

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: P265870

Luminaire Tested: **ARCH-AF16-20-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265870
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-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 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: 2006.2 lumens
Efficiency: N/A
Efficacy: 83.6 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): 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

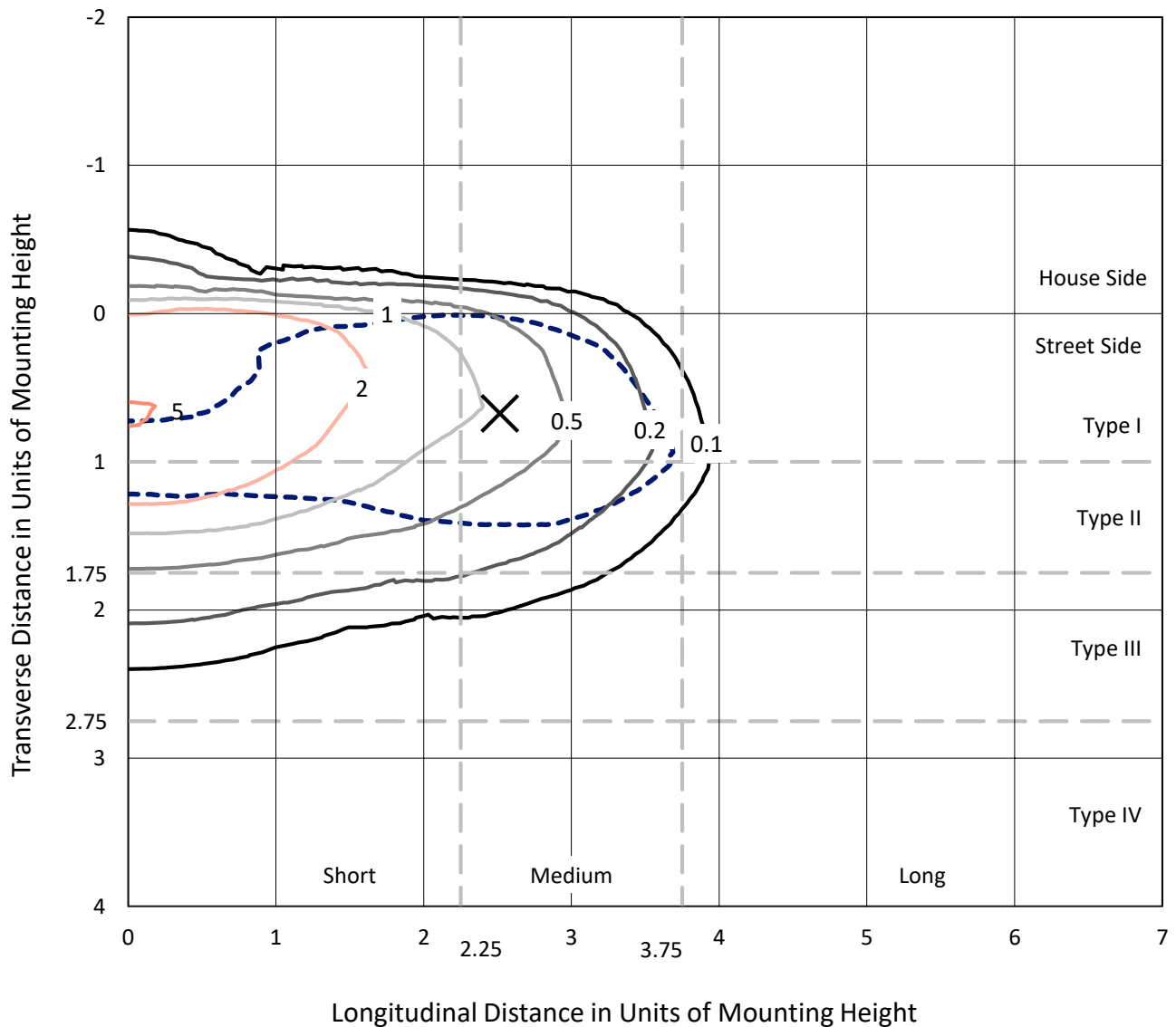


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

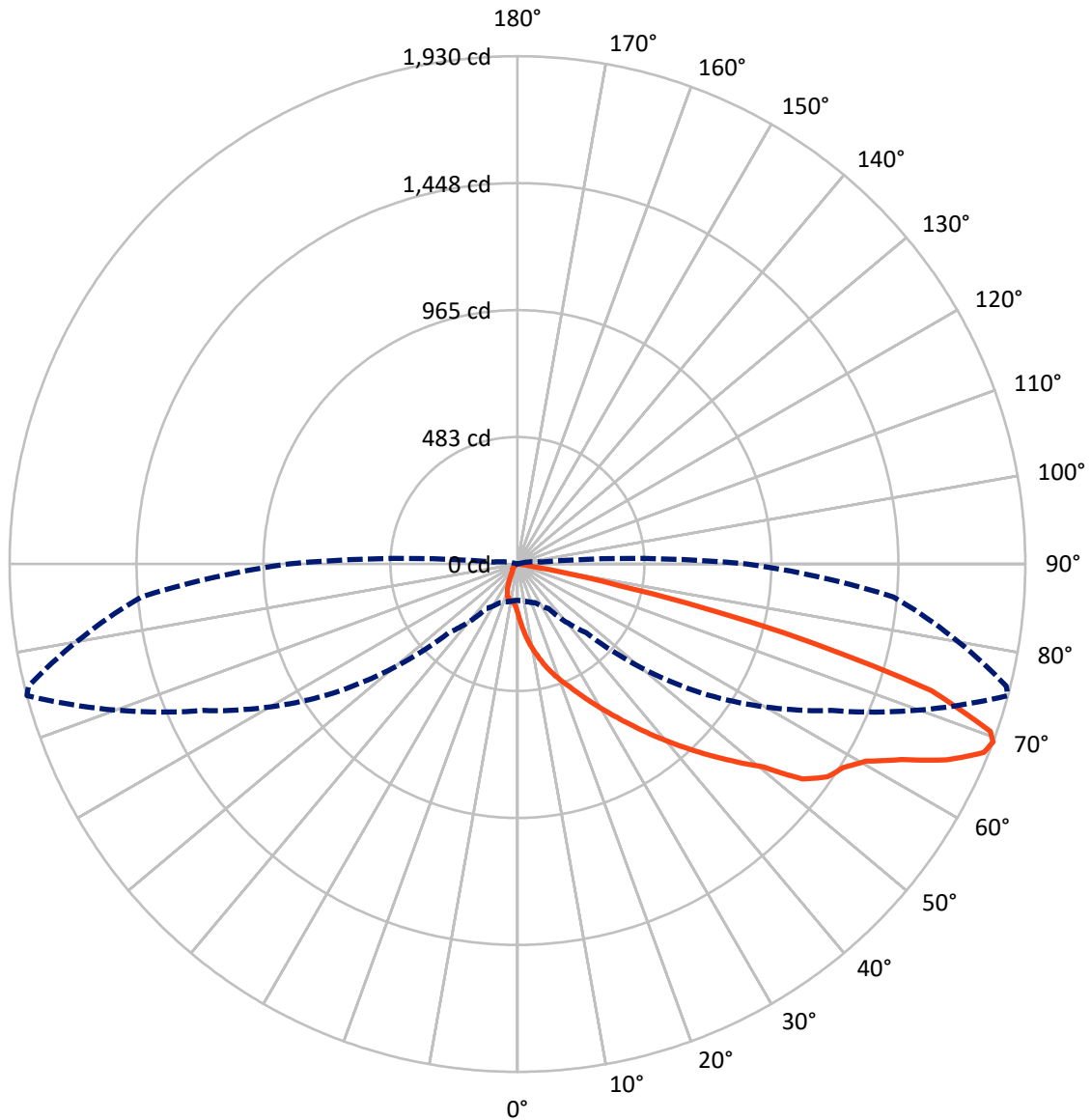


Based on 10 foot mounting height. Maximum calculated value = 5.1 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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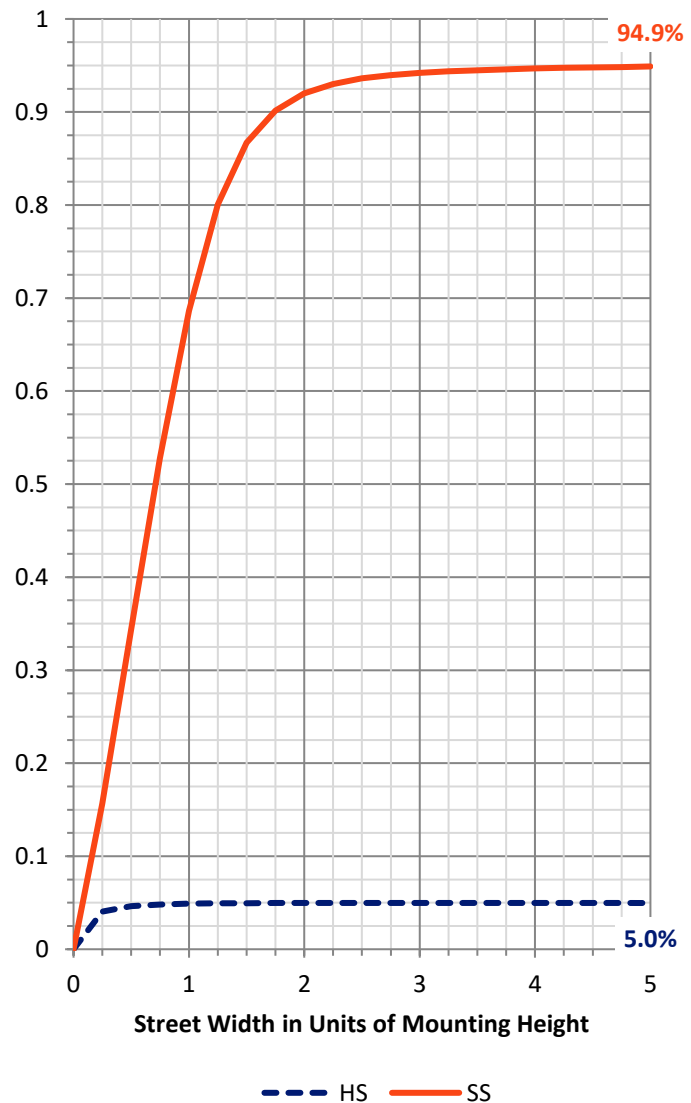
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	100.1	0.0	100.1
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	1906.1	0.0	1906.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	2006.2	0.0	2006.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.8	1.1
