

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: P234724

Luminaire Tested: **ARCH-AF16-20-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234724
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-AF16-20-D-U-T3-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 420mA 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: 1662 lumens
Efficiency: N/A
Efficacy: 69.3 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): 24
Input Voltage (V): NR
Input Current (A_{in}): 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

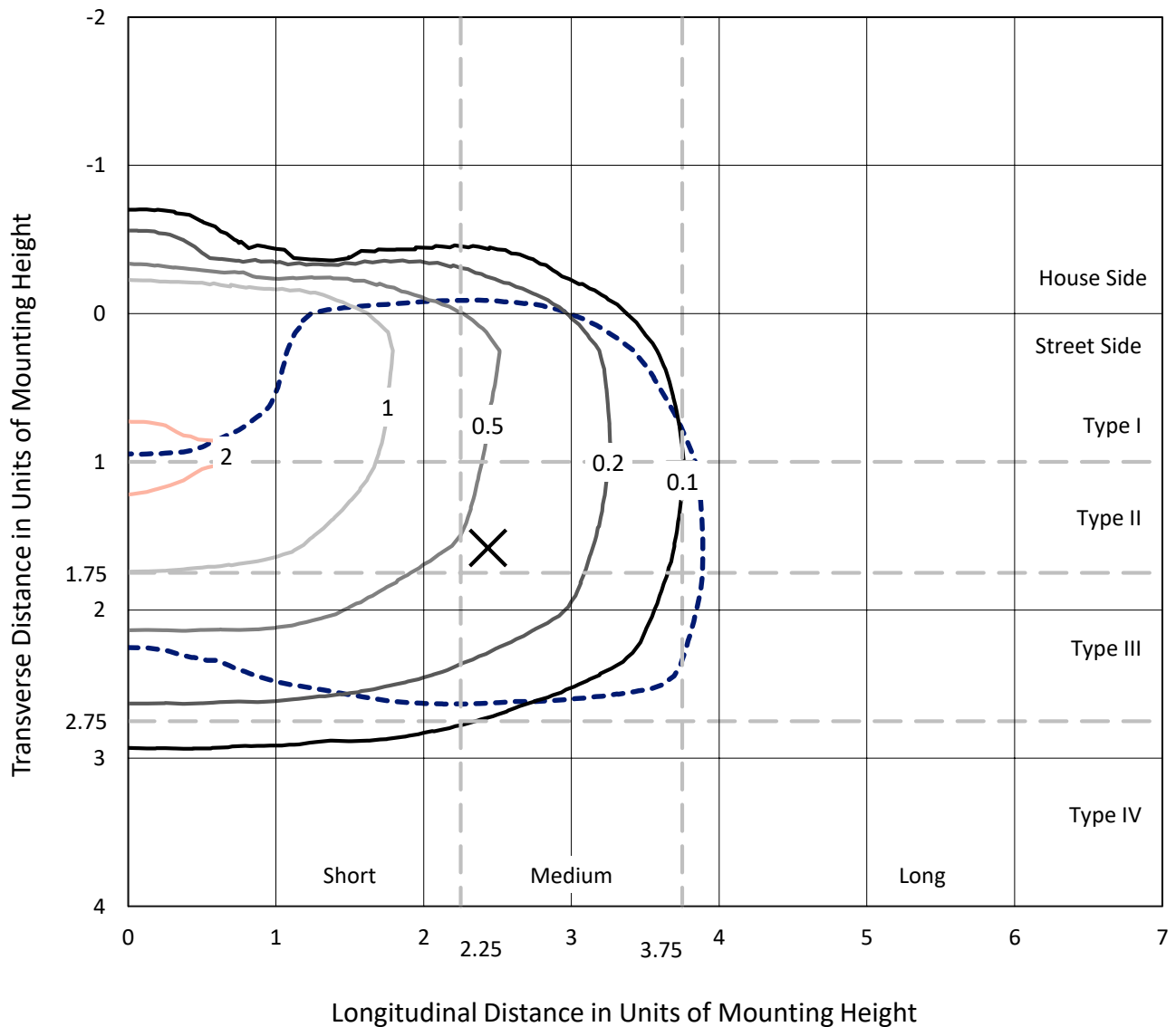


REPORT NUMBER: P234724

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

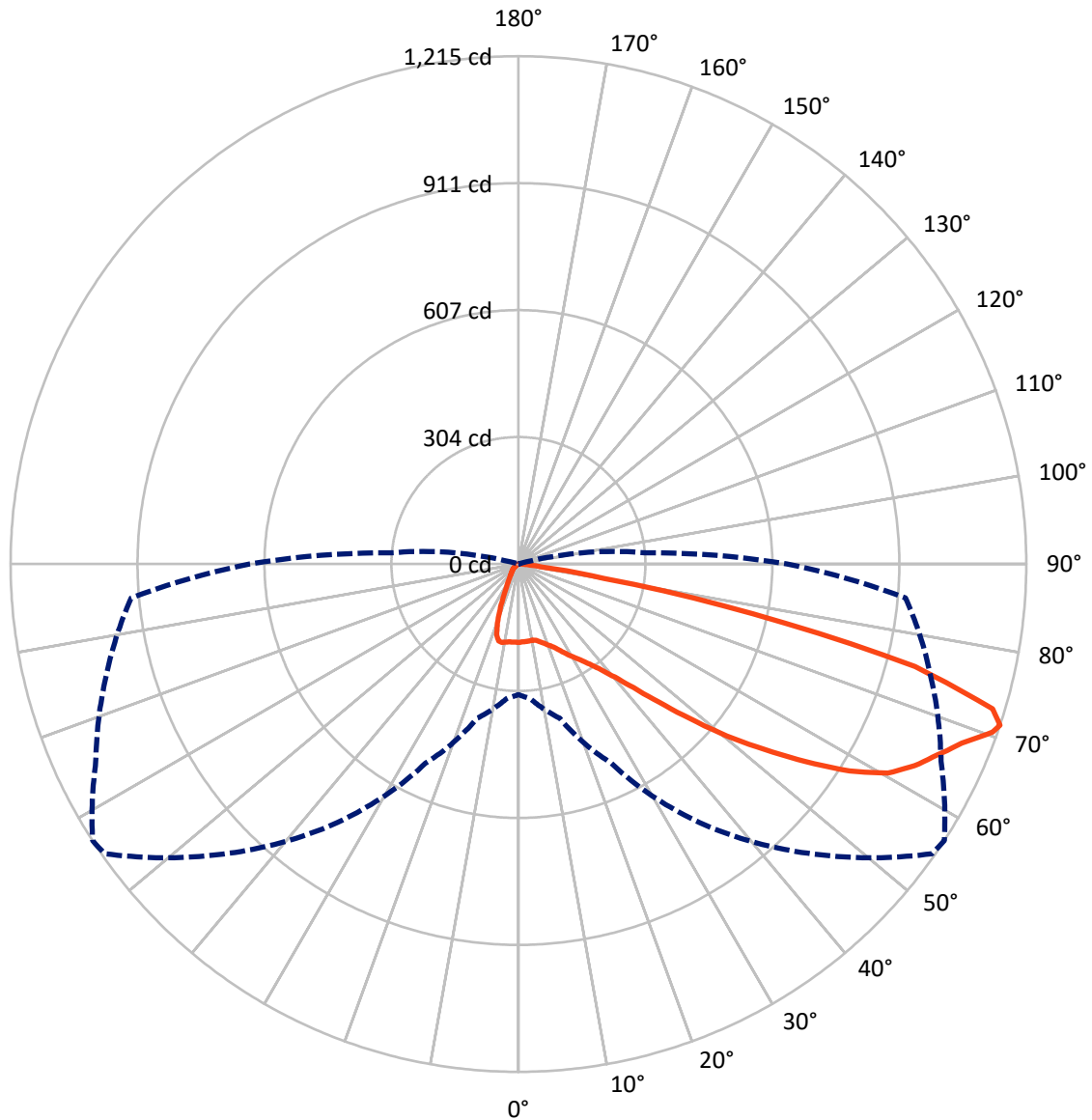


Based on 10 foot mounting height. Maximum calculated value = 2.3 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P234724

