

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: P234847

Luminaire Tested: **ARCH-M-AF48-70-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234847
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-M-AF48-70-D-U-T4W-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 470mA LIGHT ENGINES 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: 5738 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 73
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

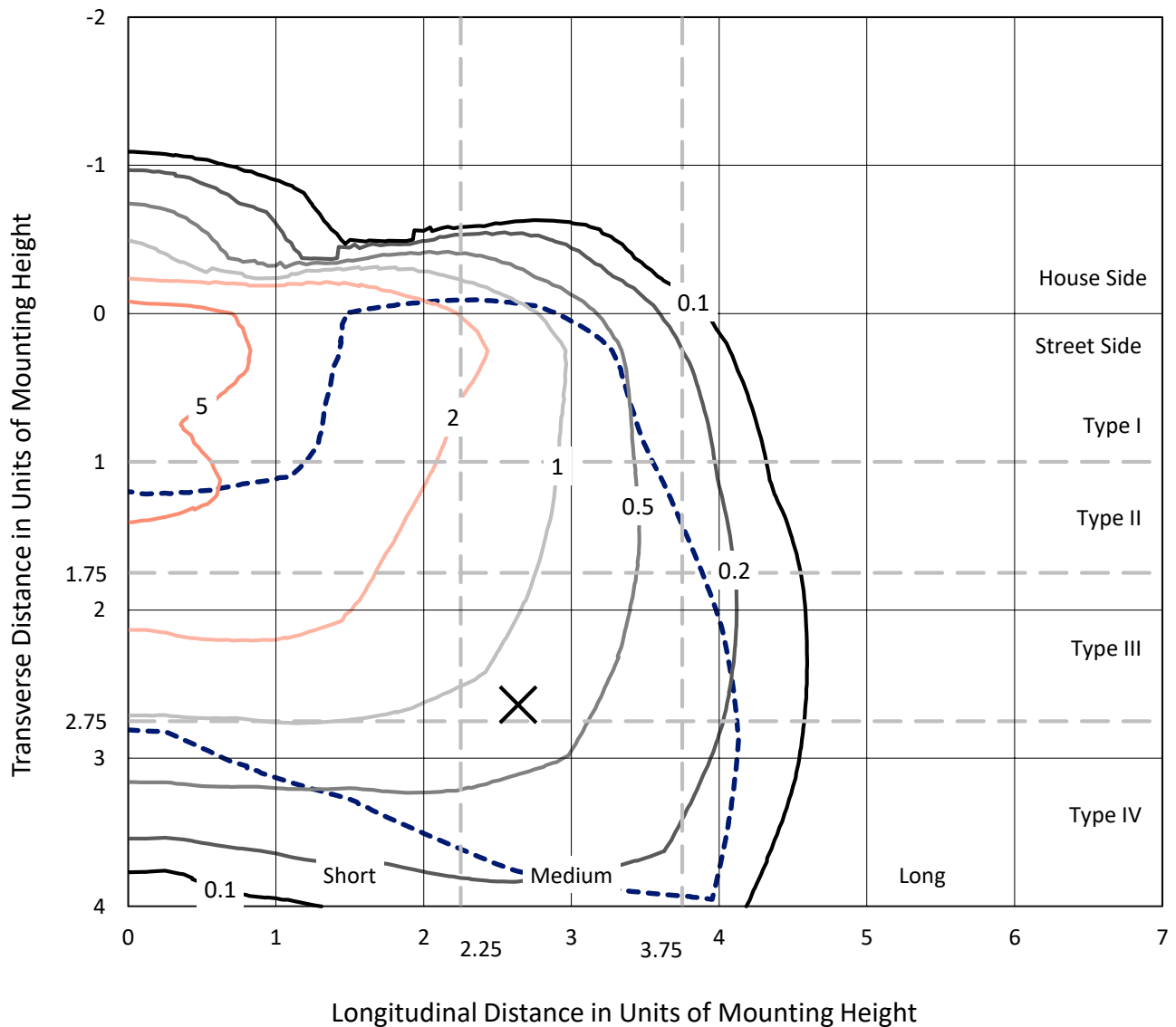


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

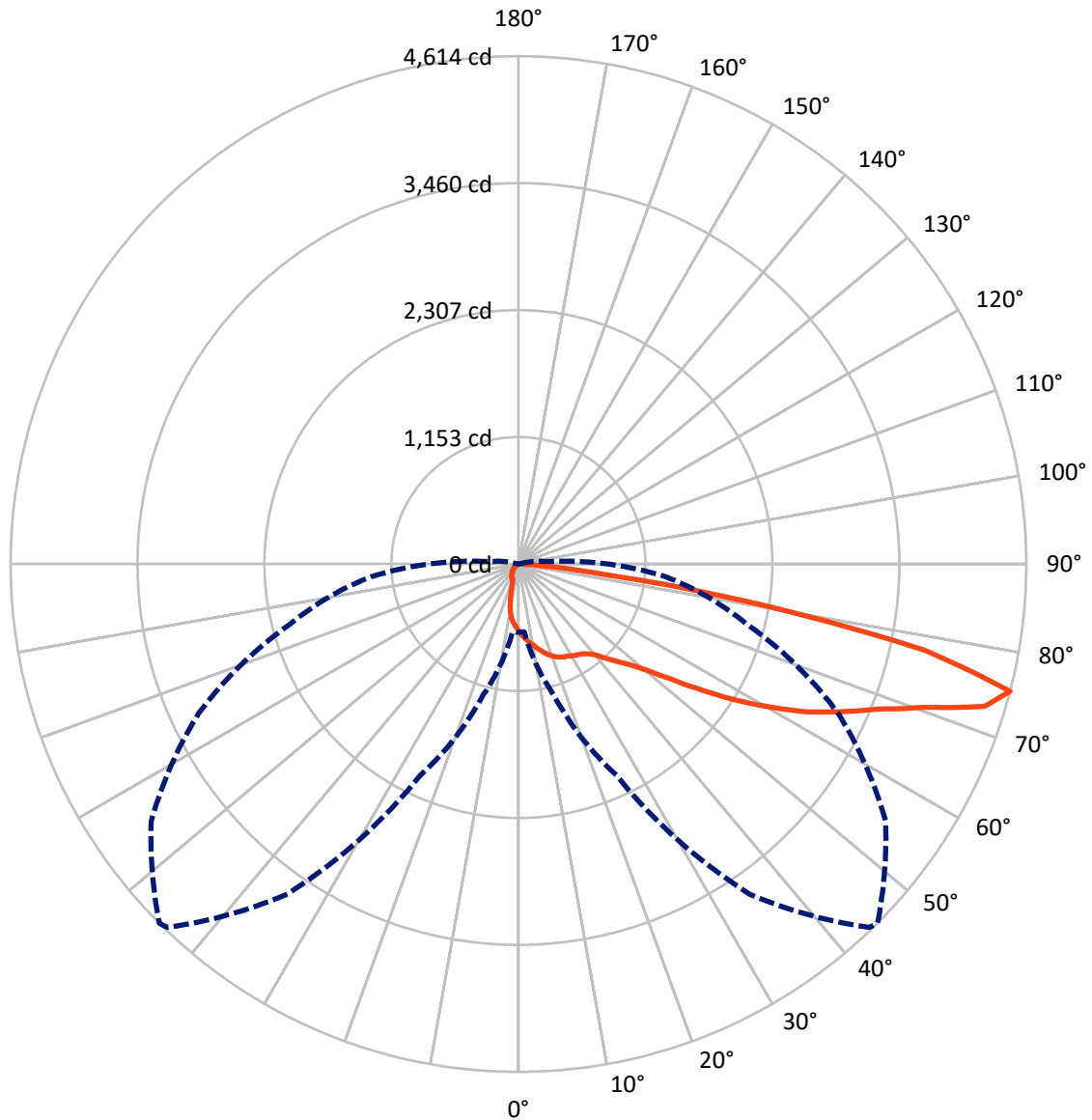


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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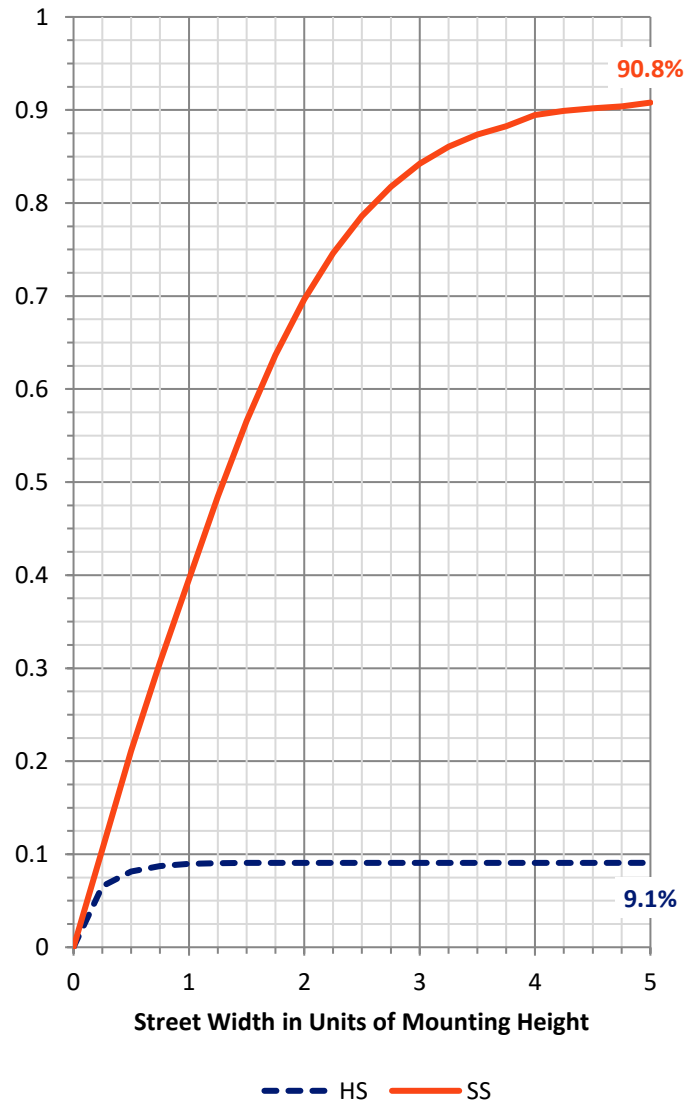
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	524.9	0.0	524.9
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	5213.2	0.0	5213.2
	% Fixture	90.9	0.0	90.9
Total	Lumens	5738.0	0.0	5738.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.9	1.0
10°-20°	164.1	2.9
20°-30°	271.8	4.7
30°-40°	393.3	6.9
40°-50°	644.0	11.2
50°-60°	1147.5	20.0
