

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: P214666

Luminaire Tested: **ARCH-AF16-20-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214666
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
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-T2R-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2309 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full 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

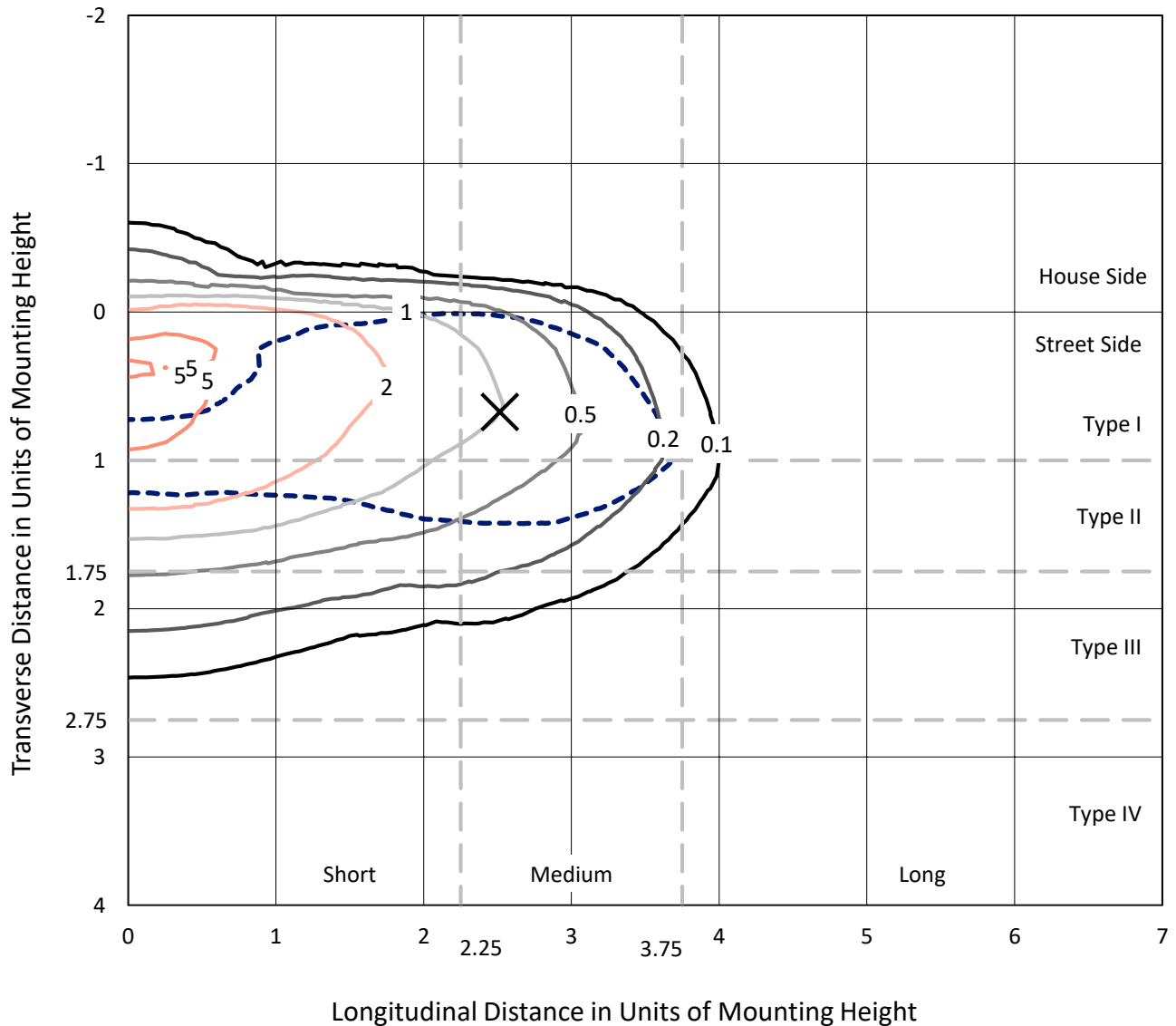


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

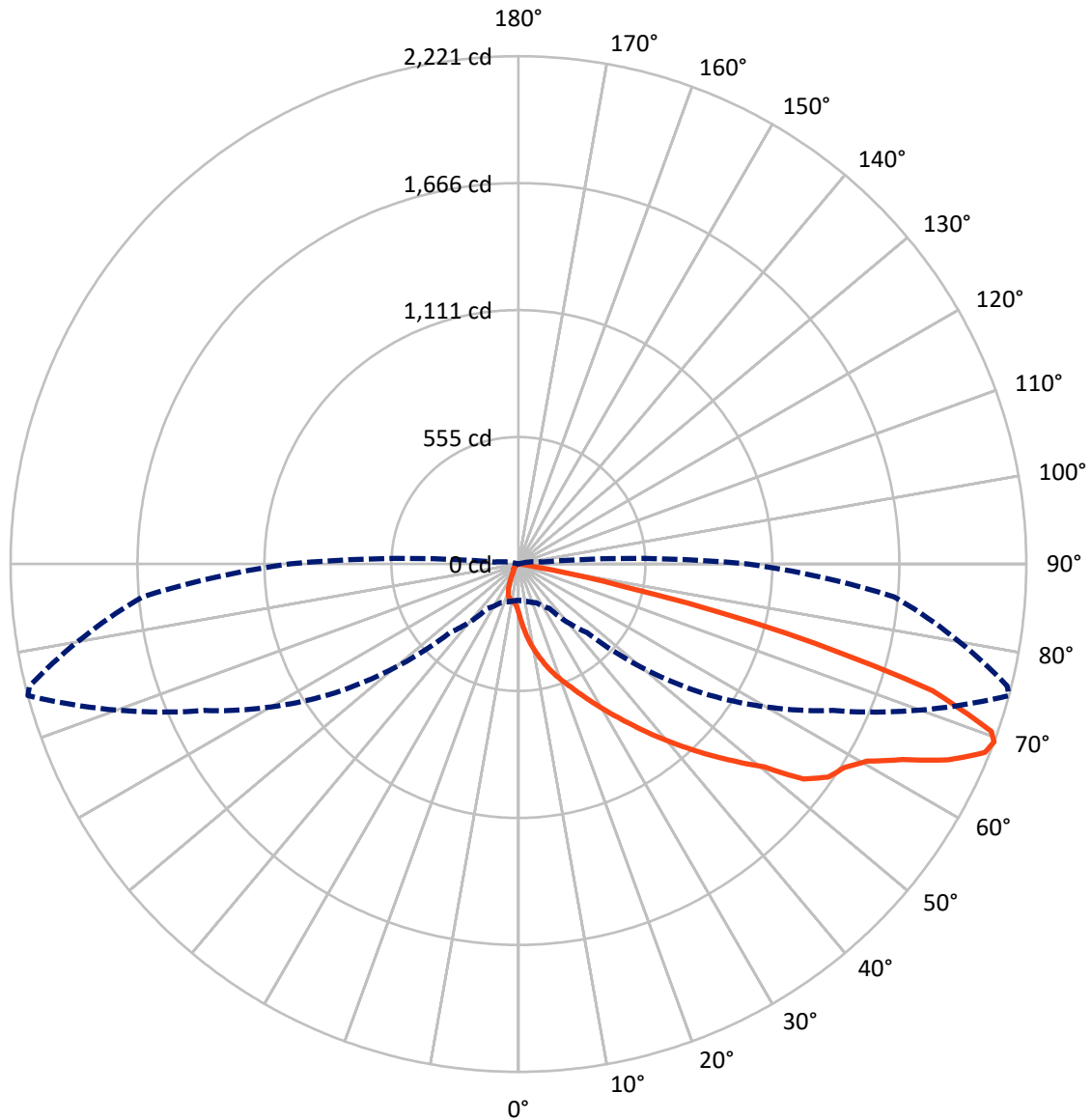


Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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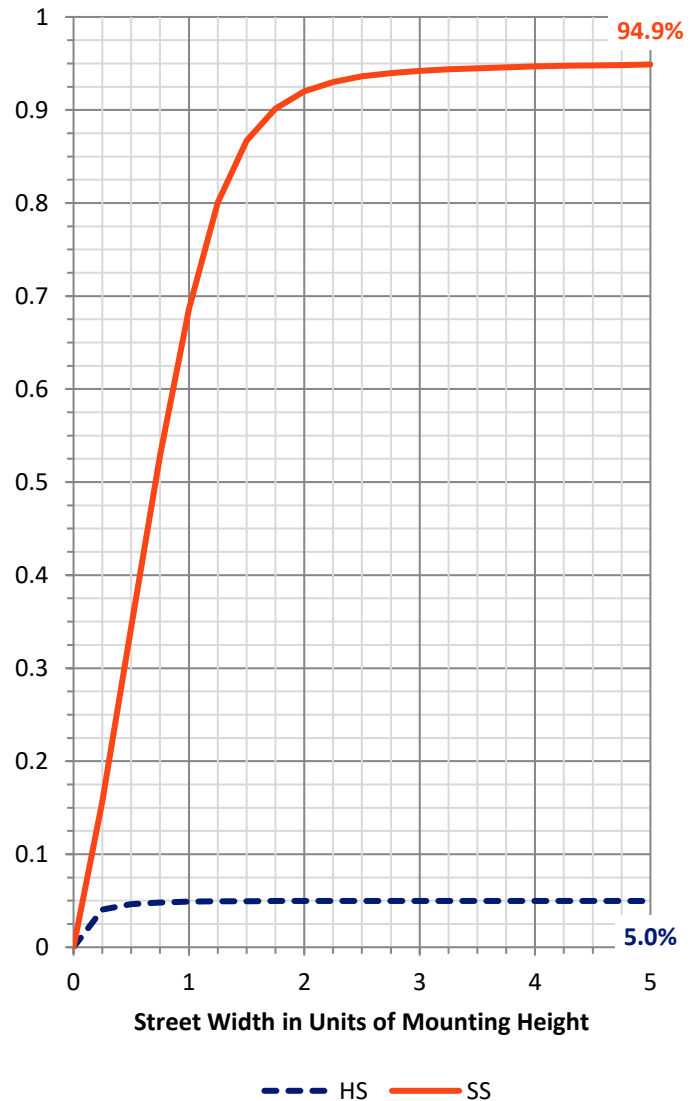
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	115.2	0.0	115.2
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	2193.8	0.0	2193.8
	% Fixture	95.0	0.0	95.0
Total	Lumens	2309.0	0.0	2309.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.1	1.1
10°-20°	89.6	3.9
20°-30°	171.0	7.4
30°-40°	306.7	13.3
40°-50°	469.9	20.4
50°-60°	546.2	23.7
60°-70°	483.6	20.9
70°-80°	208.6	9.0
80°-90°	8.4	0.4
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°	2309.0	100.0
0°-180°	2309.0	100.0

Coefficient of Utilization