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-8027-HSS

Luminous Intensity Polar Plot



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



REPORT NUMBER: P234724

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-8027-HSS

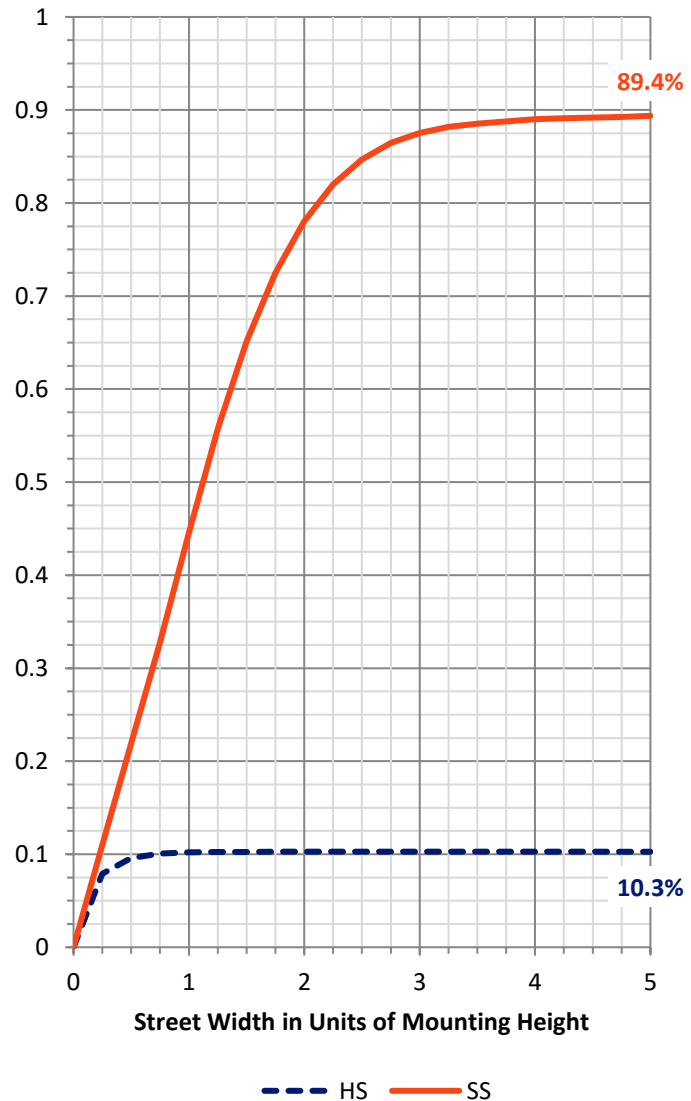
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	172.2	0.0	172.2
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	1489.8	0.0	1489.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	1662.0	0.0	1662.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.6	1.1
10°-20°	47.2	2.8
20°-30°	73.6	4.4
30°-40°	124.4	7.5
40°-50°	241.5	14.5
50°-60°	405.6	24.4
60°-70°	484.1	29.1
70°-80°	255.1	15.3
80°-90°	13.0	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°	1662.0	100.0
0°-180°	1662.0	100.0