60°-70°	1687.0	29.4
70°-80°	1272.7	22.2
80°-90°	99.8	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°	5738.0	100.0
0°-180°	5738.0	100.0



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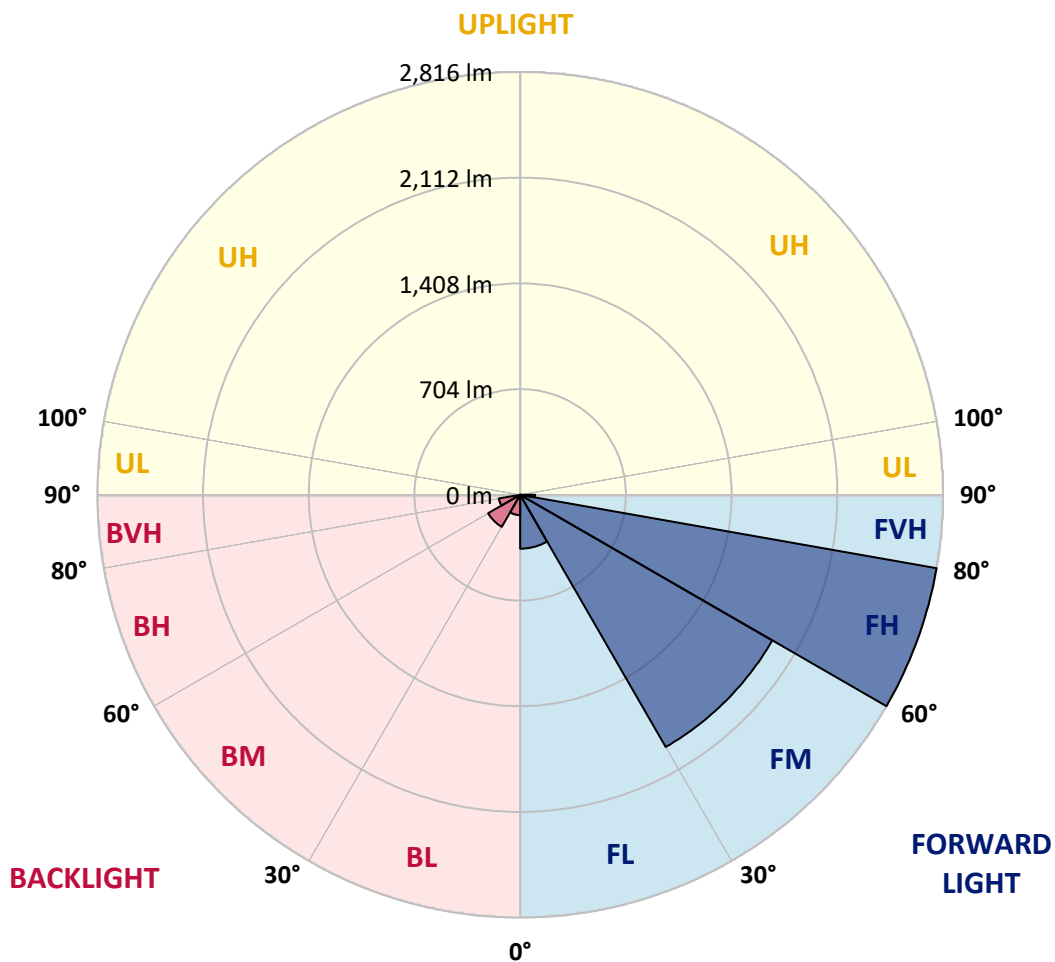
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	358.9	6.3			
FM	(30°-60°)	1938.8	33.8			
FH	(60°-80°)	2815.9	49.1			G2/5000
FVH	(80°-90°)	99.6	1.7			G1/100
BL	(0°-30°)	134.9	2.4	B1/500		
BM	(30°-60°)	245.9	4.3	B1/1000		
BH	(60°-80°)	143.8	2.5	B1/500		G1/500
BVH	(80°-90°)	0.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.7
2.5°	666.7	666.7	665.3	663.9	657.2	650.4	649.0	644.9	632.7	624.6	616.4
5°	722.3	723.7	721.0	714.2	699.2	684.3	683.0	672.1	649.0	632.7	615.1
7.5°	775.3	778.0	771.2	759.0	741.3	719.6	718.3	697.9	668.0	644.9	619.1
10°	820.1	820.1	810.6	795.7	776.6	753.6	750.8	727.8	693.8	665.3	631.4
12.5°	869.0	867.6	854.0	833.7	811.9	790.2	788.9	760.3	727.8	691.1	649.0
15°	913.8	911.1	893.4	874.4	851.3	828.2	826.9	798.4	764.4	721.0	674.8
17.5°	938.2	936.9	920.6	901.6	882.5	864.9	863.5	833.7	797.0	752.2	700.6
20°	942.3	943.6	930.1	913.8	902.9	893.4	893.4	866.3	826.9	779.4	727.8
