

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: P214671

Luminaire Tested: **ARCH-AF24-20-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214671
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-AF24-20-D-U-T2R-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2203 lumens
Efficiency: N/A
Efficacy: 104.9 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 - G0

Input Watts (W): 21
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

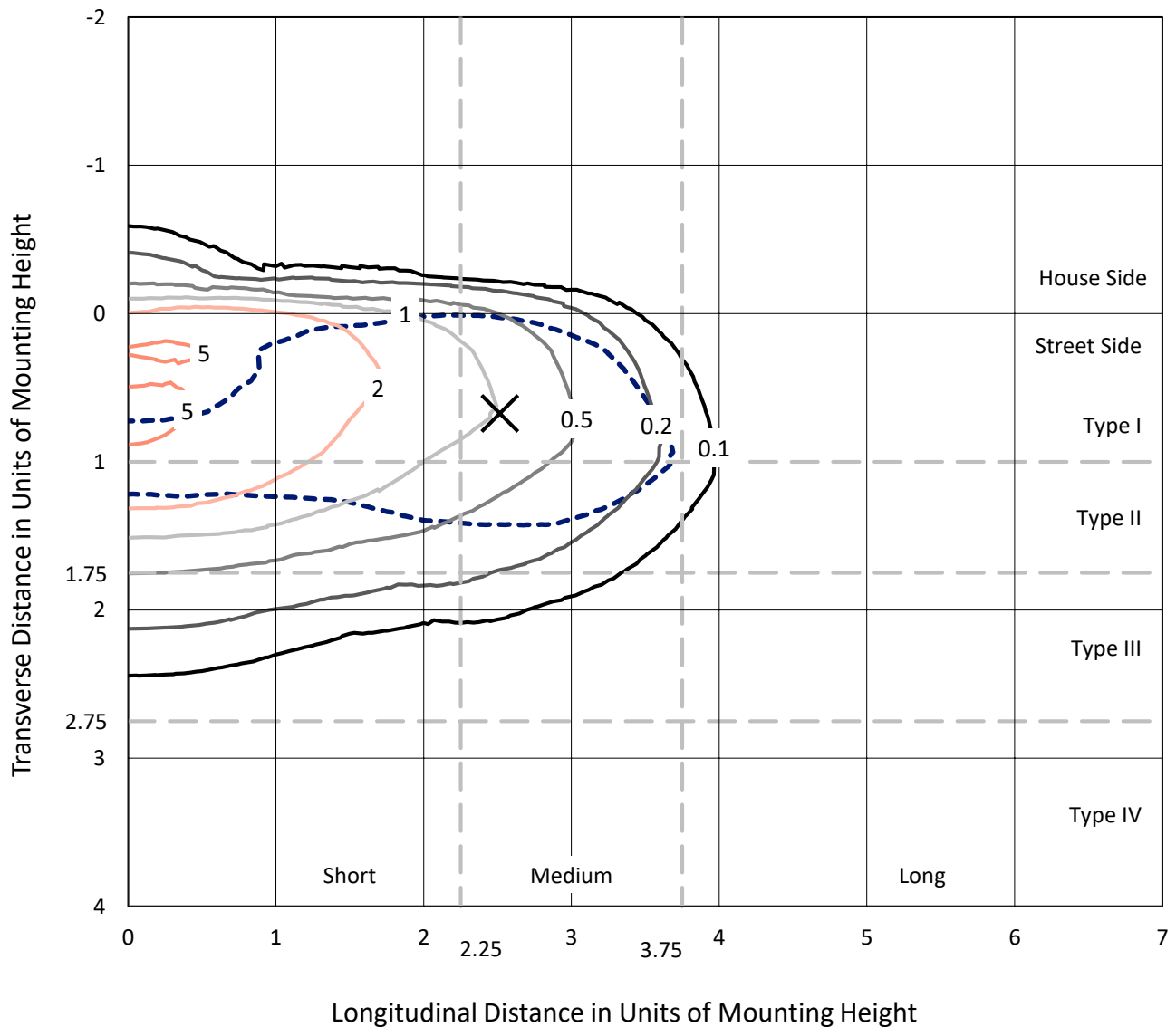


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

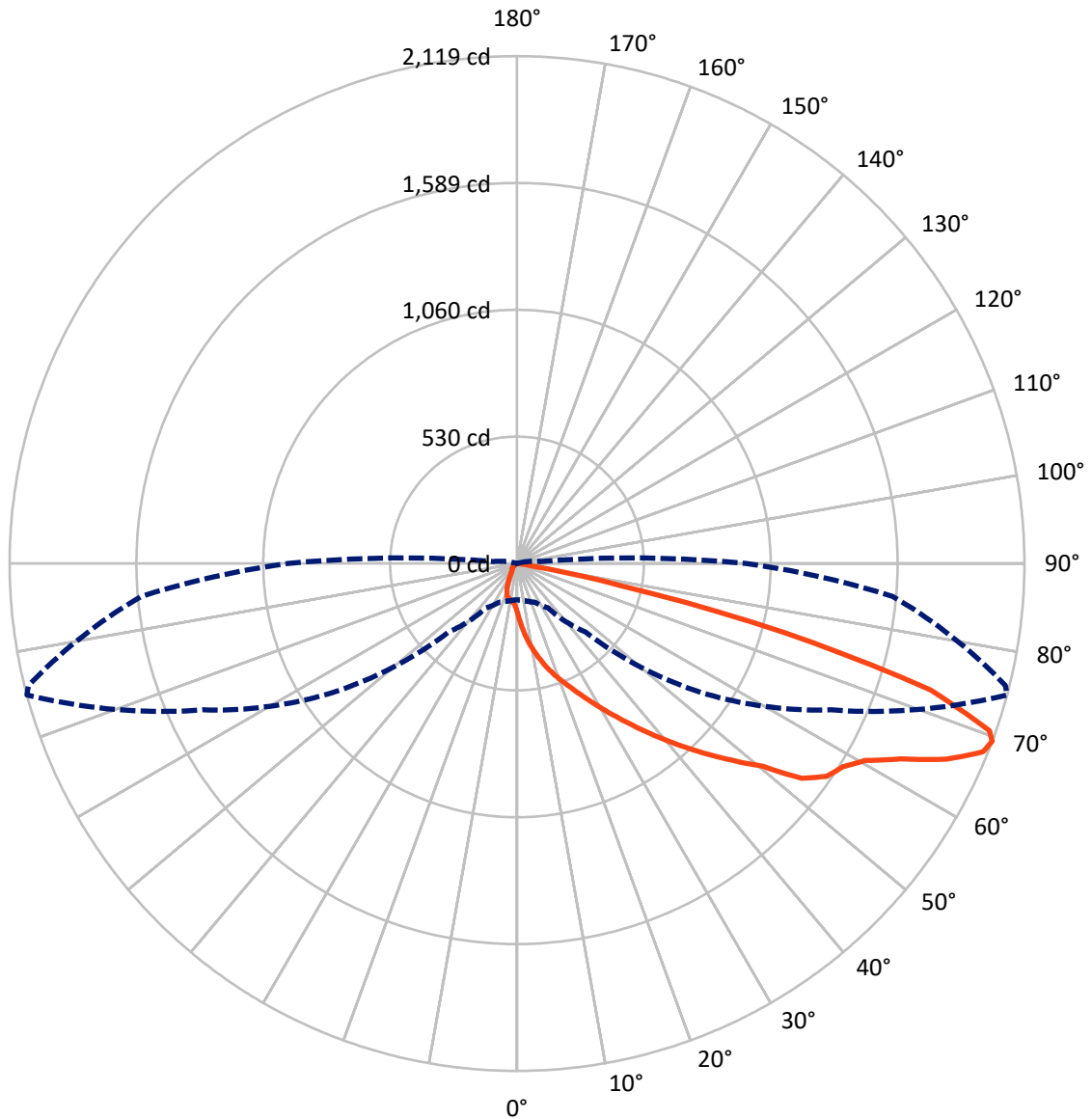


Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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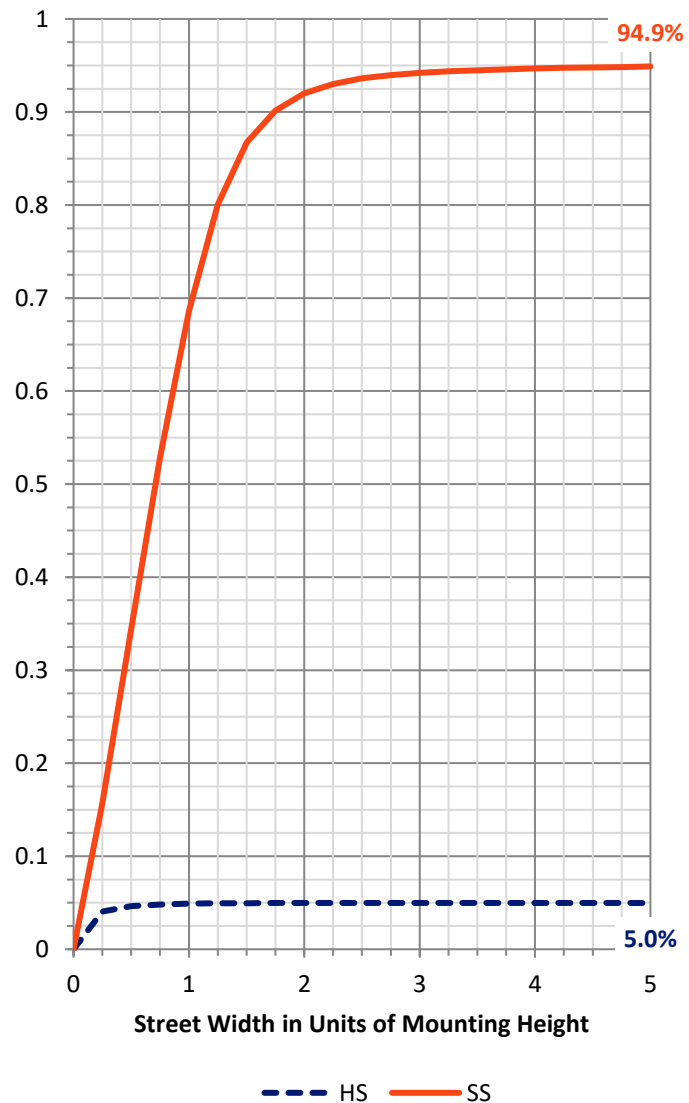
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	109.9	0.0	109.9
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	2093.1	0.0	2093.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	2203.0	0.0	2203.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.9	1.1
10°-20°	85.5	3.9
20°-30°	163.1	7.4
30°-40°	292.6	13.3
