

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: P234760

Luminaire Tested: **ARCH-AF24-50-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234760
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-AF24-50-D-U-T4W-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3624 lumens
Efficiency: N/A
Efficacy: 67.1 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): 54
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

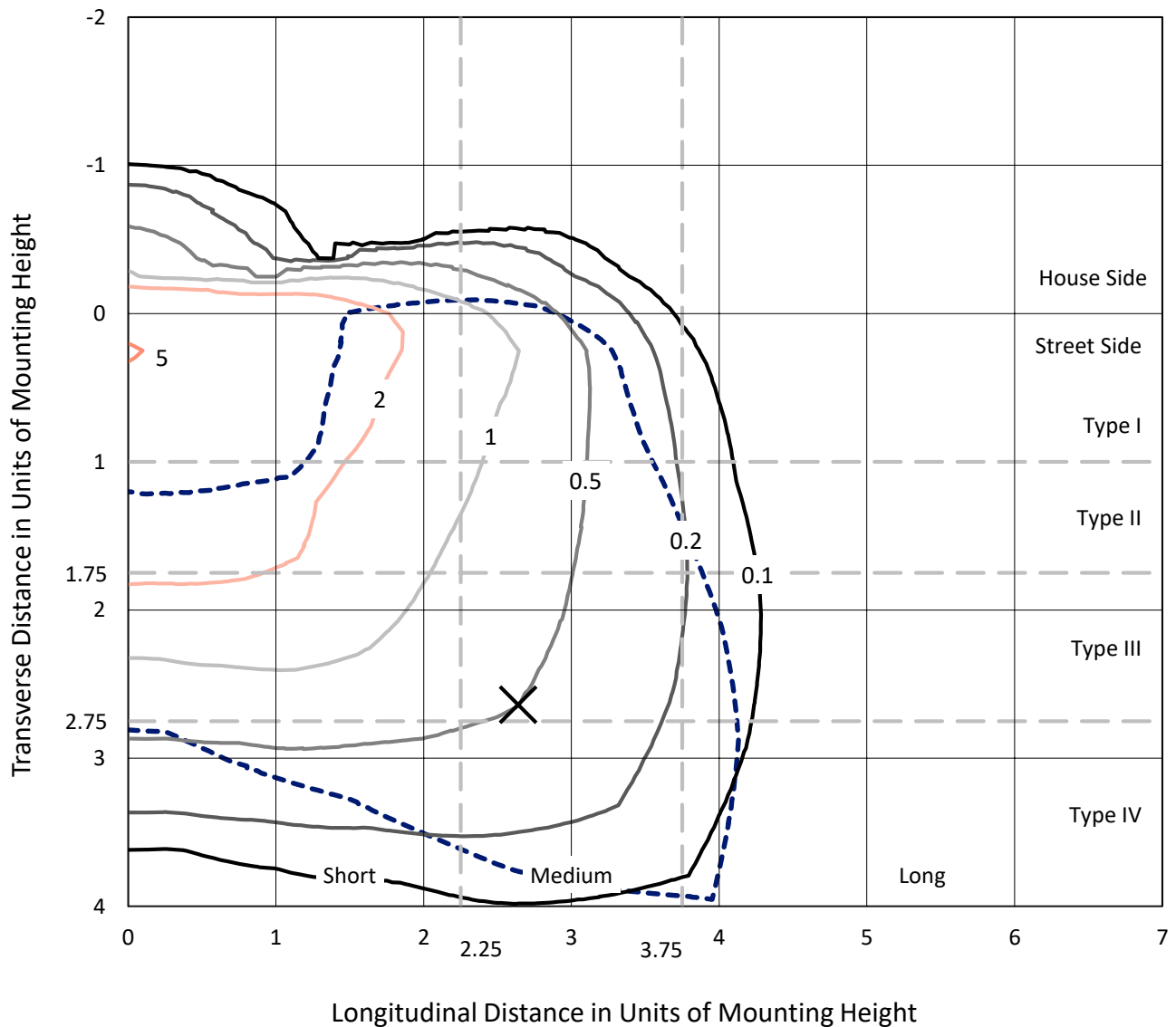


REPORT NUMBER: P234760

CATALOG NUMBER: ARCH-AF24-50-D-U-T4W-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

