

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: P231177

Luminaire Tested: **ARCH-M-AF48-150-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231177
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-AF48-150-D-U-T3-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17832 lumens
Efficiency: N/A
Efficacy: 118.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 151
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

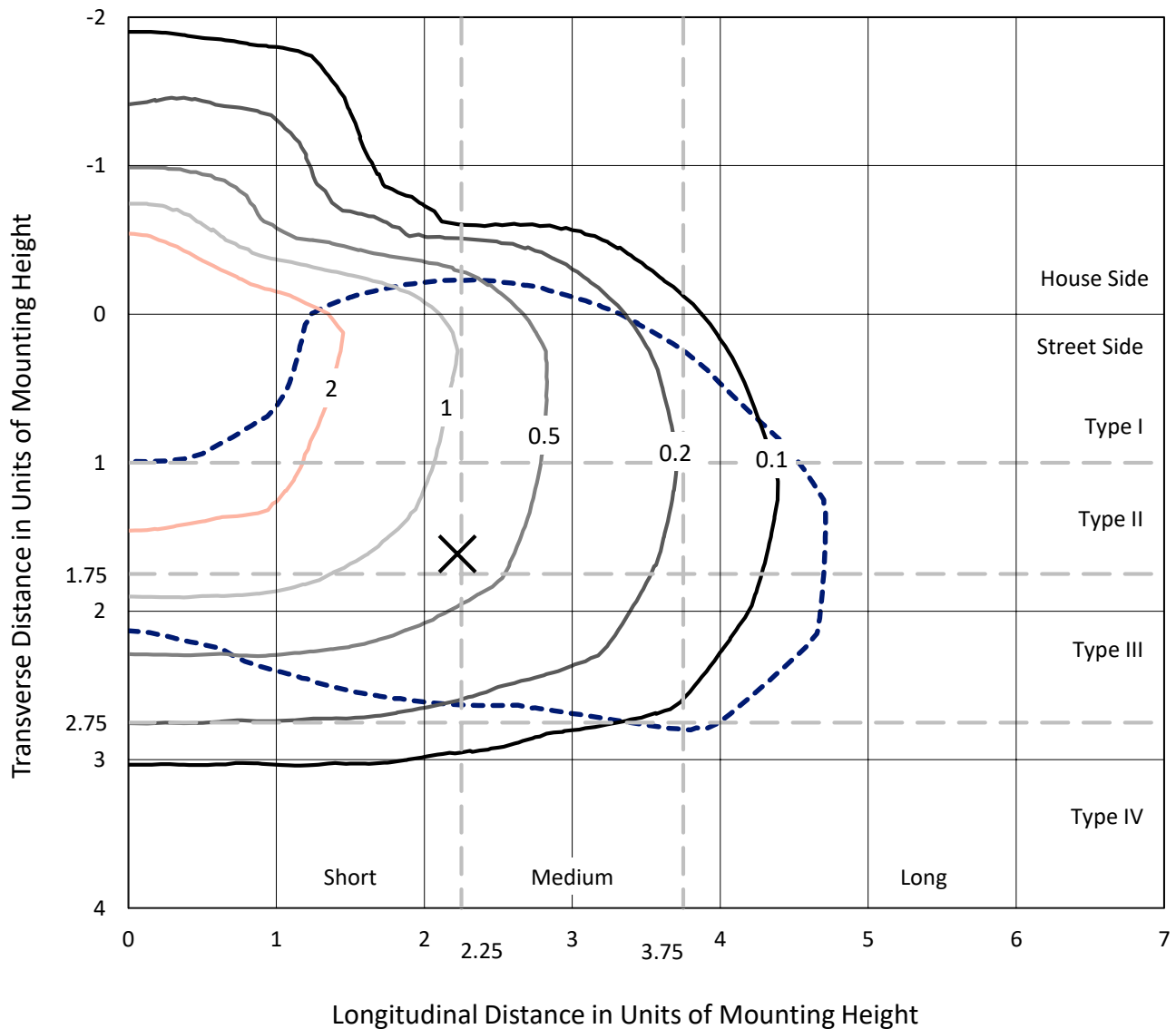


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

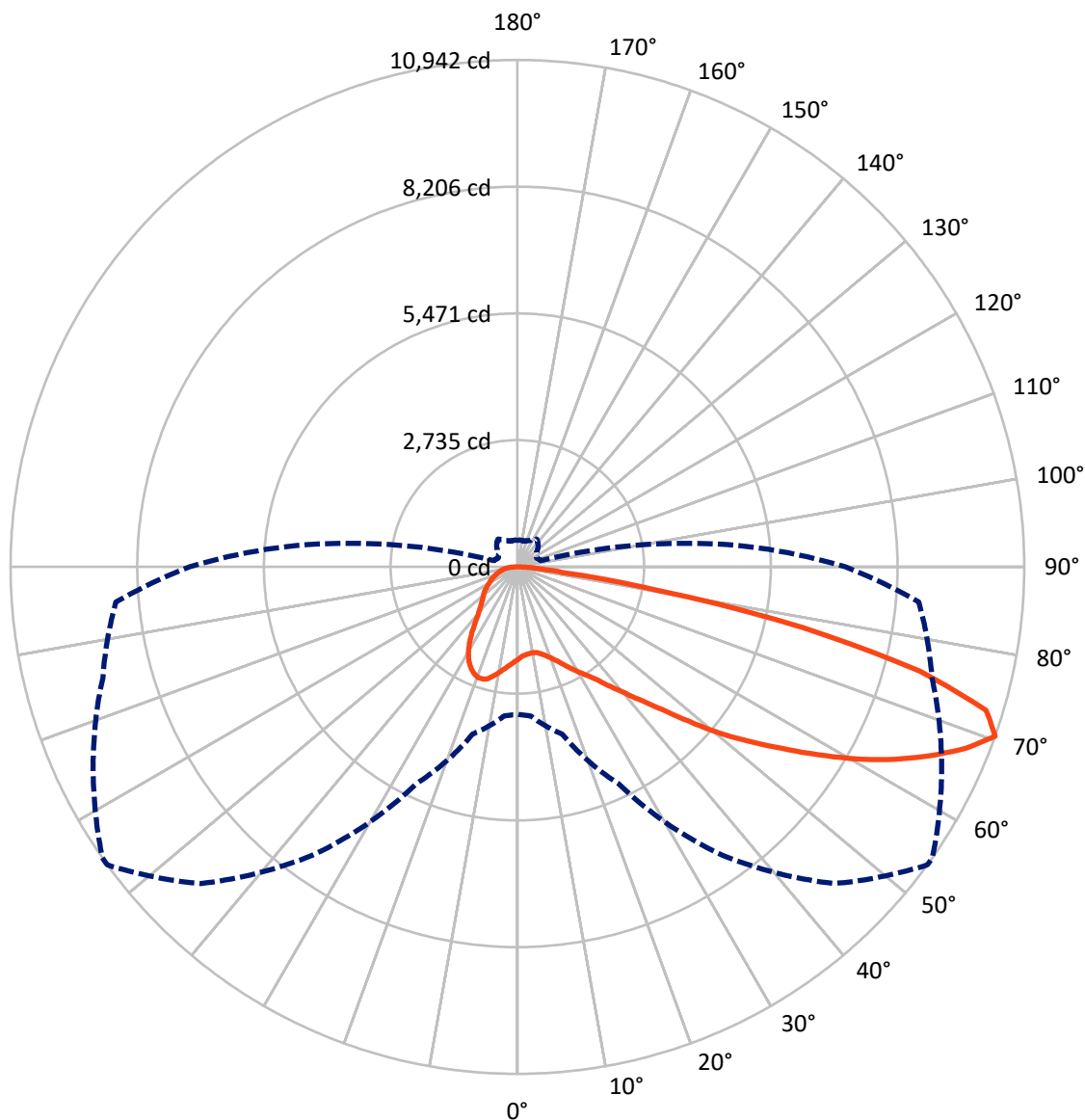


Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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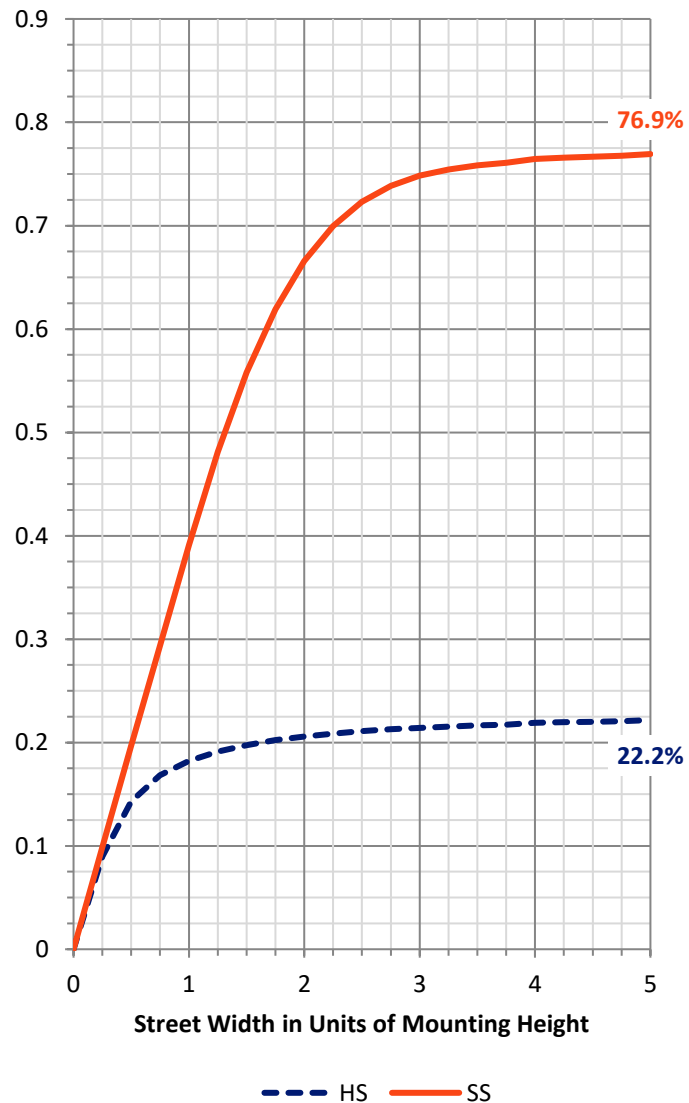
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4044.2	0.0	4044.2
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	13787.8	0.0	13787.8
	% Fixture	77.3	0.0	77.3
Total	Lumens	17832.0	0.0	17832.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.8	1.1
10°-20°	625.6	3.5
20°-30°	1086.9	6.1
30°-40°	1588.3	8.9
40°-50°	2492.8	14.0
50°-60°	3833.4	21.5
60°-70°	4683.5	26.3
70°-80°	2903.8	16.3
80°-90°	421.8	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°	17832.0	100.0
0°-180°	17832.0	100.0

