

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: P265883

Luminaire Tested: **ARCH-AF16-30-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265883  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-30-D-U-T3-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 560mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2358.5 lumens  
Efficiency: N/A  
Efficacy: 73.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 32  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

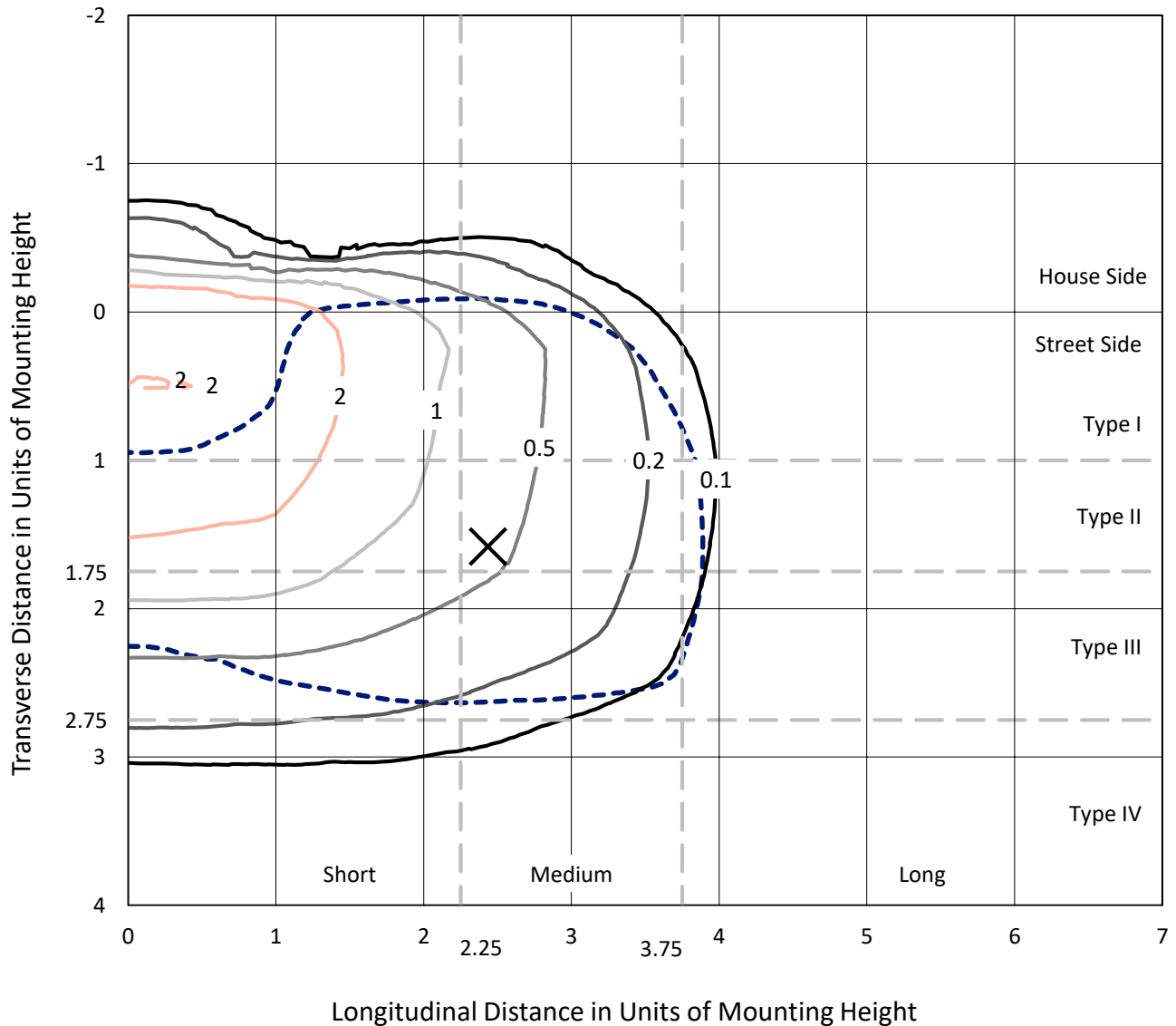


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

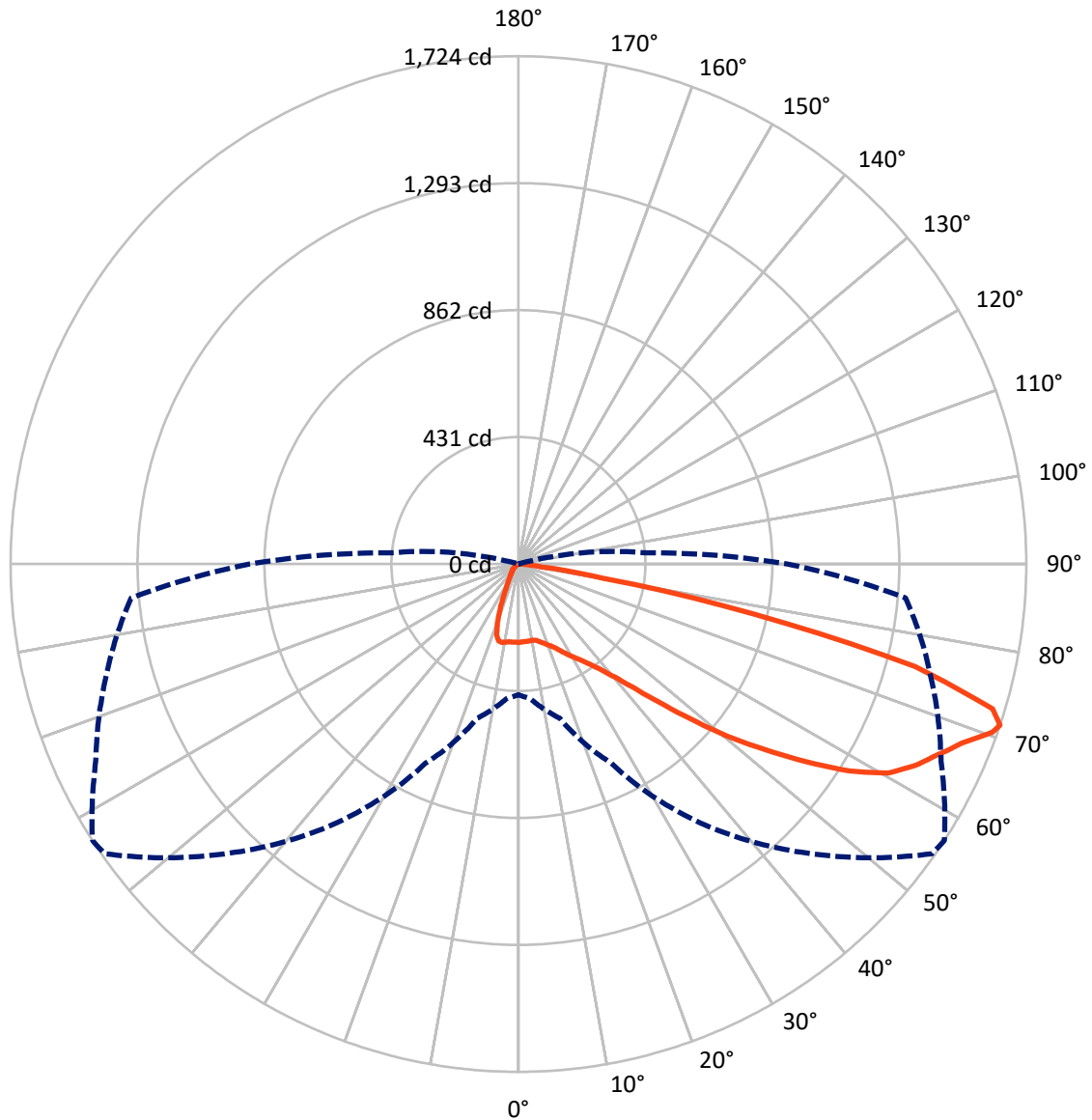


Based on 10 foot mounting height. Maximum calculated value = 3.3 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical



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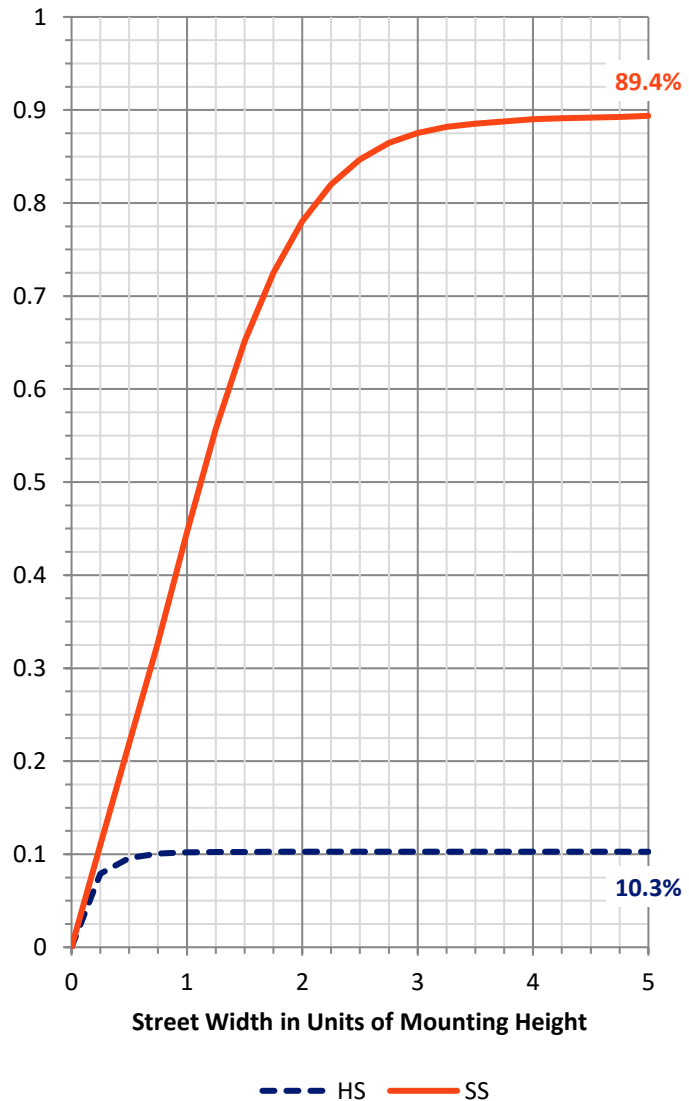
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	244.4	0.0	244.4
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	2114.1	0.0	2114.1
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	2358.5	0.0	2358.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.0	1.1