10°-20°	77.8	3.9
20°-30°	148.6	7.4
30°-40°	266.5	13.3
40°-50°	408.3	20.4
50°-60°	474.5	23.7
60°-70°	420.2	20.9
70°-80°	181.2	9.0
80°-90°	7.3	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°	2006.2	100.0
0°-180°	2006.2	100.0

Coefficient of Utilization



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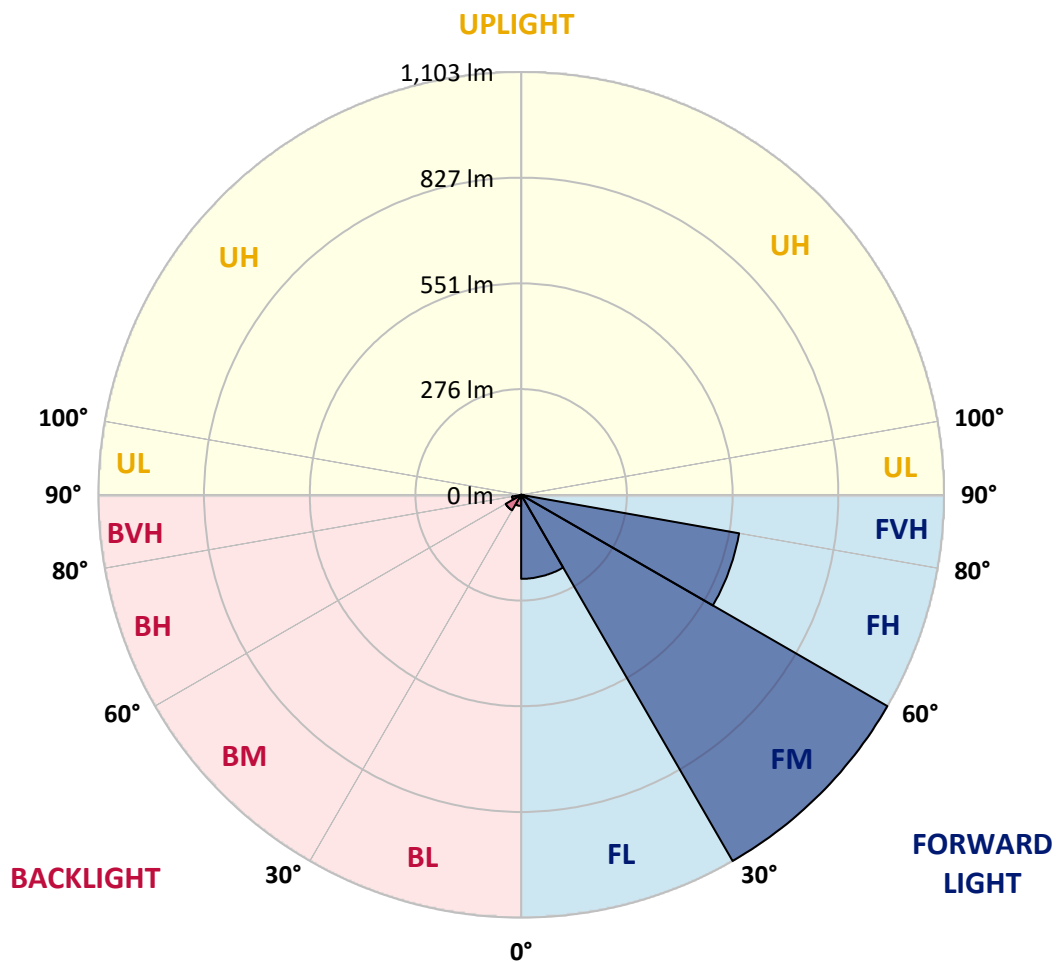
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	219.1	10.9			
FM (30°-60°)	1102.6	55.0			
FH (60°-80°)	577.2	28.8			G0/660
FVH (80°-90°)	7.2	0.4			G0/10
BL (0°-30°)	29.1	1.4	B0/110		
BM (30°-60°)	46.7	2.3	B0/220		
BH (60°-80°)	24.3	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°	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7
2.5°	307.5	304.4	301.4	298.0	290.2	276.8	259.9	241.6	219.1	215.2	197.1
5°	373.3	372.1	369.1	364.3	355.5	340.8	321.9	295.0	257.3	250.7	212.2
7.5°	419.7	418.8	416.3	410.5	402.8	388.1	368.1	339.1	295.5	288.0	231.3
10°	461.3	460.8	458.7	453.5	445.6	429.7	408.4	378.0	331.7	323.5	253.4
12.5°	499.0	499.4	498.5	496.0	490.3	475.2	450.9	417.9	366.9	357.7	279.8
