

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: P234737

Luminaire Tested: **ARCH-AF24-100-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234737
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-AF24-100-D-U-T3-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5528 lumens
Efficiency: N/A
Efficacy: 57.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 96
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

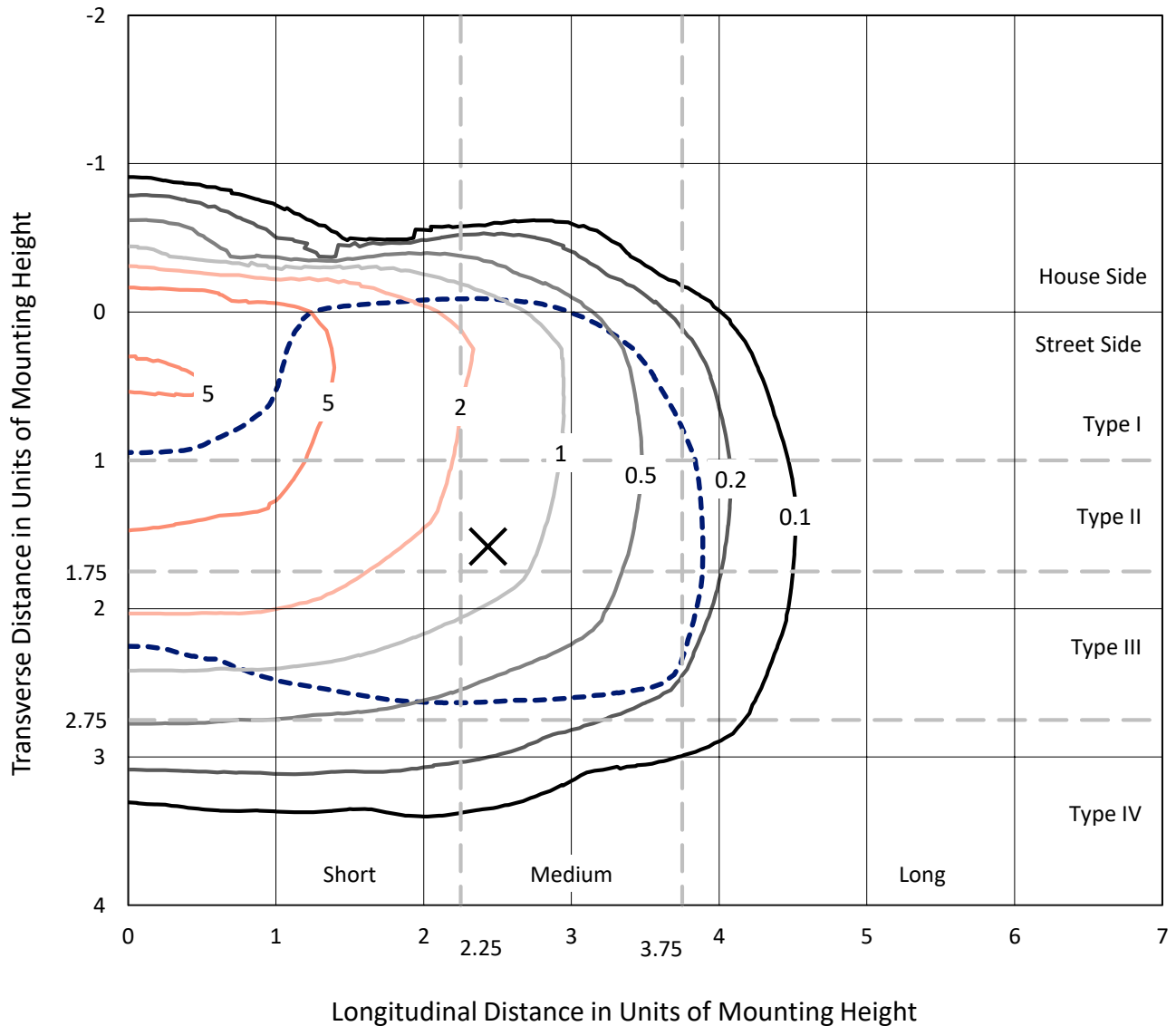


REPORT NUMBER: P234737

CATALOG NUMBER: ARCH-AF24-100-D-U-T3-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

