

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: P234805

Luminaire Tested: **ARCH-M-AF48-40-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234805
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-40-D-U-T3-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4217 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

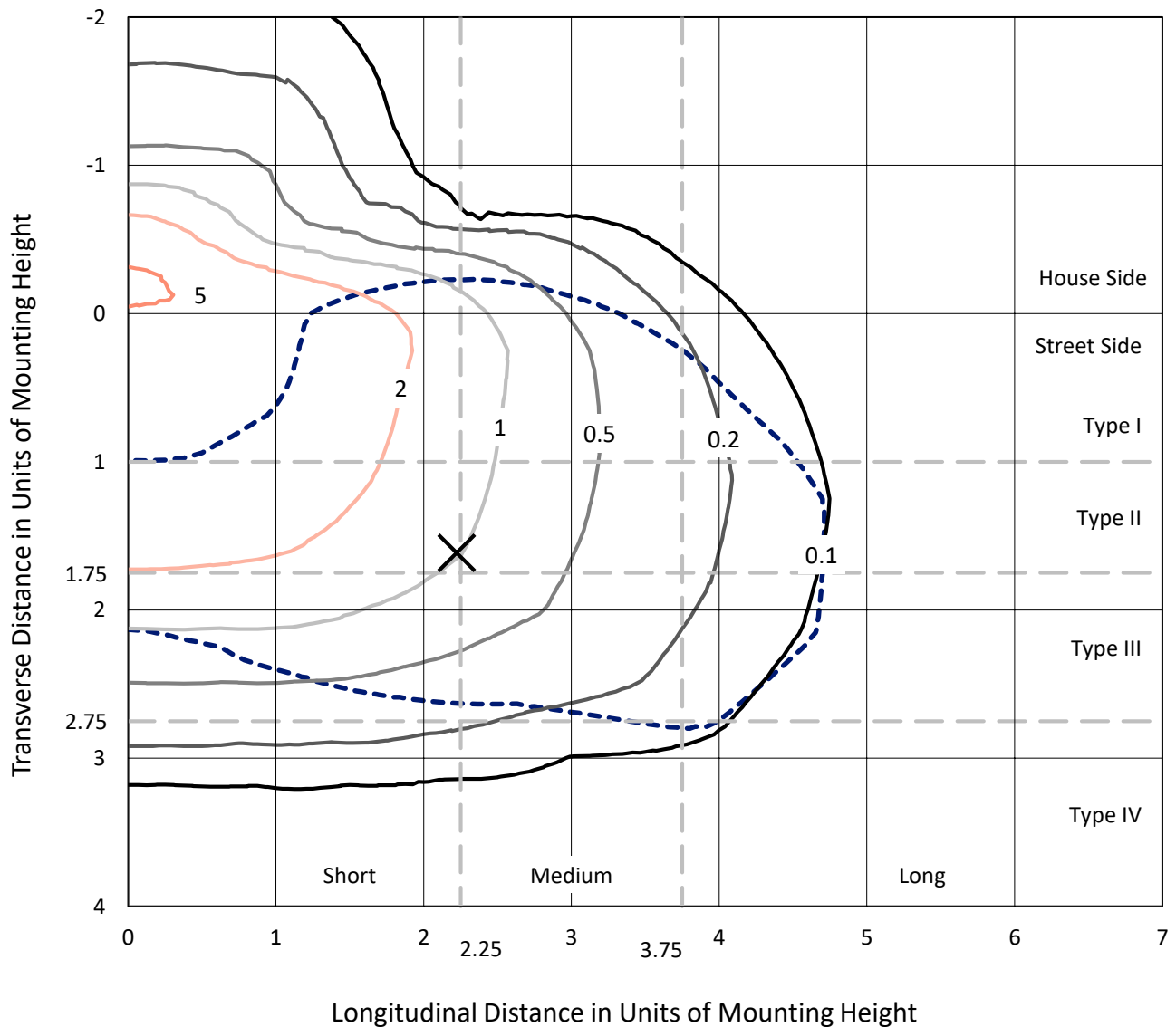
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

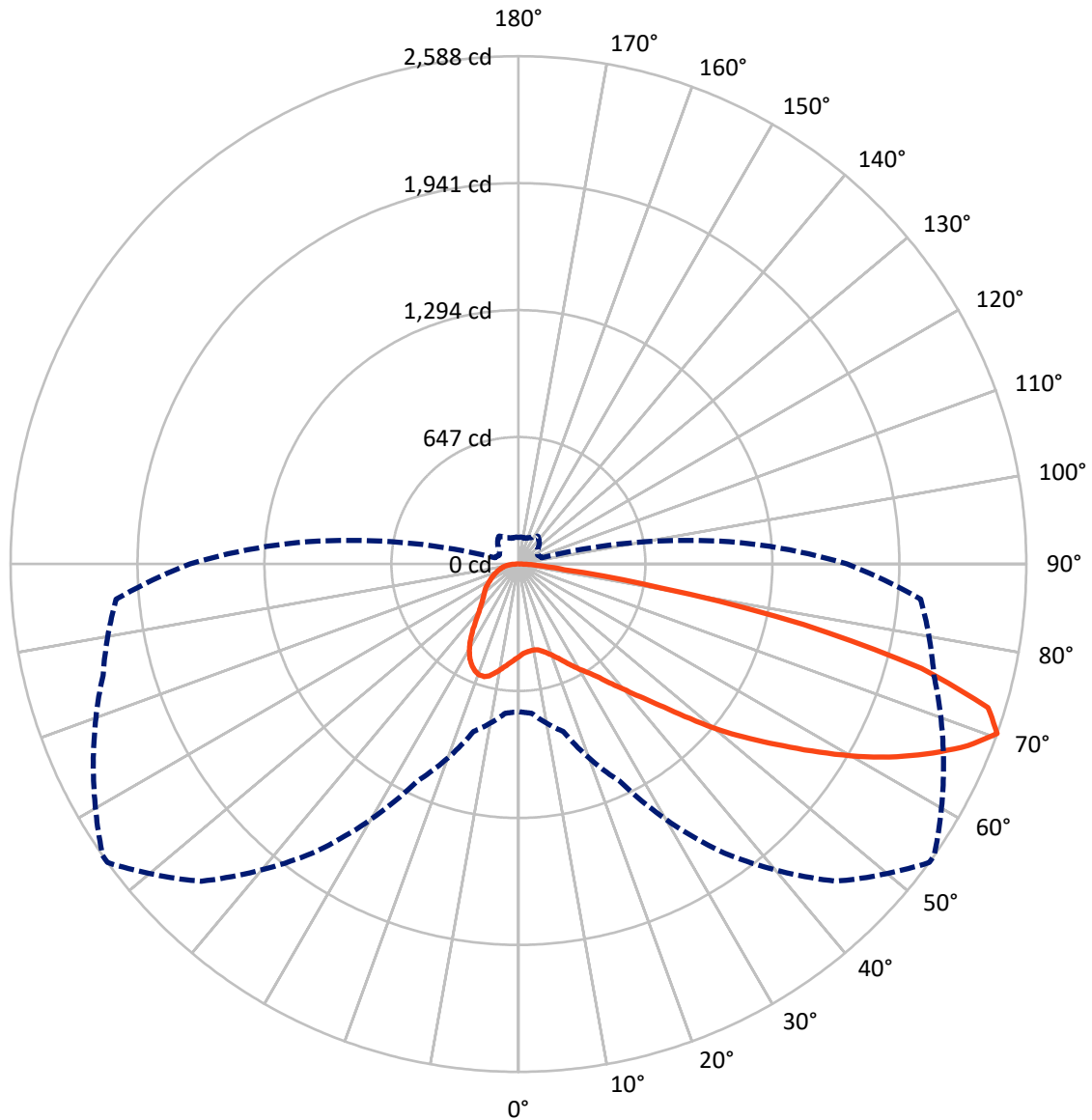


Based on 10 foot mounting height. Maximum calculated value = 5.5 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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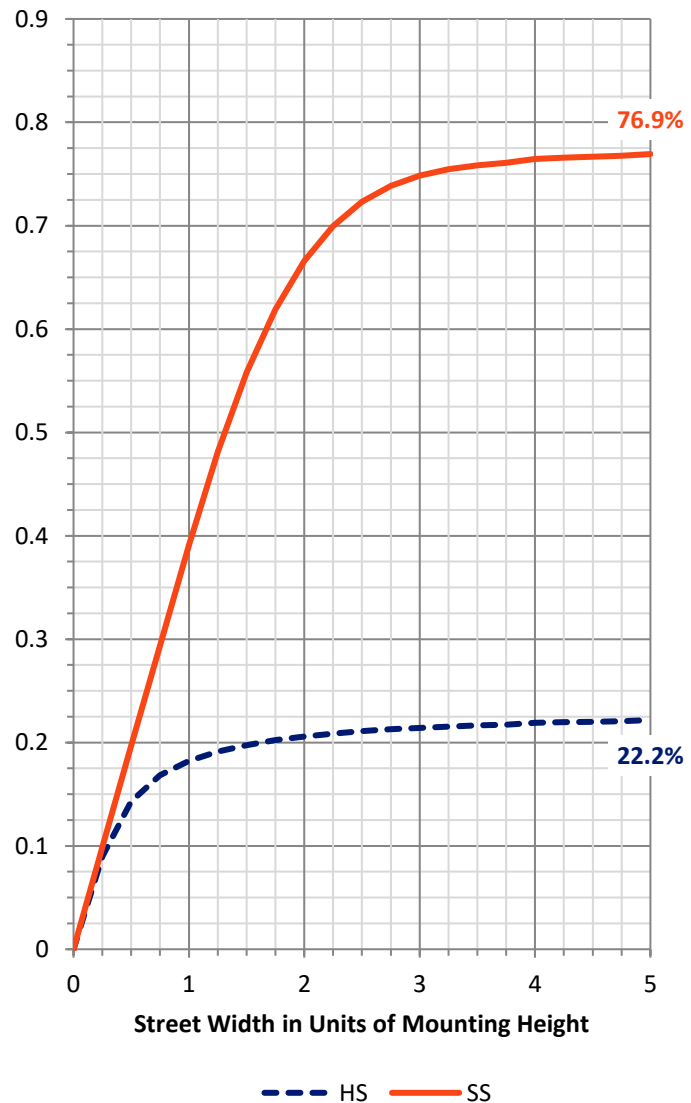
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	956.4	0.0	956.4
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	3260.6	0.0	3260.6
	% Fixture	77.3	0.0	77.3
Total	Lumens	4217.0	0.0	4217.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.3	1.1
10°-20°	147.9	3.5
20°-30°	257.0	6.1
30°-40°	375.6	8.9
40°-50°	589.5	14.0
50°-60°	906.5	21.5
60°-70°	1107.6	26.3
70°-80°	686.7	16.3
80°-90°	99.8	2.4
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°	4217.0	100.0