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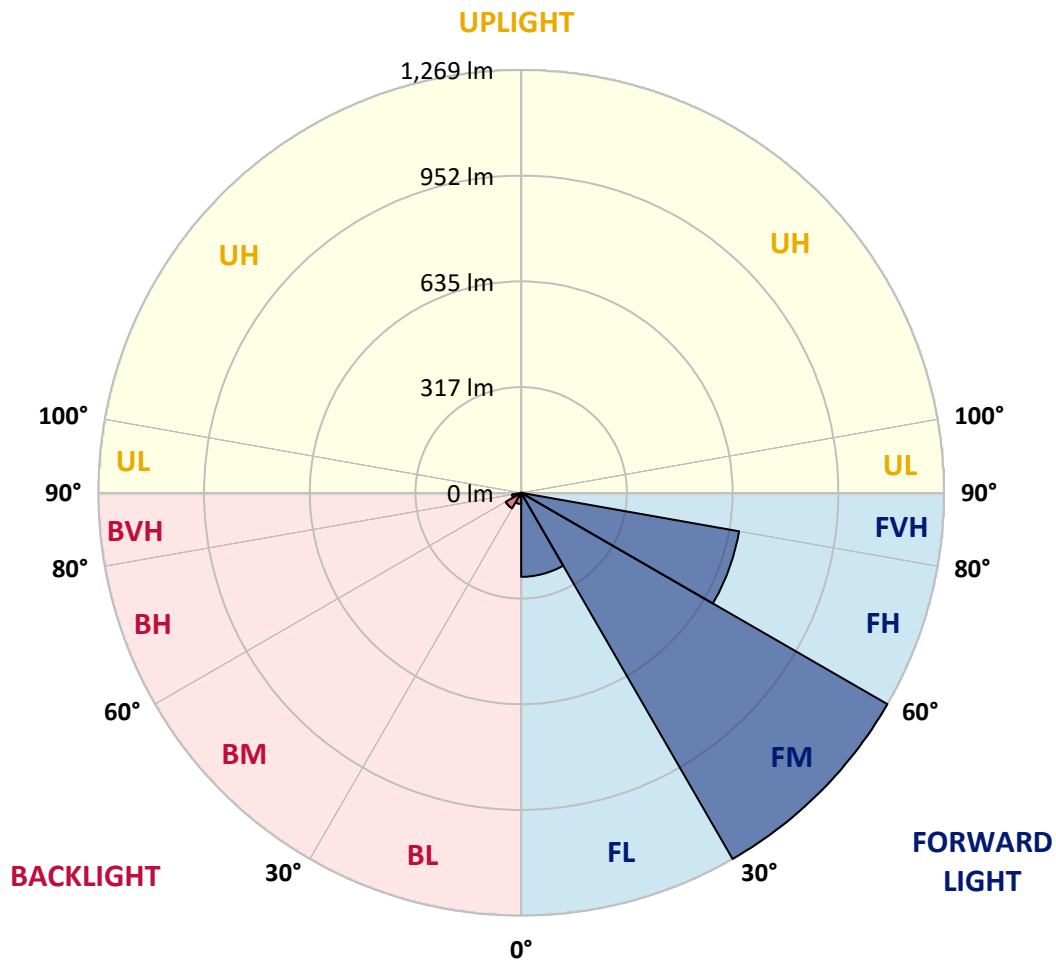
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	252.1	10.9			
FM (30°-60°)	1269.1	55.0			
FH (60°-80°)	664.3	28.8			G1/1800
FVH (80°-90°)	8.2	0.4			G0/10
BL (0°-30°)	33.5	1.4	B0/110		
BM (30°-60°)	53.7	2.3	B0/220		
BH (60°-80°)	27.9	1.2	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9
2.5°	353.9	350.4	347.0	343.0	334.0	318.5	299.1	278.2	252.2	247.8	226.8
5°	429.7	428.2	424.7	419.2	409.3	392.3	370.4	339.5	296.1	288.6	244.3
7.5°	483.0	482.0	479.1	472.6	463.6	446.7	423.7	390.3	340.0	331.5	266.2
10°	530.9	530.4	527.9	521.9	513.0	494.5	470.1	435.2	381.8	372.4	291.6
12.5°	574.3	574.8	573.8	570.8	564.3	546.8	518.9	481.0	422.2	411.8	322.0
15°	599.7	601.2	605.2	611.2	613.1	599.2	570.3	528.4	463.6	454.6	356.9
17.5°	591.2	592.7	605.2	625.6	645.1	647.0	621.1	573.3	504.5	495.5	391.3
20°	570.8	572.8	585.7	613.6	651.5	678.0	667.5	622.1	543.4	532.4	424.2
22.5°	593.7	593.7	597.7	614.6	649.0	690.4	704.4	671.0	583.2	569.8	457.1
25°	672.5	671.0	662.5	655.5	666.5	703.4	732.3	720.8	630.1	614.6	492.0
27.5°	772.2	779.1	763.2	737.8	712.8	728.8	757.2	770.2	681.9	666.0	527.9
30°	883.8	886.8	867.9	834.0	790.1	774.7	786.6	812.5	738.3	720.8	565.3
32.5°	984.5	982.0	966.1	930.7	876.4	843.0	824.5	846.4	799.6	779.6	603.7