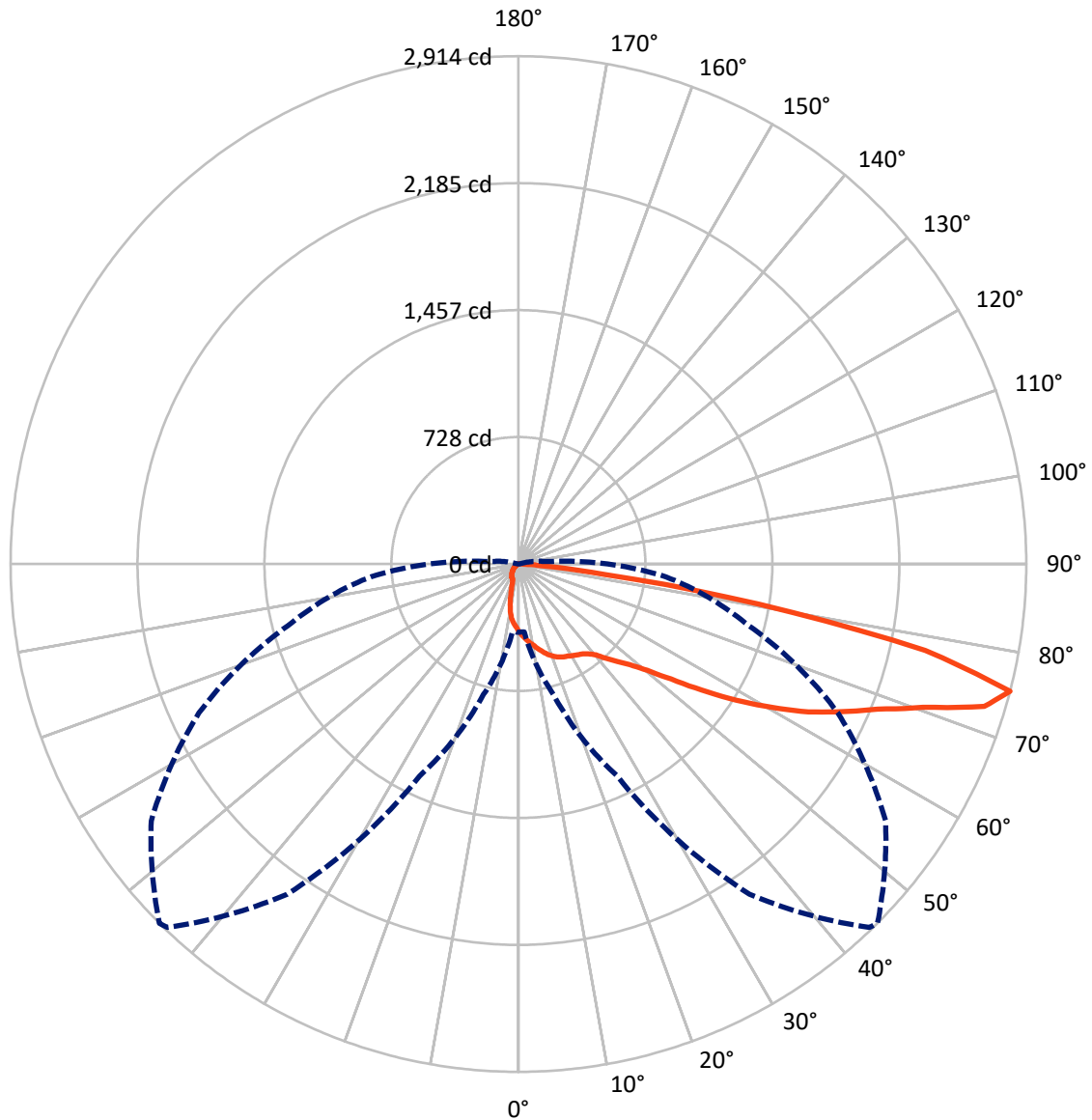


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234760

CATALOG NUMBER: ARCH-AF24-50-D-U-T4W-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234760