0°-180°	4217.0	100.0

Coefficient of Utilization



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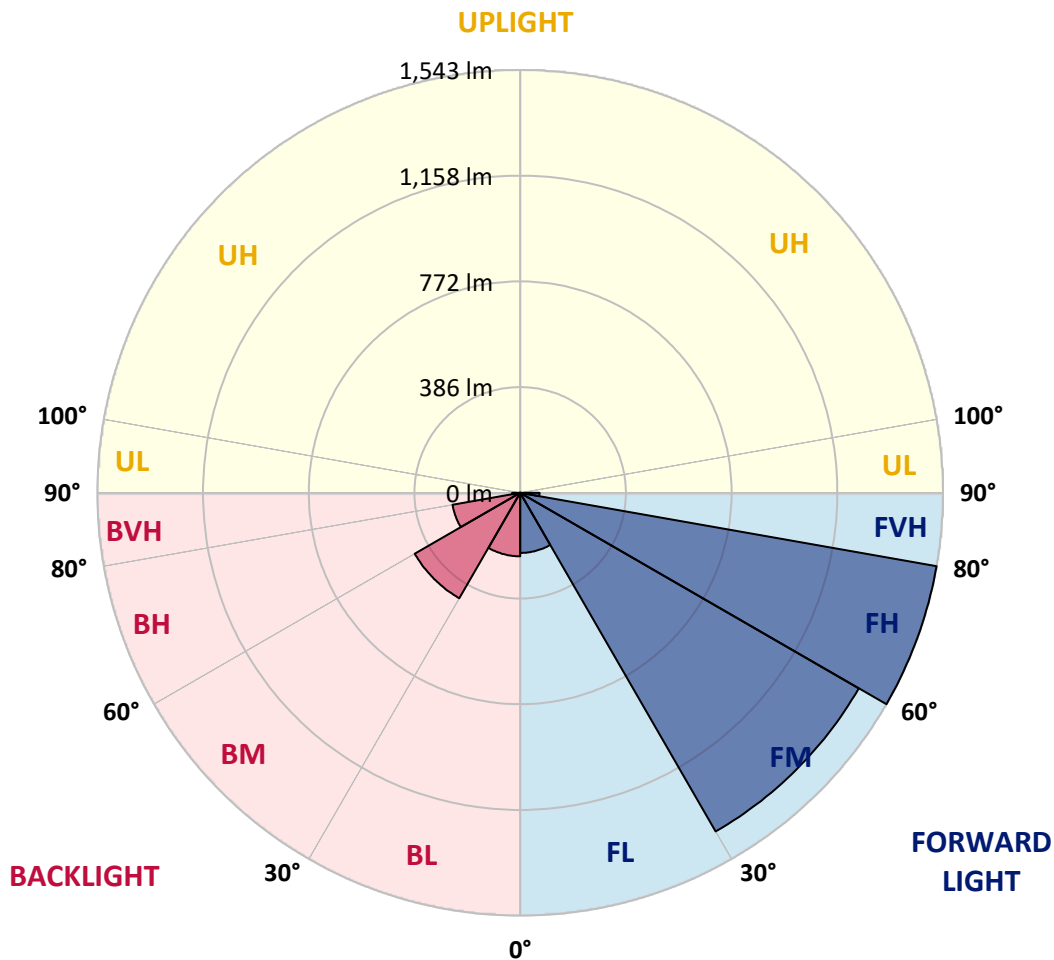
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	219.4	5.2			
FM	(30°-60°)	1427.3	33.8			
FH	(60°-80°)	1543.5	36.6			G1/1800
FVH	(80°-90°)	70.4	1.7			G1/100
BL	(0°-30°)	231.9	5.5	B1/500		
BM	(30°-60°)	444.4	10.5	B1/1000		
BH	(60°-80°)	250.8	5.9	B1/500		G1/500
BVH	(80°-90°)	29.3	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	471.8	471.8	471.8	471.8	471.8	471.8	471.8	471.8	471.8	471.8	471.8
2.5°	453.3	451.7	451.7	454.0	454.8	457.1	457.1	457.9	460.2	464.1	468.7
5°	439.4	438.6	439.4	442.5	444.0	448.6	450.2	450.9	455.6	461.8	468.7
7.5°	425.5	424.7	426.2	430.9	435.5	442.5	446.3	447.1	454.0	462.5	471.8
10°	420.8	420.1	422.4	426.2	430.9	438.6	444.8	445.5	455.6	465.6	478.7
12.5°	427.0	426.2	428.6	432.4	437.0	442.5	449.4	450.2	463.3	476.4	490.3
15°	442.5	442.5	443.2	445.5	450.2	454.8	461.0	461.8	475.7	491.1	505.0
17.5°	466.4	464.8	464.8	464.1	467.2	469.5	477.2	478.0	492.6	506.5	520.4
20°	495.7	495.0	491.9	488.0	487.2	488.8	496.5	497.3	512.0	523.5	536.7
22.5°	531.3	532.0	525.1	516.6	512.7	515.0	522.0	522.8	533.6	543.6	555.2
