

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: P257675

Luminaire Tested: **ARCH-AF16-40-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257675
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-40-D-U-T2U-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3132.5 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - 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

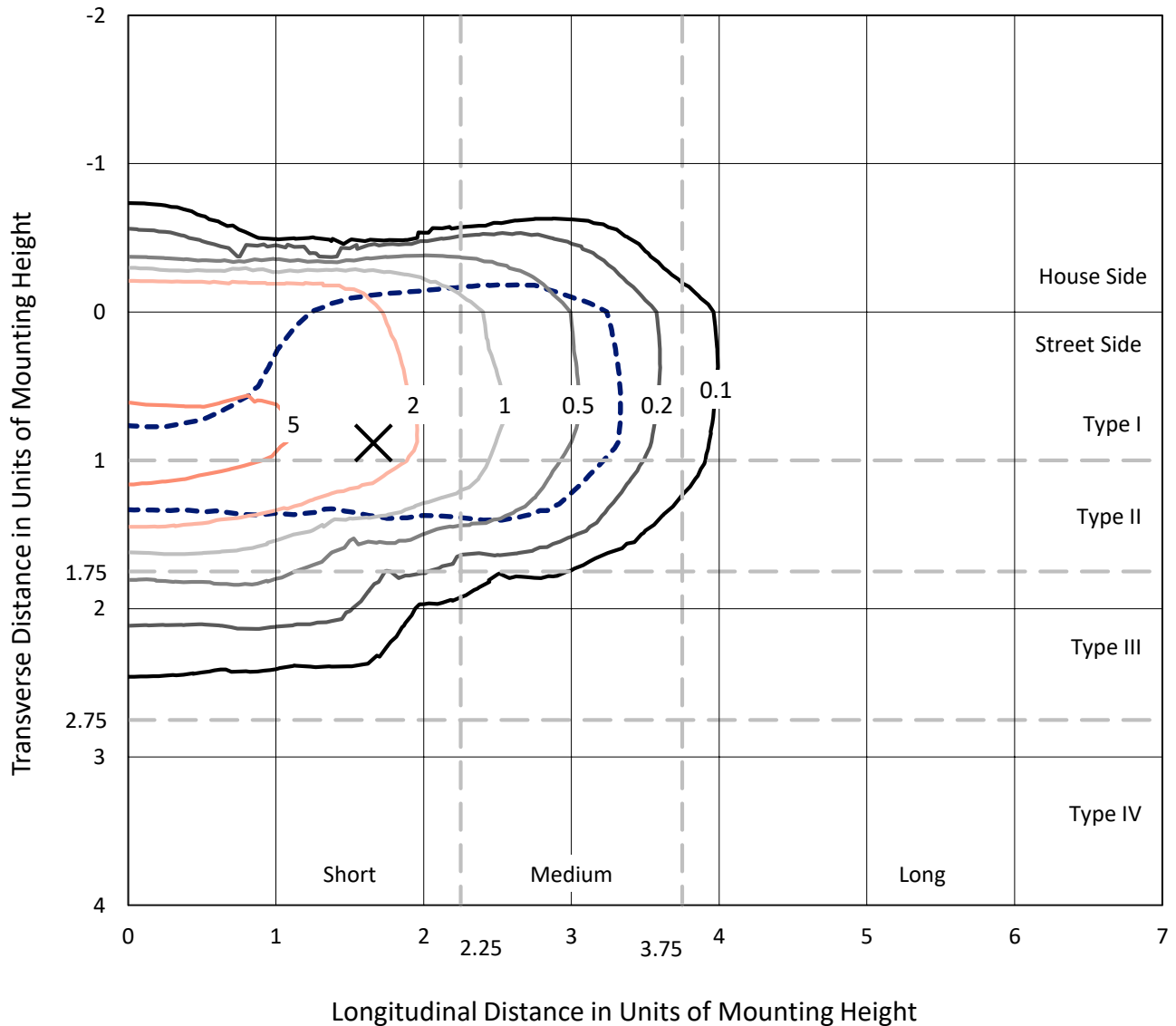


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

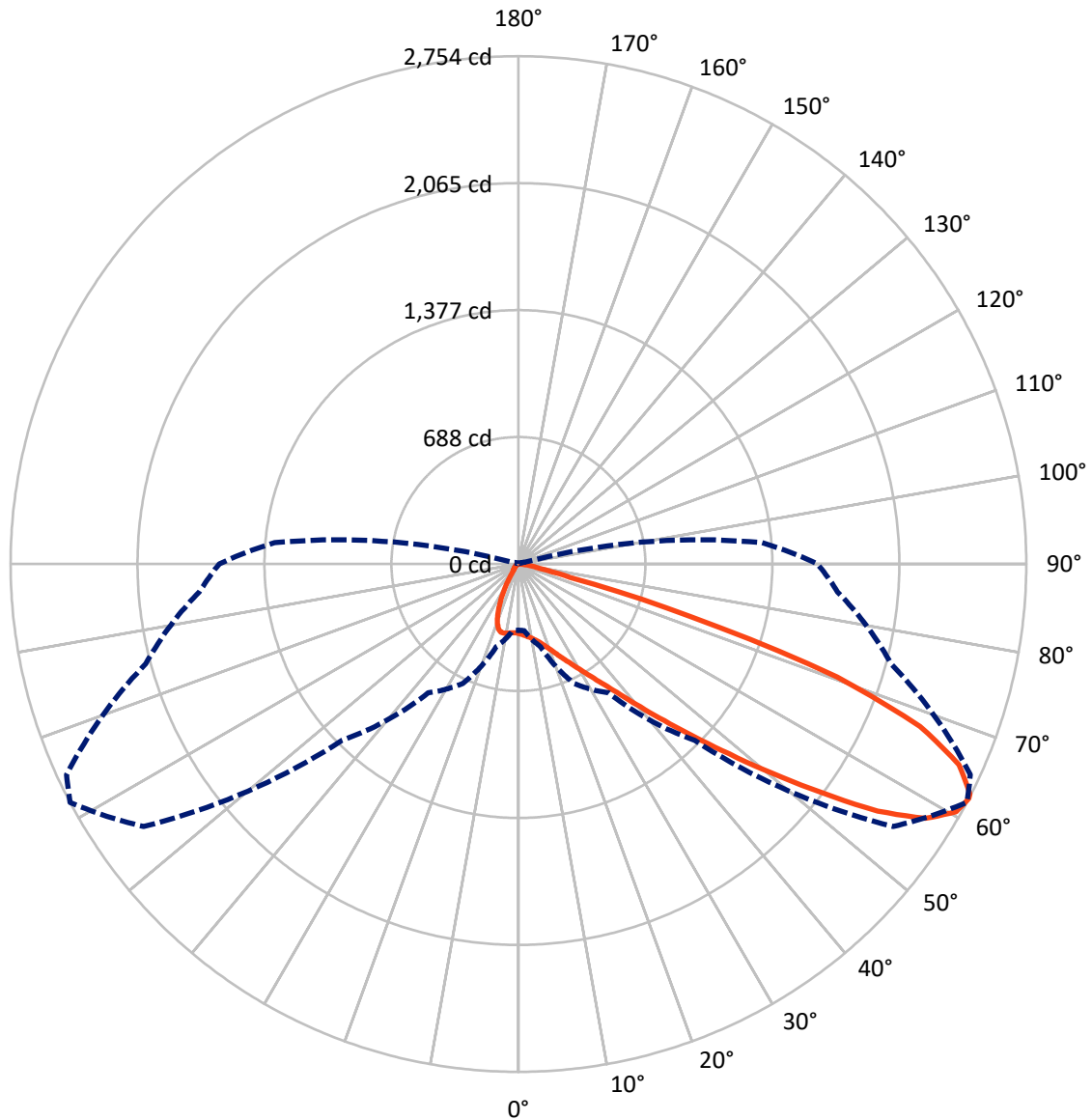


Based on 10 foot mounting height. Maximum calculated value = 7.2 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical



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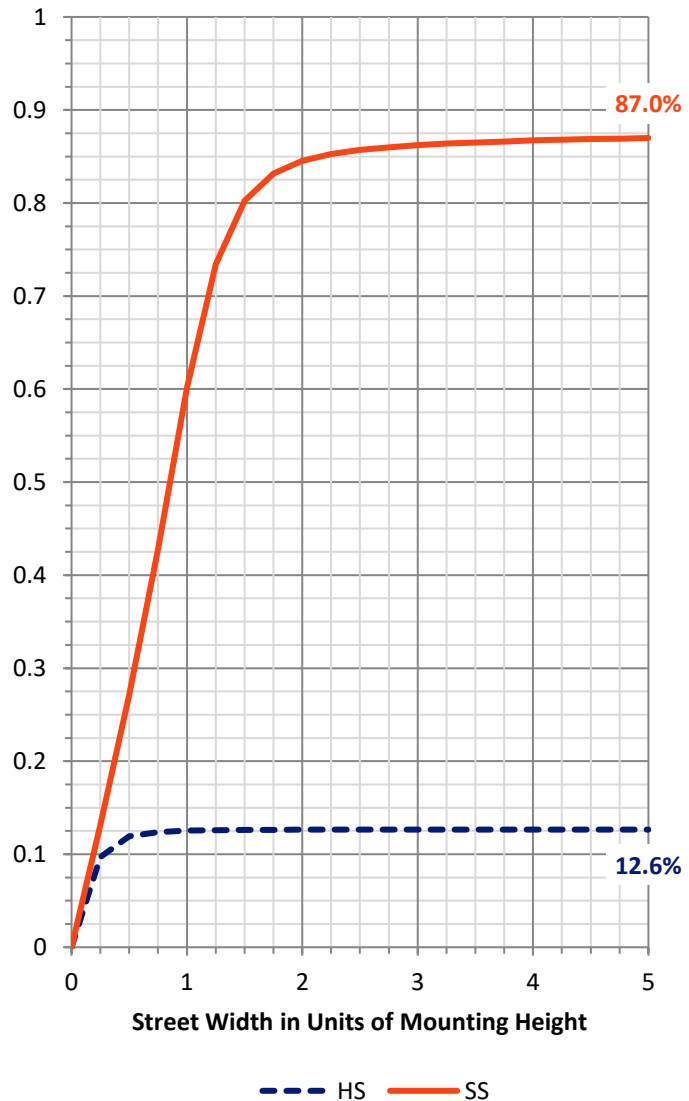
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	400.5	0.0	400.5
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	2731.9	0.0	2731.9
	% Fixture	87.2	0.0	87.2
Total	Lumens	3132.5	0.0	3132.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.3	1.2
10°-20°	101.4	3.2
20°-30°	170.3	5.4
30°-40°	326.5	10.4
40°-50°	666.8	21.3
50°-60°	882.4	28.2
60°-70°	685.5	21.9