CATALOG NUMBER: ARCH-AF24-50-D-U-T4W-8027-HSS

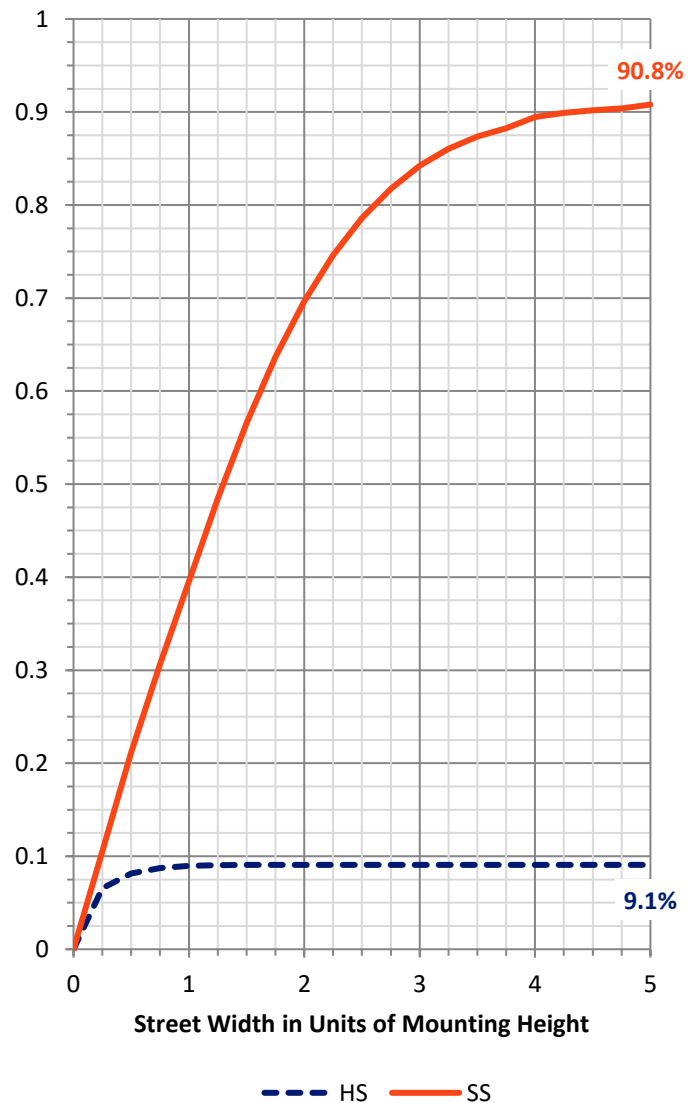
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	331.5	0.0	331.5
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	3292.5	0.0	3292.5
	% Fixture	90.9	0.0	90.9
Total	Lumens	3624.0	0.0	3624.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.6	1.0
10°-20°	103.6	2.9
20°-30°	171.6	4.7
30°-40°	248.4	6.9
40°-50°	406.7	11.2
50°-60°	724.7	20.0
60°-70°	1065.4	29.4
70°-80°	803.8	22.2
80°-90°	63.1	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°	3624.0	100.0
0°-180°	3624.0	100.0