35°	1073.8	1075.8	1056.3	1015.4	962.1	926.7	882.8	884.8	868.4	845.4	648.0
37.5°	1154.0	1150.5	1132.1	1091.2	1042.9	1004.5	958.1	924.7	943.7	919.7	697.9
40°	1219.3	1215.8	1196.4	1156.5	1111.1	1079.7	1043.4	978.0	1022.9	995.5	751.2
42.5°	1271.2	1267.2	1250.7	1212.3	1168.5	1140.6	1123.1	1043.8	1107.7	1080.2	811.1
45°	1296.6	1293.1	1283.1	1254.2	1215.8	1191.4	1199.9	1119.6	1198.4	1175.5	876.9
47.5°	1266.7	1265.2	1276.6	1271.7	1249.7	1236.8	1266.2	1202.4	1293.6	1271.2	952.6
50°	1176.0	1178.4	1211.8	1253.2	1263.7	1279.1	1320.5	1289.6	1395.8	1371.9	1039.9
52.5°	952.1	969.1	1069.8	1169.5	1246.7	1305.1	1384.3	1414.2	1562.3	1538.9	1176.0
55°	710.9	717.8	827.5	998.0	1178.4	1303.1	1431.7	1487.5	1644.5	1620.6	1211.8
57.5°	563.8	566.3	620.6	794.6	1037.9	1258.2	1456.6	1513.9	1680.4	1660.5	1265.2
60°	442.7	445.7	485.0	604.7	840.0	1137.1	1420.7	1536.9	1750.7	1734.8	1358.4
62.5°	344.5	347.5	371.4	441.7	630.1	950.6	1348.4	1573.8	1884.3	1876.8	1510.9
65°	266.7	267.7	284.1	317.0	445.2	748.7	1260.2	1608.1	2064.8	2058.3	1634.6
67.5°	196.9	198.4	209.9	230.3	300.6	537.9	1115.6	1581.7	2200.9	2181.9	1679.4
69°	159.0	160.5	170.5	186.9	237.3	423.7	983.5	1516.4	2221.3	2203.4	1651.0
70°	136.1	137.1	147.1	161.0	202.4	359.9	878.8	1460.1	2194.4	2176.9	1586.2
72.5°	87.2	92.2	102.2	111.2	134.1	238.3	593.2	1210.8	1893.3	1863.4	1242.3
