

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: P214946

Luminaire Tested: **ARCH-AF16-20-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214946  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-20-D-U-T4W-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2107 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 IV - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 24  
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

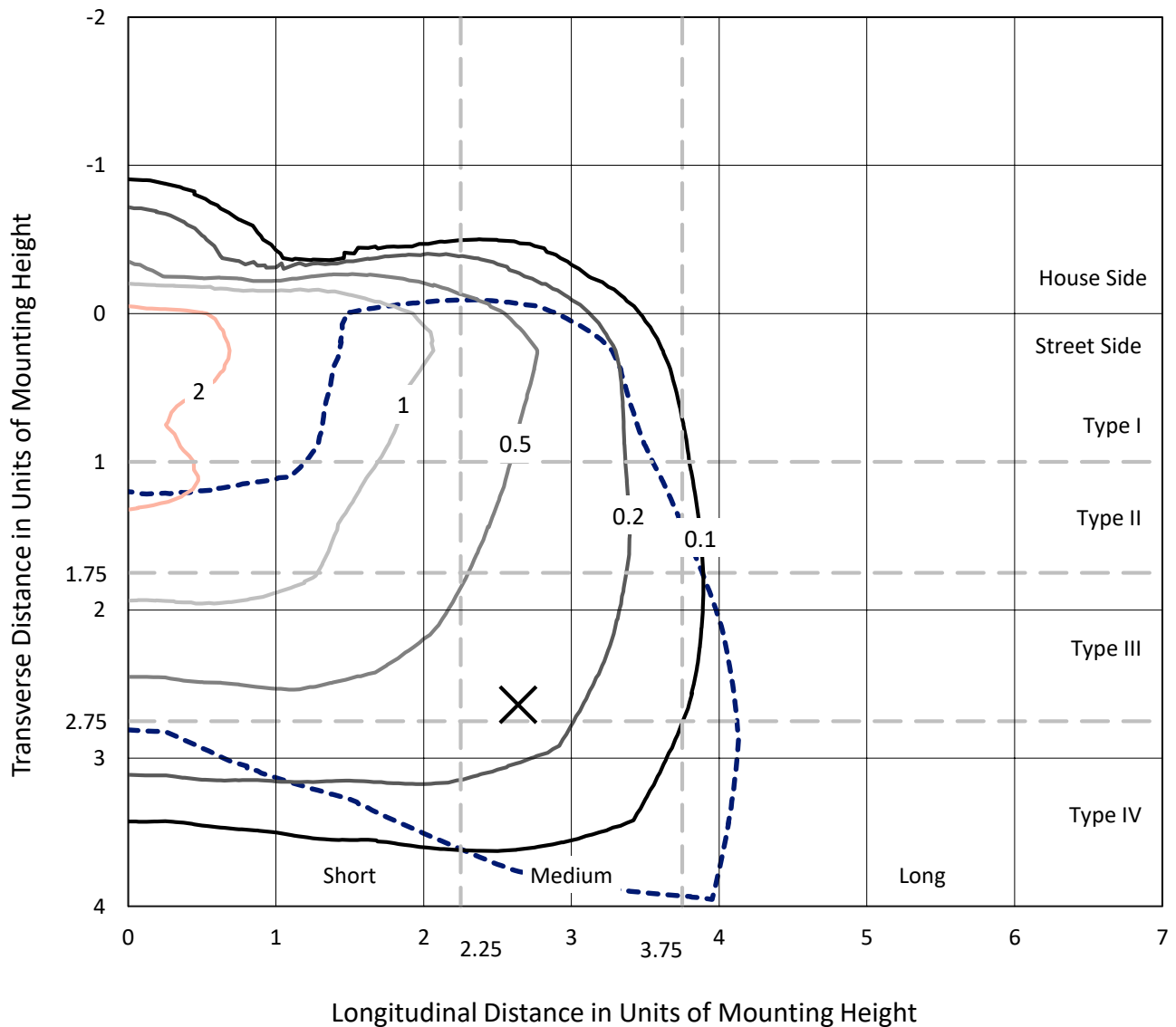


REPORT NUMBER: P214946

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7050-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