70°-80°	247.4	7.9
80°-90°	15.8	0.5
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°	3132.5	100.0
0°-180°	3132.5	100.0

Coefficient of Utilization



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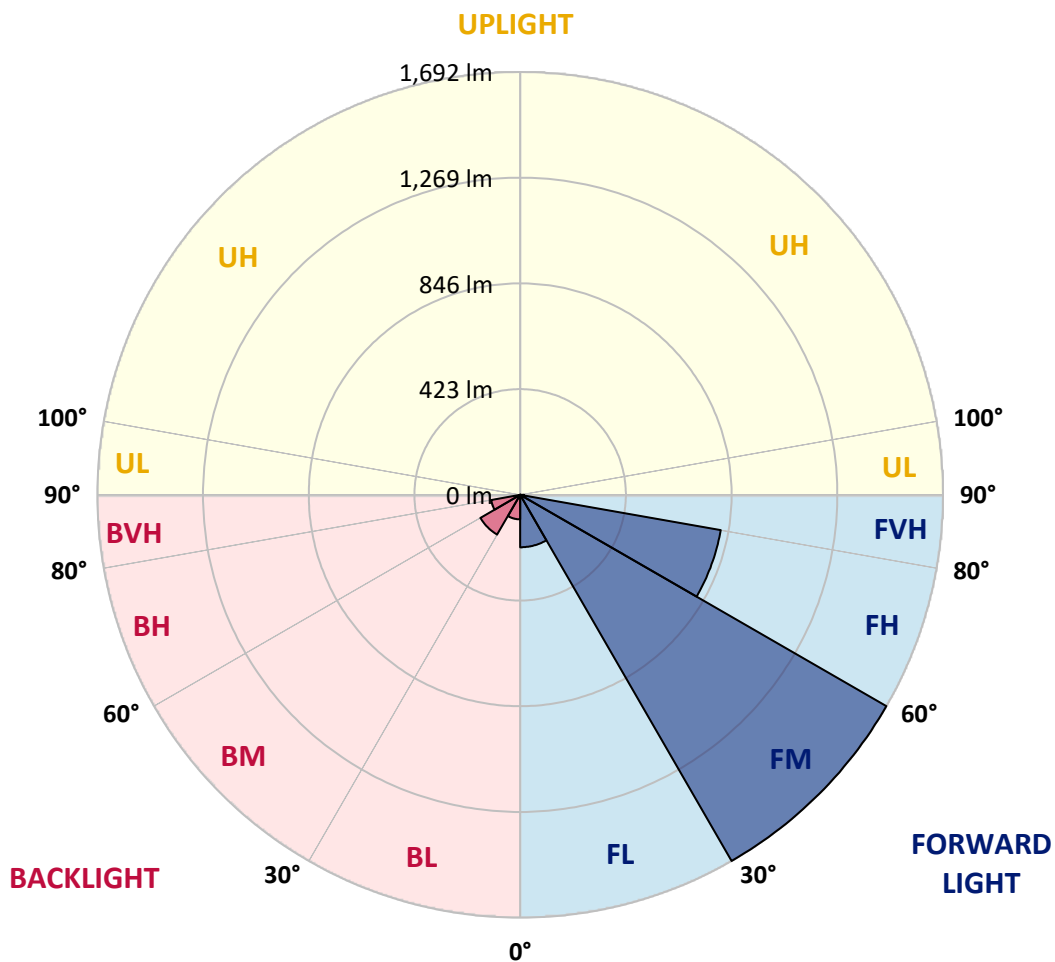
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	210.0	6.7			
FM	(30°-60°)	1691.9	54.0			
FH	(60°-80°)	815.0	26.0			G1/1800
FVH	(80°-90°)	15.1	0.5			G1/100
BL	(0°-30°)	98.0	3.1	B0/110		
BM	(30°-60°)	183.9	5.9	B0/220		
BH	(60°-80°)	117.9	3.8	B1/500		G1/500
BVH	(80°-90°)	0.7	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4
2.5°	387.4	386.6	385.8	385.0	385.0	384.3	383.5	382.0	380.4	378.9	378.1
5°	394.3	393.6	392.8	393.6	392.8	392.8	392.0	390.4	388.9	386.6	384.3
7.5°	399.7	398.9	398.1	398.9	399.7	400.4	401.2	399.7	398.9	395.8	393.6
10°	406.7	405.8	405.1	406.7	406.7	410.5	411.3	410.5	409.7	407.4	403.5
12.5°	416.6	417.4	417.4	418.9	420.4	425.1	426.6	424.4	424.4	421.2	416.6
15°	435.1	435.1	435.1	436.6	437.4	443.6	445.1	442.8	444.3	439.0	434.3
17.5°	452.8	453.5	455.2	458.3	458.3	463.6	466.6	466.6	469.7	462.8	456.7
20°	470.6	471.4	473.6	480.5	480.5	487.6	492.9	495.2	498.2	491.3	480.5