REPORT NUMBER: P234724

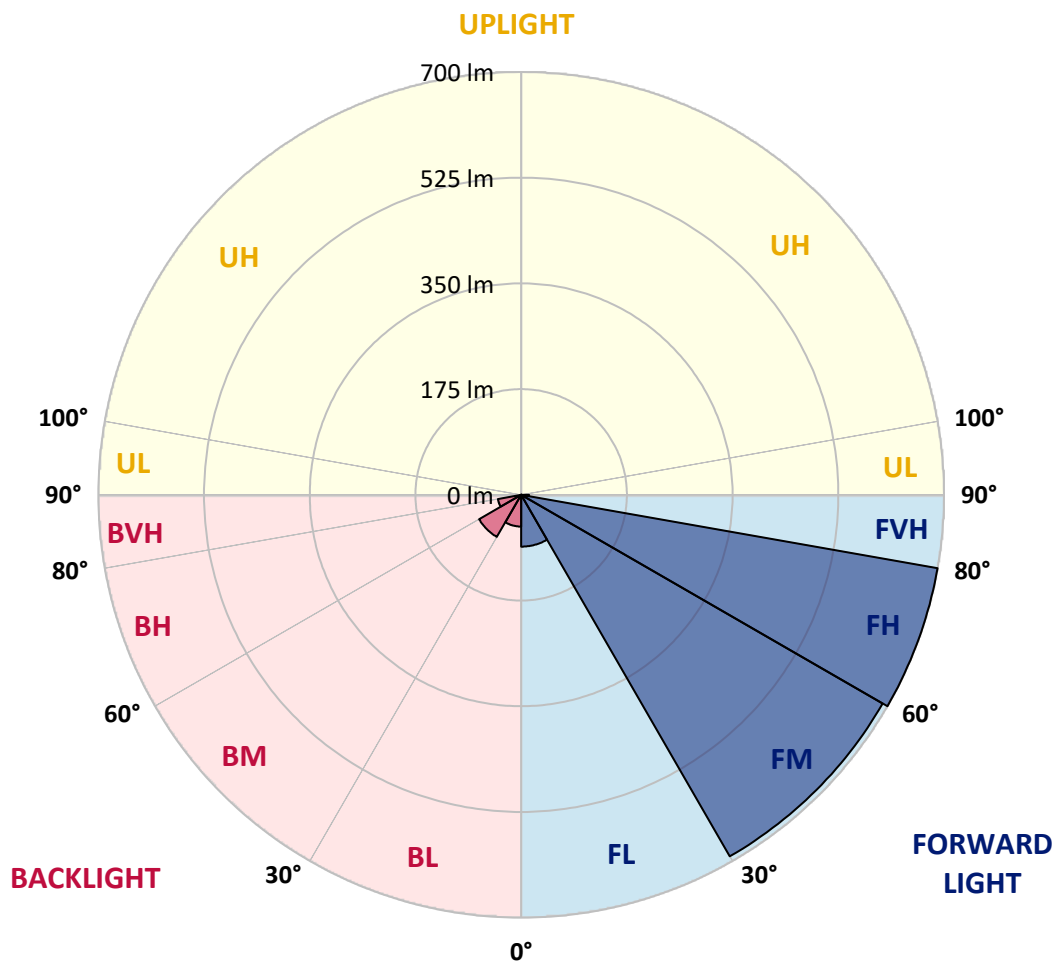
CATALOG NUMBER: ARCH-AF16-20-D-U-T3-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	85.8	5.2			
FM	(30°-60°)	691.1	41.6			
FH	(60°-80°)	700.0	42.1			G1/1800
FVH	(80°-90°)	12.8	0.8			G1/100
BL	(0°-30°)	52.6	3.2	B0/110		
BM	(30°-60°)	80.4	4.8	B0/220		
BH	(60°-80°)	39.1	2.4	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 III Medium