15°	521.0	522.4	525.8	531.0	532.8	520.6	495.4	459.2	402.8	395.1	310.2
17.5°	513.7	515.0	525.8	543.6	560.5	562.2	539.6	498.1	438.4	430.5	340.0
20°	496.0	497.7	508.9	533.1	566.1	589.0	579.9	540.5	472.1	462.5	368.6
22.5°	515.8	515.8	519.3	534.0	564.0	599.9	611.9	583.0	506.7	495.1	397.2
25°	584.3	583.0	575.6	569.5	579.0	611.1	636.2	626.3	547.4	534.0	427.5
27.5°	670.9	677.0	663.0	641.0	619.3	633.2	657.9	669.1	592.5	578.7	458.7
30°	768.0	770.4	754.0	724.7	686.5	673.1	683.4	706.0	641.4	626.3	491.2
32.5°	855.4	853.2	839.3	808.7	761.5	732.4	716.4	735.4	694.7	677.4	524.5
35°	932.9	934.6	917.8	882.2	836.0	805.2	767.1	768.8	754.4	734.5	563.1
37.5°	1002.7	999.6	983.6	948.2	906.1	872.8	832.4	803.4	820.0	799.1	606.4
40°	1059.5	1056.3	1039.5	1004.8	965.4	938.1	906.5	849.7	888.8	864.9	652.7
42.5°	1104.5	1101.0	1086.7	1053.4	1015.3	991.0	975.7	906.8	962.4	938.5	704.7
45°	1126.6	1123.5	1114.8	1089.7	1056.3	1035.1	1042.6	972.8	1041.1	1021.3	761.9
47.5°	1100.6	1099.3	1109.1	1104.8	1085.8	1074.6	1100.2	1044.6	1123.9	1104.5	827.7
50°	1021.7	1023.9	1053.0	1088.8	1098.0	1111.4	1147.3	1120.5	1212.7	1192.0	903.4