Coefficient of Utilization



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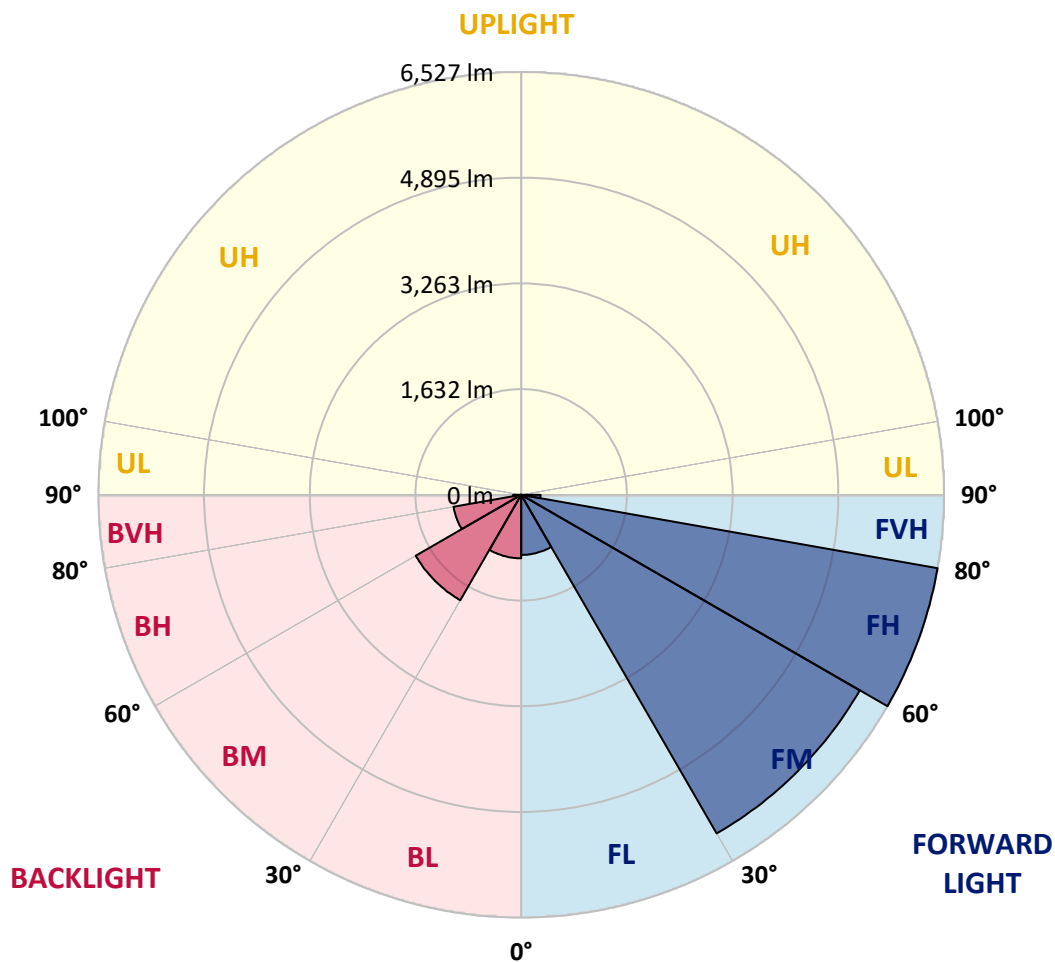
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	927.8	5.2			
FM	(30°-60°)	6035.3	33.8			
FH	(60°-80°)	6526.8	36.6			G3/7500
FVH	(80°-90°)	297.9	1.7			G3/500
BL	(0°-30°)	980.5	5.5	B2/1000		
BM	(30°-60°)	1879.3	10.5	B2/2500		
BH	(60°-80°)	1060.5	5.9	B3/2500		G3/2500
BVH	(80°-90°)	124.0	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0
2.5°	1916.7	1910.1	1910.1	1919.9	1923.2	1933.0	1933.0	1936.3	1946.1	1962.4	1982.0
5°	1857.9	1854.6	1857.9	1871.0	1877.5	1897.1	1903.6	1906.9	1926.5	1952.6	1982.0
7.5°	1799.1	1795.9	1802.4	1822.0	1841.6	1871.0	1887.3	1890.6	1919.9	1955.9	1995.0
10°	1779.5	1776.3	1786.1	1802.4	1822.0	1854.6	1880.8	1884.0	1926.5	1968.9	2024.4
12.5°	1805.7	1802.4	1812.2	1828.5	1848.1	1871.0	1900.3	1903.6	1959.1	2014.6	2073.4
15°	1871.0	1871.0	1874.2	1884.0	1903.6	1923.2	1949.3	1952.6	2011.4	2076.7	2135.4
17.5°	1972.2	1965.7	1965.7	1962.4	1975.4	1985.2	2017.9	2021.2	2083.2	2142.0	2200.7
20°	2096.3	2093.0	2079.9	2063.6	2060.3	2066.9	2099.5	2102.8	2164.8	2213.8	2269.3
22.5°	2246.5	2249.7	2220.3	2184.4	2168.1	2177.9	2207.3	2210.5	2256.3	2298.7	2347.7
