

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: P234698

Luminaire Tested: **ARCH-AF16-40-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234698
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-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 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: 2865 lumens
Efficiency: N/A
Efficacy: 68.2 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

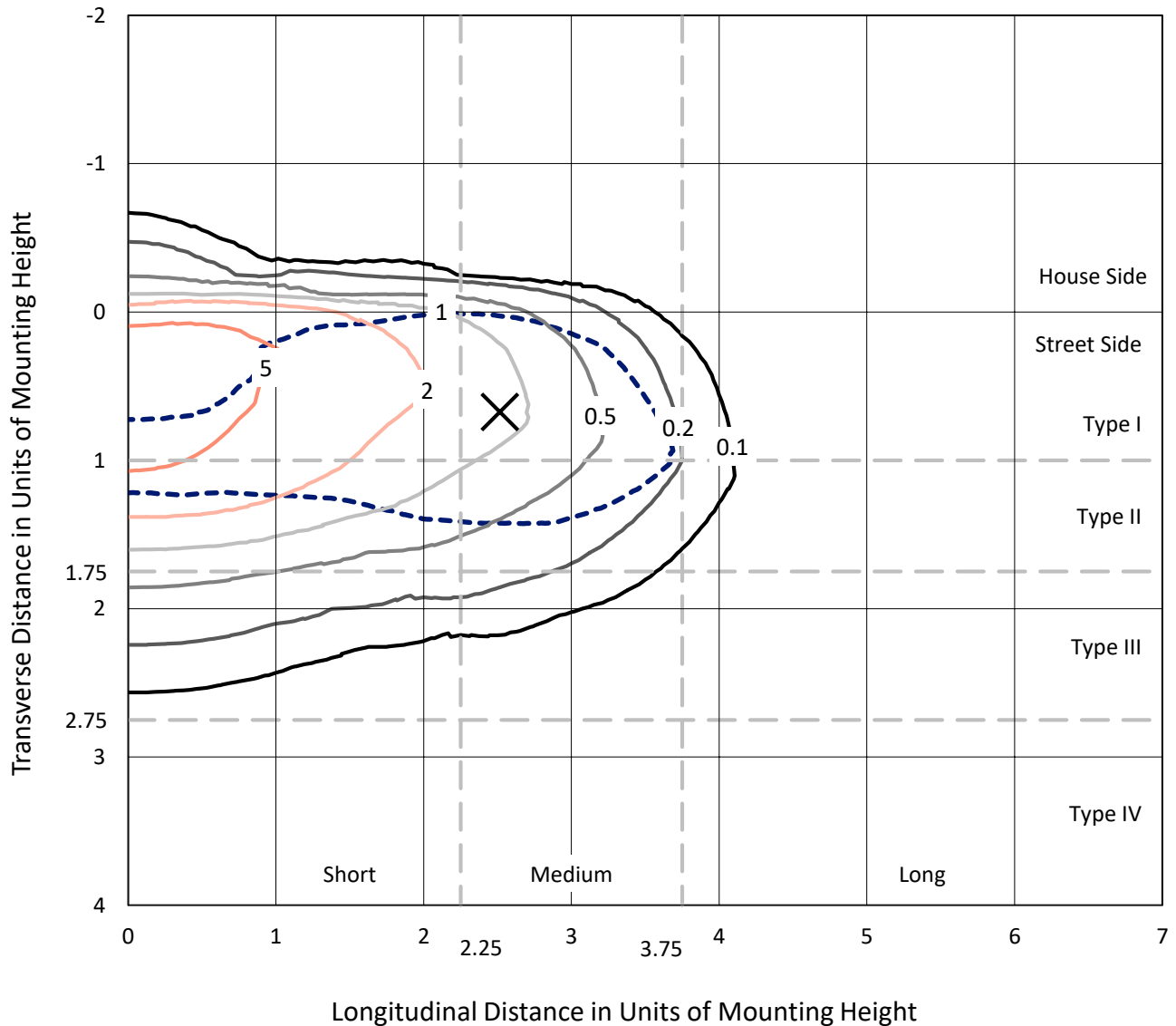


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

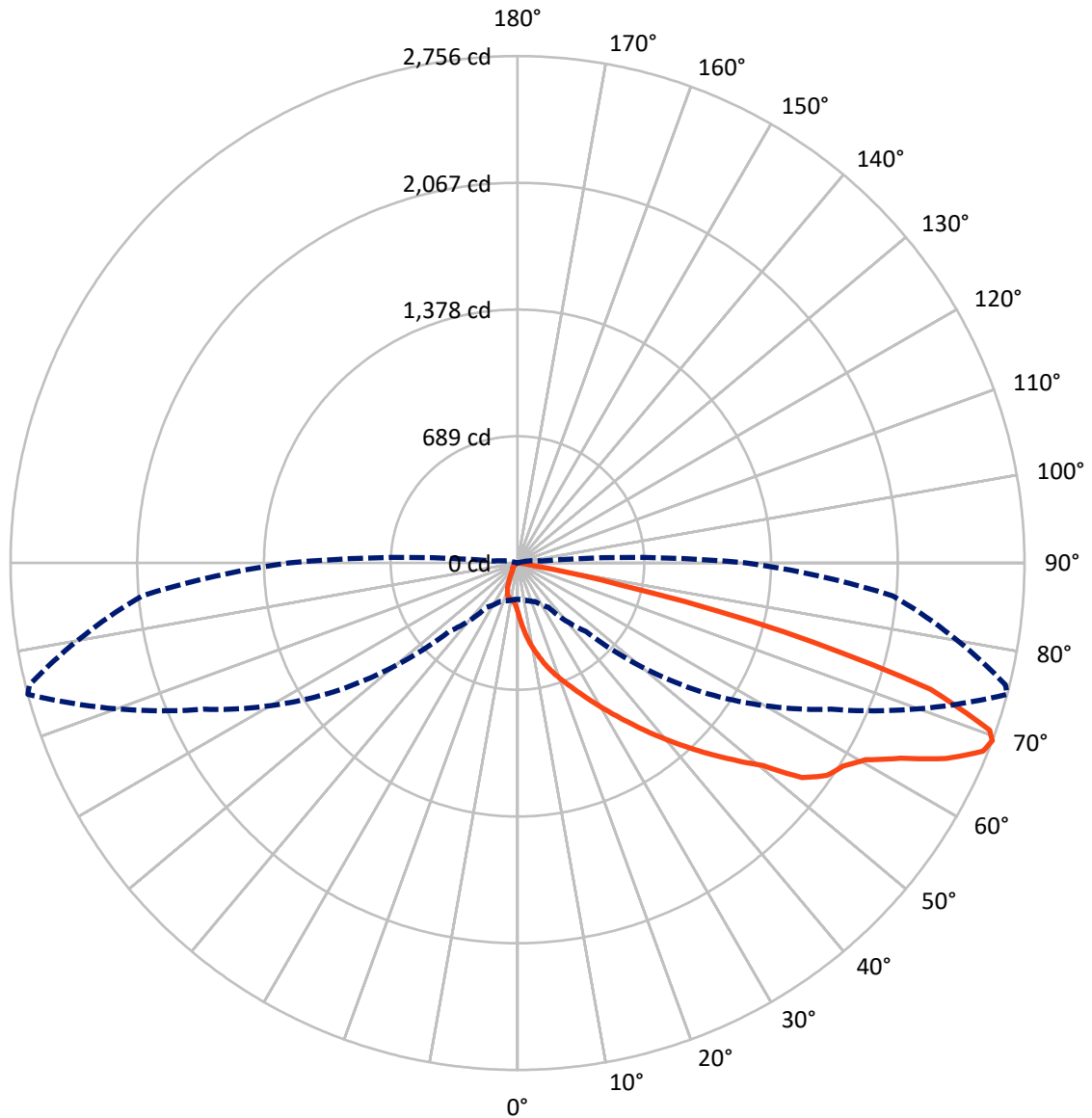


Based on 10 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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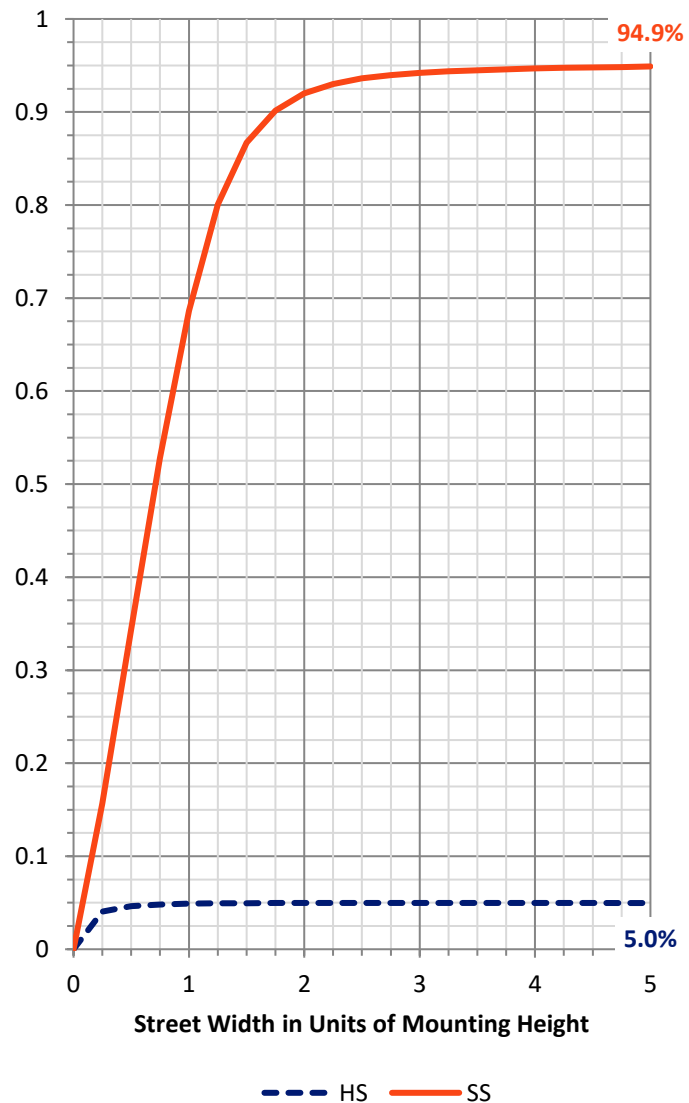
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	142.9	0.0	142.9
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	2722.1	0.0	2722.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	2865.0	0.0	2865.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	1.1
10°-20°	111.1	3.9
20°-30°	212.2	7.4
30°-40°	380.6	13.3
40°-50°	583.1	20.4
50°-60°	677.7	23.7
60°-70°	600.1	20.9