10°-20°	66.9	2.8
20°-30°	104.4	4.4
30°-40°	176.5	7.5
40°-50°	342.8	14.5
50°-60°	575.6	24.4
60°-70°	686.9	29.1
70°-80°	362.0	15.3
80°-90°	18.4	0.8
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°	2358.5	100.0
0°-180°	2358.5	100.0

**Coefficient of Utilization**



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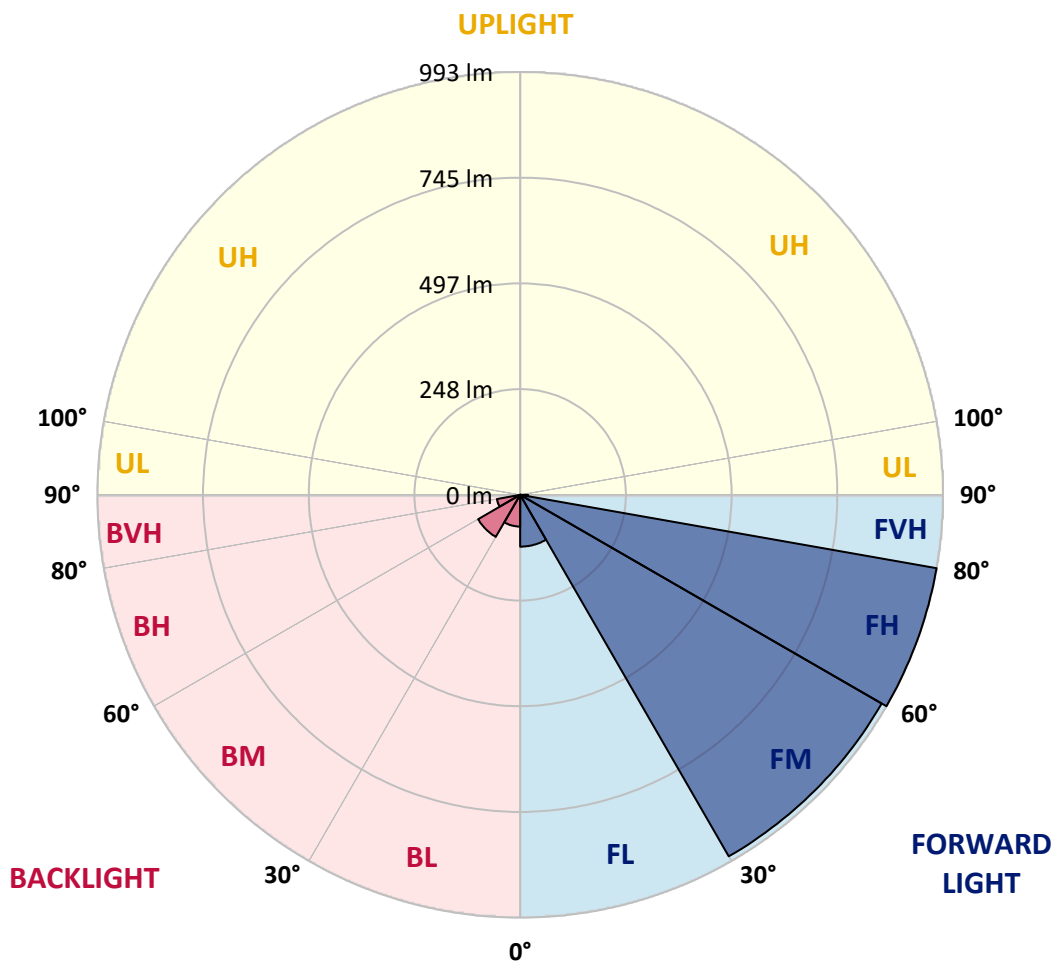
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	121.8	5.2			
FM	(30°-60°)	980.7	41.6			
FH	(60°-80°)	993.4	42.1			G1/1800
FVH	(80°-90°)	18.2	0.8			G1/100
BL	(0°-30°)	74.6	3.2	B0/110		
BM	(30°-60°)	114.1	4.8	B0/220		
BH	(60°-80°)	55.5	2.4	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5
2.5°	262.8	262.8	262.8	263.3	263.8	263.8	264.9	264.3	264.3	264.3	265.4
5°	255.6	256.0	256.6	257.8	260.0	261.5	264.3	264.3	264.9	266.0	266.5
7.5°	245.6	246.2	247.8	250.1	254.5	258.4	262.8	263.8	265.4	268.2	269.3
10°	239.6	240.7	242.9	245.6	250.5	255.6	261.0	262.8	267.6	272.5	275.3
12.5°	238.1	238.5	240.7	245.1	251.2	257.3	264.3	266.0	273.2	280.8	285.2
15°	240.7	241.3	242.4	247.4	254.5	262.1	271.5	273.8	282.4	291.3	296.8