22.5°	489.8	489.8	493.7	504.4	502.1	515.9	526.0	529.8	532.8	523.7	506.8
25°	519.1	515.9	519.1	529.1	527.5	546.8	565.2	569.1	572.9	562.1	536.8
27.5°	574.4	569.9	559.1	559.9	559.9	582.3	608.3	613.8	616.1	606.8	575.2
30°	685.4	685.4	645.2	618.4	600.7	620.7	657.6	666.9	670.0	656.1	614.6
32.5°	878.7	878.7	804.7	736.2	669.2	669.2	711.6	728.5	731.6	715.4	666.9
35°	1125.2	1123.5	1012.8	918.8	787.8	738.5	774.7	803.2	812.5	790.9	734.7
37.5°	1386.9	1376.8	1257.6	1149.7	970.3	849.4	860.2	897.9	906.5	888.8	822.5
40°	1599.4	1588.0	1491.7	1401.6	1206.0	1026.5	983.5	1018.1	1028.1	1003.4	927.2
42.5°	1792.0	1763.6	1697.3	1632.6	1477.0	1333.1	1147.4	1161.3	1172.2	1145.9	1045.1
45°	1931.3	1887.5	1853.6	1833.6	1751.2	1669.6	1360.0	1332.3	1336.1	1303.8	1173.7
47.5°	1935.2	1904.4	1907.5	1959.9	1993.8	1990.7	1636.4	1537.9	1523.3	1469.3	1310.7
50°	1750.5	1768.2	1824.3	1973.8	2157.0	2267.9	1965.2	1781.3	1737.3	1640.3	1447.0
52.5°	1442.3	1470.1	1575.6	1827.5	2181.0	2450.4	2306.5	2059.2	1980.7	1809.8	1551.7
55°	1129.7	1131.3	1242.2	1498.6	2021.6	2483.6	2579.1	2364.9	2244.8	1938.4	1621.1
