

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: P214640

Luminaire Tested: **ARCH-AF16-40-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214640
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-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 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: 3566.2 lumens
Efficiency: N/A
Efficacy: 84.9 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 (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

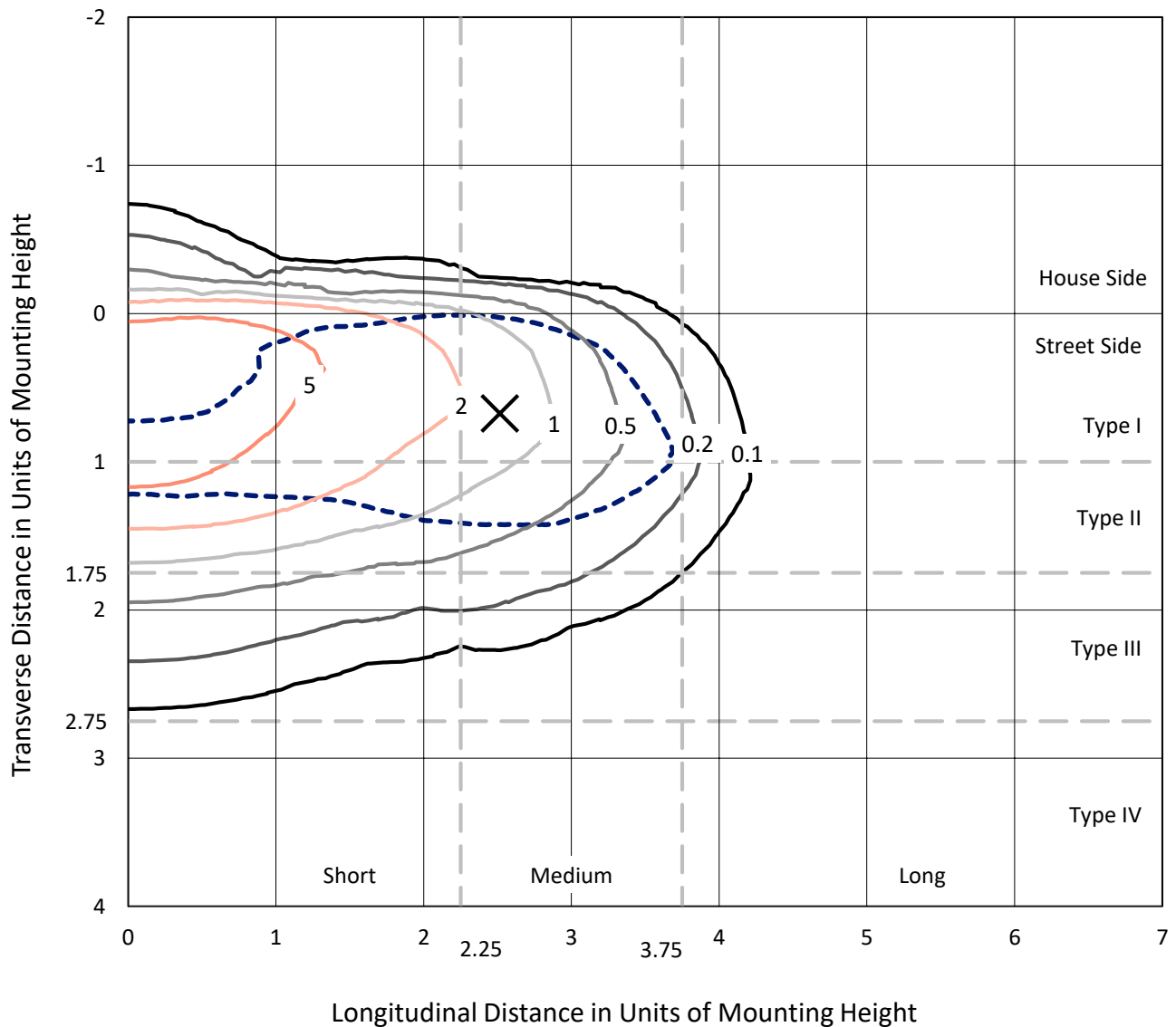


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

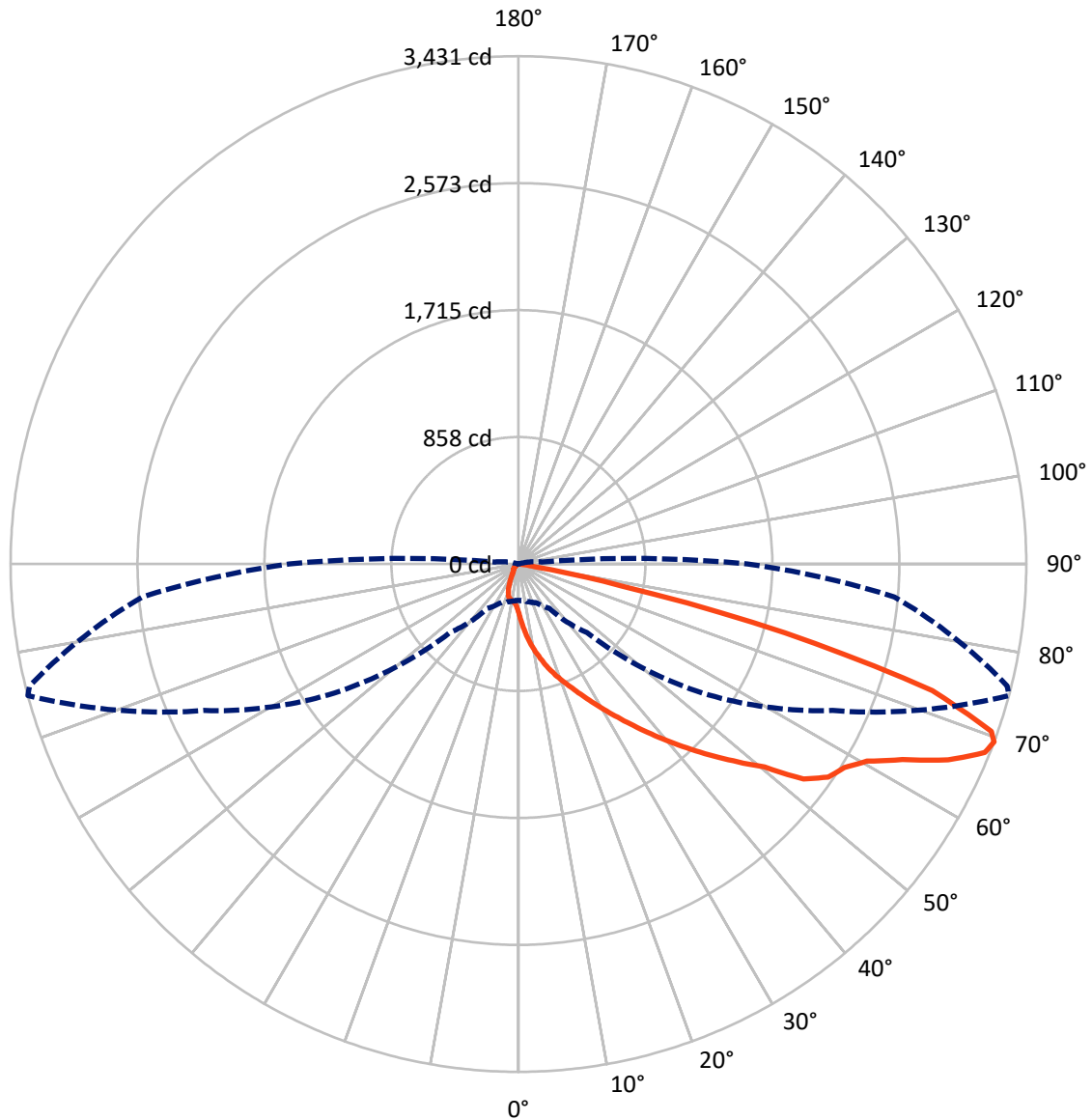


Based on 10 foot mounting height. Maximum calculated value = 9.1 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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



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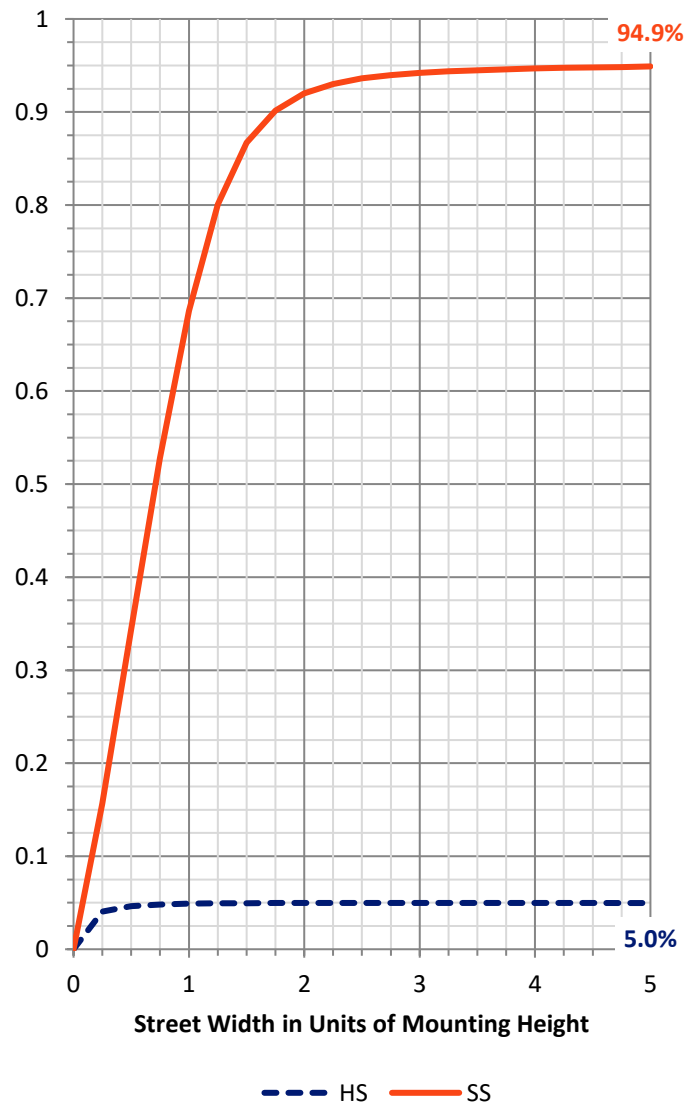
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	177.9	0.0	177.9
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	3388.3	0.0	3388.3
	% Fixture	95.0	0.0	95.0
Total	Lumens	3566.2	0.0	3566.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	1.1