70°-80°	258.8	9.0
80°-90°	10.4	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°	2865.0	100.0
0°-180°	2865.0	100.0

Coefficient of Utilization



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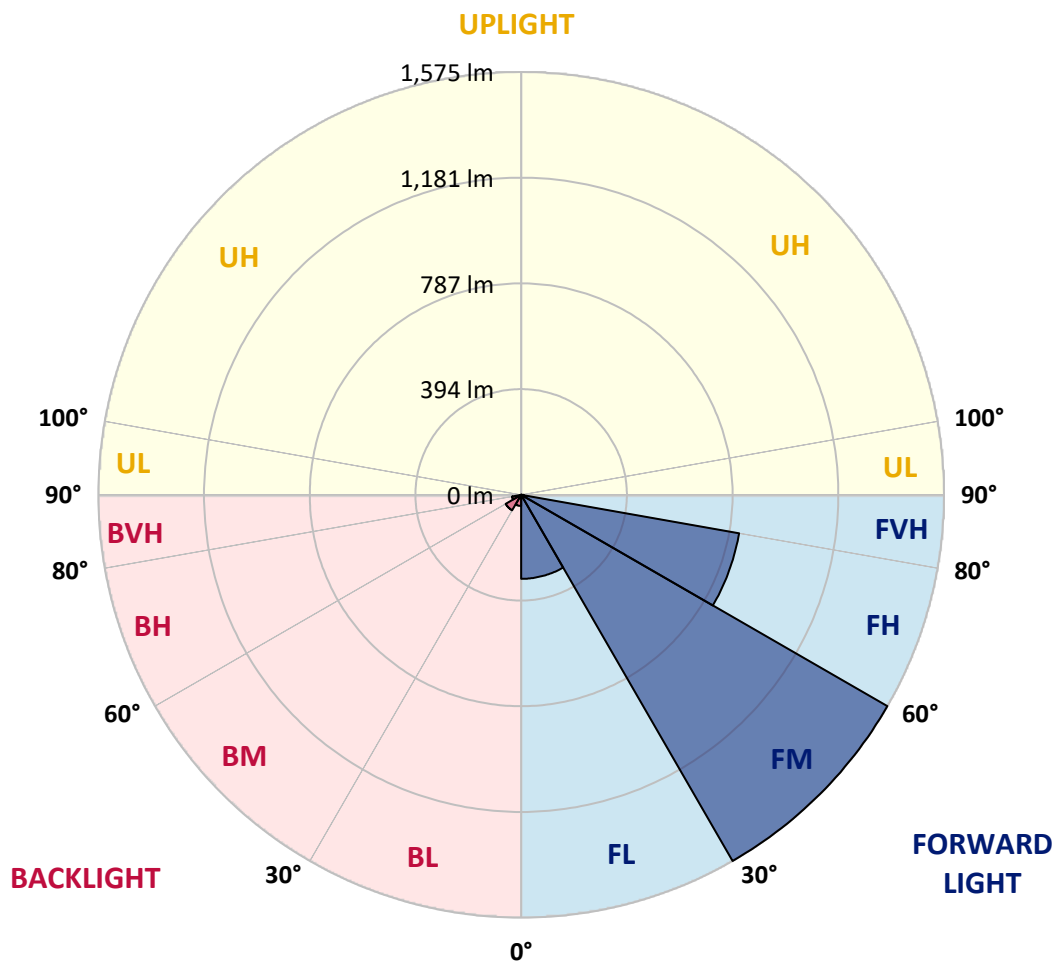
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	312.9	10.9			
FM	(30°-60°)	1574.7	55.0			
FH	(60°-80°)	824.3	28.8			G1/1800
FVH	(80°-90°)	10.2	0.4			G1/100
BL	(0°-30°)	41.5	1.4	B0/110		
BM	(30°-60°)	66.7	2.3	B0/220		
BH	(60°-80°)	34.6	1.2	B0/110		G0/110
BVH	(80°-90°)	0.1	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°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6
2.5°	439.2	434.8	430.5	425.5	414.4	395.2	371.1	345.1	313.0	307.4	281.4
5°	533.2	531.3	527.0	520.2	507.8	486.8	459.6	421.2	367.4	358.1	303.1
7.5°	599.4	598.1	594.4	586.4	575.2	554.2	525.8	484.3	421.8	411.3	330.3
10°	658.7	658.1	655.0	647.6	636.5	613.6	583.3	540.0	473.8	462.0	361.8
12.5°	712.5	713.2	711.9	708.2	700.2	678.5	643.9	596.9	523.9	510.9	399.6
15°	744.1	745.9	750.9	758.3	760.8	743.5	707.6	655.6	575.2	564.1	442.9
17.5°	733.6	735.4	750.9	776.3	800.4	802.9	770.7	711.3	626.0	614.8	485.5