40°-50°	448.3	20.4
50°-60°	521.1	23.7
60°-70°	461.4	20.9
70°-80°	199.0	9.0
80°-90°	8.0	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°	2203.0	100.0
0°-180°	2203.0	100.0

Coefficient of Utilization



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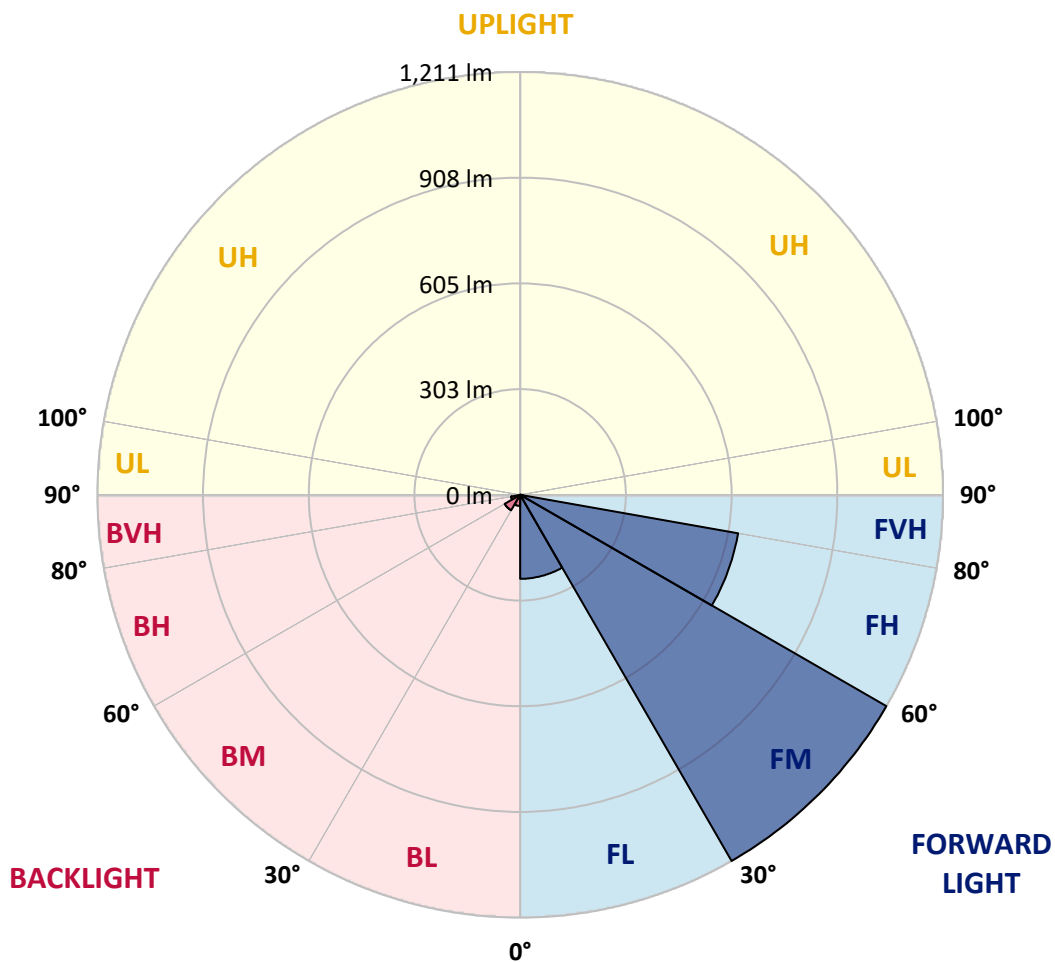
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	240.6	10.9			
FM	(30°-60°)	1210.8	55.0			
FH	(60°-80°)	633.8	28.8			G0/660
FVH	(80°-90°)	7.9	0.4			G0/10
BL	(0°-30°)	31.9	1.4	B0/110		
BM	(30°-60°)	51.2	2.3	B0/220		
BH	(60°-80°)	26.6	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-G0

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0
2.5°	337.7	334.4	331.0	327.2	318.7	303.9	285.4	265.4	240.7	236.4	216.4
5°	410.0	408.5	405.2	400.0	390.5	374.3	353.4	323.9	282.5	275.4	233.0
7.5°	460.9	459.9	457.1	450.9	442.3	426.1	404.3	372.4	324.4	316.3	254.0
10°	506.5	506.1	503.7	498.0	489.4	471.8	448.5	415.2	364.3	355.3	278.2
12.5°	547.9	548.4	547.4	544.6	538.4	521.7	495.1	459.0	402.8	392.9	307.2
15°	572.2	573.6	577.4	583.1	585.0	571.7	544.1	504.1	442.3	433.8	340.5