25°	2445.6	2435.8	2393.4	2341.2	2308.5	2308.5	2337.9	2337.9	2380.3	2406.5	2439.1
27.5°	2635.0	2615.4	2576.2	2501.1	2448.9	2458.7	2488.1	2488.1	2527.3	2537.1	2553.4
30°	2840.7	2821.1	2772.2	2677.5	2608.9	2602.4	2638.3	2635.0	2687.3	2684.0	2670.9
32.5°	3092.1	3082.4	3000.7	2879.9	2788.5	2765.6	2798.3	2801.5	2834.2	2824.4	2782.0
35°	3444.8	3441.5	3366.4	3154.2	3033.4	2990.9	3010.5	3010.5	3033.4	3007.3	2935.4
37.5°	3888.9	3895.4	3830.1	3516.6	3346.8	3275.0	3278.3	3275.0	3281.5	3252.1	3177.0
40°	4332.9	4349.3	4346.0	3967.2	3751.7	3627.6	3581.9	3575.4	3591.7	3578.7	3506.8
42.5°	4917.4	4956.6	4865.2	4522.3	4280.7	4071.7	3947.6	3931.3	3967.2	3983.6	3915.0
45°	5524.7	5511.7	5368.0	5119.8	4901.1	4633.3	4398.2	4372.1	4398.2	4447.2	4375.4
47.5°	5841.5	5831.7	5795.7	5671.7	5639.0	5332.1	4976.2	4953.3	4904.3	4972.9	4888.0
50°	6363.9	6373.7	6226.7	6213.7	6350.8	6181.0	5629.2	5577.0	5488.8	5544.3	5472.5
52.5°	6742.6	6700.2	6608.8	6723.1	7150.8	7059.4	6243.1	6220.2	6138.6	6125.5	6092.9
55°	6896.1	6896.1	6912.4	7176.9	7787.5	7666.7	6909.2	6932.0	6821.0	6729.6	6772.0
57.5°	6941.8	6961.4	7101.8	7539.4	8535.2	8140.2	7643.8	7676.5	7516.5	7333.7	7467.5
60°	6716.5	6775.3	7111.6	7745.1	8956.5	8643.0	8417.7	8427.5	8195.7	7927.9	8163.0