25°	578.4	576.0	566.0	553.6	545.9	545.9	552.9	552.9	562.9	569.1	576.8
27.5°	623.1	618.5	609.2	591.5	579.1	581.4	588.4	588.4	597.7	600.0	603.8
30°	671.8	667.2	655.6	633.2	617.0	615.4	623.9	623.1	635.5	634.7	631.6
32.5°	731.2	728.9	709.6	681.1	659.4	654.0	661.8	662.5	670.2	667.9	657.9
35°	814.6	813.9	796.1	745.9	717.3	707.3	711.9	711.9	717.3	711.2	694.2
37.5°	919.7	921.2	905.8	831.6	791.5	774.5	775.3	774.5	776.0	769.1	751.3
40°	1024.7	1028.5	1027.8	938.2	887.2	857.9	847.1	845.5	849.4	846.3	829.3
42.5°	1162.9	1172.2	1150.5	1069.5	1012.3	962.9	933.6	929.7	938.2	942.0	925.8
45°	1306.5	1303.4	1269.5	1210.8	1159.0	1095.7	1040.1	1033.9	1040.1	1051.7	1034.7
47.5°	1381.4	1379.1	1370.6	1341.3	1333.5	1261.0	1176.8	1171.4	1159.8	1176.0	1155.9
50°	1505.0	1507.3	1472.5	1469.4	1501.9	1461.7	1331.2	1318.9	1298.0	1311.1	1294.2
52.5°	1594.5	1584.5	1562.9	1589.9	1691.1	1669.4	1476.4	1471.0	1451.7	1448.6	1440.9
55°	1630.8	1630.8	1634.7	1697.2	1841.6	1813.1	1633.9	1639.3	1613.1	1591.4	1601.5
57.5°	1641.6	1646.3	1679.5	1782.9	2018.5	1925.0	1807.7	1815.4	1777.5	1734.3	1766.0
60°	1588.4	1602.3	1681.8	1831.6	2118.1	2043.9	1990.7	1993.0	1938.2	1874.8	1930.4
