

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: P231211

Luminaire Tested: **ARCH-M-AF48-100-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231211
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-100-D-U-T3-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8861 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 101
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

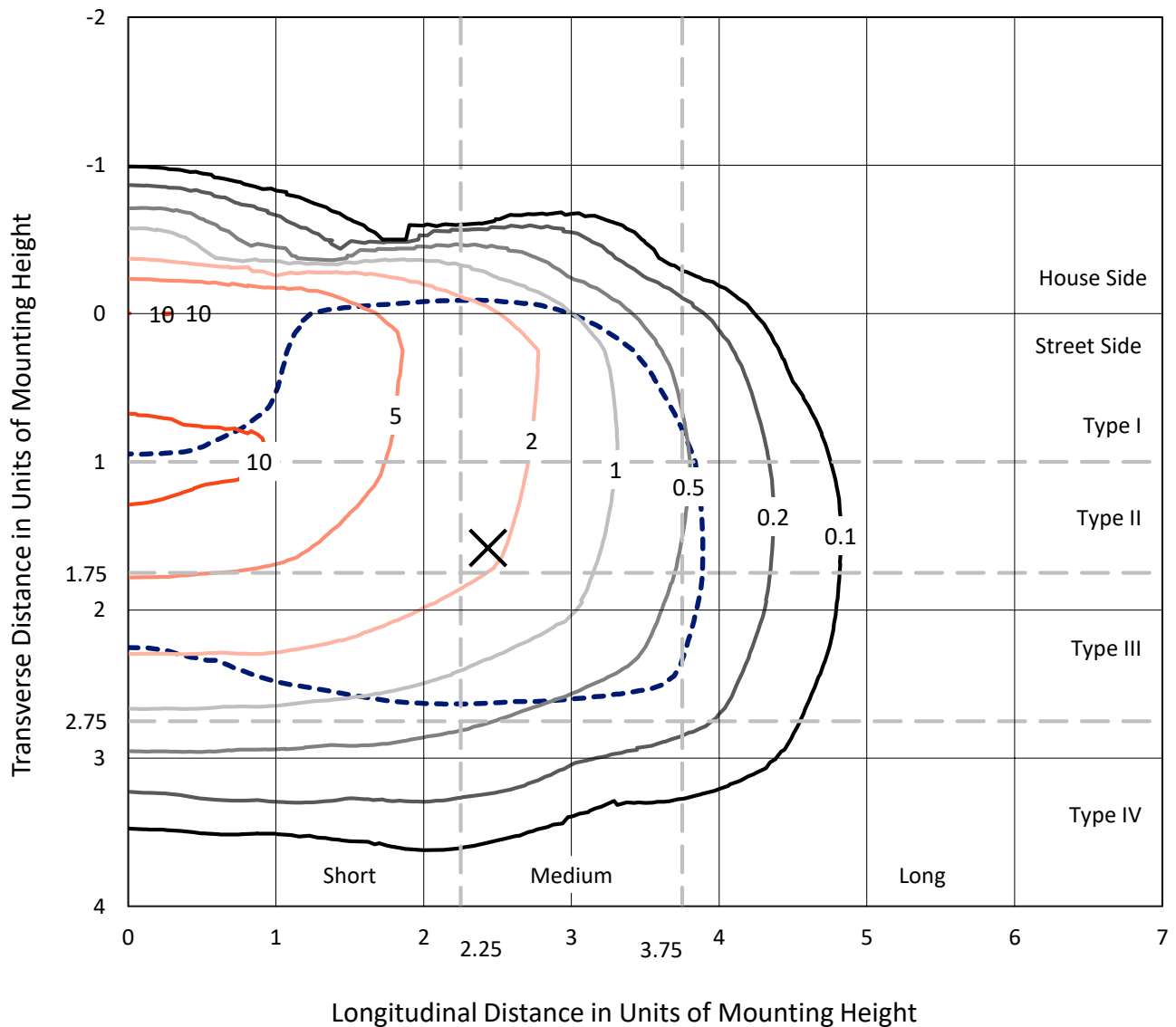


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

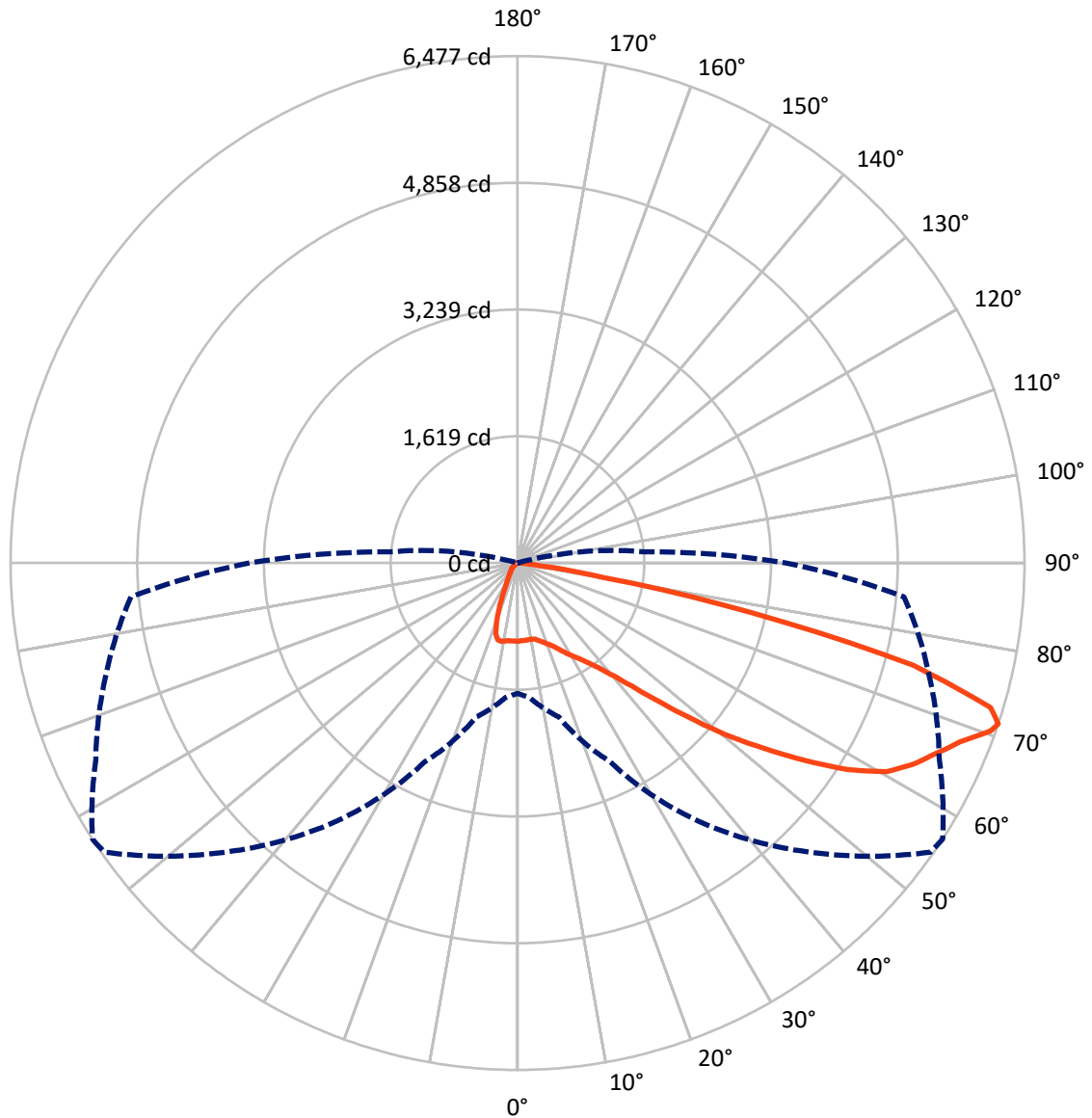


Based on 10 foot mounting height. Maximum calculated value = 12.5 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical



