

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: P231078

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231078
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-M-AF48-70-D-U-T2R-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 470mA LIGHT ENGINES 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: 7178 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 73
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

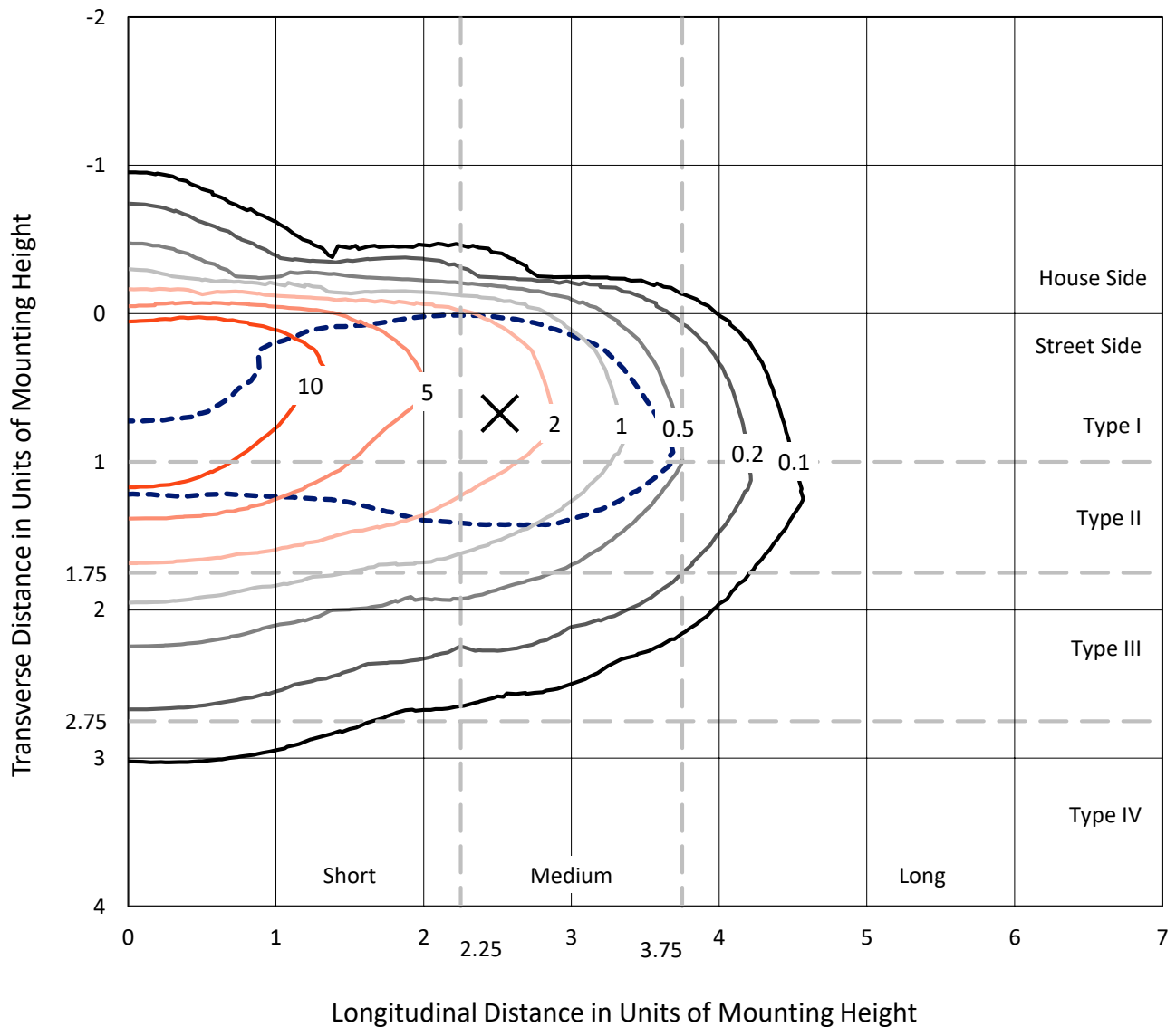


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

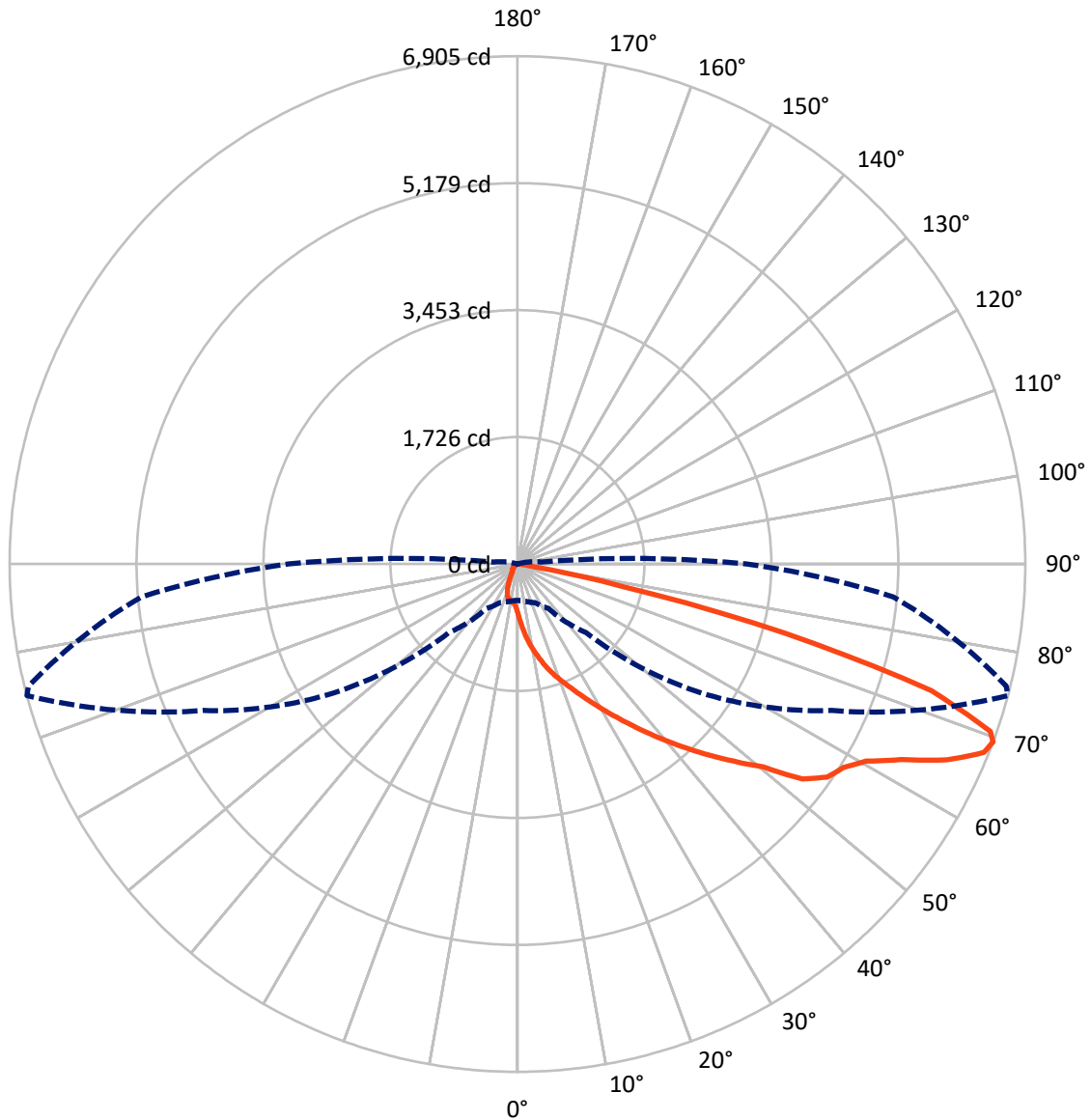


Based on 10 foot mounting height. Maximum calculated value = 18.3 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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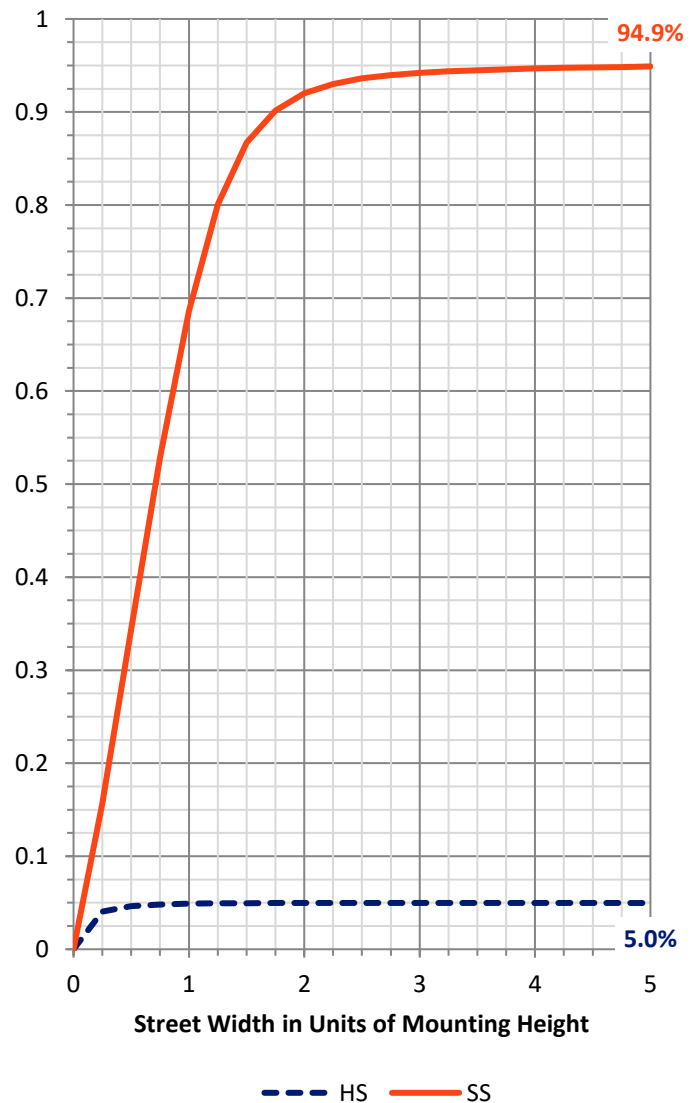
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	358.1	0.0	358.1
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	6819.9	0.0	6819.9
	% Fixture	95.0	0.0	95.0
Total	Lumens	7178.0	0.0	7178.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	1.1
10°-20°	278.4	3.9
20°-30°	531.5	7.4
30°-40°	953.5	13.3
40°-50°	1460.8	20.4
50°-60°	1697.8	23.7