17.5°	564.1	565.5	577.4	596.9	615.4	617.3	592.6	547.0	481.3	472.8	373.4
20°	544.6	546.5	558.8	585.5	621.6	646.8	636.8	593.6	518.4	508.0	404.7
22.5°	566.5	566.5	570.3	586.4	619.2	658.7	672.0	640.2	556.5	543.6	436.1
25°	641.6	640.2	632.1	625.4	635.9	671.1	698.7	687.7	601.2	586.4	469.4
27.5°	736.7	743.4	728.2	703.9	680.1	695.3	722.5	734.8	650.6	635.4	503.7
30°	843.3	846.1	828.0	795.7	753.8	739.1	750.5	775.2	704.4	687.7	539.3
32.5°	939.3	937.0	921.7	888.0	836.1	804.3	786.7	807.6	762.9	743.9	576.0
35°	1024.5	1026.4	1007.8	968.8	917.9	884.2	842.3	844.2	828.5	806.6	618.3
37.5°	1101.0	1097.7	1080.1	1041.1	995.0	958.4	914.1	882.3	900.3	877.5	665.9
40°	1163.3	1160.0	1141.5	1103.4	1060.1	1030.2	995.5	933.1	976.0	949.8	716.7
42.5°	1212.8	1209.0	1193.3	1156.7	1114.8	1088.2	1071.6	995.9	1056.8	1030.6	773.8
45°	1237.1	1233.7	1224.2	1196.6	1160.0	1136.7	1144.8	1068.2	1143.4	1121.5	836.6
47.5°	1208.5	1207.1	1218.0	1213.3	1192.4	1180.0	1208.1	1147.2	1234.2	1212.8	908.9
50°	1122.0	1124.3	1156.2	1195.7	1205.7	1220.4	1259.9	1230.4	1331.7	1308.9	992.1
