

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: P214806

Luminaire Tested: **ARCH-AF16-20-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214806
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-T3-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 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: 2139 lumens
Efficiency: N/A
Efficacy: 89.1 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 (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

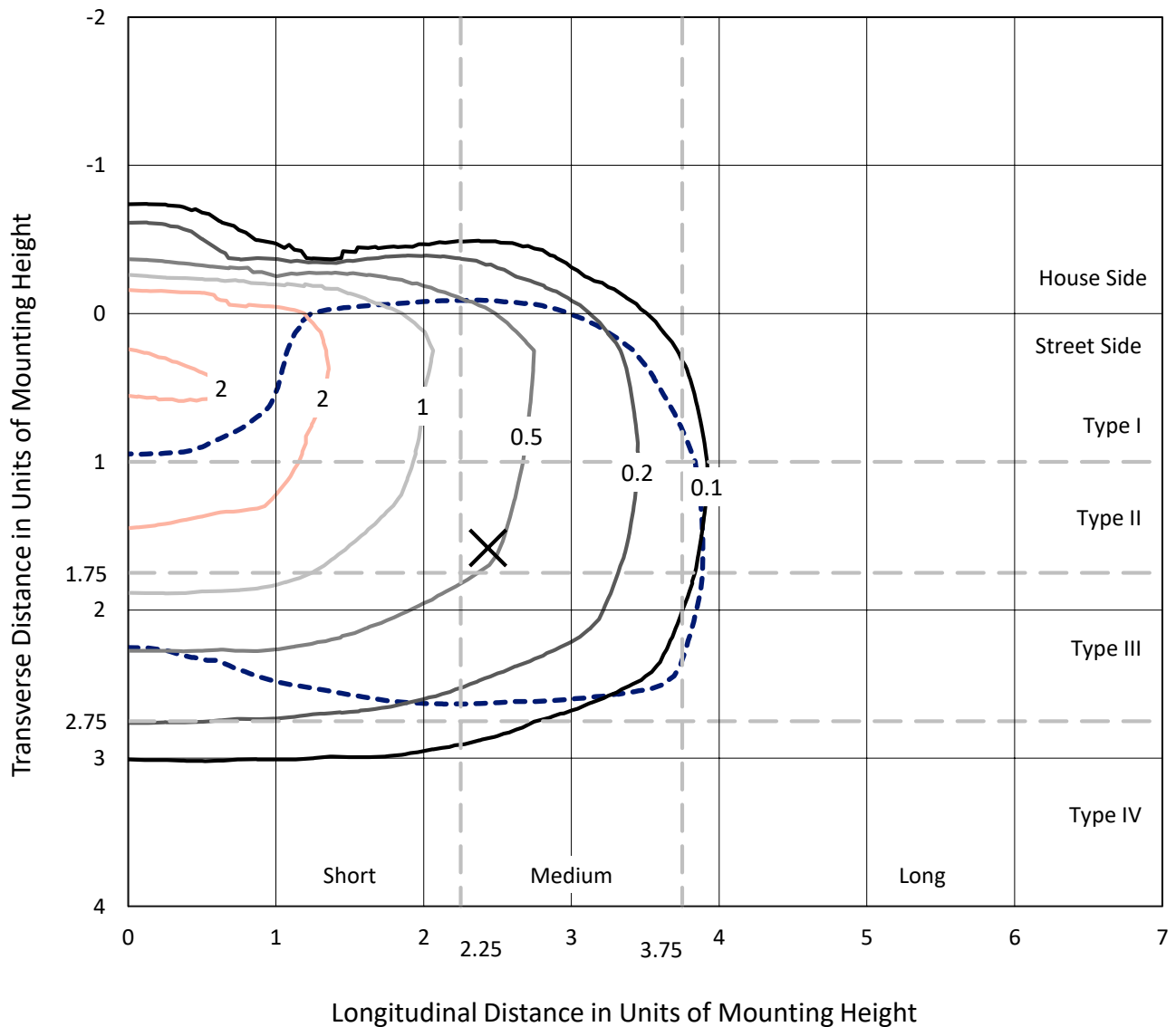


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

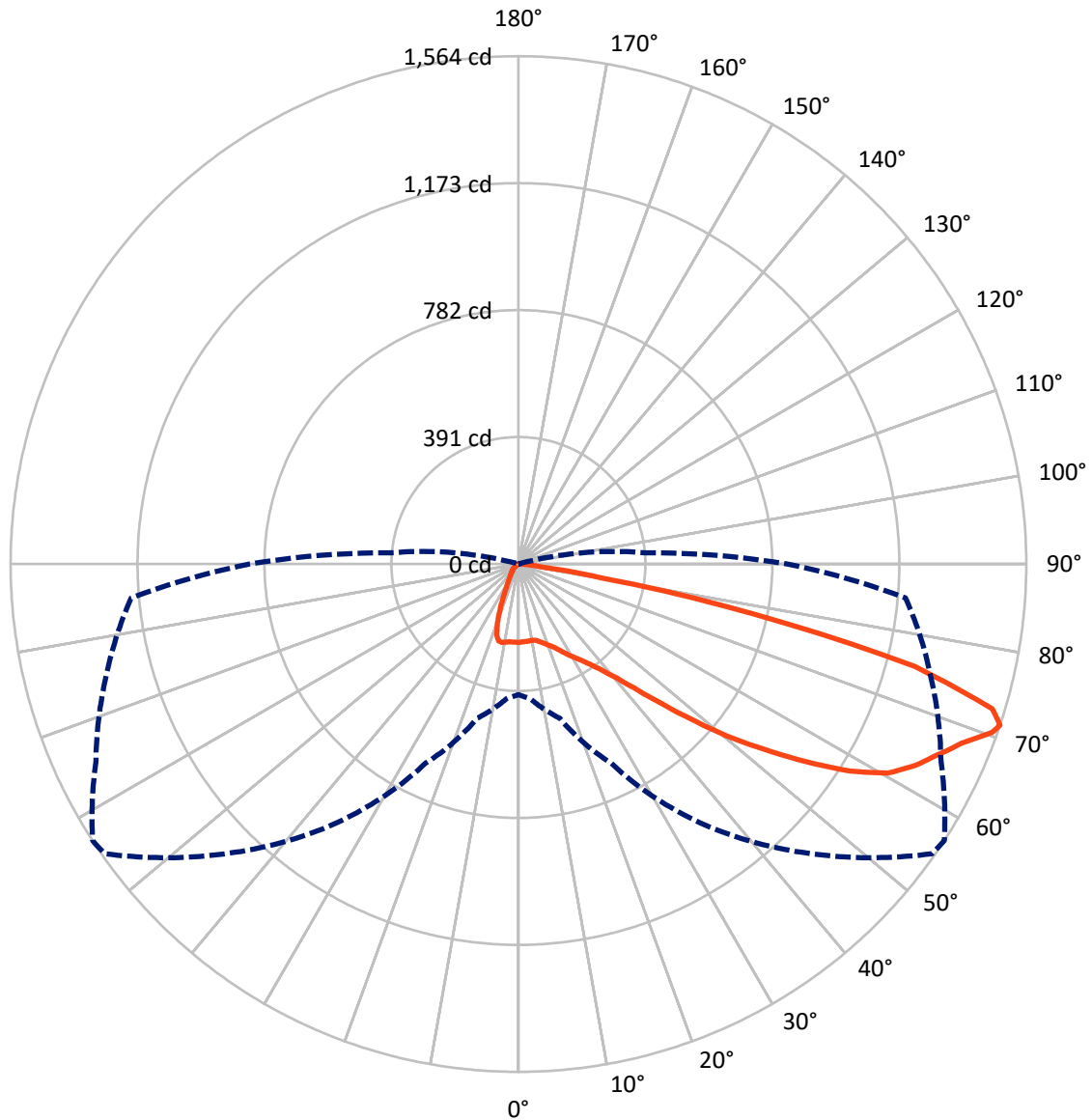


Based on 10 foot mounting height. Maximum calculated value = 3 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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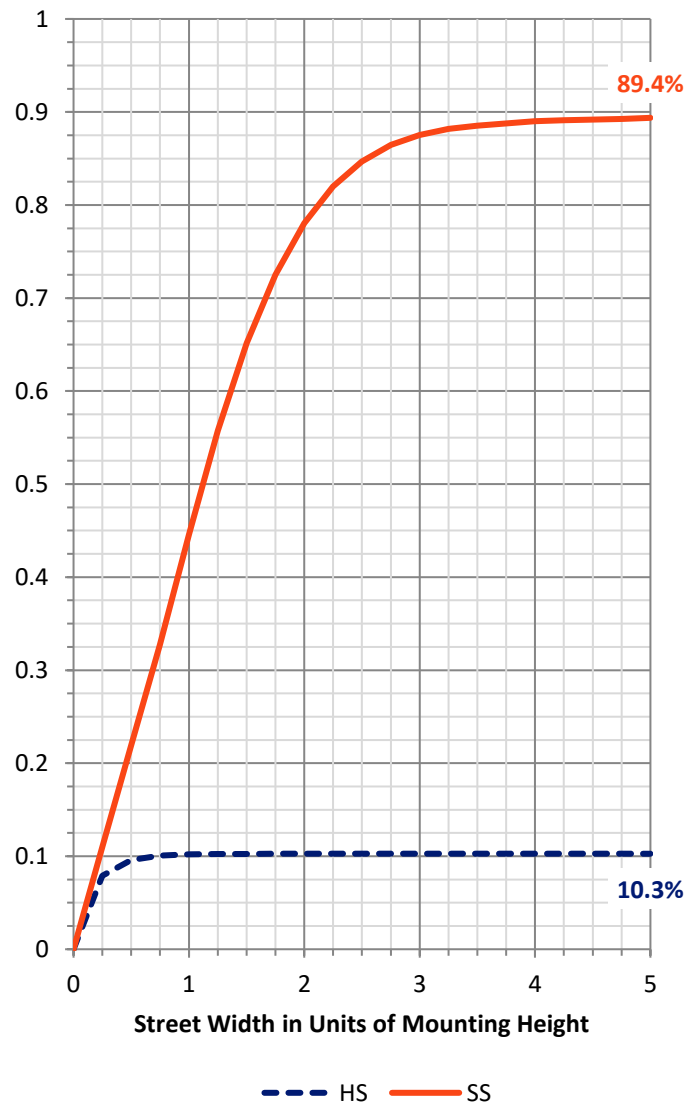
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	221.7	0.0	221.7
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	1917.3	0.0	1917.3
	% Fixture	89.6	0.0	89.6
Total	Lumens	2139.0	0.0	2139.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.7	1.1
10°-20°	60.7	2.8
20°-30°	94.7	4.4
30°-40°	160.0	7.5
40°-50°	310.9	14.5
50°-60°	522.0	24.4
60°-70°	623.0	29.1
70°-80°	328.3	15.3
80°-90°	16.7	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°	2139.0	100.0
0°-180°	2139.0	100.0