62.5°	1451.7	1468.7	1610.8	1851.7	2101.9	2165.9	2163.6	2169.0	2094.1	2015.4	2084.9
65°	1284.1	1301.1	1452.5	1795.3	2089.5	2253.2	2321.9	2336.6	2240.1	2134.3	2181.4
67.5°	1037.8	1060.2	1203.8	1605.3	2029.3	2325.0	2470.2	2485.6	2352.8	2196.1	2172.9
70°	752.1	762.9	883.4	1220.0	1783.7	2285.6	2587.5	2586.8	2389.9	2191.4	2057.1
72.5°	362.1	370.6	474.9	757.5	1275.6	1939.7	2502.6	2517.3	2338.9	2124.2	1792.2
75°	149.0	157.5	192.3	319.7	669.5	1281.8	2121.2	2155.9	2124.2	1906.5	1402.3
77.5°	92.7	95.7	112.7	165.2	305.8	598.4	1484.9	1532.0	1683.3	1527.4	925.8
80°	69.5	71.8	84.2	115.8	193.0	220.8	737.4	796.9	1020.0	876.4	419.3
82.5°	57.9	58.7	67.2	84.2	131.3	126.6	236.3	263.3	475.7	334.4	144.4
85°	54.1	55.6	60.2	60.2	83.4	79.5	98.1	102.7	138.2	114.3	50.2
87.5°	27.8	26.3	53.3	47.1	43.2	38.6	41.7	44.8	51.7	54.8	22.4
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°	471.8	471.8	471.8	471.8	471.8	471.8	471.8	471.8	471.8	471.8	471.8
2.5°	470.3	472.6	476.4	480.3	484.9	490.3	493.4	497.3	500.4	498.8	498.1
5°	472.6	476.4	484.9	492.6	501.9	512.7	519.7	527.4	533.6	535.1	532.8
7.5°	476.4	483.4	495.0	508.9	521.2	535.1	545.9	556.7	564.5	566.0	566.0