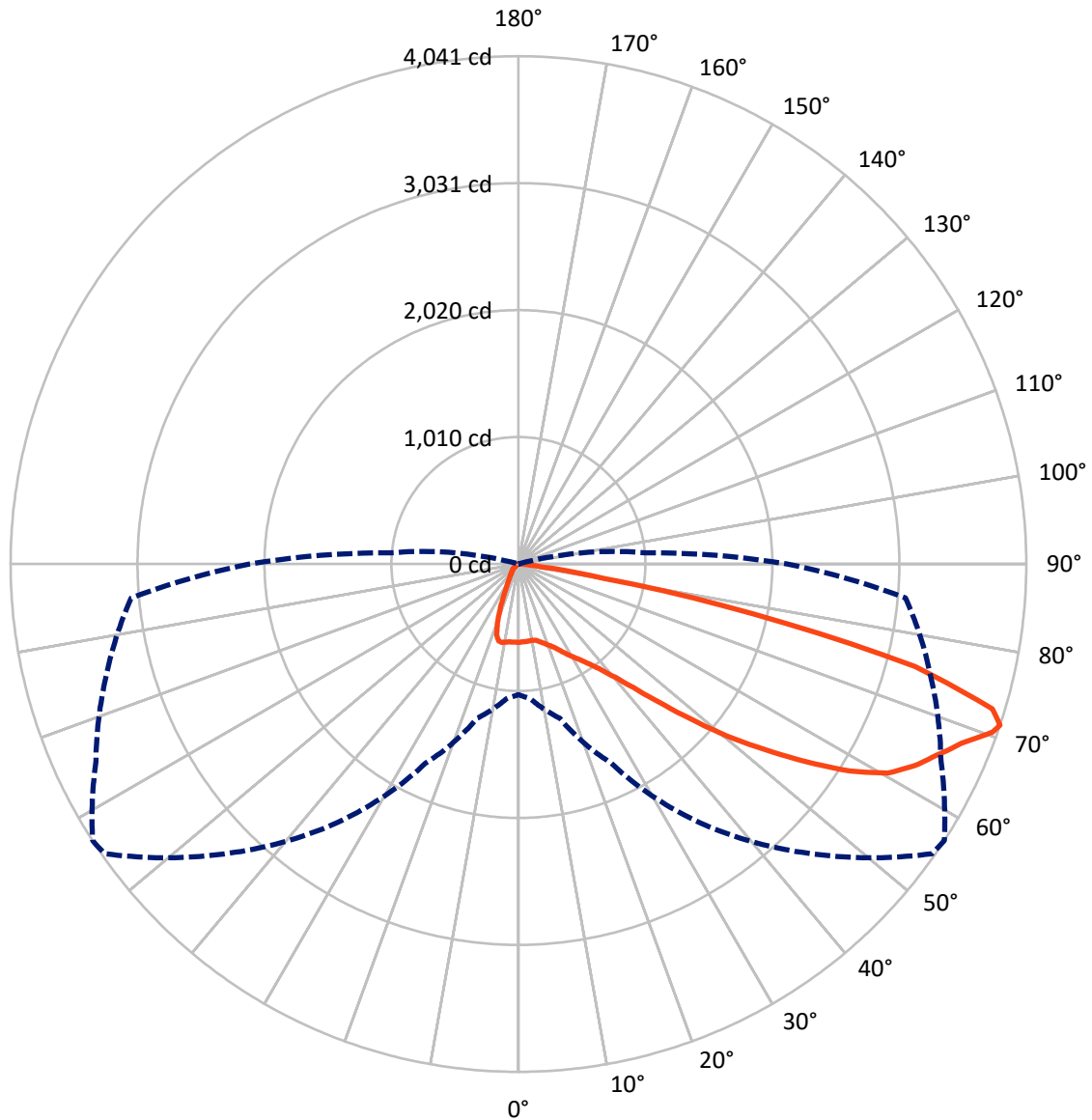


Based on 10 foot mounting height. Maximum calculated value = 7.8 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P234737