22.5°	943.6	947.7	938.2	916.5	913.8	915.1	917.8	896.1	855.4	810.6	756.3
25°	953.2	958.6	951.8	926.0	923.3	932.8	935.5	926.0	889.3	844.5	788.9
27.5°	972.2	977.6	972.2	939.6	935.5	945.0	947.7	953.2	926.0	877.1	822.8
30°	1010.2	1011.5	999.3	958.6	950.4	962.7	966.7	981.7	959.9	908.3	855.4
32.5°	1076.7	1063.1	1026.5	972.2	965.4	978.9	983.0	999.3	991.2	938.2	889.3
35°	1212.5	1141.9	1057.7	991.2	984.4	998.0	1003.4	1026.5	1030.5	980.3	931.4
37.5°	1211.1	1147.3	1131.0	1027.8	1018.3	1027.8	1034.6	1063.1	1079.4	1036.0	992.5
40°	1296.7	1269.5	1269.5	1097.1	1065.8	1079.4	1086.2	1114.7	1143.2	1109.3	1064.5
42.5°	1565.5	1547.9	1528.8	1230.1	1132.4	1170.4	1174.5	1192.1	1226.1	1215.2	1162.2
45°	1865.6	1849.3	1776.0	1455.5	1246.4	1253.2	1262.7	1291.2	1340.1	1360.5	1298.0
47.5°	2100.5	2084.2	2021.7	1727.1	1424.3	1364.6	1364.6	1420.2	1496.3	1547.9	1488.1
50°	2289.2	2270.2	2232.2	2016.3	1716.2	1524.8	1516.6	1581.8	1694.5	1774.6	1733.9
52.5°	2472.5	2416.8	2393.7	2315.0	2046.2	1756.9	1735.2	1781.4	1937.5	2036.6	2002.7
55°	2594.7	2586.5	2562.1	2589.3	2392.4	2039.4	2020.4	2029.9	2225.4	2291.9	2249.8