57.5°	777.1	819.3	960.3	1132.8	1661.9	2318.7	2681.4	2602.1	2447.4	2017.7	1669.6
60°	509.0	511.4	675.3	874.8	1131.3	1886.7	2619.1	2727.6	2611.4	2064.7	1702.7
62°	358.9	362.7	464.4	714.7	852.4	1352.3	2481.3	2753.9	2703.8	2092.4	1737.3
62.5°	332.7	335.8	421.2	674.5	800.9	1212.9	2432.0	2747.7	2717.8	2101.6	1749.7
65°	244.0	244.0	275.7	463.6	586.8	655.3	2060.7	2625.3	2699.1	2175.5	1795.9
67.5°	188.7	190.2	201.0	285.7	442.8	397.3	1315.4	2349.5	2506.6	2284.8	1822.0
70°	162.5	161.7	169.5	189.4	319.6	264.2	579.1	1833.6	2099.3	2257.2	1798.2
72.5°	120.1	121.0	138.6	166.3	222.6	171.7	261.7	973.4	1361.5	1766.6	1541.0
75°	77.0	77.8	97.8	130.9	160.2	112.4	150.9	290.3	557.6	979.5	942.6
77.5°	51.6	53.1	63.9	91.7	140.2	70.0	94.7	121.8	167.9	367.3	338.0
80°	34.6	34.6	40.9	61.6	88.6	58.6	50.8	80.9	87.0	113.9	57.1
82.5°	23.1	23.1	27.0	40.9	57.8	52.3	30.8	43.9	50.8	57.1	20.0
85°	13.8	13.8	18.5	25.4	37.7	29.3	20.0	24.7	26.2	36.2	10.8
87.5°	8.5	7.6	12.3	17.7	20.0	17.7	13.1	13.1	13.8	20.0	5.4
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°	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4
2.5°	376.6	375.9	375.1	373.4	371.2	369.7	368.1	366.6	365.0	365.0	367.3