17.5°	245.6	245.6	246.8	251.2	258.8	267.6	279.7	283.1	292.9	302.8	308.8
20°	249.0	249.0	250.5	254.9	263.8	275.3	289.7	294.0	305.1	316.1	321.6
22.5°	252.2	252.9	254.5	259.4	269.3	285.2	301.7	306.1	318.8	330.2	335.7
25°	261.5	261.0	261.5	266.0	277.5	297.2	318.2	323.7	336.9	349.5	352.2
27.5°	287.5	286.3	279.3	276.5	285.2	309.9	339.1	344.6	360.0	372.5	372.5
30°	346.7	344.6	327.1	304.4	297.2	321.6	358.9	366.6	386.4	397.3	394.0
32.5°	422.1	417.2	394.5	356.1	327.5	336.9	379.8	388.5	413.8	423.2	416.1
35°	504.5	503.9	475.9	426.4	385.8	368.8	406.8	417.2	449.1	457.2	445.6
37.5°	592.0	594.0	575.5	507.3	459.5	420.9	442.4	454.5	493.4	503.4	492.5
40°	689.2	688.6	681.5	600.6	548.0	495.1	494.1	505.0	552.3	567.6	552.3
42.5°	812.2	811.2	785.4	712.9	655.1	592.0	569.3	573.2	625.9	651.2	628.8
45°	937.7	929.8	900.2	837.6	786.5	711.6	668.9	668.9	714.0	748.6	713.3
47.5°	1007.4	999.6	987.5	953.0	937.7	854.1	790.9	783.1	818.4	853.5	804.1
50°	1099.2	1099.2	1069.0	1055.8	1082.1	1023.3	925.6	917.8	934.9	962.9	898.0
52.5°	1171.7	1158.5	1137.1	1148.7	1223.9	1197.0	1060.1	1045.3	1058.6	1065.6	980.0