52.5°	908.4	924.6	1020.7	1115.8	1189.5	1245.1	1320.8	1349.3	1490.6	1468.2	1122.0
55°	678.2	684.9	789.5	952.2	1124.3	1243.2	1366.0	1419.2	1569.0	1546.2	1156.2
57.5°	537.9	540.3	592.1	758.1	990.2	1200.4	1389.7	1444.4	1603.3	1584.3	1207.1
60°	422.3	425.2	462.8	576.9	801.4	1084.9	1355.5	1466.3	1670.3	1655.1	1296.0
62.5°	328.6	331.5	354.3	421.4	601.2	907.0	1286.5	1501.5	1797.8	1790.7	1441.6
65°	254.5	255.4	271.1	302.5	424.7	714.4	1202.3	1534.3	1970.0	1963.8	1559.5
67.5°	187.9	189.3	200.2	219.7	286.8	513.2	1064.4	1509.1	2099.8	2081.7	1602.3
69°	151.7	153.1	162.7	178.4	226.4	404.3	938.4	1446.8	2119.3	2102.2	1575.2
70°	129.8	130.8	140.3	153.6	193.1	343.4	838.5	1393.1	2093.6	2077.0	1513.4
72.5°	83.2	88.0	97.5	106.1	127.9	227.3	566.0	1155.3	1806.4	1777.8	1185.2
75°	46.1	47.6	64.7	75.1	85.1	147.9	314.9	720.6	1149.1	1129.1	634.0
77.5°	38.0	39.0	45.7	57.1	57.1	82.8	118.9	283.9	437.1	394.3	171.7
80°	26.6	27.6	34.7	37.6	40.9	46.6	38.5	62.3	67.5	59.9	25.7
82.5°	18.5	19.5	23.8	30.9	32.8	21.9	14.3	18.5	19.5	19.5	10.0
85°	3.3	4.8	17.6	25.7	19.5	6.7	8.1	6.7	6.2	6.7	2.4
87.5°	0.0	0.0	10.9	12.4	10.5	2.9	3.3	2.4	1.4	1.9	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0