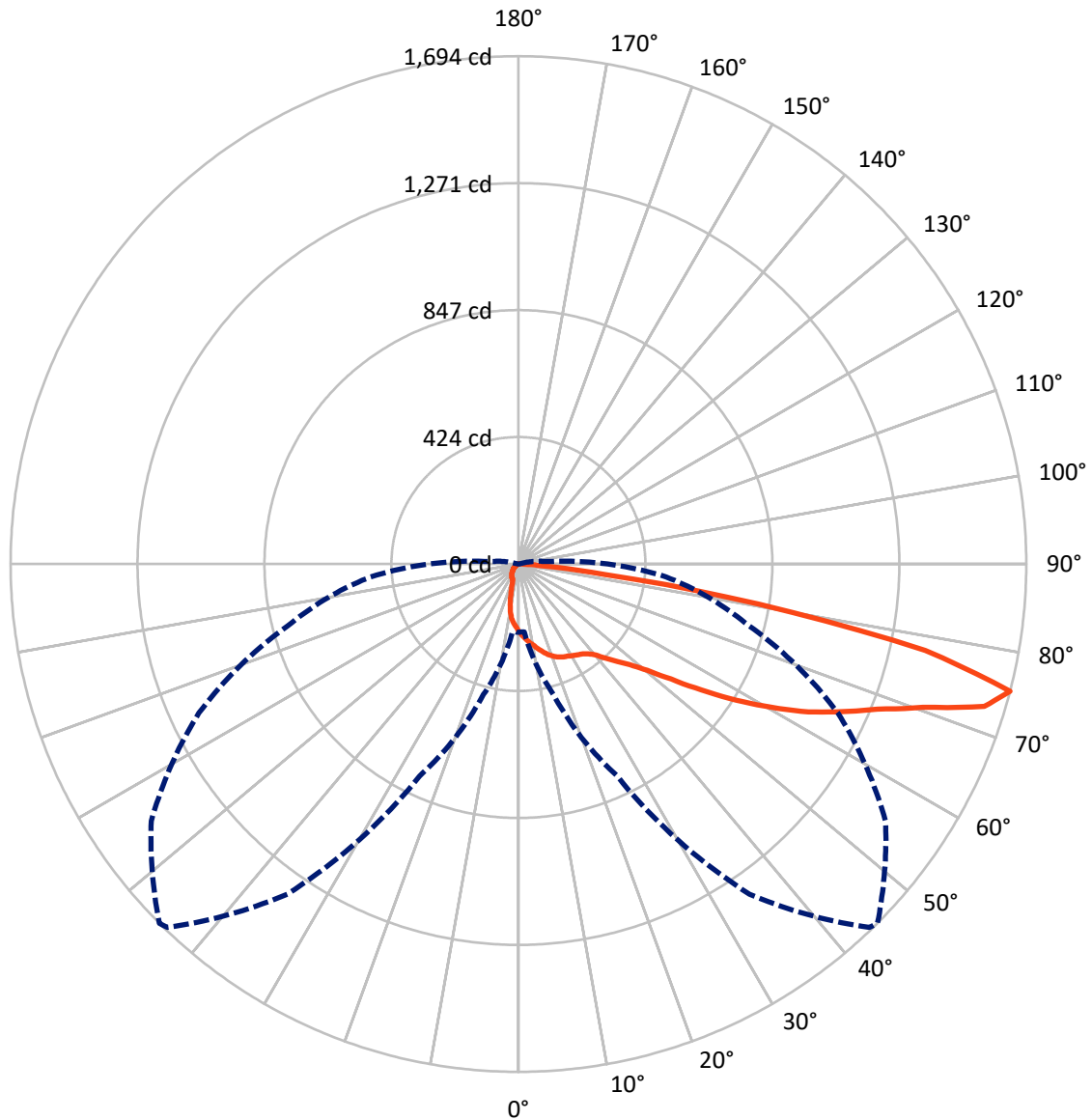


Based on 10 foot mounting height. Maximum calculated value = 3 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P214946

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7050-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical



REPORT NUMBER: P214946

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7050-HSS

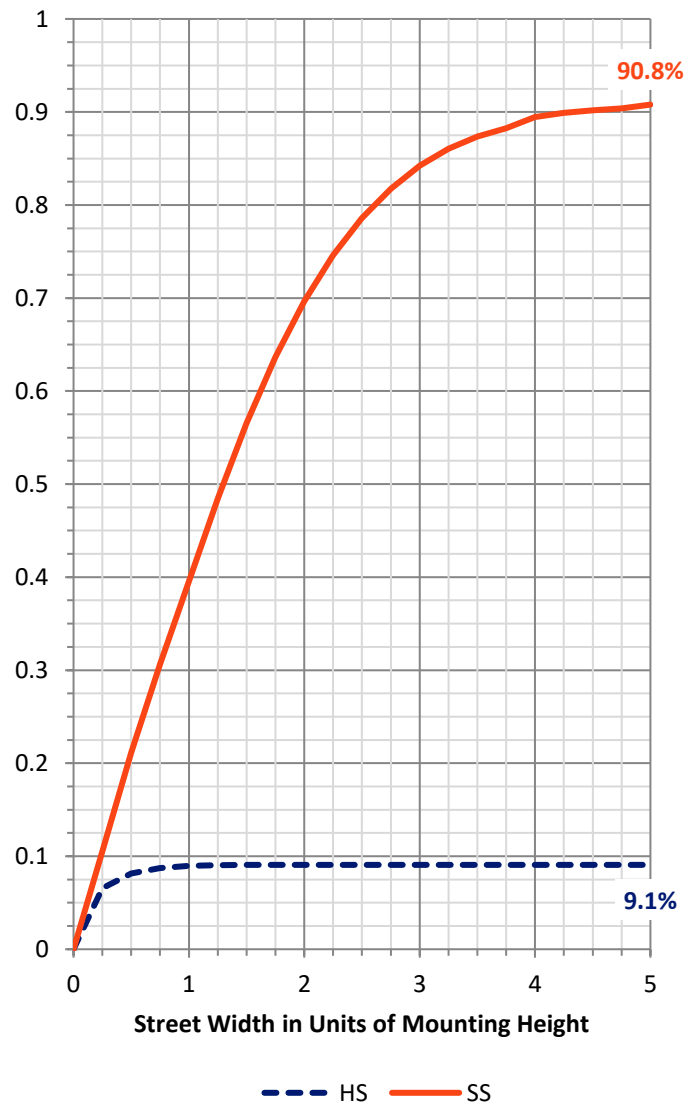
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	192.7	0.0	192.7
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	1914.3	0.0	1914.3
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	2107.0	0.0	2107.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.3	1.0
10°-20°	60.3	2.9
20°-30°	99.8	4.7
30°-40°	144.4	6.9
40°-50°	236.5	11.2
50°-60°	421.4	20.0
60°-70°	619.5	29.4
70°-80°	467.3	22.2
80°-90°	36.7	1.7
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°	2107.0	100.0
0°-180°	2107.0	100.0



REPORT NUMBER: P214946

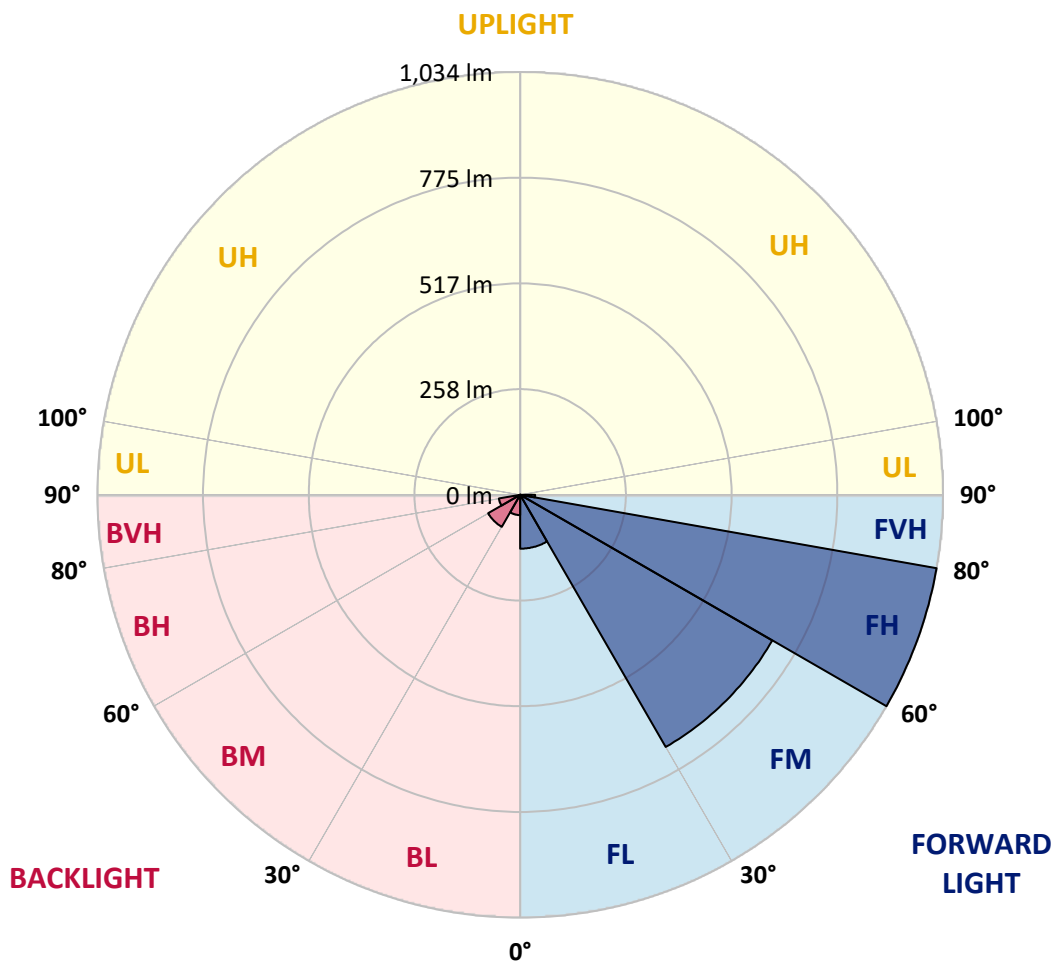
CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7050-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	131.8	6.3			
FM	(30°-60°)	711.9	33.8			
FH	(60°-80°)	1034.0	49.1			G1/1800
FVH	(80°-90°)	36.6	1.7			G1/100
BL	(0°-30°)	49.5	2.4	B0/110		
BM	(30°-60°)	90.3	4.3	B0/220		
BH	(60°-80°)	52.8	2.5	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 IV Medium