55°	1201.9	1189.3	1187.6	1230.0	1346.5	1309.1	1198.1	1185.0	1183.7	1148.7	1051.3
57.5°	1208.0	1197.0	1217.8	1292.0	1465.8	1400.8	1335.5	1325.5	1294.7	1206.9	1124.5
60°	1156.8	1162.3	1212.9	1326.2	1536.1	1480.5	1451.4	1441.1	1370.2	1256.3	1205.7
62.5°	1051.8	1065.1	1159.6	1329.4	1510.2	1512.9	1515.7	1508.7	1428.3	1301.5	1287.7
65°	927.7	931.5	1045.3	1283.8	1465.1	1503.1	1563.1	1562.4	1473.0	1351.9	1379.9
67.5°	764.5	771.0	869.4	1130.0	1375.0	1498.7	1625.2	1623.4	1523.4	1409.7	1435.0
70°	568.7	577.0	656.8	878.8	1173.9	1443.8	1706.4	1707.6	1576.7	1453.6	1397.0
71°	443.6	458.3	541.9	746.3	1071.0	1388.2	1714.1	1724.0	1582.9	1447.6	1319.0
72.5°	217.6	235.3	340.2	525.4	881.5	1264.0	1663.7	1682.9	1544.8	1372.3	1127.7
75°	56.7	59.8	101.7	214.9	472.7	837.6	1341.4	1390.4	1262.9	1044.8	689.2
77.5°	35.8	36.8	47.8	83.5	177.0	318.2	788.2	812.2	721.6	529.2	242.9
80°	25.3	25.8	30.3	53.9	103.3	92.9	283.5	294.0	261.0	140.1	43.4
82.5°	15.5	15.5	22.0	34.7	63.8	50.6	74.7	79.7	70.3	39.0	14.4
85°	8.9	9.3	13.7	23.6	30.3	24.8	28.0	29.6	30.3	25.8	6.1
87.5°	7.1	7.6	12.0	19.9	16.4	12.0	12.0	12.7	13.1	15.5	2.8