10°-20°	138.3	3.9
20°-30°	264.1	7.4
30°-40°	473.7	13.3
40°-50°	725.8	20.4
50°-60°	843.5	23.7
60°-70°	747.0	20.9
70°-80°	322.2	9.0
80°-90°	12.9	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°	3566.2	100.0
0°-180°	3566.2	100.0

Coefficient of Utilization



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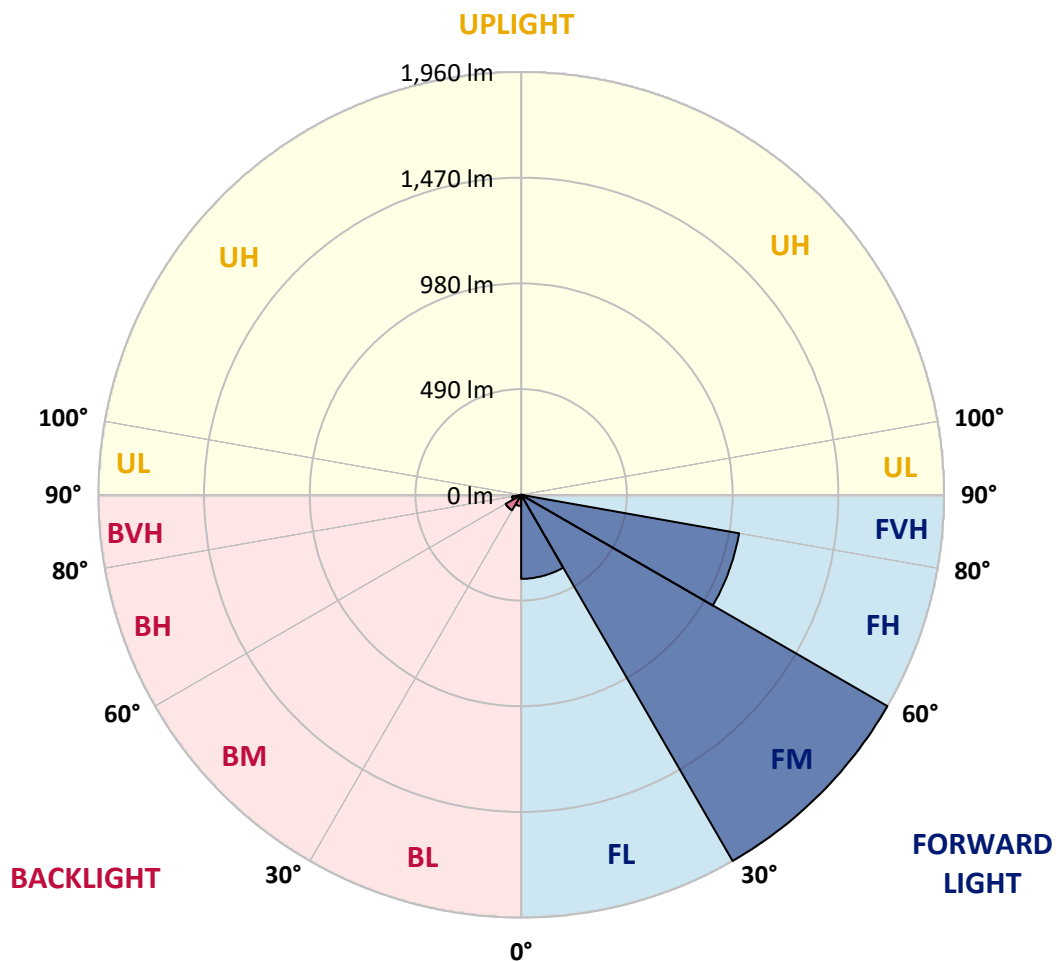
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	389.4	10.9			
FM	(30°-60°)	1960.1	55.0			
FH	(60°-80°)	1026.1	28.8			G1/1800
FVH	(80°-90°)	12.7	0.4			G1/100
BL	(0°-30°)	51.7	1.4	B0/110		
BM	(30°-60°)	83.0	2.3	B0/220		
BH	(60°-80°)	43.1	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°	331.8	331.8	331.8	331.8	331.8	331.8	331.8	331.8	331.8	331.8	331.8
2.5°	546.7	541.3	535.9	529.7	515.8	492.0	461.9	429.6	389.6	382.6	350.2
5°	663.6	661.3	656.0	647.5	632.1	606.0	572.1	524.3	457.4	445.8	377.3
7.5°	746.0	744.5	739.9	729.9	715.9	689.9	654.5	602.9	525.1	512.0	411.2
10°	820.0	819.2	815.3	806.2	792.2	763.7	726.0	672.2	589.8	575.1	450.3
12.5°	886.9	887.7	886.2	881.6	871.6	844.6	801.5	743.0	652.2	636.0	497.3
15°	926.2	928.4	934.7	943.9	947.0	925.4	880.7	816.1	715.9	702.2	551.2