5°	383.5	381.2	378.1	375.1	370.4	367.3	365.0	361.9	360.4	360.4	361.2
7.5°	392.0	389.6	384.3	378.9	371.9	366.6	361.2	354.2	348.9	346.6	348.9
10°	401.2	398.1	390.4	382.0	374.2	360.4	342.7	321.1	302.6	294.1	298.1
12.5°	412.8	408.9	399.7	388.1	370.4	336.5	292.6	242.5	211.0	196.3	199.5
15°	429.7	424.4	411.3	393.6	354.2	281.2	209.4	151.8	122.5	110.2	111.7
17.5°	449.7	442.8	425.1	392.0	312.7	202.5	124.8	88.6	76.3	73.2	73.2
20°	471.4	462.0	439.0	380.4	249.5	127.1	77.8	67.7	63.2	60.8	60.8
22.5°	493.7	481.3	450.4	353.5	177.9	79.3	63.9	57.1	51.6	49.2	49.2
25°	520.6	504.4	462.0	306.5	113.2	63.9	54.6	47.7	42.4	39.3	40.1
27.5°	552.2	531.3	472.1	248.0	73.2	55.4	45.5	38.5	33.9	32.3	32.3
30°	585.3	560.6	474.4	185.6	59.3	47.7	37.7	31.5	28.5	27.0	27.0
32.5°	630.8	598.4	467.4	123.3	50.0	40.1	31.5	26.2	23.8	23.1	23.1
35°	690.7	647.7	451.2	76.3	42.4	33.1	26.2	23.1	20.8	20.0	20.0
37.5°	767.0	716.2	422.9	52.3	36.2	27.0	22.3	20.0	18.5	17.7	17.7
40°	868.7	799.3	385.8	45.5	30.8	23.1	19.2	17.7	16.2	16.2	16.2
42.5°	976.4	900.2	338.0	40.1	26.2	20.0	16.9	15.4	14.6	13.8	13.8