57.5°	2708.7	2707.4	2761.7	2888.0	2769.8	2362.5	2332.6	2317.7	2503.7	2487.4	2524.1
60°	2850.0	2825.5	2951.8	3132.4	3116.1	2677.5	2643.6	2613.7	2716.9	2670.7	2852.7
62.5°	2856.7	2850.0	3106.6	3365.9	3459.6	2997.9	2958.6	2851.3	2902.9	2850.0	3166.3
65°	2597.4	2631.4	3171.7	3489.5	3747.4	3279.0	3231.5	3064.5	3068.6	3033.2	3535.6
67.5°	2539.0	2556.7	2992.5	3622.5	3955.2	3562.8	3518.0	3310.2	3261.4	3264.1	3754.2
70°	2393.7	2420.9	2769.8	3613.0	4119.5	3941.6	3896.8	3671.4	3553.3	3421.6	3585.9
72.5°	1828.9	1875.1	2334.0	3167.7	4074.7	4437.2	4425.0	4129.0	3670.0	3141.9	2712.8
75°	619.1	617.8	1226.1	2127.6	3660.5	4589.2	4613.7	4071.9	3201.6	2167.0	1346.9
77.5°	133.1	134.4	252.5	862.2	2431.8	3685.0	3778.7	3071.3	2065.2	965.4	308.2
80°	65.2	66.5	104.5	228.1	972.2	2066.5	2213.2	1579.1	763.1	192.8	51.6
82.5°	32.6	33.9	54.3	120.8	359.8	734.6	784.8	581.1	218.6	108.6	25.8
85°	12.2	12.2	27.2	72.0	164.3	172.4	211.8	168.4	131.7	88.3	6.8
87.5°	2.7	2.7	14.9	35.3	73.3	54.3	54.3	51.6	80.1	59.7	2.7
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°	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.7