52.5°	827.2	842.0	929.4	1016.2	1083.3	1133.9	1202.7	1228.7	1357.3	1336.9	1021.7
55°	617.7	623.7	719.0	867.1	1023.9	1132.1	1244.0	1292.4	1428.8	1408.1	1053.0
57.5°	489.8	492.0	539.3	690.3	901.8	1093.1	1265.5	1315.4	1460.0	1442.7	1099.3
60°	384.7	387.2	421.5	525.4	729.9	988.0	1234.5	1335.3	1521.1	1507.3	1180.3
62.5°	299.2	301.9	322.8	383.8	547.4	825.9	1171.6	1367.3	1637.3	1630.7	1312.8
65°	231.8	232.7	246.9	275.5	386.8	650.6	1094.9	1397.3	1793.9	1788.3	1420.2
67.5°	171.0	172.4	182.4	200.1	261.1	467.3	969.4	1374.2	1912.2	1895.8	1459.1
69°	138.2	139.4	148.1	162.5	206.3	368.1	854.6	1317.5	1930.0	1914.4	1434.5
70°	118.2	119.1	127.7	139.9	175.9	312.7	763.6	1268.5	1906.6	1891.4	1378.2
72.5°	75.7	80.0	88.8	96.6	116.5	207.0	515.4	1052.0	1644.9	1618.9	1079.4
75°	42.0	43.3	58.8	68.5	77.6	134.7	286.6	656.1	1046.3	1028.2	577.3
77.5°	34.7	35.6	41.6	52.0	52.0	75.4	108.2	258.5	397.9	359.1	156.3
80°	24.3	25.2	31.6	34.2	37.3	42.4	35.0	56.8	61.5	54.5	23.4
82.5°	16.9	17.7	21.6	28.1	29.9	19.9	12.9	16.9	17.7	17.7	9.2
85°	3.1	4.3	16.0	23.4	17.7	6.1	7.4	6.1	5.6	6.1	2.2
87.5°	0.0	0.0	9.9	11.3	9.5	2.5	3.1	2.2	1.3	1.7	0.9