20°	708.2	710.7	726.8	761.4	808.4	841.2	828.2	771.9	674.2	660.6	526.4
22.5°	736.7	736.7	741.6	762.6	805.3	856.7	874.0	832.5	723.7	707.0	567.2
25°	834.4	832.5	822.0	813.4	827.0	872.7	908.6	894.4	781.8	762.6	610.5
27.5°	958.1	966.8	947.0	915.4	884.5	904.3	939.5	955.6	846.2	826.4	655.0
30°	1096.7	1100.4	1076.9	1034.8	980.4	961.2	976.0	1008.2	916.0	894.4	701.4
32.5°	1221.6	1218.5	1198.7	1154.8	1087.4	1045.9	1023.1	1050.3	992.1	967.4	749.0
35°	1332.3	1334.8	1310.7	1259.9	1193.8	1149.9	1095.4	1097.9	1077.5	1049.0	804.1
37.5°	1431.9	1427.6	1404.7	1354.0	1294.0	1246.3	1188.8	1147.4	1170.9	1141.2	865.9
40°	1512.9	1508.6	1484.5	1435.0	1378.7	1339.7	1294.6	1213.6	1269.2	1235.2	932.1
42.5°	1577.3	1572.3	1551.9	1504.3	1449.8	1415.2	1393.6	1295.2	1374.4	1340.4	1006.4
45°	1608.8	1604.5	1592.1	1556.2	1508.6	1478.3	1488.8	1389.2	1487.0	1458.5	1088.0
47.5°	1571.7	1569.8	1584.1	1577.9	1550.7	1534.6	1571.1	1491.9	1605.1	1577.3	1182.0
50°	1459.1	1462.2	1503.7	1555.0	1568.0	1587.2	1638.5	1600.1	1731.9	1702.2	1290.3
52.5°	1181.4	1202.4	1327.4	1451.1	1546.9	1619.3	1717.7	1754.8	1938.5	1909.4	1459.1