2.5°	612.4	606.9	597.4	587.9	581.1	573.0	568.9	564.8	563.5	562.1	564.8
5°	605.6	597.4	579.8	564.8	551.3	540.4	532.2	524.1	520.0	517.3	518.7
7.5°	605.6	593.3	567.5	544.5	522.7	499.7	476.6	458.9	445.3	437.2	438.6
10°	612.4	596.1	562.1	530.9	490.2	441.3	391.0	353.0	327.2	312.3	312.3
12.5°	627.3	605.6	563.5	514.6	445.3	359.8	283.8	237.6	218.6	207.7	209.1
15°	647.7	621.9	570.3	492.9	382.9	267.5	198.2	168.4	168.4	171.1	172.4
17.5°	670.7	642.2	575.7	460.3	302.8	191.4	156.1	153.4	157.5	164.3	164.3
20°	693.8	662.6	578.4	408.7	226.7	152.1	148.0	148.0	150.7	157.5	158.9
22.5°	722.3	688.4	575.7	344.9	169.7	143.9	142.6	142.6	142.6	150.7	150.7
25°	752.2	718.3	564.8	277.0	143.9	138.5	137.1	135.8	135.8	142.6	143.9
27.5°	786.1	749.5	539.0	211.8	135.8	133.1	131.7	129.0	129.0	134.4	134.4
30°	820.1	784.8	499.7	160.2	129.0	127.6	124.9	122.2	119.5	124.9	124.9
32.5°	856.8	821.4	448.1	127.6	119.5	119.5	118.1	114.1	111.3	114.1	115.4
35°	905.6	863.5	389.7	111.3	107.3	107.3	107.3	105.9	100.5	103.2	103.2
37.5°	970.8	921.9	321.8	103.2	97.8	95.0	95.0	95.0	91.0	92.3	92.3
40°	1053.6	989.8	256.6	96.4	91.0	84.2	81.5	82.8	80.1	80.1	78.8