60°-70°	1503.5	20.9
70°-80°	648.5	9.0
80°-90°	26.0	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°	7178.0	100.0
0°-180°	7178.0	100.0

Coefficient of Utilization



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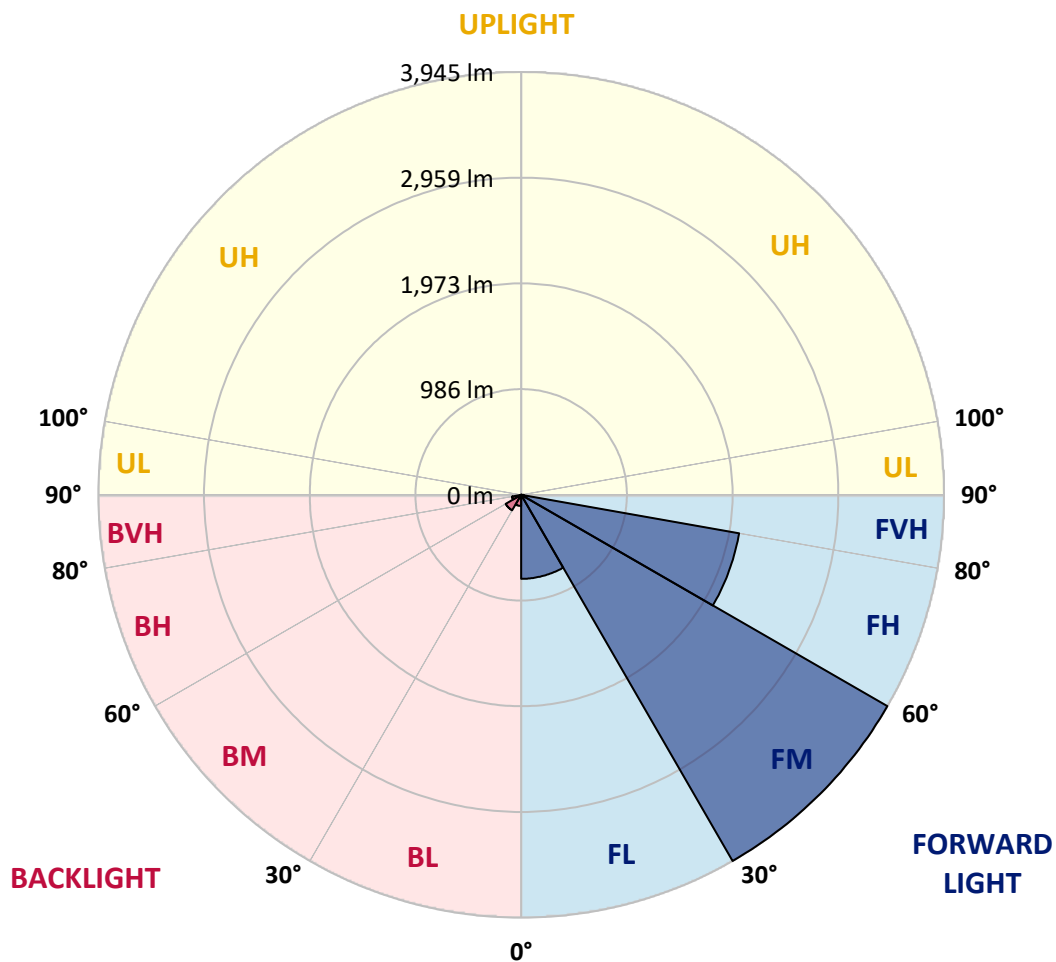
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	783.9	10.9			
FM (30°-60°)	3945.2	55.0			
FH (60°-80°)	2065.2	28.8			G2/5000
FVH (80°-90°)	25.6	0.4			G1/100
BL (0°-30°)	104.0	1.4	B0/110		
BM (30°-60°)	167.0	2.3	B0/220		
BH (60°-80°)	86.8	1.2	B0/110		G0/110
BVH (80°-90°)	0.4	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-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9
2.5°	1100.3	1089.4	1078.6	1066.2	1038.3	990.2	929.8	864.7	784.1	770.2	705.1
5°	1335.8	1331.2	1320.3	1303.3	1272.3	1219.6	1151.4	1055.3	920.5	897.3	759.3
7.5°	1501.6	1498.5	1489.2	1469.1	1441.2	1388.5	1317.2	1213.4	1056.9	1030.5	827.5
10°	1650.4	1648.9	1641.1	1622.5	1594.6	1537.3	1461.3	1352.9	1187.1	1157.6	906.6
12.5°	1785.2	1786.8	1783.7	1774.4	1754.2	1700.0	1613.2	1495.4	1312.6	1280.0	1001.1
15°	1864.3	1868.9	1881.3	1899.9	1906.1	1862.7	1772.8	1642.7	1441.2	1413.3	1109.6