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°	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5
2.5°	265.4	265.4	266.0	265.4	265.4	265.4	266.0	266.0	266.0	267.1	267.6
5°	266.5	266.5	266.5	266.0	265.4	265.4	266.5	267.1	267.1	268.8	268.8
7.5°	269.3	269.3	268.2	267.1	266.0	264.3	264.9	265.4	264.9	265.4	265.4
10°	275.3	275.3	273.8	271.5	268.2	263.3	256.6	248.4	240.7	238.1	236.9
12.5°	285.2	284.8	281.3	277.5	270.4	253.3	228.6	199.6	175.3	168.7	166.5
15°	296.3	295.2	291.3	284.8	265.4	220.4	168.7	131.3	108.2	102.8	101.7
17.5°	307.8	306.1	300.7	287.5	242.9	163.9	108.9	82.5	69.8	68.7	69.3
20°	319.8	317.7	309.9	282.0	196.2	109.4	70.3	63.8	62.6	62.6	63.2
22.5°	333.6	330.8	320.4	262.1	142.9	72.6	60.5	59.8	59.4	58.7	58.7
25°	349.5	346.2	330.2	226.5	98.4	59.4	57.8	56.1	54.9	53.9	53.3
27.5°	368.8	364.4	338.0	182.4	67.6	55.5	54.3	51.7	49.4	47.3	47.3
30°	388.0	382.5	335.7	137.4	54.9	51.7	49.4	46.2	42.8	40.7	40.2
32.5°	408.3	402.8	321.6	92.3	50.0	47.3	44.6	39.5	35.8	33.0	32.3
35°	438.6	434.2	293.4	61.1	45.0	41.9	37.9	33.0	28.0	25.3	24.8
37.5°	483.6	478.2	258.8	46.7	39.5	34.7	31.4	25.8	20.9	18.1	17.5
40°	544.1	527.7	217.6	41.2	34.7	28.6	24.2	18.7	14.8	13.1	13.1