2.5°	206.4	196.4	179.3	166.9	156.5	148.4	145.1	139.8	136.0	137.9	135.5
5°	212.1	194.5	166.9	149.3	137.0	126.5	118.0	111.3	106.1	105.1	104.2
7.5°	221.2	196.0	159.8	137.9	119.4	103.2	89.9	79.9	72.3	72.3	69.4
10°	233.5	199.8	155.5	126.5	98.9	77.0	63.7	54.2	50.4	49.9	49.0
12.5°	250.6	206.9	152.2	111.8	77.0	56.1	48.0	44.7	43.3	42.8	42.3
15°	274.0	217.4	148.4	93.7	58.5	46.1	42.8	40.0	38.5	38.0	37.6
17.5°	296.3	226.9	140.3	75.1	47.6	41.9	38.0	35.7	33.8	33.3	33.3
20°	317.2	235.0	126.5	58.5	42.8	37.6	33.8	30.9	29.0	28.5	28.5
22.5°	339.1	241.6	109.4	47.6	39.0	33.3	29.5	26.6	24.7	24.3	23.8
25°	362.4	246.4	89.9	42.3	35.2	29.5	25.2	22.8	21.4	20.9	20.5
27.5°	387.6	248.3	71.3	38.5	30.9	25.7	21.9	19.5	18.5	18.1	18.1
30°	410.5	246.4	55.2	34.2	27.1	22.4	19.0	17.1	16.2	15.7	15.7
32.5°	434.2	241.6	44.2	30.4	23.8	19.0	16.2	14.7	14.3	13.8	13.8
35°	459.4	235.4	38.0	27.1	20.5	16.6	14.3	13.3	12.8	12.4	12.4
37.5°	488.9	227.8	34.7	24.3	18.1	14.7	12.4	11.9	11.4	11.4	11.4
40°	522.2	218.3	32.3	21.9	16.2	12.8	10.9	10.5	10.0	10.0	10.0