55°	882.0	890.7	1026.8	1238.3	1462.2	1616.8	1776.4	1845.7	2040.5	2010.8	1503.7
57.5°	699.6	702.7	770.1	985.9	1287.8	1561.2	1807.3	1878.5	2085.1	2060.3	1569.8
60°	549.3	553.0	601.8	750.3	1042.2	1410.9	1762.8	1906.9	2172.3	2152.5	1685.5
62.5°	427.4	431.1	460.8	548.0	781.8	1179.5	1673.1	1952.7	2338.0	2328.8	1874.8
65°	330.9	332.2	352.6	393.4	552.3	929.0	1563.6	1995.4	2562.0	2553.9	2028.2
67.5°	244.3	246.2	260.4	285.8	373.0	667.4	1384.3	1962.6	2730.8	2707.3	2083.8
69°	197.3	199.2	211.5	231.9	294.4	525.8	1220.4	1881.6	2756.2	2733.9	2048.6
70°	168.9	170.1	182.5	199.8	251.1	446.6	1090.5	1811.7	2722.8	2701.1	1968.2
72.5°	108.2	114.4	126.8	137.9	166.4	295.7	736.1	1502.4	2349.2	2312.1	1541.4
75°	60.0	61.9	84.1	97.7	110.7	192.4	409.5	937.1	1494.4	1468.4	824.5
77.5°	49.5	50.7	59.4	74.2	74.2	107.6	154.6	369.3	568.4	512.8	223.3
80°	34.6	35.9	45.2	48.9	53.2	60.6	50.1	81.0	87.8	77.9	33.4
82.5°	24.1	25.4	30.9	40.2	42.7	28.5	18.6	24.1	25.4	25.4	13.0
85°	4.3	6.2	22.9	33.4	25.4	8.7	10.5	8.7	8.0	8.7	3.1
87.5°	0.0	0.0	14.2	16.1	13.6	3.7	4.3	3.1	1.9	2.5	1.2