62.5°	6138.6	6210.4	6811.2	7830.0	8887.9	9158.9	9149.1	9172.0	8855.2	8522.2	8816.1
65°	5430.0	5501.9	6141.9	7591.6	8835.6	9527.9	9818.5	9880.5	9472.4	9025.0	9224.2
67.5°	4388.4	4483.1	5090.5	6788.4	8581.0	9831.5	10445.4	10510.7	9949.1	9286.2	9188.3
70°	3180.3	3226.0	3735.4	5159.0	7542.6	9665.0	10941.7	10938.4	10105.8	9266.7	8698.5
72.5°	1531.4	1567.3	2008.1	3203.2	5394.1	8202.2	10582.5	10644.6	9890.3	8982.6	7578.5
75°	630.2	666.1	813.0	1351.8	2830.9	5420.2	8969.5	9116.5	8982.6	8061.8	5929.6
77.5°	391.8	404.9	476.7	698.8	1293.0	2530.5	6279.0	6478.2	7118.1	6458.6	3915.0
80°	293.9	303.7	355.9	489.8	816.3	933.8	3118.3	3369.7	4313.3	3706.0	1773.0
82.5°	244.9	248.2	284.1	355.9	555.1	535.5	999.2	1113.4	2011.4	1413.8	610.6
85°	228.6	235.1	254.7	254.7	352.6	336.3	414.7	434.3	584.5	483.3	212.2
87.5°	117.5	111.0	225.3	199.2	182.9	163.3	176.3	189.4	218.8	231.8	94.7
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°	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0
2.5°	1988.5	1998.3	2014.6	2031.0	2050.5	2073.4	2086.5	2102.8	2115.9	2109.3	2106.1
5°	1998.3	2014.6	2050.5	2083.2	2122.4	2168.1	2197.5	2230.1	2256.3	2262.8	2253.0
7.5°	2014.6	2044.0	2093.0	2151.8	2204.0	2262.8	2308.5	2354.2	2386.9	2393.4	2393.4
10°	2053.8	2086.5	2151.8	2230.1	2292.2	2354.2	2406.5	2442.4	2471.8	2484.8	2484.8