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°	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7
2.5°	187.9	178.9	163.3	152.1	142.6	135.1	132.1	127.3	123.8	125.7	123.4
5°	193.1	177.1	152.1	136.1	124.8	115.3	107.3	101.4	96.6	95.7	94.9
7.5°	201.4	178.5	145.5	125.7	108.8	94.1	81.8	72.8	65.8	65.8	63.2
10°	212.7	181.8	141.7	115.3	90.1	70.2	58.0	49.3	46.0	45.5	44.6
12.5°	228.3	188.5	138.6	101.8	70.2	51.2	43.7	40.8	39.4	38.9	38.5
15°	249.5	197.9	135.1	85.2	53.3	42.0	38.9	36.4	35.0	34.7	34.2
17.5°	269.9	206.6	127.7	68.5	43.3	38.1	34.7	32.5	30.7	30.4	30.4
20°	288.9	213.9	115.3	53.3	38.9	34.2	30.7	28.1	26.4	26.1	26.1
22.5°	308.7	220.1	99.6	43.3	35.6	30.4	26.9	24.3	22.5	22.1	21.6
25°	330.0	224.3	81.8	38.5	32.1	26.9	22.9	20.8	19.6	19.0	18.7
27.5°	352.9	226.2	64.9	35.0	28.1	23.4	19.9	17.7	16.9	16.4	16.4
30°	373.8	224.3	50.2	31.3	24.8	20.3	17.3	15.6	14.7	14.4	14.4
32.5°	395.4	220.1	40.2	27.7	21.6	17.3	14.7	13.5	12.9	12.5	12.5
35°	418.4	214.3	34.7	24.8	18.7	15.1	12.9	12.1	11.7	11.3	11.3
37.5°	445.2	207.5	31.6	22.1	16.4	13.5	11.3	10.8	10.4	10.4	10.4