42.5°	557.4	207.4	30.0	19.5	14.3	10.9	9.5	9.5	9.0	9.0	8.6
45°	596.9	196.4	27.6	17.1	12.4	9.5	8.1	7.6	7.6	7.1	7.1
47.5°	643.5	186.4	25.2	15.2	10.9	8.1	7.1	6.7	6.2	5.7	5.7
50°	709.1	185.5	22.4	13.3	10.0	6.7	5.7	5.2	4.8	4.3	4.3
52.5°	774.3	176.9	19.0	10.9	8.1	5.7	4.3	3.8	3.3	3.3	2.9
55°	789.0	162.7	16.6	9.5	6.2	4.3	3.3	2.4	2.4	1.9	1.9
57.5°	821.4	156.0	14.3	7.6	4.8	3.3	1.9	1.4	1.4	1.4	1.4
60°	885.1	154.1	12.4	6.7	3.3	2.4	1.4	1.0	1.0	0.5	0.5
62.5°	973.1	152.2	10.5	5.7	2.4	1.4	1.0	0.5	0.0	0.0	0.0
65°	1021.6	139.4	8.6	4.3	1.9	1.4	0.5	0.0	0.0	0.0	0.0
67.5°	1008.8	115.1	7.6	2.9	1.4	1.0	0.5	0.0	0.0	0.0	0.0
69°	955.0	97.0	6.2	2.4	1.4	1.0	0.5	0.0	0.0	0.0	0.0
70°	890.3	83.7	5.7	1.9	1.0	0.5	0.5	0.0	0.0	0.0	0.0
72.5°	632.1	43.8	3.8	1.4	1.0	0.5	0.0	0.0	0.0	0.0	0.0
75°	295.4	19.5	2.4	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0
77.5°	65.2	9.0	1.4	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	12.4	3.3	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.3	1.4	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.4	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)