REPORT NUMBER: P214946

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7050-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4
2.5°	244.8	244.8	244.3	243.8	241.3	238.8	238.3	236.8	232.3	229.3	226.4
5°	265.2	265.7	264.7	262.2	256.8	251.3	250.8	246.8	238.3	232.3	225.9
7.5°	284.7	285.7	283.2	278.7	272.2	264.2	263.7	256.3	245.3	236.8	227.3
10°	301.1	301.1	297.6	292.2	285.2	276.7	275.7	267.2	254.8	244.3	231.8
12.5°	319.1	318.6	313.6	306.1	298.1	290.2	289.7	279.2	267.2	253.8	238.3
15°	335.5	334.5	328.1	321.1	312.6	304.1	303.6	293.2	280.7	264.7	247.8
17.5°	344.5	344.0	338.0	331.1	324.1	317.6	317.1	306.1	292.7	276.2	257.3
20°	346.0	346.5	341.5	335.5	331.6	328.1	328.1	318.1	303.6	286.2	267.2
22.5°	346.5	348.0	344.5	336.5	335.5	336.0	337.0	329.1	314.1	297.6	277.7
25°	350.0	352.0	349.5	340.0	339.0	342.5	343.5	340.0	326.6	310.1	289.7
27.5°	357.0	359.0	357.0	345.0	343.5	347.0	348.0	350.0	340.0	322.1	302.1
30°	370.9	371.4	366.9	352.0	349.0	353.5	355.0	360.5	352.5	333.5	314.1
32.5°	395.4	390.4	376.9	357.0	354.5	359.5	361.0	366.9	364.0	344.5	326.6
35°	445.2	419.3	388.4	364.0	361.5	366.5	368.4	376.9	378.4	360.0	342.0
37.5°	444.7	421.3	415.3	377.4	373.9	377.4	379.9	390.4	396.4	380.4	364.5
40°	476.1	466.2	466.2	402.8	391.4	396.4	398.9	409.3	419.8	407.3	390.9
42.5°	574.9	568.4	561.4	451.7	415.8	429.8	431.3	437.7	450.2	446.2	426.8
45°	685.0	679.1	652.1	534.5	457.7	460.2	463.7	474.1	492.1	499.6	476.6
47.5°	771.3	765.3	742.4	634.2	523.0	501.1	501.1	521.5	549.4	568.4	546.4
50°	840.6	833.6	819.7	740.4	630.2	559.9	556.9	580.8	622.2	651.6	636.7
52.5°	907.9	887.5	879.0	850.1	751.3	645.2	637.2	654.1	711.5	747.9	735.4
55°	952.8	949.8	940.8	950.8	878.5	748.9	741.9	745.4	817.2	841.6	826.1
57.5°	994.7	994.2	1014.1	1060.5	1017.1	867.5	856.5	851.1	919.4	913.4	926.8
60°	1046.5	1037.5	1083.9	1150.2	1144.2	983.2	970.7	959.8	997.6	980.7	1047.5
62.5°	1049.0	1046.5	1140.7	1236.0	1270.4	1100.8	1086.4	1047.0	1065.9	1046.5	1162.7
65°	953.8	966.2	1164.7	1281.3	1376.1	1204.1	1186.6	1125.3	1126.8	1113.8	1298.3
67.5°	932.3	938.8	1098.9	1330.2	1452.3	1308.3	1291.8	1215.5	1197.6	1198.6	1378.6
70°	879.0	889.0	1017.1	1326.7	1512.7	1447.4	1430.9	1348.1	1304.8	1256.4	1316.7
72.5°	671.6	688.5	857.0	1163.2	1496.2	1629.3	1624.8	1516.2	1347.6	1153.7	996.1
75°	227.3	226.9	450.2	781.3	1344.2	1685.2	1694.2	1495.2	1175.6	795.7	494.6
77.5°	48.9	49.4	92.7	316.6	892.9	1353.1	1387.5	1127.8	758.3	354.5	113.2
80°	23.9	24.4	38.4	83.8	357.0	758.8	812.7	579.8	280.2	70.8	18.9
82.5°	12.0	12.5	19.9	44.4	132.1	269.7	288.2	213.4	80.3	39.9	9.5
85°	4.5	4.5	10.0	26.4	60.3	63.3	77.8	61.8	48.4	32.4	2.5
87.5°	1.0	1.0	5.5	13.0	26.9	19.9	19.9	18.9	29.4	21.9	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P214946

