

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: P214674

Luminaire Tested: **ARCH-AF24-50-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214674
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-AF24-50-D-U-T2R-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 670mA 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: 5131 lumens
Efficiency: N/A
Efficacy: 95.0 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 - G1

Input Watts (W): 54
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

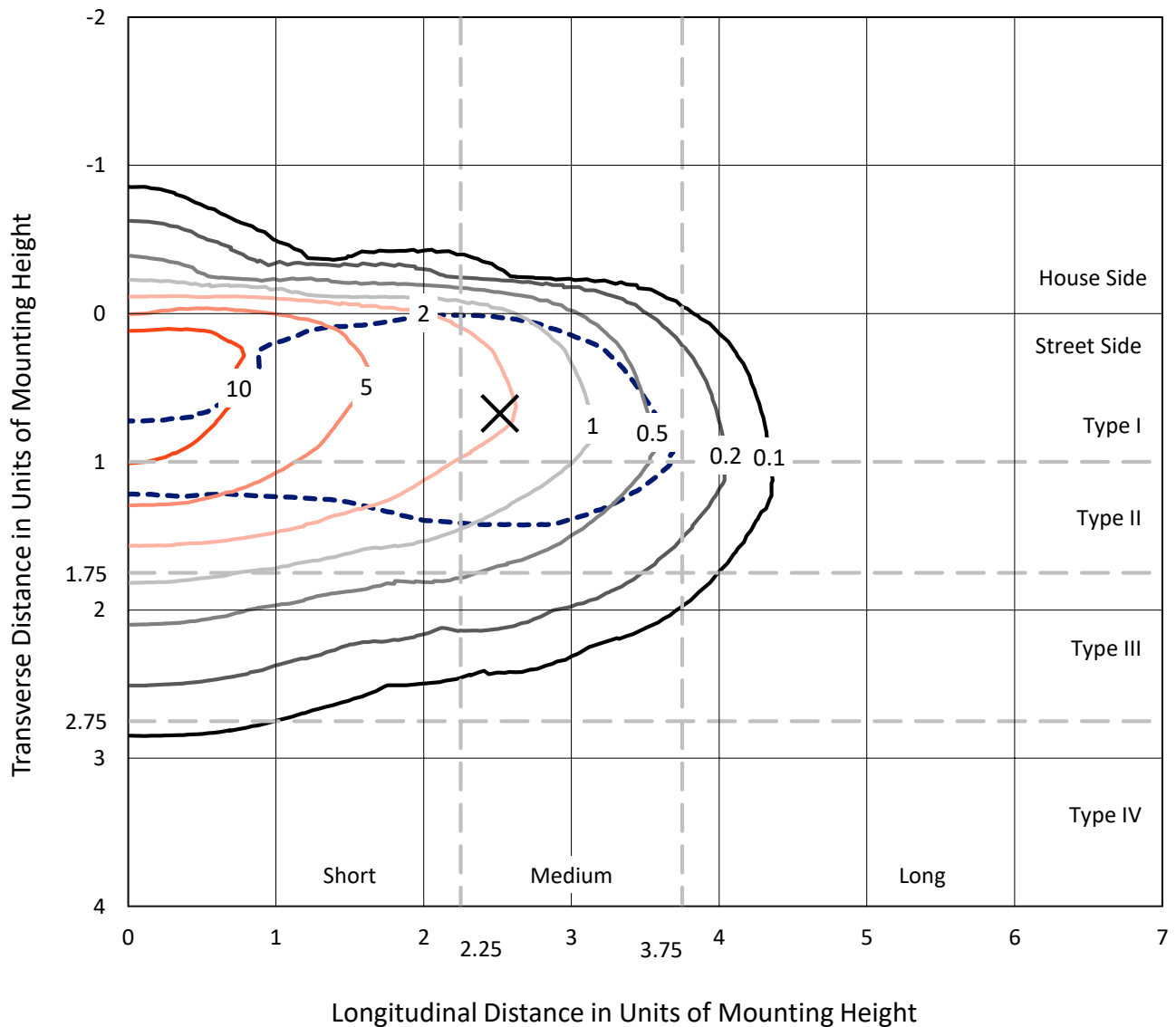


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

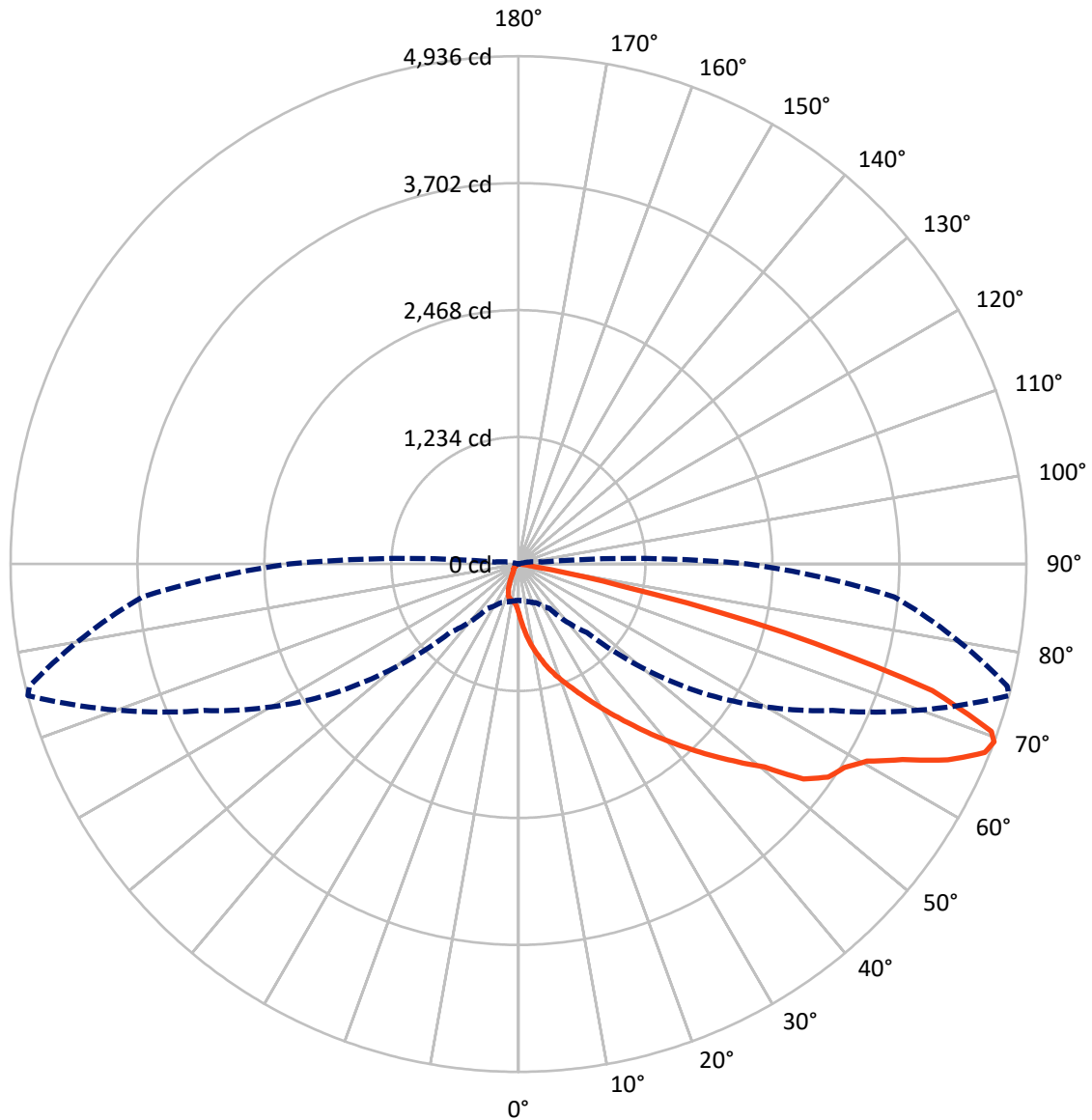


Based on 10 foot mounting height. Maximum calculated value = 13.1 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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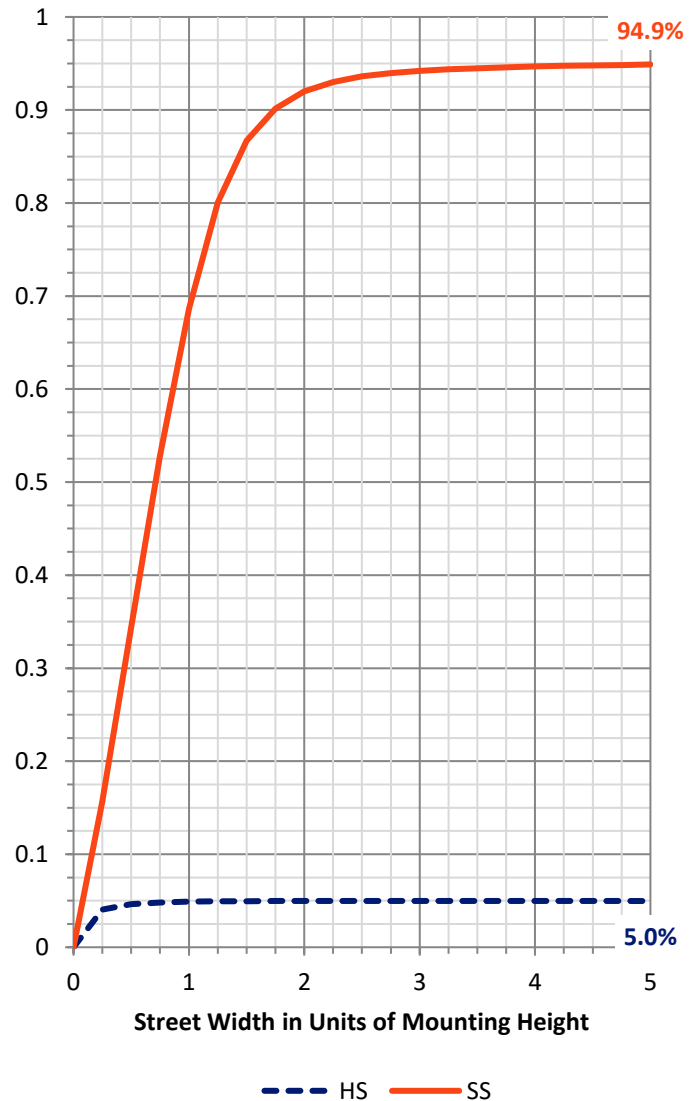
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	256.0	0.0	256.0
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	4875.0	0.0	4875.0
	% Fixture	95.0	0.0	95.0
Total	Lumens	5131.0	0.0	5131.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.7	1.1
10°-20°	199.0	3.9