17.5°	1837.9	1842.6	1881.3	1944.8	2005.3	2011.5	1930.9	1782.1	1568.3	1540.4	1216.5
20°	1774.4	1780.6	1820.9	1907.7	2025.4	2107.6	2075.0	1934.0	1689.1	1655.1	1318.8
22.5°	1845.7	1845.7	1858.1	1910.8	2017.7	2146.3	2189.7	2085.9	1813.1	1771.3	1421.1
25°	2090.5	2085.9	2059.5	2037.8	2071.9	2186.6	2276.5	2240.8	1958.8	1910.8	1529.5
27.5°	2400.4	2422.1	2372.6	2293.5	2216.0	2265.6	2354.0	2394.2	2120.0	2070.4	1641.1
30°	2747.6	2756.9	2698.0	2592.6	2456.2	2408.2	2445.4	2526.0	2295.1	2240.8	1757.3
32.5°	3060.6	3052.9	3003.3	2893.2	2724.3	2620.5	2563.2	2631.3	2485.7	2423.7	1876.7
35°	3338.0	3344.2	3283.8	3156.7	2990.9	2880.8	2744.5	2750.7	2699.5	2628.2	2014.6
37.5°	3587.5	3576.7	3519.3	3392.2	3241.9	3122.6	2978.5	2874.6	2933.5	2859.2	2169.5
40°	3790.5	3779.7	3719.2	3595.2	3454.2	3356.6	3243.5	3040.5	3179.9	3094.7	2335.4
42.5°	3951.7	3939.3	3888.1	3768.8	3632.4	3545.7	3491.4	3245.0	3443.4	3358.1	2521.3
45°	4030.7	4019.9	3988.9	3899.0	3779.7	3703.7	3730.1	3480.6	3725.4	3654.1	2725.9
47.5°	3937.7	3933.1	3968.7	3953.2	3885.0	3844.7	3936.2	3737.8	4021.4	3951.7	2961.4
50°	3655.7	3663.4	3767.3	3895.9	3928.4	3976.5	4105.1	4009.0	4339.1	4264.7	3232.6