REPORT NUMBER: P234724

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8
2.5°	185.1	185.1	185.1	185.5	185.9	185.9	186.7	186.3	186.3	186.3	187.1
5°	180.1	180.5	180.9	181.6	183.2	184.3	186.3	186.3	186.7	187.4	187.8
7.5°	173.1	173.5	174.7	176.2	179.3	182.0	185.1	185.9	187.1	189.0	189.8
10°	168.9	169.6	171.2	173.1	176.6	180.1	184.0	185.1	188.6	192.1	194.0
12.5°	167.7	168.1	169.6	172.7	177.0	181.2	186.3	187.4	192.5	197.9	201.0
15°	169.6	170.0	170.8	174.3	179.3	184.7	191.3	192.9	199.1	205.3	209.1
17.5°	173.1	173.1	173.9	177.0	182.4	188.6	197.1	199.4	206.4	213.4	217.7
20°	175.4	175.4	176.6	179.7	185.9	194.0	204.1	207.2	214.9	222.7	226.6
22.5°	177.8	178.1	179.3	182.8	189.8	201.0	212.6	215.7	224.6	232.8	236.6
25°	184.3	184.0	184.3	187.4	195.6	209.5	224.2	228.1	237.4	246.3	248.2
27.5°	202.5	201.8	196.7	194.8	201.0	218.4	239.0	242.8	253.7	262.6	262.6
30°	244.4	242.8	230.4	214.6	209.5	226.6	252.9	258.3	272.3	280.0	277.7
32.5°	297.4	293.9	278.1	251.0	230.8	237.4	267.6	273.8	291.6	298.2	293.2
35°	355.5	355.1	335.4	300.5	271.9	259.9	286.6	293.9	316.4	322.2	314.1
37.5°	417.1	418.7	405.5	357.5	323.8	296.7	311.8	320.3	347.8	354.7	347.0
40°	485.7	485.3	480.2	423.3	386.1	348.9	348.2	355.9	389.2	400.1	389.2
42.5°	572.4	571.6	553.4	502.3	461.6	417.1	401.2	403.9	441.1	458.9	443.0
45°	660.7	655.3	634.4	590.2	554.2	501.5	471.3	471.3	503.1	527.5	502.7
47.5°	709.9	704.5	695.9	671.5	660.7	601.8	557.3	551.9	576.7	601.4	566.6
50°	774.6	774.6	753.3	744.0	762.6	721.1	652.2	646.8	658.8	678.5	632.8
52.5°	825.7	816.4	801.3	809.4	862.5	843.5	747.1	736.6	745.9	750.9	690.5
55°	847.0	838.1	836.9	866.7	948.8	922.5	844.3	835.0	834.2	809.4	740.9
57.5°	851.2	843.5	858.2	910.5	1032.9	987.2	941.1	934.1	912.4	850.5	792.4
60°	815.2	819.1	854.7	934.5	1082.4	1043.3	1022.8	1015.5	965.5	885.3	849.7
62.5°	741.3	750.6	817.2	936.8	1064.2	1066.2	1068.1	1063.1	1006.5	917.1	907.4
65°	653.7	656.4	736.6	904.7	1032.5	1059.2	1101.4	1101.0	1037.9	952.7	972.5
67.5°	538.7	543.4	612.7	796.2	969.0	1056.1	1145.2	1144.0	1073.5	993.4	1011.2
70°	400.8	406.6	462.8	619.3	827.2	1017.4	1202.5	1203.3	1111.1	1024.4	984.5
71°	312.5	323.0	381.9	525.9	754.8	978.3	1207.9	1214.9	1115.4	1020.1	929.5
72.5°	153.4	165.8	239.7	370.2	621.2	890.7	1172.3	1185.9	1088.6	967.0	794.7
75°	39.9	42.2	71.6	151.4	333.1	590.2	945.4	979.8	890.0	736.2	485.7
77.5°	25.2	25.9	33.7	58.9	124.7	224.2	555.4	572.4	508.5	373.0	171.2
80°	17.8	18.2	21.3	38.0	72.8	65.5	199.8	207.2	184.0	98.8	30.6
82.5°	10.8	10.8	15.5	24.4	44.9	35.6	52.7	56.2	49.6	27.5	10.1
85°	6.2	6.6	9.7	16.7	21.3	17.4	19.8	20.9	21.3	18.2	4.3
87.5°	5.0	5.4	8.5	13.9	11.6	8.5	8.5	8.9	9.3	10.8	1.9
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: P234724