45°	1094.3	1003.4	278.7	35.4	22.3	17.7	15.4	13.1	12.3	12.3	12.3
47.5°	1211.3	1109.7	214.0	30.8	19.2	15.4	13.1	11.6	10.8	10.1	10.1
50°	1331.6	1206.0	157.2	27.0	16.9	13.8	11.6	10.1	8.5	7.6	7.6
52.5°	1418.5	1263.7	114.7	23.1	14.6	11.6	9.3	7.6	6.1	5.4	5.4
55°	1482.4	1299.2	83.9	19.2	13.1	10.1	7.6	6.1	4.6	4.6	3.9
57.5°	1532.5	1316.1	63.2	16.9	11.6	8.5	6.1	4.6	3.9	3.1	3.1
60°	1571.0	1316.9	47.0	13.8	10.1	6.9	4.6	3.1	2.3	2.3	2.3
62°	1621.9	1326.9	38.5	11.6	9.3	6.1	3.9	2.3	1.5	0.8	0.8
62.5°	1636.4	1330.7	36.9	11.6	8.5	5.4	3.1	2.3	1.5	0.8	0.8
65°	1704.2	1337.7	28.5	9.3	6.9	4.6	2.3	1.5	0.0	0.0	0.0
67.5°	1765.8	1326.9	20.8	6.9	5.4	3.1	2.3	0.8	0.0	0.0	0.0
70°	1759.6	1252.9	14.6	4.6	3.9	2.3	1.5	0.0	0.0	0.0	0.0
72.5°	1450.1	938.0	10.1	3.9	2.3	1.5	0.8	0.0	0.0	0.0	0.0
75°	875.6	410.5	6.9	2.3	2.3	1.5	0.8	0.0	0.0	0.0	0.0
77.5°	287.3	148.6	4.6	1.5	1.5	0.8	0.8	0.0	0.0	0.0	0.0
80°	47.0	24.7	2.3	1.5	1.5	0.8	0.8	0.0	0.0	0.0	0.0
82.5°	14.6	6.1	1.5	1.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0
85°	5.4	2.3	1.5	1.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0
87.5°	2.3	1.5	1.5	1.5	0.8	0.8	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)