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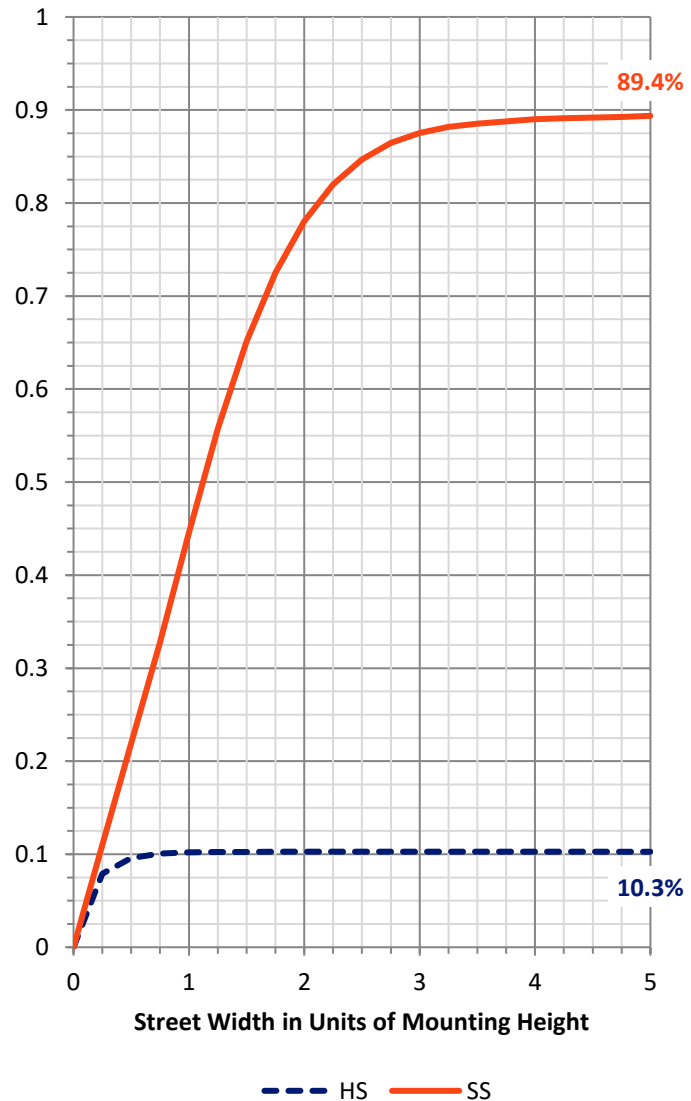
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	918.3	0.0	918.3
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	7942.7	0.0	7942.7
	% Fixture	89.6	0.0	89.6
Total	Lumens	8861.0	0.0	8861.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.0	1.1
10°-20°	251.5	2.8
20°-30°	392.3	4.4
30°-40°	663.0	7.5
40°-50°	1287.7	14.5
50°-60°	2162.5	24.4
60°-70°	2580.8	29.1
70°-80°	1360.1	15.3
80°-90°	69.1	0.8
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°	8861.0	100.0
0°-180°	8861.0	100.0

