.4	1.6	0.8	0.0	0.0	0.0
65°	1709.8	233.2	14.3	7.2	3.2	2.4	0.8	0.0	0.0	0.0	0.0
67.5°	1688.3	192.6	12.7	4.8	2.4	1.6	0.8	0.0	0.0	0.0	0.0
69°	1598.4	162.4	10.3	4.0	2.4	1.6	0.8	0.0	0.0	0.0	0.0
70°	1490.1	140.1	9.6	3.2	1.6	0.8	0.8	0.0	0.0	0.0	0.0
72.5°	1057.9	73.2	6.4	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0
75°	494.3	32.6	4.0	1.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
77.5°	109.1	15.1	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	20.7	5.6	1.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.2	2.4	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.8	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)