12.5°	2109.3	2148.5	2226.9	2321.6	2390.1	2448.9	2478.3	2494.6	2507.7	2520.7	2524.0
15°	2174.6	2217.1	2311.8	2413.0	2484.8	2514.2	2514.2	2510.9	2510.9	2517.5	2524.0
17.5°	2239.9	2285.6	2383.6	2491.4	2537.1	2520.7	2497.9	2488.1	2481.6	2478.3	2488.1
20°	2308.5	2354.2	2452.2	2553.4	2540.3	2471.8	2439.1	2416.3	2396.7	2386.9	2399.9
22.5°	2383.6	2426.0	2527.3	2595.8	2497.9	2393.4	2331.4	2295.4	2262.8	2243.2	2256.3
25°	2471.8	2514.2	2612.2	2608.9	2422.8	2275.8	2177.9	2119.1	2083.2	2063.6	2063.6
27.5°	2576.2	2612.2	2706.9	2576.2	2318.3	2119.1	1975.4	1919.9	1910.1	1893.8	1893.8
30°	2684.0	2713.4	2795.0	2501.1	2174.6	1913.4	1756.7	1730.6	1733.8	1717.5	1720.8
32.5°	2795.0	2824.4	2847.3	2390.1	1988.5	1681.6	1577.1	1557.5	1554.2	1541.2	1528.1
35°	2951.7	2994.2	2853.8	2239.9	1763.2	1488.9	1413.8	1394.2	1374.7	1328.9	1328.9
37.5°	3190.1	3235.8	2837.5	2053.8	1531.4	1338.7	1270.2	1244.0	1211.4	1165.7	1149.4
40°	3516.6	3516.6	2801.5	1844.8	1345.3	1217.9	1152.6	1120.0	1084.0	1038.3	1028.5
42.5°	3901.9	3810.5	2746.0	1632.6	1208.1	1136.3	1077.5	1041.6	999.2	946.9	940.4
45°	4352.5	4104.4	2667.7	1443.2	1106.9	1087.3	1051.4	989.4	917.5	862.0	852.2
47.5°	4790.1	4368.8	2592.6	1309.3	1022.0	1067.7	1038.3	933.8	835.9	757.5	747.7