42.5°	614.4	575.5	173.2	37.4	30.8	23.6	17.5	12.7	10.4	9.9	9.9
45°	689.2	619.9	128.5	34.7	26.9	18.7	12.7	8.9	7.6	7.1	7.1
47.5°	766.2	656.2	89.7	31.4	22.5	14.4	8.9	6.6	5.5	4.9	4.9
50°	838.1	679.8	63.2	28.0	19.3	10.4	6.6	4.9	3.9	3.9	3.9
52.5°	888.2	677.6	45.6	24.2	14.8	7.1	4.4	3.4	3.4	3.4	3.4
55°	932.1	669.3	35.8	20.9	11.6	4.9	3.4	2.8	2.8	2.2	2.2
57.5°	969.5	656.2	30.3	17.1	8.3	3.9	2.2	2.2	1.6	1.6	1.6
60°	1001.3	639.8	25.3	14.4	5.5	2.8	1.6	1.1	1.1	0.5	1.1
62.5°	1044.8	629.3	22.0	11.0	3.9	1.6	1.1	0.5	0.5	0.0	0.0
65°	1076.6	609.5	18.7	7.6	2.2	1.1	0.5	0.5	0.0	0.0	0.0
67.5°	1077.7	573.7	13.7	4.4	1.6	1.1	0.5	0.0	0.0	0.0	0.0
70°	990.9	489.1	8.9	2.2	1.1	0.5	0.5	0.0	0.0	0.0	0.0
71°	911.2	433.1	7.1	1.6	1.1	0.5	0.0	0.0	0.0	0.0	0.0
72.5°	750.8	318.2	5.5	1.6	0.5	0.5	0.0	0.0	0.0	0.0	0.0
75°	413.8	115.4	2.8	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	132.4	35.2	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	22.5	5.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.6	2.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	0.5	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)