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8
2.5°	187.1	187.1	187.4	187.1	187.1	187.1	187.4	187.4	187.4	188.2	188.6
5°	187.8	187.8	187.8	187.4	187.1	187.1	187.8	188.2	188.2	189.4	189.4
7.5°	189.8	189.8	189.0	188.2	187.4	186.3	186.7	187.1	186.7	187.1	187.1
10°	194.0	194.0	192.9	191.3	189.0	185.5	180.9	175.1	169.6	167.7	166.9
12.5°	201.0	200.6	198.3	195.6	190.5	178.5	161.1	140.6	123.5	118.9	117.3
15°	208.7	208.0	205.3	200.6	187.1	155.3	118.9	92.6	76.3	72.4	71.6
17.5°	216.9	215.7	211.8	202.5	171.2	115.4	76.7	58.1	49.2	48.4	48.8
20°	225.4	223.8	218.4	198.7	138.3	77.1	49.6	44.9	44.2	44.2	44.5
22.5°	235.1	233.1	225.8	184.7	100.7	51.1	42.6	42.2	41.8	41.4	41.4
25°	246.3	244.0	232.8	159.6	69.3	41.8	40.7	39.5	38.7	38.0	37.6
27.5°	259.9	256.8	238.2	128.6	47.6	39.1	38.3	36.4	34.9	33.3	33.3
30°	273.4	269.5	236.6	96.8	38.7	36.4	34.9	32.5	30.2	28.7	28.3
32.5°	287.7	283.9	226.6	65.1	35.2	33.3	31.4	27.9	25.2	23.2	22.8
35°	309.1	306.0	206.8	43.0	31.8	29.4	26.7	23.2	19.8	17.8	17.4
37.5°	340.8	336.9	182.4	32.9	27.9	24.4	22.1	18.2	14.7	12.8	12.4
40°	383.4	371.8	153.4	29.0	24.4	20.1	17.0	13.2	10.5	9.3	9.3
42.5°	433.0	405.5	122.0	26.3	21.7	16.7	12.4	8.9	7.4	7.0	7.0
45°	485.7	436.9	90.6	24.4	19.0	13.2	8.9	6.2	5.4	5.0	5.0
47.5°	539.9	462.4	63.1	22.1	15.9	10.1	6.2	4.6	3.9	3.5	3.5
50°	590.6	479.1	44.5	19.8	13.6	7.4	4.6	3.5	2.7	2.7	2.7
52.5°	625.8	477.5	32.1	17.0	10.5	5.0	3.1	2.3	2.3	2.3	2.3
55°	656.8	471.7	25.2	14.7	8.1	3.5	2.3	1.9	1.9	1.5	1.5
57.5°	683.2	462.4	21.3	12.0	5.8	2.7	1.5	1.5	1.2	1.2	1.2
60°	705.6	450.8	17.8	10.1	3.9	1.9	1.2	0.8	0.8	0.4	0.8
62.5°	736.2	443.4	15.5	7.7	2.7	1.2	0.8	0.4	0.4	0.0	0.0
65°	758.7	429.5	13.2	5.4	1.5	0.8	0.4	0.4	0.0	0.0	0.0
67.5°	759.5	404.3	9.7	3.1	1.2	0.8	0.4	0.0	0.0	0.0	0.0
70°	698.3	344.7	6.2	1.5	0.8	0.4	0.4	0.0	0.0	0.0	0.0
71°	642.1	305.2	5.0	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0
72.5°	529.0	224.2	3.9	1.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0
75°	291.6	81.3	1.9	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	93.3	24.8	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	15.9	3.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.4	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.8	0.4	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)