17.5°	913.1	915.5	934.7	966.3	996.2	999.4	959.3	885.4	779.1	765.3	604.4
20°	881.6	884.7	904.6	947.9	1006.3	1047.1	1031.0	960.8	839.2	822.2	655.2
22.5°	917.0	917.0	923.1	949.4	1002.5	1066.4	1087.9	1036.4	900.9	880.0	706.1
25°	1038.6	1036.4	1023.2	1012.4	1029.3	1086.4	1131.1	1113.4	973.2	949.4	759.9
27.5°	1192.6	1203.4	1178.8	1139.5	1101.0	1125.6	1169.5	1189.5	1053.3	1028.5	815.3
30°	1365.0	1369.7	1340.4	1288.0	1220.3	1196.5	1215.0	1255.0	1140.2	1113.4	873.1
32.5°	1520.6	1516.7	1492.2	1437.5	1353.5	1302.0	1273.4	1307.3	1234.9	1204.1	932.4
35°	1658.4	1661.5	1631.5	1568.3	1485.9	1431.3	1363.5	1366.7	1341.1	1305.7	1001.0
37.5°	1782.3	1777.0	1748.4	1685.4	1610.7	1551.4	1479.8	1428.2	1457.4	1420.5	1077.9
40°	1883.2	1877.8	1847.8	1786.2	1716.1	1667.7	1611.5	1510.6	1579.9	1537.5	1160.3
42.5°	1963.3	1957.2	1931.7	1872.4	1804.8	1761.6	1734.6	1612.2	1710.8	1668.4	1252.6
45°	2002.6	1997.2	1981.8	1937.1	1877.8	1840.2	1853.1	1729.2	1850.9	1815.5	1354.3
47.5°	1956.4	1954.1	1971.8	1964.1	1930.2	1910.2	1955.6	1857.1	1998.0	1963.3	1471.2
50°	1816.2	1820.0	1871.7	1935.5	1951.7	1975.6	2039.6	1991.8	2155.8	2118.9	1606.0