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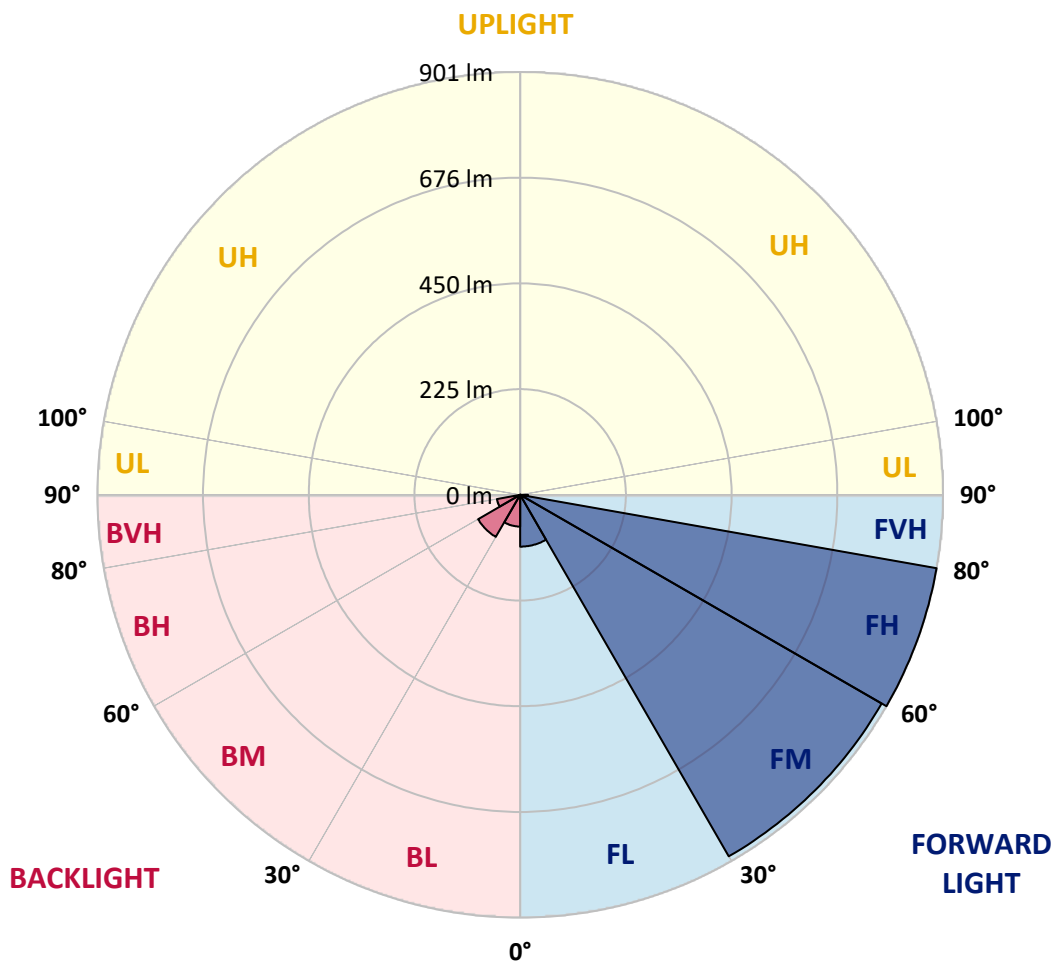
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	110.4	5.2			
FM	(30°-60°)	889.4	41.6			
FH	(60°-80°)	901.0	42.1			G1/1800
FVH	(80°-90°)	16.5	0.8			G1/100
BL	(0°-30°)	67.7	3.2	B0/110		
BM	(30°-60°)	103.5	4.8	B0/220		
BH	(60°-80°)	50.3	2.4	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7
2.5°	238.3	238.3	238.3	238.7	239.2	239.2	240.2	239.7	239.7	239.7	240.7
5°	231.8	232.3	232.8	233.8	235.8	237.3	239.7	239.7	240.2	241.2	241.7
7.5°	222.8	223.3	224.8	226.8	230.8	234.3	238.3	239.2	240.7	243.2	244.2
10°	217.3	218.3	220.3	222.8	227.3	231.8	236.8	238.3	242.7	247.2	249.7
12.5°	215.8	216.3	218.3	222.3	227.8	233.3	239.7	241.2	247.7	254.7	258.7
15°	218.3	218.8	219.8	224.3	230.8	237.8	246.2	248.2	256.2	264.2	269.2
17.5°	222.8	222.8	223.8	227.8	234.8	242.7	253.7	256.7	265.7	274.6	280.1
20°	225.8	225.8	227.3	231.3	239.2	249.7	262.7	266.7	276.6	286.6	291.6
22.5°	228.8	229.3	230.8	235.3	244.2	258.7	273.6	277.6	289.1	299.6	304.5
25°	237.3	236.8	237.3	241.2	251.7	269.7	288.6	293.6	305.5	317.0	319.5
27.5°	260.7	259.7	253.2	250.7	258.7	281.1	307.5	312.5	326.5	337.9	337.9
30°	314.5	312.5	296.6	276.1	269.7	291.6	325.5	332.5	350.4	360.4	357.4
32.5°	382.8	378.3	357.9	323.0	297.1	305.5	344.4	352.4	375.3	383.8	377.3