52.5°	2959.9	3012.6	3325.6	3635.5	3875.7	4057.1	4303.4	4396.4	4856.7	4783.8	3655.7
55°	2209.8	2231.5	2572.5	3102.5	3663.4	4050.9	4450.7	4624.2	5112.4	5038.0	3767.3
57.5°	1752.7	1760.4	1929.3	2470.2	3226.4	3911.4	4528.2	4706.4	5224.0	5162.0	3933.1
60°	1376.1	1385.4	1507.8	1879.8	2611.2	3534.8	4416.6	4777.7	5442.5	5392.9	4222.9
62.5°	1070.8	1080.1	1154.5	1373.0	1958.8	2955.2	4191.9	4892.3	5857.8	5834.5	4697.1
65°	829.1	832.2	883.3	985.6	1383.9	2327.6	3917.6	4999.3	6418.8	6398.6	5081.4
67.5°	612.1	616.8	652.4	716.0	934.5	1672.1	3468.2	4917.1	6841.8	6782.9	5220.9
69°	494.3	499.0	530.0	581.1	737.6	1317.2	3057.5	4714.1	6905.4	6849.6	5132.5
70°	423.1	426.2	457.2	500.5	629.2	1118.9	2732.1	4539.0	6821.7	6767.4	4931.1
72.5°	271.2	286.7	317.7	345.6	416.9	740.7	1844.1	3764.2	5885.7	5792.7	3861.8
75°	150.3	155.0	210.8	244.8	277.4	481.9	1025.9	2347.8	3744.0	3678.9	2065.7
77.5°	124.0	127.1	148.8	186.0	186.0	269.6	387.4	925.2	1424.2	1284.7	559.4
80°	86.8	89.9	113.1	122.4	133.3	151.9	125.5	203.0	220.1	195.3	83.7
82.5°	60.4	63.5	77.5	100.7	106.9	71.3	46.5	60.4	63.5	63.5	32.5
85°	10.8	15.5	57.3	83.7	63.5	21.7	26.3	21.7	20.1	21.7	7.7
87.5°	0.0	0.0	35.6	40.3	34.1	9.3	10.8	7.7	4.6	6.2	3.1