50°	5270.0	4603.9	2504.4	1198.3	956.7	1054.7	1022.0	852.2	744.5	689.0	682.4
52.5°	5750.0	4842.3	2409.7	1080.8	901.2	1028.5	982.8	793.4	741.2	666.1	656.3
55°	6256.1	5119.8	2298.7	950.2	835.9	976.3	930.6	790.2	764.1	666.1	643.2
57.5°	6749.2	5426.8	2119.1	822.8	764.1	897.9	911.0	770.6	715.1	659.6	633.4
60°	7294.5	5753.3	1822.0	715.1	702.0	832.6	884.9	728.1	659.6	640.0	626.9
62.5°	7732.0	6047.2	1423.6	640.0	649.8	780.4	852.2	702.0	636.7	620.4	617.1
65°	7921.4	6053.7	1022.0	574.7	597.5	731.4	819.6	679.2	617.1	610.6	607.3
67.5°	7722.2	5720.6	718.3	512.6	542.0	685.7	777.1	656.3	597.5	600.8	594.3
70°	7079.0	5018.6	525.7	453.9	489.8	636.7	731.4	626.9	574.7	581.2	571.4
72.5°	5923.1	3911.7	421.2	404.9	447.3	584.5	685.7	594.3	538.8	542.0	522.4
75°	4375.4	2592.6	352.6	362.4	398.4	535.5	626.9	551.8	499.6	486.5	473.5
77.5°	2602.4	1332.2	290.6	316.7	355.9	476.7	561.6	499.6	457.1	434.3	424.5
80°	1074.3	538.8	238.4	267.7	310.2	424.5	496.3	437.5	408.2	385.3	372.2
82.5°	427.7	264.5	189.4	218.8	261.2	369.0	434.3	385.3	355.9	339.6	303.7
85°	163.3	130.6	127.3	153.5	195.9	284.1	359.2	323.3	300.4	258.0	248.2
87.5°	65.3	58.8	58.8	75.1	111.0	179.6	258.0	225.3	235.1	186.1	189.4
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)