CATALOG NUMBER: ARCH-AF24-100-D-U-T3-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234737

CATALOG NUMBER: ARCH-AF24-100-D-U-T3-8027-HSS

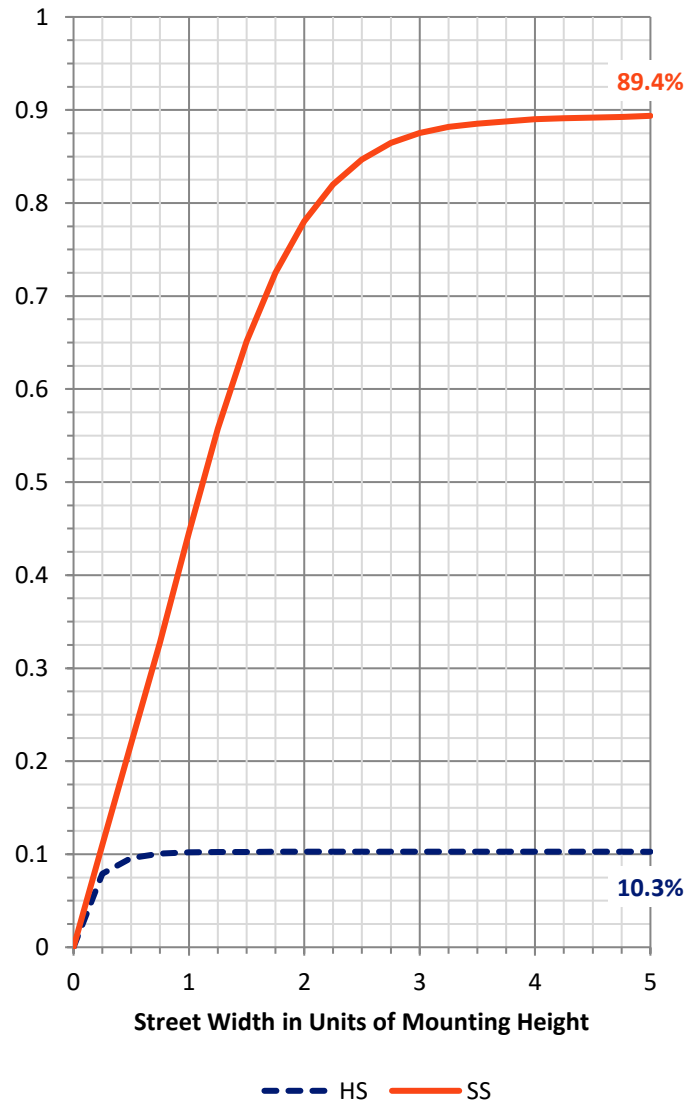
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	572.9	0.0	572.9
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	4955.1	0.0	4955.1
	% Fixture	89.6	0.0	89.6
Total	Lumens	5528.0	0.0	5528.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	1.1
10°-20°	156.9	2.8
20°-30°	244.7	4.4
30°-40°	413.6	7.5
40°-50°	803.4	14.5
50°-60°	1349.1	24.4
60°-70°	1610.0	29.1
70°-80°	848.5	15.3
80°-90°	43.1	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°	5528.0	100.0
0°-180°	5528.0	100.0