10°	485.7	493.4	508.9	527.4	542.1	556.7	569.1	577.6	584.5	587.6	587.6
12.5°	498.8	508.1	526.6	549.0	565.2	579.1	586.1	589.9	593.0	596.1	596.9
15°	514.3	524.3	546.7	570.6	587.6	594.6	594.6	593.8	593.8	595.3	596.9
17.5°	529.7	540.5	563.7	589.2	600.0	596.1	590.7	588.4	586.9	586.1	588.4
20°	545.9	556.7	579.9	603.8	600.7	584.5	576.8	571.4	566.8	564.5	567.5
22.5°	563.7	573.7	597.7	613.9	590.7	566.0	551.3	542.8	535.1	530.5	533.6
25°	584.5	594.6	617.7	617.0	573.0	538.2	515.0	501.1	492.6	488.0	488.0
27.5°	609.2	617.7	640.1	609.2	548.2	501.1	467.2	454.0	451.7	447.9	447.9
30°	634.7	641.7	661.0	591.5	514.3	452.5	415.4	409.3	410.0	406.2	406.9
32.5°	661.0	667.9	673.3	565.2	470.3	397.7	373.0	368.3	367.6	364.5	361.4
35°	698.0	708.1	674.9	529.7	417.0	352.1	334.4	329.7	325.1	314.3	314.3
37.5°	754.4	765.2	671.0	485.7	362.1	316.6	300.4	294.2	286.5	275.7	271.8
40°	831.6	831.6	662.5	436.3	318.1	288.0	272.6	264.9	256.4	245.6	243.2
42.5°	922.7	901.1	649.4	386.1	285.7	268.7	254.8	246.3	236.3	223.9	222.4
45°	1029.3	970.6	630.9	341.3	261.8	257.1	248.6	234.0	217.0	203.9	201.5
47.5°	1132.8	1033.2	613.1	309.6	241.7	252.5	245.6	220.8	197.7	179.1	176.8