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°	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9
2.5°	672.6	640.0	584.2	543.9	509.8	483.5	472.7	455.6	443.2	449.4	441.7
5°	691.2	633.8	543.9	486.6	446.3	412.2	384.3	362.6	345.6	342.5	339.4
7.5°	720.6	638.5	520.7	449.4	389.0	336.3	292.9	260.3	235.6	235.6	226.3
10°	760.9	650.9	506.7	412.2	322.3	251.0	207.7	176.7	164.3	162.7	159.6
12.5°	816.7	674.1	495.9	364.2	251.0	182.9	156.5	145.7	141.0	139.5	137.9
15°	892.6	708.2	483.5	305.3	190.6	150.3	139.5	130.2	125.5	124.0	122.4
17.5°	965.4	739.2	457.2	244.8	155.0	136.4	124.0	116.2	110.0	108.5	108.5
20°	1033.6	765.5	412.2	190.6	139.5	122.4	110.0	100.7	94.5	93.0	93.0
22.5°	1104.9	787.2	356.4	155.0	127.1	108.5	96.1	86.8	80.6	79.0	77.5
25°	1180.9	802.7	292.9	137.9	114.7	96.1	82.1	74.4	69.7	68.2	66.6
27.5°	1263.0	808.9	232.5	125.5	100.7	83.7	71.3	63.5	60.4	58.9	58.9
30°	1337.4	802.7	179.8	111.6	88.3	72.8	62.0	55.8	52.7	51.1	51.1
32.5°	1414.9	787.2	144.1	99.2	77.5	62.0	52.7	48.0	46.5	44.9	44.9
35°	1497.0	767.1	124.0	88.3	66.6	54.2	46.5	43.4	41.8	40.3	40.3
37.5°	1593.1	742.3	113.1	79.0	58.9	48.0	40.3	38.7	37.2	37.2	37.2
40°	1701.5	711.3	105.4	71.3	52.7	41.8	35.6	34.1	32.5	32.5	32.5