REPORT NUMBER: P234737

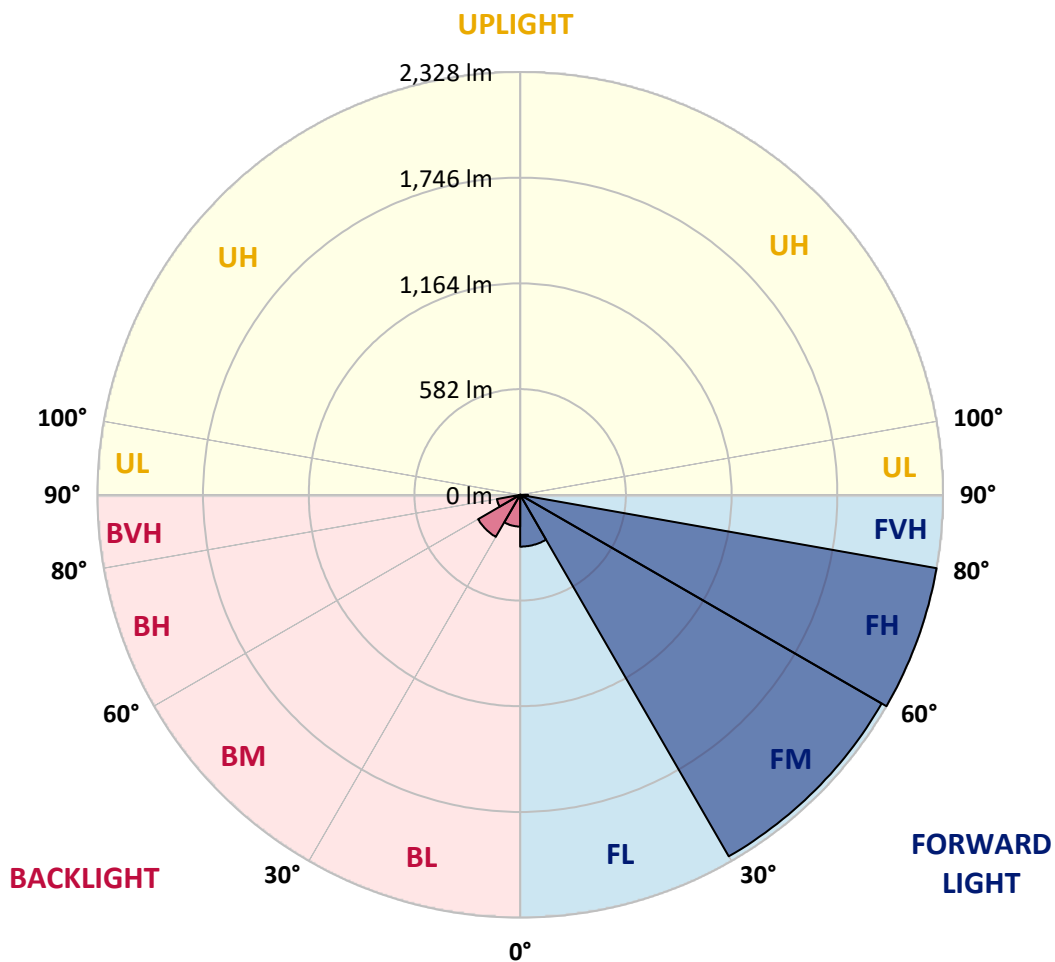
CATALOG NUMBER: ARCH-AF24-100-D-U-T3-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	285.4	5.2			
FM	(30°-60°)	2298.6	41.6			
FH	(60°-80°)	2328.4	42.1			G2/5000
FVH	(80°-90°)	42.7	0.8			G1/100
BL	(0°-30°)	174.9	3.2	B1/500		
BM	(30°-60°)	267.5	4.8	B1/1000		
BH	(60°-80°)	130.1	2.4	B1/500		G1/500
BVH	(80°-90°)	0.4	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-G2