20°-30°	380.0	7.4
30°-40°	681.6	13.3
40°-50°	1044.2	20.4
50°-60°	1213.7	23.7
60°-70°	1074.7	20.9
70°-80°	463.6	9.0
80°-90°	18.6	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°	5131.0	100.0
0°-180°	5131.0	100.0

Coefficient of Utilization



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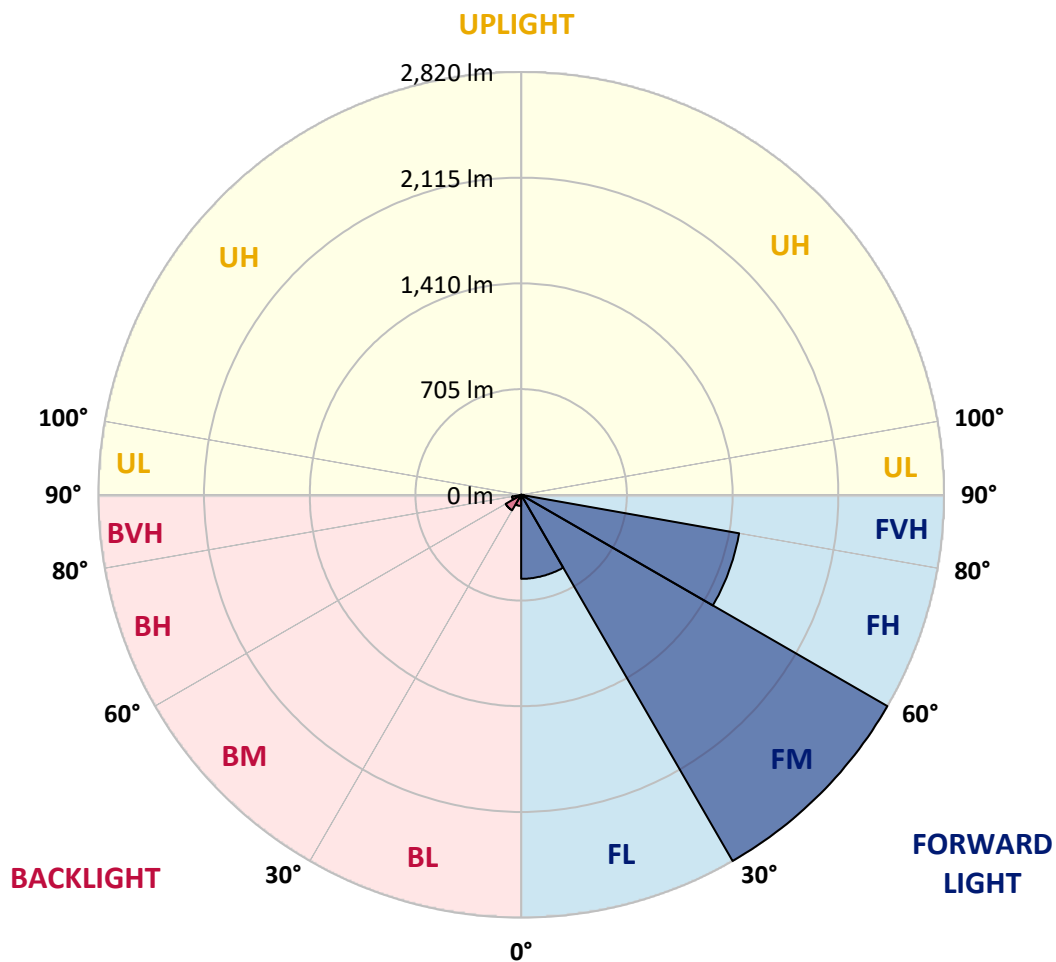
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	560.3	10.9			
FM	(30°-60°)	2820.1	55.0			
FH	(60°-80°)	1476.3	28.8			G1/1800
FVH	(80°-90°)	18.3	0.4			G1/100
BL	(0°-30°)	74.4	1.4	B0/110		
BM	(30°-60°)	119.4	2.3	B0/220		
BH	(60°-80°)	62.0	1.2	B0/110		G0/110
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: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4
2.5°	786.5	778.7	771.0	762.1	742.2	707.8	664.6	618.1	560.5	550.5	504.0
5°	954.9	951.6	943.8	931.6	909.5	871.8	823.1	754.4	658.0	641.4	542.8
7.5°	1073.4	1071.2	1064.5	1050.1	1030.2	992.5	941.6	867.4	755.5	736.6	591.5
10°	1179.7	1178.6	1173.1	1159.8	1139.9	1098.9	1044.6	967.1	848.5	827.5	648.0
12.5°	1276.1	1277.2	1275.0	1268.4	1254.0	1215.2	1153.2	1069.0	938.3	915.0	715.6
15°	1332.6	1335.9	1344.8	1358.1	1362.5	1331.5	1267.3	1174.2	1030.2	1010.3	793.1