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°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6
2.5°	268.4	255.5	233.2	217.1	203.5	193.0	188.7	181.8	176.9	179.4	176.3
5°	275.9	253.0	217.1	194.2	178.1	164.5	153.4	144.7	137.9	136.7	135.5
7.5°	287.6	254.8	207.8	179.4	155.3	134.2	116.9	103.9	94.0	94.0	90.3
10°	303.7	259.8	202.3	164.5	128.7	100.2	82.9	70.5	65.6	64.9	63.7
12.5°	326.0	269.1	197.9	145.4	100.2	73.0	62.5	58.1	56.3	55.7	55.0
15°	356.3	282.7	193.0	121.9	76.1	60.0	55.7	52.0	50.1	49.5	48.9
17.5°	385.3	295.0	182.5	97.7	61.9	54.4	49.5	46.4	43.9	43.3	43.3
20°	412.6	305.6	164.5	76.1	55.7	48.9	43.9	40.2	37.7	37.1	37.1
22.5°	441.0	314.2	142.3	61.9	50.7	43.3	38.3	34.6	32.2	31.5	30.9
25°	471.3	320.4	116.9	55.0	45.8	38.3	32.8	29.7	27.8	27.2	26.6
27.5°	504.1	322.9	92.8	50.1	40.2	33.4	28.5	25.4	24.1	23.5	23.5
30°	533.8	320.4	71.7	44.5	35.3	29.1	24.7	22.3	21.0	20.4	20.4
32.5°	564.7	314.2	57.5	39.6	30.9	24.7	21.0	19.2	18.6	17.9	17.9
35°	597.5	306.2	49.5	35.3	26.6	21.6	18.6	17.3	16.7	16.1	16.1
37.5°	635.9	296.3	45.2	31.5	23.5	19.2	16.1	15.5	14.8	14.8	14.8
40°	679.1	283.9	42.1	28.5	21.0	16.7	14.2	13.6	13.0	13.0	13.0