REPORT NUMBER: P234760

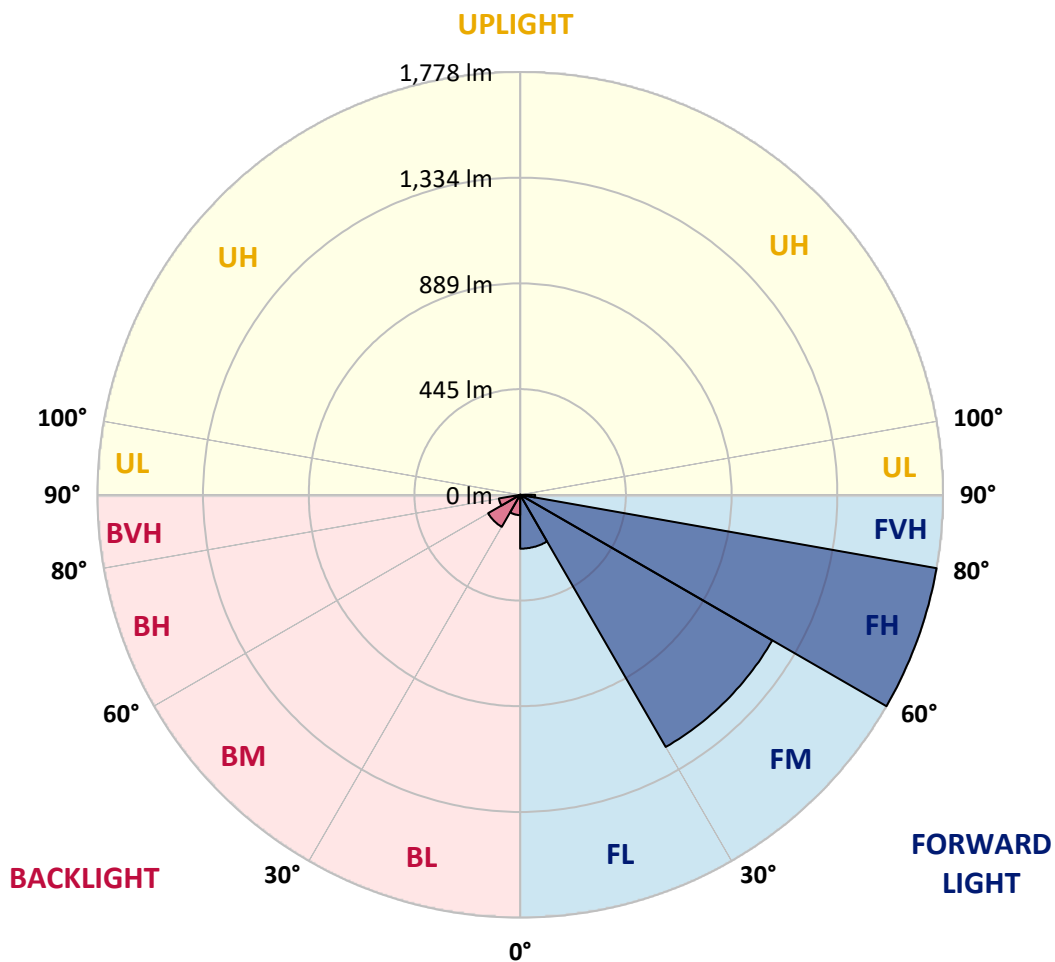
CATALOG NUMBER: ARCH-AF24-50-D-U-T4W-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	226.7	6.3			
FM	(30°-60°)	1224.5	33.8			
FH	(60°-80°)	1778.4	49.1			G1/1800
FVH	(80°-90°)	62.9	1.7			G1/100
BL	(0°-30°)	85.2	2.4	B0/110		
BM	(30°-60°)	155.3	4.3	B0/220		
BH	(60°-80°)	90.8	2.5	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 IV Medium