17.5°	1313.8	1317.1	1344.8	1390.2	1433.4	1437.9	1380.2	1273.9	1121.0	1101.1	869.6
20°	1268.4	1272.8	1301.6	1363.6	1447.8	1506.5	1483.3	1382.5	1207.4	1183.1	942.7
22.5°	1319.3	1319.3	1328.2	1365.8	1442.3	1534.2	1565.2	1491.0	1296.1	1266.2	1015.8
25°	1494.3	1491.0	1472.2	1456.7	1481.1	1563.0	1627.3	1601.8	1400.2	1365.8	1093.3
27.5°	1715.9	1731.4	1696.0	1639.5	1584.1	1619.5	1682.7	1711.5	1515.4	1479.9	1173.1
30°	1964.0	1970.7	1928.6	1853.3	1755.8	1721.4	1748.0	1805.6	1640.6	1601.8	1256.2
32.5°	2187.8	2182.3	2146.8	2068.2	1947.4	1873.2	1832.2	1880.9	1776.8	1732.5	1341.5
35°	2386.1	2390.5	2347.3	2256.5	2137.9	2059.3	1961.8	1966.2	1929.7	1878.7	1440.1
37.5°	2564.4	2556.7	2515.7	2424.9	2317.4	2232.1	2129.1	2054.9	2097.0	2043.8	1550.8
40°	2709.5	2701.8	2658.6	2570.0	2469.2	2399.4	2318.5	2173.4	2273.1	2212.2	1669.4
42.5°	2824.7	2815.9	2779.3	2694.0	2596.6	2534.5	2495.7	2319.6	2461.4	2400.5	1802.3
45°	2881.2	2873.5	2851.3	2787.1	2701.8	2647.5	2666.3	2488.0	2663.0	2612.1	1948.5
47.5°	2814.8	2811.5	2836.9	2825.9	2777.1	2748.3	2813.7	2671.9	2874.6	2824.7	2116.9
50°	2613.2	2618.7	2692.9	2784.9	2808.1	2842.5	2934.4	2865.7	3101.7	3048.5	2310.8