35°	457.6	457.1	431.6	386.8	349.9	334.4	368.8	378.3	407.2	414.7	404.2
37.5°	536.8	538.8	521.9	460.1	416.7	381.8	401.2	412.2	447.6	456.6	446.6
40°	625.0	624.5	618.1	544.8	496.9	449.1	448.1	458.1	500.9	514.9	500.9
42.5°	736.7	735.7	712.3	646.5	594.1	536.8	516.4	519.9	567.7	590.6	570.2
45°	850.3	843.3	816.4	759.6	713.3	645.5	606.6	606.6	647.5	678.9	647.0
47.5°	913.6	906.6	895.7	864.3	850.3	774.6	717.2	710.3	742.2	774.1	729.2
50°	996.9	996.9	969.4	957.5	981.4	928.1	839.4	832.4	847.8	873.3	814.4
52.5°	1062.7	1050.7	1031.3	1041.7	1110.0	1085.6	961.5	948.0	960.0	966.5	888.7
55°	1090.1	1078.6	1077.1	1115.5	1221.2	1187.3	1086.6	1074.6	1073.6	1041.7	953.5
57.5°	1095.6	1085.6	1104.5	1171.8	1329.3	1270.5	1211.2	1202.2	1174.3	1094.6	1019.8
60°	1049.2	1054.2	1100.0	1202.7	1393.1	1342.8	1316.4	1306.9	1242.6	1139.4	1093.6
62.5°	954.0	966.0	1051.7	1205.7	1369.7	1372.2	1374.7	1368.2	1295.4	1180.3	1167.8
65°	841.4	844.8	948.0	1164.3	1328.8	1363.2	1417.5	1417.0	1335.8	1226.1	1251.6
67.5°	693.3	699.3	788.5	1024.8	1247.1	1359.2	1473.9	1472.4	1381.7	1278.5	1301.4
70°	515.9	523.4	595.6	797.0	1064.7	1309.4	1547.6	1548.6	1430.0	1318.4	1267.0
71°	402.2	415.7	491.5	676.9	971.4	1259.0	1554.6	1563.6	1435.5	1312.9	1196.2
72.5°	197.4	213.3	308.5	476.5	799.5	1146.4	1508.8	1526.2	1401.1	1244.6	1022.8
75°	51.3	54.3	92.2	194.9	428.7	759.6	1216.7	1261.0	1145.4	947.5	625.0