REPORT NUMBER: P234760

CATALOG NUMBER: ARCH-AF24-50-D-U-T4W-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	387.6	387.6	387.6	387.6	387.6	387.6	387.6	387.6	387.6	387.6	387.6
2.5°	421.1	421.1	420.2	419.3	415.0	410.8	409.9	407.3	399.6	394.5	389.3
5°	456.2	457.1	455.4	451.1	441.6	432.2	431.3	424.5	409.9	399.6	388.5
7.5°	489.7	491.4	487.1	479.4	468.2	454.5	453.6	440.8	421.9	407.3	391.0
10°	518.0	518.0	511.9	502.5	490.5	475.9	474.2	459.6	438.2	420.2	398.8
12.5°	548.8	548.0	539.4	526.5	512.8	499.1	498.2	480.2	459.6	436.5	409.9
15°	577.1	575.4	564.3	552.3	537.7	523.1	522.2	504.2	482.8	455.4	426.2
17.5°	592.6	591.7	581.4	569.4	557.4	546.3	545.4	526.5	503.4	475.1	442.5
20°	595.1	596.0	587.4	577.1	570.3	564.3	564.3	547.1	522.2	492.2	459.6
22.5°	596.0	598.6	592.6	578.8	577.1	578.0	579.7	566.0	540.2	511.9	477.6
25°	602.0	605.4	601.1	584.8	583.1	589.1	590.8	584.8	561.7	533.4	498.2
27.5°	614.0	617.4	614.0	593.4	590.8	596.8	598.6	602.0	584.8	554.0	519.7
30°	638.0	638.9	631.1	605.4	600.3	608.0	610.6	620.0	606.3	573.7	540.2
32.5°	680.0	671.5	648.3	614.0	609.7	618.3	620.9	631.1	626.0	592.6	561.7
35°	765.8	721.2	668.0	626.0	621.7	630.3	633.7	648.3	650.9	619.1	588.3
37.5°	764.9	724.6	714.3	649.2	643.2	649.2	653.4	671.5	681.7	654.3	626.9
40°	818.9	801.8	801.8	692.9	673.2	681.7	686.0	704.0	722.0	700.6	672.3
42.5°	988.7	977.6	965.6	776.9	715.2	739.2	741.8	752.9	774.4	767.5	734.1
45°	1178.3	1168.0	1121.7	919.3	787.2	791.5	797.5	815.5	846.4	859.3	819.8
47.5°	1326.6	1316.3	1276.9	1090.8	899.6	861.8	861.8	897.0	945.0	977.6	939.9
50°	1445.8	1433.8	1409.8	1273.4	1083.9	963.0	957.9	999.0	1070.2	1120.8	1095.1
52.5°	1561.6	1526.4	1511.8	1462.1	1292.3	1109.7	1095.9	1125.1	1223.7	1286.3	1264.9
55°	1638.8	1633.6	1618.2	1635.3	1511.0	1288.0	1276.0	1282.0	1405.5	1447.5	1420.9
57.5°	1710.8	1709.9	1744.2	1824.0	1749.4	1492.1	1473.2	1463.8	1581.3	1571.0	1594.2
60°	1800.0	1784.5	1864.3	1978.3	1968.0	1691.1	1669.6	1650.8	1715.9	1686.8	1801.7
62.5°	1804.3	1800.0	1962.0	2125.8	2185.0	1893.4	1868.6	1800.8	1833.4	1800.0	1999.8
65°	1640.5	1661.9	2003.2	2203.9	2366.8	2071.0	2040.9	1935.5	1938.0	1915.7	2233.0
67.5°	1603.6	1614.7	1890.0	2287.9	2498.0	2250.2	2221.9	2090.7	2059.8	2061.5	2371.1
70°	1511.8	1529.0	1749.4	2281.9	2601.8	2489.4	2461.1	2318.8	2244.2	2161.0	2264.8
72.5°	1155.1	1184.3	1474.1	2000.6	2573.5	2802.4	2794.7	2607.8	2317.9	1984.3	1713.4
75°	391.0	390.2	774.4	1343.8	2311.9	2898.5	2913.9	2571.8	2022.1	1368.6	850.7
77.5°	84.0	84.9	159.5	544.5	1535.8	2327.4	2386.5	1939.7	1304.3	609.7	194.7
80°	41.2	42.0	66.0	144.1	614.0	1305.2	1397.8	997.3	481.9	121.8	32.6
82.5°	20.6	21.4	34.3	76.3	227.2	463.9	495.7	367.0	138.1	68.6	16.3
85°	7.7	7.7	17.2	45.4	103.8	108.9	133.8	106.3	83.2	55.7	4.3
87.5°	1.7	1.7	9.4	22.3	46.3	34.3	34.3	32.6	50.6	37.7	1.7
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: P234760