52.5°	2115.8	2153.5	2377.2	2598.8	2770.5	2900.1	3076.2	3142.7	3471.7	3419.6	2613.2
55°	1579.6	1595.2	1838.9	2217.7	2618.7	2895.6	3181.4	3305.5	3654.4	3601.3	2692.9
57.5°	1252.9	1258.4	1379.1	1765.7	2306.3	2795.9	3236.8	3364.2	3734.2	3689.9	2811.5
60°	983.7	990.3	1077.8	1343.7	1866.5	2526.8	3157.1	3415.2	3890.4	3854.9	3018.6
62.5°	765.5	772.1	825.3	981.5	1400.2	2112.5	2996.4	3497.1	4187.3	4170.7	3357.6
65°	592.6	594.9	631.4	704.5	989.2	1663.8	2800.4	3573.6	4588.3	4573.9	3632.3
67.5°	437.6	440.9	466.4	511.8	668.0	1195.3	2479.1	3514.9	4890.7	4848.6	3732.0
69°	353.4	356.7	378.8	415.4	527.3	941.6	2185.6	3369.8	4936.1	4896.2	3668.8
70°	302.4	304.6	326.8	357.8	449.7	799.8	1953.0	3244.6	4876.3	4837.5	3524.8
72.5°	193.9	204.9	227.1	247.0	298.0	529.5	1318.2	2690.7	4207.2	4140.7	2760.5
75°	107.5	110.8	150.7	175.0	198.3	344.5	733.3	1678.2	2676.3	2629.8	1476.6
77.5°	88.6	90.8	106.3	132.9	132.9	192.7	276.9	661.3	1018.0	918.3	399.9
80°	62.0	64.2	80.9	87.5	95.3	108.6	89.7	145.1	157.3	139.6	59.8
82.5°	43.2	45.4	55.4	72.0	76.4	51.0	33.2	43.2	45.4	45.4	23.3
85°	7.8	11.1	41.0	59.8	45.4	15.5	18.8	15.5	14.4	15.5	5.5
87.5°	0.0	0.0	25.5	28.8	24.4	6.6	7.8	5.5	3.3	4.4	2.2