77.5°	32.4	33.4	43.4	75.8	160.5	288.6	714.8	736.7	654.4	480.0	220.3
80°	22.9	23.4	27.4	48.8	93.7	84.2	257.2	266.7	236.8	127.1	39.4
82.5°	14.0	14.0	19.9	31.4	57.8	45.9	67.8	72.3	63.8	35.4	13.0
85°	8.0	8.5	12.5	21.4	27.4	22.4	25.4	26.9	27.4	23.4	5.5
87.5°	6.5	7.0	11.0	17.9	15.0	11.0	11.0	11.5	12.0	14.0	2.5
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°	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7	241.7
2.5°	240.7	240.7	241.2	240.7	240.7	240.7	241.2	241.2	241.2	242.2	242.7
5°	241.7	241.7	241.7	241.2	240.7	240.7	241.7	242.2	242.2	243.7	243.7
7.5°	244.2	244.2	243.2	242.2	241.2	239.7	240.2	240.7	240.2	240.7	240.7
10°	249.7	249.7	248.2	246.2	243.2	238.7	232.8	225.3	218.3	215.8	214.8
12.5°	258.7	258.2	255.2	251.7	245.2	229.8	207.3	180.9	159.0	153.0	151.0
15°	268.7	267.7	264.2	258.2	240.7	199.9	153.0	119.1	98.2	93.2	92.2
17.5°	279.1	277.6	272.6	260.7	220.3	148.5	98.7	74.8	63.3	62.3	62.8
20°	290.1	288.1	281.1	255.7	177.9	99.2	63.8	57.8	56.8	56.8	57.3
22.5°	302.5	300.1	290.6	237.8	129.6	65.8	54.8	54.3	53.8	53.3	53.3
25°	317.0	314.0	299.6	205.4	89.2	53.8	52.3	50.8	49.8	48.8	48.3
27.5°	334.4	330.5	306.5	165.5	61.3	50.3	49.3	46.9	44.9	42.9	42.9
30°	351.9	346.9	304.5	124.6	49.8	46.9	44.9	41.9	38.9	36.9	36.4
32.5°	370.3	365.4	291.6	83.7	45.4	42.9	40.4	35.9	32.4	29.9	29.4