42.5°	1166.3	1063.1	192.8	91.0	85.5	76.0	70.6	69.2	66.5	65.2	65.2
45°	1327.9	1152.7	138.5	85.5	81.5	66.5	61.1	57.0	50.2	46.2	46.2
47.5°	1537.0	1254.6	103.2	80.1	77.4	58.4	51.6	43.4	33.9	31.2	31.2
50°	1792.3	1368.6	86.9	72.0	70.6	51.6	40.7	28.5	19.0	16.3	17.7
52.5°	2040.7	1475.9	77.4	63.8	62.5	44.8	29.9	14.9	8.1	8.1	8.1
55°	2249.8	1551.9	70.6	57.0	54.3	35.3	16.3	6.8	4.1	4.1	4.1
57.5°	2438.5	1595.4	63.8	50.2	43.4	24.4	6.8	2.7	2.7	1.4	1.4
60°	2611.0	1621.2	55.7	43.4	33.9	13.6	2.7	1.4	1.4	0.0	0.0
62.5°	2780.7	1640.2	47.5	35.3	25.8	5.4	1.4	1.4	0.0	0.0	0.0
65°	2909.7	1633.4	38.0	28.5	16.3	2.7	1.4	0.0	0.0	0.0	0.0
67.5°	2905.6	1541.1	28.5	21.7	8.1	1.4	0.0	0.0	0.0	0.0	0.0
70°	2598.8	1298.0	19.0	13.6	2.7	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	1843.8	832.3	12.2	8.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	811.9	252.5	6.8	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	158.9	58.4	4.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	38.0	6.8	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	16.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.7	1.4	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)