75°	48.4	49.8	67.8	78.8	89.2	155.0	330.0	755.2	1204.4	1183.4	664.5
77.5°	39.9	40.9	47.9	59.8	59.8	86.7	124.6	297.6	458.1	413.3	180.0
80°	27.9	28.9	36.4	39.4	42.9	48.9	40.4	65.3	70.8	62.8	26.9
82.5°	19.4	20.4	24.9	32.4	34.4	22.9	15.0	19.4	20.4	20.4	10.5
85°	3.5	5.0	18.4	26.9	20.4	7.0	8.5	7.0	6.5	7.0	2.5
87.5°	0.0	0.0	11.5	13.0	11.0	3.0	3.5	2.5	1.5	2.0	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9
2.5°	216.3	205.9	187.9	175.0	164.0	155.5	152.0	146.6	142.6	144.6	142.1
5°	222.3	203.9	175.0	156.5	143.6	132.6	123.6	116.6	111.2	110.2	109.2
7.5°	231.8	205.4	167.5	144.6	125.1	108.2	94.2	83.7	75.8	75.8	72.8
10°	244.8	209.4	163.0	132.6	103.7	80.8	66.8	56.8	52.8	52.3	51.3
12.5°	262.7	216.8	159.5	117.1	80.8	58.8	50.3	46.9	45.4	44.9	44.4
15°	287.1	227.8	155.5	98.2	61.3	48.4	44.9	41.9	40.4	39.9	39.4
17.5°	310.6	237.8	147.1	78.8	49.8	43.9	39.9	37.4	35.4	34.9	34.9
20°	332.5	246.3	132.6	61.3	44.9	39.4	35.4	32.4	30.4	29.9	29.9
22.5°	355.4	253.2	114.7	49.8	40.9	34.9	30.9	27.9	25.9	25.4	24.9
25°	379.9	258.2	94.2	44.4	36.9	30.9	26.4	23.9	22.4	21.9	21.4
27.5°	406.3	260.2	74.8	40.4	32.4	26.9	22.9	20.4	19.4	18.9	18.9
30°	430.2	258.2	57.8	35.9	28.4	23.4	19.9	17.9	16.9	16.5	16.5
32.5°	455.1	253.2	46.4	31.9	24.9	19.9	16.9	15.5	15.0	14.5	14.5
35°	481.5	246.8	39.9	28.4	21.4	17.4	15.0	14.0	13.5	13.0	13.0