35°	397.7	393.8	266.2	55.3	40.9	37.9	34.4	29.9	25.4	22.9	22.4
37.5°	438.6	433.6	234.8	42.4	35.9	31.4	28.4	23.4	18.9	16.4	15.9
40°	493.4	478.5	197.4	37.4	31.4	25.9	21.9	16.9	13.5	12.0	12.0
42.5°	557.2	521.9	157.0	33.9	27.9	21.4	15.9	11.5	9.5	9.0	9.0
45°	625.0	562.2	116.6	31.4	24.4	16.9	11.5	8.0	7.0	6.5	6.5
47.5°	694.8	595.1	81.2	28.4	20.4	13.0	8.0	6.0	5.0	4.5	4.5
50°	760.1	616.6	57.3	25.4	17.4	9.5	6.0	4.5	3.5	3.5	3.5
52.5°	805.5	614.6	41.4	21.9	13.5	6.5	4.0	3.0	3.0	3.0	3.0
55°	845.3	607.1	32.4	18.9	10.5	4.5	3.0	2.5	2.5	2.0	2.0
57.5°	879.2	595.1	27.4	15.5	7.5	3.5	2.0	2.0	1.5	1.5	1.5
60°	908.1	580.2	22.9	13.0	5.0	2.5	1.5	1.0	1.0	0.5	1.0
62.5°	947.5	570.7	19.9	10.0	3.5	1.5	1.0	0.5	0.5	0.0	0.0
65°	976.4	552.8	16.9	7.0	2.0	1.0	0.5	0.5	0.0	0.0	0.0
67.5°	977.4	520.4	12.5	4.0	1.5	1.0	0.5	0.0	0.0	0.0	0.0
70°	898.7	443.6	8.0	2.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0
71°	826.4	392.8	6.5	1.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0
72.5°	680.9	288.6	5.0	1.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
75°	375.3	104.7	2.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	120.1	31.9	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	20.4	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.0	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.5	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)