50°	1246.3	1088.8	592.3	283.4	226.2	249.4	241.7	201.5	176.1	162.9	161.4
52.5°	1359.8	1145.1	569.9	255.6	213.1	243.2	232.4	187.6	175.3	157.5	155.2
55°	1479.5	1210.8	543.6	224.7	197.7	230.9	220.1	186.9	180.7	157.5	152.1
57.5°	1596.1	1283.3	501.1	194.6	180.7	212.3	215.4	182.2	169.1	156.0	149.8
60°	1725.0	1360.6	430.9	169.1	166.0	196.9	209.3	172.2	156.0	151.3	148.3
62.5°	1828.5	1430.1	336.7	151.3	153.7	184.5	201.5	166.0	150.6	146.7	145.9
65°	1873.3	1431.6	241.7	135.9	141.3	173.0	193.8	160.6	145.9	144.4	143.6
67.5°	1826.2	1352.8	169.9	121.2	128.2	162.2	183.8	155.2	141.3	142.1	140.5
70°	1674.1	1186.8	124.3	107.3	115.8	150.6	173.0	148.3	135.9	137.4	135.1
72.5°	1400.7	925.1	99.6	95.7	105.8	138.2	162.2	140.5	127.4	128.2	123.5
75°	1034.7	613.1	83.4	85.7	94.2	126.6	148.3	130.5	118.1	115.1	112.0
77.5°	615.4	315.0	68.7	74.9	84.2	112.7	132.8	118.1	108.1	102.7	100.4
80°	254.0	127.4	56.4	63.3	73.4	100.4	117.4	103.5	96.5	91.1	88.0
82.5°	101.2	62.5	44.8	51.7	61.8	87.3	102.7	91.1	84.2	80.3	71.8
85°	38.6	30.9	30.1	36.3	46.3	67.2	84.9	76.4	71.0	61.0	58.7
87.5°	15.4	13.9	13.9	17.8	26.3	42.5	61.0	53.3	55.6	44.0	44.8
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)