42.5°	1816.2	675.7	97.6	63.5	46.5	35.6	31.0	31.0	29.4	29.4	27.9
45°	1944.8	640.0	89.9	55.8	40.3	31.0	26.3	24.8	24.8	23.2	23.2
47.5°	2096.7	607.5	82.1	49.6	35.6	26.3	23.2	21.7	20.1	18.6	18.6
50°	2310.6	604.4	72.8	43.4	32.5	21.7	18.6	17.0	15.5	13.9	13.9
52.5°	2522.9	576.5	62.0	35.6	26.3	18.6	13.9	12.4	10.8	10.8	9.3
55°	2570.9	530.0	54.2	31.0	20.1	13.9	10.8	7.7	7.7	6.2	6.2
57.5°	2676.3	508.3	46.5	24.8	15.5	10.8	6.2	4.6	4.6	4.6	4.6
60°	2883.9	502.1	40.3	21.7	10.8	7.7	4.6	3.1	3.1	1.5	1.5
62.5°	3170.6	495.9	34.1	18.6	7.7	4.6	3.1	1.5	0.0	0.0	0.0
65°	3328.7	454.1	27.9	13.9	6.2	4.6	1.5	0.0	0.0	0.0	0.0
67.5°	3286.9	375.0	24.8	9.3	4.6	3.1	1.5	0.0	0.0	0.0	0.0
69°	3111.7	316.1	20.1	7.7	4.6	3.1	1.5	0.0	0.0	0.0	0.0
70°	2901.0	272.7	18.6	6.2	3.1	1.5	1.5	0.0	0.0	0.0	0.0
72.5°	2059.5	142.6	12.4	4.6	3.1	1.5	0.0	0.0	0.0	0.0	0.0
75°	962.3	63.5	7.7	3.1	1.5	1.5	0.0	0.0	0.0	0.0	0.0
77.5°	212.3	29.4	4.6	3.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	40.3	10.8	3.1	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.9	4.6	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	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)