37.5°	512.5	238.8	36.4	25.4	18.9	15.5	13.0	12.5	12.0	12.0	12.0
40°	547.3	228.8	33.9	22.9	16.9	13.5	11.5	11.0	10.5	10.5	10.5
42.5°	584.2	217.3	31.4	20.4	15.0	11.5	10.0	10.0	9.5	9.5	9.0
45°	625.6	205.9	28.9	17.9	13.0	10.0	8.5	8.0	8.0	7.5	7.5
47.5°	674.5	195.4	26.4	16.0	11.5	8.5	7.5	7.0	6.5	6.0	6.0
50°	743.3	194.4	23.4	14.0	10.5	7.0	6.0	5.5	5.0	4.5	4.5
52.5°	811.6	185.4	19.9	11.5	8.5	6.0	4.5	4.0	3.5	3.5	3.0
55°	827.0	170.5	17.4	10.0	6.5	4.5	3.5	2.5	2.5	2.0	2.0
57.5°	860.9	163.5	15.0	8.0	5.0	3.5	2.0	1.5	1.5	1.5	1.5
60°	927.7	161.5	13.0	7.0	3.5	2.5	1.5	1.0	1.0	0.5	0.5
62.5°	1019.9	159.5	11.0	6.0	2.5	1.5	1.0	0.5	0.0	0.0	0.0
65°	1070.8	146.1	9.0	4.5	2.0	1.5	0.5	0.0	0.0	0.0	0.0
67.5°	1057.3	120.6	8.0	3.0	1.5	1.0	0.5	0.0	0.0	0.0	0.0
69°	1001.0	101.7	6.5	2.5	1.5	1.0	0.5	0.0	0.0	0.0	0.0
70°	933.2	87.7	6.0	2.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0
72.5°	662.5	45.9	4.0	1.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0
75°	309.6	20.4	2.5	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0
77.5°	68.3	9.5	1.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	13.0	3.5	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.5	1.5	0.5	0.5	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°	0.5	0.0	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)