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7050-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4
2.5°	224.9	222.9	219.4	215.9	213.4	210.4	208.9	207.4	206.9	206.4	207.4
5°	222.4	219.4	212.9	207.4	202.4	198.4	195.4	192.4	191.0	190.0	190.5
7.5°	222.4	217.9	208.4	199.9	192.0	183.5	175.0	168.5	163.5	160.5	161.0
10°	224.9	218.9	206.4	194.9	180.0	162.0	143.6	129.6	120.2	114.7	114.7
12.5°	230.3	222.4	206.9	189.0	163.5	132.1	104.2	87.3	80.3	76.3	76.8
15°	237.8	228.3	209.4	181.0	140.6	98.2	72.8	61.8	61.8	62.8	63.3
17.5°	246.3	235.8	211.4	169.0	111.2	70.3	57.3	56.3	57.8	60.3	60.3
20°	254.8	243.3	212.4	150.1	83.3	55.8	54.3	54.3	55.3	57.8	58.3
22.5°	265.2	252.8	211.4	126.6	62.3	52.8	52.4	52.4	52.4	55.3	55.3
25°	276.2	263.7	207.4	101.7	52.8	50.9	50.4	49.9	49.9	52.4	52.8
27.5°	288.7	275.2	197.9	77.8	49.9	48.9	48.4	47.4	47.4	49.4	49.4
30°	301.1	288.2	183.5	58.8	47.4	46.9	45.9	44.9	43.9	45.9	45.9
32.5°	314.6	301.6	164.5	46.9	43.9	43.9	43.4	41.9	40.9	41.9	42.4
35°	332.5	317.1	143.1	40.9	39.4	39.4	39.4	38.9	36.9	37.9	37.9
37.5°	356.5	338.5	118.2	37.9	35.9	34.9	34.9	34.9	33.4	33.9	33.9
40°	386.9	363.5	94.2	35.4	33.4	30.9	29.9	30.4	29.4	29.4	28.9
42.5°	428.3	390.4	70.8	33.4	31.4	27.9	25.9	25.4	24.4	23.9	23.9
45°	487.6	423.3	50.9	31.4	29.9	24.4	22.4	20.9	18.4	17.0	17.0
47.5°	564.4	460.7	37.9	29.4	28.4	21.4	18.9	16.0	12.5	11.5	11.5
50°	658.1	502.6	31.9	26.4	25.9	18.9	15.0	10.5	7.0	6.0	6.5
52.5°	749.4	541.9	28.4	23.4	22.9	16.5	11.0	5.5	3.0	3.0	3.0
55°	826.1	569.9	25.9	20.9	19.9	13.0	6.0	2.5	1.5	1.5	1.5
57.5°	895.4	585.8	23.4	18.4	16.0	9.0	2.5	1.0	1.0	0.5	0.5
60°	958.8	595.3	20.4	16.0	12.5	5.0	1.0	0.5	0.5	0.0	0.0
62.5°	1021.1	602.3	17.5	13.0	9.5	2.0	0.5	0.5	0.0	0.0	0.0
65°	1068.4	599.8	14.0	10.5	6.0	1.0	0.5	0.0	0.0	0.0	0.0
67.5°	1066.9	565.9	10.5	8.0	3.0	0.5	0.0	0.0	0.0	0.0	0.0
70°	954.3	476.6	7.0	5.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0
72.5°	677.1	305.6	4.5	3.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	298.1	92.7	2.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	58.3	21.4	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	14.0	2.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	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)