42.5°	724.9	269.7	39.0	25.4	18.6	14.2	12.4	12.4	11.8	11.8	11.1
45°	776.3	255.5	35.9	22.3	16.1	12.4	10.5	9.9	9.9	9.3	9.3
47.5°	836.9	242.5	32.8	19.8	14.2	10.5	9.3	8.7	8.0	7.4	7.4
50°	922.2	241.2	29.1	17.3	13.0	8.7	7.4	6.8	6.2	5.6	5.6
52.5°	1007.0	230.1	24.7	14.2	10.5	7.4	5.6	4.9	4.3	4.3	3.7
55°	1026.1	211.5	21.6	12.4	8.0	5.6	4.3	3.1	3.1	2.5	2.5
57.5°	1068.2	202.9	18.6	9.9	6.2	4.3	2.5	1.9	1.9	1.9	1.9
60°	1151.1	200.4	16.1	8.7	4.3	3.1	1.9	1.2	1.2	0.6	0.6
62.5°	1265.5	197.9	13.6	7.4	3.1	1.9	1.2	0.6	0.0	0.0	0.0
65°	1328.6	181.2	11.1	5.6	2.5	1.9	0.6	0.0	0.0	0.0	0.0
67.5°	1311.9	149.7	9.9	3.7	1.9	1.2	0.6	0.0	0.0	0.0	0.0
69°	1242.0	126.2	8.0	3.1	1.9	1.2	0.6	0.0	0.0	0.0	0.0
70°	1157.9	108.9	7.4	2.5	1.2	0.6	0.6	0.0	0.0	0.0	0.0
72.5°	822.0	56.9	4.9	1.9	1.2	0.6	0.0	0.0	0.0	0.0	0.0
75°	384.1	25.4	3.1	1.2	0.6	0.6	0.0	0.0	0.0	0.0	0.0
77.5°	84.7	11.8	1.9	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	16.1	4.3	1.2	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.6	1.9	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	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)