52.5°	1470.5	1496.8	1652.2	1806.3	1925.5	2015.7	2138.1	2184.3	2412.9	2376.7	1816.2
55°	1097.9	1108.7	1278.2	1541.4	1820.0	2012.5	2211.2	2297.4	2540.0	2503.0	1871.7
57.5°	870.8	874.6	958.5	1227.2	1603.0	1943.2	2249.7	2338.2	2595.5	2564.7	1954.1
60°	683.6	688.4	749.1	933.9	1297.4	1756.3	2194.3	2373.6	2703.9	2679.4	2098.0
62.5°	532.0	536.7	573.6	682.1	973.2	1468.2	2082.6	2430.7	2910.3	2898.7	2333.7
65°	411.9	413.4	438.9	489.7	687.6	1156.4	1946.4	2483.8	3189.1	3179.0	2524.6
67.5°	304.1	306.5	324.2	355.7	464.3	830.7	1723.1	2442.9	3399.2	3370.0	2593.9
69°	245.7	247.9	263.4	288.8	366.4	654.5	1519.0	2342.1	3430.7	3403.1	2550.0
70°	210.3	211.8	227.2	248.7	312.6	555.9	1357.3	2255.1	3389.2	3362.2	2449.9
72.5°	134.7	142.5	157.9	171.6	207.1	367.9	916.2	1870.2	2924.1	2878.0	1918.6
75°	74.8	77.0	104.7	121.6	137.7	239.5	509.7	1166.5	1860.1	1827.8	1026.3
77.5°	61.6	63.2	73.9	92.5	92.5	134.0	192.6	459.7	707.6	638.3	277.9
80°	43.1	44.7	56.2	60.8	66.2	75.5	62.4	100.8	109.4	97.0	41.6
82.5°	30.0	31.5	38.5	50.0	53.1	35.4	23.1	30.0	31.5	31.5	16.2
85°	5.4	7.6	28.5	41.6	31.5	10.8	13.1	10.8	10.1	10.8	3.9
87.5°	0.0	0.0	17.7	20.0	16.9	4.6	5.4	3.9	2.3	3.1	1.5