40°	475.6	198.7	29.5	19.9	14.7	11.7	9.9	9.5	9.2	9.2	9.2
42.5°	507.6	188.9	27.3	17.7	12.9	9.9	8.7	8.7	8.3	8.3	7.7
45°	543.6	178.9	25.2	15.6	11.3	8.7	7.4	6.9	6.9	6.5	6.5
47.5°	586.1	169.8	22.9	13.8	9.9	7.4	6.5	6.1	5.6	5.2	5.2
50°	645.8	168.9	20.3	12.1	9.2	6.1	5.2	4.9	4.3	4.0	4.0
52.5°	705.1	161.2	17.3	9.9	7.4	5.2	4.0	3.5	3.1	3.1	2.5
55°	718.6	148.1	15.1	8.7	5.6	4.0	3.1	2.2	2.2	1.7	1.7
57.5°	748.0	142.0	12.9	6.9	4.3	3.1	1.7	1.3	1.3	1.3	1.3
60°	806.0	140.3	11.3	6.1	3.1	2.2	1.3	0.9	0.9	0.4	0.4
62.5°	886.2	138.6	9.5	5.2	2.2	1.3	0.9	0.4	0.0	0.0	0.0
65°	930.4	126.9	7.7	4.0	1.7	1.3	0.4	0.0	0.0	0.0	0.0
67.5°	918.6	104.8	6.9	2.5	1.3	0.9	0.4	0.0	0.0	0.0	0.0
69°	869.6	88.4	5.6	2.2	1.3	0.9	0.4	0.0	0.0	0.0	0.0
70°	810.8	76.3	5.2	1.7	0.9	0.4	0.4	0.0	0.0	0.0	0.0
72.5°	575.6	39.9	3.5	1.3	0.9	0.4	0.0	0.0	0.0	0.0	0.0
75°	269.0	17.7	2.2	0.9	0.4	0.4	0.0	0.0	0.0	0.0	0.0
77.5°	59.4	8.3	1.3	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	11.3	3.1	0.9	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.0	1.3	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.4	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)