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°	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4	477.4
2.5°	480.8	457.5	417.6	388.8	364.4	345.6	337.9	325.7	316.8	321.2	315.7
5°	494.1	453.1	388.8	347.8	319.0	294.7	274.7	259.2	247.0	244.8	242.6
7.5°	515.1	456.4	372.2	321.2	278.0	240.4	209.4	186.1	168.4	168.4	161.7
10°	543.9	465.3	362.2	294.7	230.4	179.5	148.4	126.3	117.4	116.3	114.1
12.5°	583.8	481.9	354.5	260.3	179.5	130.7	111.9	104.1	100.8	99.7	98.6
15°	638.1	506.2	345.6	218.2	136.3	107.5	99.7	93.1	89.7	88.6	87.5
17.5°	690.1	528.4	326.8	175.0	110.8	97.5	88.6	83.1	78.6	77.5	77.5
20°	738.9	547.2	294.7	136.3	99.7	87.5	78.6	72.0	67.6	66.5	66.5
22.5°	789.8	562.7	254.8	110.8	90.8	77.5	68.7	62.0	57.6	56.5	55.4
25°	844.1	573.8	209.4	98.6	82.0	68.7	58.7	53.2	49.8	48.7	47.6
27.5°	902.8	578.2	166.2	89.7	72.0	59.8	51.0	45.4	43.2	42.1	42.1
30°	956.0	573.8	128.5	79.8	63.1	52.1	44.3	39.9	37.7	36.6	36.6
32.5°	1011.4	562.7	103.0	70.9	55.4	44.3	37.7	34.3	33.2	32.1	32.1
35°	1070.1	548.3	88.6	63.1	47.6	38.8	33.2	31.0	29.9	28.8	28.8
37.5°	1138.8	530.6	80.9	56.5	42.1	34.3	28.8	27.7	26.6	26.6	26.6
40°	1216.3	508.5	75.3	51.0	37.7	29.9	25.5	24.4	23.3	23.3	23.3