Type III Medium





REPORT NUMBER: P234737

CATALOG NUMBER: ARCH-AF24-100-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	624.7	624.7	624.7	624.7	624.7	624.7	624.7	624.7	624.7	624.7	624.7
2.5°	615.7	615.7	615.7	617.0	618.3	618.3	620.9	619.6	619.6	619.6	622.2
5°	599.0	600.3	601.6	604.1	609.3	613.2	619.6	619.6	620.9	623.5	624.7
7.5°	575.8	577.1	581.0	586.1	596.4	605.4	615.7	618.3	622.2	628.6	631.2
10°	561.6	564.2	569.4	575.8	587.4	599.0	611.9	615.7	627.3	638.9	645.4
12.5°	557.8	559.1	564.2	574.5	588.7	602.8	619.6	623.5	640.2	658.2	668.5
15°	564.2	565.5	568.1	579.7	596.4	614.4	636.3	641.5	662.1	682.7	695.6
17.5°	575.8	575.8	578.4	588.7	606.7	627.3	655.7	663.4	686.6	709.8	723.9
20°	583.5	583.5	587.4	597.7	618.3	645.4	678.8	689.2	714.9	740.7	753.6
22.5°	591.3	592.5	596.4	608.0	631.2	668.5	707.2	717.5	747.1	774.2	787.1
25°	613.2	611.9	613.2	623.5	650.5	696.9	745.8	758.7	789.6	819.3	825.7
27.5°	673.7	671.1	654.4	647.9	668.5	726.5	794.8	807.7	843.7	873.4	873.4
30°	812.8	807.7	766.4	713.6	696.9	753.6	841.2	859.2	905.6	931.3	923.6
32.5°	989.3	977.7	924.9	834.7	767.7	789.6	890.1	910.7	970.0	991.9	975.1
35°	1182.5	1181.2	1115.5	999.6	904.3	864.3	953.2	977.7	1052.4	1071.7	1044.7
37.5°	1387.3	1392.5	1348.7	1189.0	1076.9	986.7	1037.0	1065.3	1156.7	1179.9	1154.2
40°	1615.3	1614.0	1597.3	1407.9	1284.3	1160.6	1158.0	1183.8	1294.6	1330.6	1294.6
42.5°	1903.9	1901.3	1840.8	1670.7	1535.5	1387.3	1334.5	1343.5	1467.2	1526.4	1473.6
45°	2197.6	2179.5	2110.0	1963.1	1843.3	1668.1	1567.7	1567.7	1673.3	1754.4	1672.0
47.5°	2361.2	2343.1	2314.8	2233.6	2197.6	2001.8	1853.6	1835.6	1918.0	2000.5	1884.5
50°	2576.3	2576.3	2505.4	2474.5	2536.3	2398.5	2169.2	2151.2	2191.1	2256.8	2104.8
52.5°	2746.3	2715.4	2665.2	2692.2	2868.7	2805.6	2484.8	2450.0	2481.0	2497.7	2296.8
55°	2817.2	2787.5	2783.7	2882.9	3155.9	3068.3	2808.1	2777.2	2774.7	2692.2	2464.2
57.5°	2831.3	2805.6	2854.5	3028.4	3435.5	3283.5	3130.2	3107.0	3034.9	2828.8	2635.5
60°	2711.5	2724.4	2842.9	3108.3	3600.4	3470.2	3402.0	3377.5	3211.3	2944.7	2826.2
62.5°	2465.5	2496.4	2718.0	3116.0	3539.8	3546.2	3552.7	3535.9	3347.9	3050.3	3018.1
65°	2174.4	2183.4	2450.0	3009.1	3434.2	3523.1	3663.5	3662.2	3452.2	3168.8	3234.5
67.5°	1791.8	1807.3	2037.8	2648.4	3222.9	3512.8	3809.0	3805.2	3570.7	3304.1	3363.3
70°	1333.2	1352.5	1539.3	2059.7	2751.5	3383.9	3999.7	4002.3	3695.7	3407.1	3274.5
71°	1039.5	1074.3	1270.1	1749.3	2510.6	3253.8	4017.7	4040.9	3709.8	3393.0	3091.5
72.5°	510.1	551.3	797.4	1231.5	2066.2	2962.7	3899.2	3944.3	3621.0	3216.5	2643.3
75°	132.7	140.4	238.3	503.7	1107.8	1963.1	3144.3	3259.0	2960.1	2448.8	1615.3
77.5°	83.7	86.3	112.1	195.8	414.8	745.8	1847.2	1903.9	1691.3	1240.5	569.4
80°	59.3	60.5	70.8	126.2	242.2	217.7	664.7	689.2	611.9	328.5	101.8
82.5°	36.1	36.1	51.5	81.2	149.4	118.5	175.2	186.8	164.9	91.5	33.5
85°	20.6	21.9	32.2	55.4	70.8	58.0	65.7	69.6	70.8	60.5	14.2
87.5°	16.7	18.0	28.3	46.4	38.6	28.3	28.3	29.6	30.9	36.1	6.4
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: P234737