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°	331.8	331.8	331.8	331.8	331.8	331.8	331.8	331.8	331.8	331.8	331.8
2.5°	334.2	318.0	290.3	270.2	253.3	240.3	234.8	226.3	220.1	223.3	219.4
5°	343.4	314.8	270.2	241.8	221.7	204.8	190.9	180.2	171.6	170.1	168.6
7.5°	358.1	317.2	258.7	223.3	193.3	167.0	145.6	129.4	117.0	117.0	112.4
10°	378.0	323.4	251.8	204.8	160.2	124.8	103.1	87.7	81.6	80.9	79.3
12.5°	405.8	334.9	246.4	181.0	124.8	90.9	77.8	72.3	70.0	69.3	68.5
15°	443.5	351.9	240.3	151.7	94.7	74.8	69.3	64.7	62.4	61.6	60.8
17.5°	479.6	367.2	227.2	121.6	77.0	67.7	61.6	57.8	54.6	53.9	53.9
20°	513.5	380.3	204.8	94.7	69.3	60.8	54.6	50.0	47.0	46.2	46.2
22.5°	548.9	391.1	177.1	77.0	63.2	53.9	47.7	43.1	40.0	39.3	38.5
25°	586.7	398.8	145.6	68.5	57.0	47.7	40.8	36.9	34.6	33.9	33.1
27.5°	627.4	401.8	115.5	62.4	50.0	41.6	35.4	31.5	30.0	29.3	29.3
30°	664.4	398.8	89.3	55.4	43.9	36.2	30.8	27.8	26.2	25.4	25.4
32.5°	703.0	391.1	71.6	49.2	38.5	30.8	26.2	23.8	23.1	22.3	22.3
35°	743.7	381.1	61.6	43.9	33.1	27.0	23.1	21.6	20.8	20.0	20.0
37.5°	791.5	368.8	56.2	39.3	29.3	23.8	20.0	19.2	18.5	18.5	18.5
40°	845.3	353.4	52.3	35.4	26.2	20.8	17.7	16.9	16.2	16.2	16.2