42.5°	1298.3	483.0	69.8	45.4	33.2	25.5	22.2	22.2	21.0	21.0	19.9
45°	1390.2	457.5	64.2	39.9	28.8	22.2	18.8	17.7	17.7	16.6	16.6
47.5°	1498.8	434.2	58.7	35.4	25.5	18.8	16.6	15.5	14.4	13.3	13.3
50°	1651.6	432.0	52.1	31.0	23.3	15.5	13.3	12.2	11.1	10.0	10.0
52.5°	1803.4	412.1	44.3	25.5	18.8	13.3	10.0	8.9	7.8	7.8	6.6
55°	1837.7	378.8	38.8	22.2	14.4	10.0	7.8	5.5	5.5	4.4	4.4
57.5°	1913.1	363.3	33.2	17.7	11.1	7.8	4.4	3.3	3.3	3.3	3.3
60°	2061.5	358.9	28.8	15.5	7.8	5.5	3.3	2.2	2.2	1.1	1.1
62.5°	2266.4	354.5	24.4	13.3	5.5	3.3	2.2	1.1	0.0	0.0	0.0
65°	2379.4	324.6	19.9	10.0	4.4	3.3	1.1	0.0	0.0	0.0	0.0
67.5°	2349.5	268.1	17.7	6.6	3.3	2.2	1.1	0.0	0.0	0.0	0.0
69°	2224.3	226.0	14.4	5.5	3.3	2.2	1.1	0.0	0.0	0.0	0.0
70°	2073.7	195.0	13.3	4.4	2.2	1.1	1.1	0.0	0.0	0.0	0.0
72.5°	1472.2	101.9	8.9	3.3	2.2	1.1	0.0	0.0	0.0	0.0	0.0
75°	687.9	45.4	5.5	2.2	1.1	1.1	0.0	0.0	0.0	0.0	0.0
77.5°	151.8	21.0	3.3	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
80°	28.8	7.8	2.2	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.0	3.3	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	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)