CATALOG NUMBER: ARCH-AF24-50-D-U-T4W-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	387.6	387.6	387.6	387.6	387.6	387.6	387.6	387.6	387.6	387.6	387.6
2.5°	386.7	383.3	377.3	371.3	367.0	361.9	359.3	356.7	355.9	355.0	356.7
5°	382.5	377.3	366.2	356.7	348.2	341.3	336.2	331.0	328.4	326.7	327.6
7.5°	382.5	374.7	358.5	343.9	330.2	315.6	301.0	289.8	281.3	276.1	277.0
10°	386.7	376.5	355.0	335.3	309.6	278.7	247.0	223.0	206.7	197.2	197.2
12.5°	396.2	382.5	355.9	325.0	281.3	227.2	179.2	150.1	138.1	131.2	132.1
15°	409.0	392.8	360.2	311.3	241.8	168.9	125.2	106.3	106.3	108.0	108.9
17.5°	423.6	405.6	363.6	290.7	191.2	120.9	98.6	96.9	99.5	103.8	103.8
20°	438.2	418.5	365.3	258.1	143.2	96.0	93.5	93.5	95.2	99.5	100.3
22.5°	456.2	434.8	363.6	217.8	107.2	90.9	90.0	90.0	90.0	95.2	95.2
25°	475.1	453.6	356.7	174.9	90.9	87.5	86.6	85.8	85.8	90.0	90.9
27.5°	496.5	473.4	340.4	133.8	85.8	84.0	83.2	81.5	81.5	84.9	84.9
30°	518.0	495.7	315.6	101.2	81.5	80.6	78.9	77.2	75.5	78.9	78.9
32.5°	541.1	518.8	283.0	80.6	75.5	75.5	74.6	72.0	70.3	72.0	72.9
35°	572.0	545.4	246.1	70.3	67.7	67.7	67.7	66.9	63.5	65.2	65.2
37.5°	613.1	582.3	203.2	65.2	61.7	60.0	60.0	60.0	57.5	58.3	58.3
40°	665.4	625.1	162.1	60.9	57.5	53.2	51.5	52.3	50.6	50.6	49.7
42.5°	736.6	671.5	121.8	57.5	54.0	48.0	44.6	43.7	42.0	41.2	41.2
45°	838.7	728.0	87.5	54.0	51.5	42.0	38.6	36.0	31.7	29.2	29.2
47.5°	970.7	792.4	65.2	50.6	48.9	36.9	32.6	27.4	21.4	19.7	19.7
50°	1131.9	864.4	54.9	45.4	44.6	32.6	25.7	18.0	12.0	10.3	11.1
52.5°	1288.9	932.1	48.9	40.3	39.4	28.3	18.9	9.4	5.1	5.1	5.1
55°	1420.9	980.2	44.6	36.0	34.3	22.3	10.3	4.3	2.6	2.6	2.6
57.5°	1540.1	1007.6	40.3	31.7	27.4	15.4	4.3	1.7	1.7	0.9	0.9
60°	1649.0	1023.9	35.2	27.4	21.4	8.6	1.7	0.9	0.9	0.0	0.0
62.5°	1756.2	1035.9	30.0	22.3	16.3	3.4	0.9	0.9	0.0	0.0	0.0
65°	1837.7	1031.6	24.0	18.0	10.3	1.7	0.9	0.0	0.0	0.0	0.0
67.5°	1835.1	973.3	18.0	13.7	5.1	0.9	0.0	0.0	0.0	0.0	0.0
70°	1641.3	819.8	12.0	8.6	1.7	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1164.5	525.7	7.7	5.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0
75°	512.8	159.5	4.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	100.3	36.9	2.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	24.0	4.3	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	0.9	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)