42.5°	902.4	335.7	48.5	31.5	23.1	17.7	15.4	15.4	14.6	14.6	13.8
45°	966.3	318.0	44.7	27.8	20.0	15.4	13.1	12.3	12.3	11.6	11.6
47.5°	1041.7	301.8	40.8	24.6	17.7	13.1	11.6	10.8	10.1	9.3	9.3
50°	1148.0	300.3	36.2	21.6	16.2	10.8	9.3	8.5	7.6	6.9	6.9
52.5°	1253.4	286.4	30.8	17.7	13.1	9.3	6.9	6.1	5.4	5.4	4.6
55°	1277.4	263.4	27.0	15.4	10.1	6.9	5.4	3.9	3.9	3.1	3.1
57.5°	1329.6	252.5	23.1	12.3	7.6	5.4	3.1	2.3	2.3	2.3	2.3
60°	1432.8	249.4	20.0	10.8	5.4	3.9	2.3	1.5	1.5	0.8	0.8
62.5°	1575.3	246.4	16.9	9.3	3.9	2.3	1.5	0.8	0.0	0.0	0.0
65°	1653.7	225.6	13.8	6.9	3.1	2.3	0.8	0.0	0.0	0.0	0.0
67.5°	1633.0	186.3	12.3	4.6	2.3	1.5	0.8	0.0	0.0	0.0	0.0
69°	1546.0	157.2	10.1	3.9	2.3	1.5	0.8	0.0	0.0	0.0	0.0
70°	1441.2	135.5	9.3	3.1	1.5	0.8	0.8	0.0	0.0	0.0	0.0
72.5°	1023.2	70.8	6.1	2.3	1.5	0.8	0.0	0.0	0.0	0.0	0.0
75°	478.1	31.5	3.9	1.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0
77.5°	105.4	14.6	2.3	1.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	20.0	5.4	1.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.9	2.3	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.3	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)