CATALOG NUMBER: ARCH-AF24-100-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	624.7	624.7	624.7	624.7	624.7	624.7	624.7	624.7	624.7	624.7	624.7
2.5°	622.2	622.2	623.5	622.2	622.2	622.2	623.5	623.5	623.5	626.0	627.3
5°	624.7	624.7	624.7	623.5	622.2	622.2	624.7	626.0	626.0	629.9	629.9
7.5°	631.2	631.2	628.6	626.0	623.5	619.6	620.9	622.2	620.9	622.2	622.2
10°	645.4	645.4	641.5	636.3	628.6	617.0	601.6	582.2	564.2	557.8	555.2
12.5°	668.5	667.3	659.5	650.5	633.8	593.8	535.9	467.6	410.9	395.5	390.3
15°	694.3	691.7	682.7	667.3	622.2	516.5	395.5	307.9	253.8	240.9	238.3
17.5°	721.4	717.5	704.6	673.7	569.4	383.9	255.1	193.2	163.6	161.0	162.3
20°	749.7	744.5	726.5	660.8	459.9	256.3	164.9	149.4	146.8	146.8	148.1
22.5°	781.9	775.5	751.0	614.4	334.9	170.0	141.7	140.4	139.1	137.8	137.8
25°	819.3	811.5	774.2	530.7	230.6	139.1	135.3	131.4	128.8	126.2	124.9
27.5°	864.3	854.0	792.2	427.7	158.4	130.1	127.5	121.1	115.9	110.8	110.8
30°	909.4	896.5	787.1	322.0	128.8	121.1	115.9	108.2	100.5	95.3	94.0
32.5°	957.1	944.2	753.6	216.4	117.2	110.8	104.3	92.7	83.7	77.3	76.0
35°	1027.9	1017.6	687.9	143.0	105.6	97.9	88.9	77.3	65.7	59.3	58.0
37.5°	1133.6	1120.7	606.7	109.5	92.7	81.2	73.4	60.5	48.9	42.5	41.2
40°	1275.3	1236.6	510.1	96.6	81.2	67.0	56.7	43.8	34.8	30.9	30.9
42.5°	1440.1	1348.7	405.8	87.6	72.1	55.4	41.2	29.6	24.5	23.2	23.2
45°	1615.3	1453.0	301.4	81.2	63.1	43.8	29.6	20.6	18.0	16.7	16.7
47.5°	1795.7	1538.0	210.0	73.4	52.8	33.5	20.6	15.5	12.9	11.6	11.6
50°	1964.4	1593.4	148.1	65.7	45.1	24.5	15.5	11.6	9.0	9.0	9.0
52.5°	2081.6	1588.3	106.9	56.7	34.8	16.7	10.3	7.7	7.7	7.7	7.7
55°	2184.7	1569.0	83.7	48.9	27.1	11.6	7.7	6.4	6.4	5.2	5.2
57.5°	2272.3	1538.0	70.8	39.9	19.3	9.0	5.2	5.2	3.9	3.9	3.9
60°	2347.0	1499.4	59.3	33.5	12.9	6.4	3.9	2.6	2.6	1.3	2.6
62.5°	2448.8	1474.9	51.5	25.8	9.0	3.9	2.6	1.3	1.3	0.0	0.0
65°	2523.5	1428.5	43.8	18.0	5.2	2.6	1.3	1.3	0.0	0.0	0.0
67.5°	2526.0	1344.8	32.2	10.3	3.9	2.6	1.3	0.0	0.0	0.0	0.0
70°	2322.5	1146.4	20.6	5.2	2.6	1.3	1.3	0.0	0.0	0.0	0.0
71°	2135.7	1015.1	16.7	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0
72.5°	1759.6	745.8	12.9	3.9	1.3	1.3	0.0	0.0	0.0	0.0	0.0
75°	970.0	270.5	6.4	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	310.4	82.4	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	52.8	12.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.0	5.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.2	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.6	1.3	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)