Coefficient of Utilization



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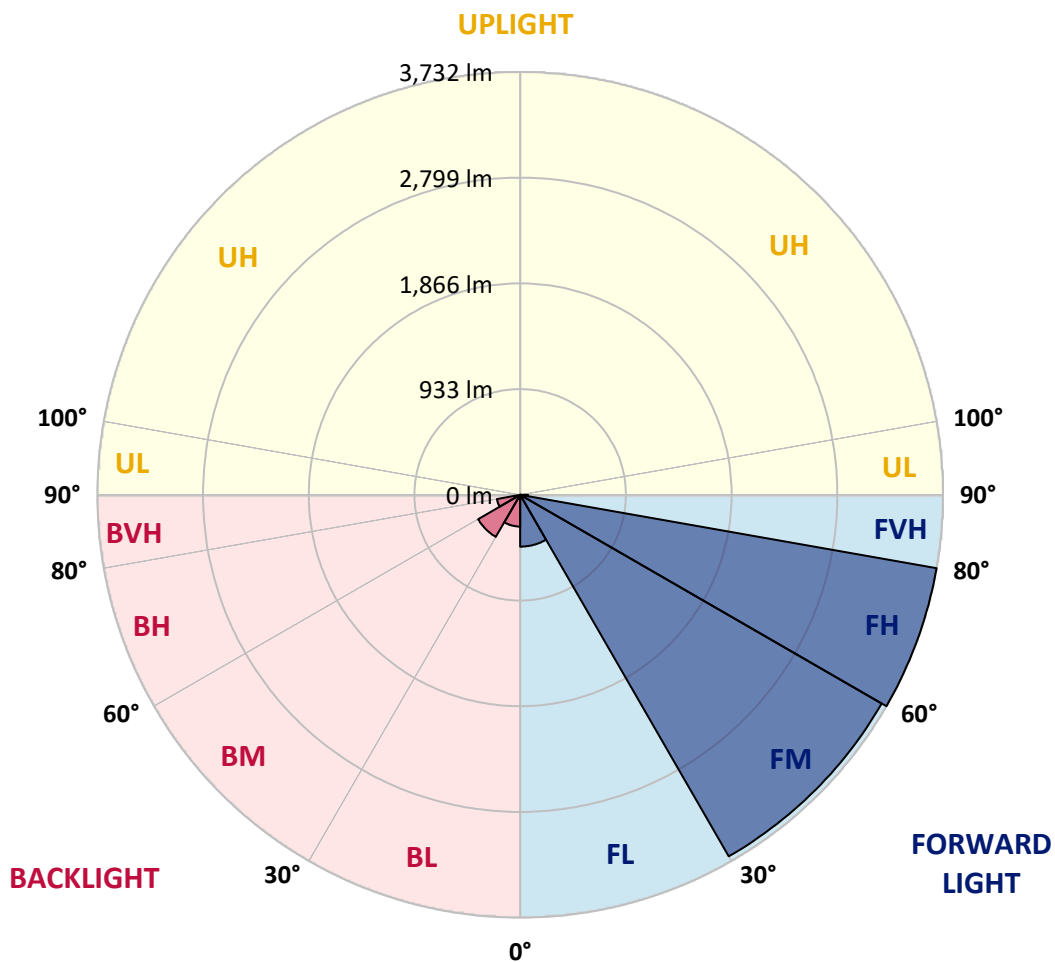
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	457.5	5.2			
FM	(30°-60°)	3684.5	41.6			
FH	(60°-80°)	3732.3	42.1			G2/5000
FVH	(80°-90°)	68.5	0.8			G1/100
BL	(0°-30°)	280.3	3.2	B1/500		
BM	(30°-60°)	428.8	4.8	B1/1000		
BH	(60°-80°)	208.5	2.4	B1/500		G1/500
BVH	(80°-90°)	0.7	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4
2.5°	987.0	987.0	987.0	989.0	991.1	991.1	995.2	993.2	993.2	993.2	997.3
5°	960.1	962.2	964.3	968.4	976.6	982.8	993.2	993.2	995.2	999.4	1001.4
7.5°	923.0	925.0	931.2	939.5	956.0	970.5	987.0	991.1	997.3	1007.6	1011.8
10°	900.3	904.4	912.6	923.0	941.5	960.1	980.8	987.0	1005.6	1024.1	1034.5
12.5°	894.1	896.1	904.4	920.9	943.6	966.3	993.2	999.4	1026.2	1055.1	1071.6
15°	904.4	906.4	910.6	929.2	956.0	984.9	1020.0	1028.3	1061.3	1094.3	1115.0
17.5°	923.0	923.0	927.1	943.6	972.5	1005.6	1051.0	1063.4	1100.5	1137.7	1160.4
20°	935.4	935.4	941.5	958.1	991.1	1034.5	1088.1	1104.7	1146.0	1187.3	1207.9
22.5°	947.7	949.8	956.0	974.6	1011.8	1071.6	1133.6	1150.1	1197.6	1240.9	1261.6
25°	982.8	980.8	982.8	999.4	1042.7	1117.1	1195.5	1216.2	1265.7	1313.2	1323.5
27.5°	1079.9	1075.8	1048.9	1038.6	1071.6	1164.5	1274.0	1294.6	1352.4	1399.9	1399.9
30°	1302.9	1294.6	1228.6	1143.9	1117.1	1207.9	1348.3	1377.2	1451.6	1492.8	1480.5
32.5°	1585.8	1567.2	1482.5	1338.0	1230.6	1265.7	1426.8	1459.8	1554.8	1589.9	1563.1
35°	1895.5	1893.4	1788.1	1602.3	1449.5	1385.5	1528.0	1567.2	1686.9	1717.9	1674.6
37.5°	2223.8	2232.0	2161.8	1905.8	1726.2	1581.6	1662.2	1707.6	1854.2	1891.4	1850.1
40°	2589.3	2587.2	2560.4	2256.8	2058.6	1860.4	1856.3	1897.5	2075.1	2132.9	2075.1
42.5°	3051.8	3047.6	2950.6	2678.0	2461.2	2223.8	2139.1	2153.6	2351.8	2446.8	2362.1
45°	3522.5	3493.6	3382.1	3146.8	2954.7	2673.9	2512.9	2512.9	2682.2	2812.3	2680.1
47.5°	3784.8	3755.9	3710.4	3580.4	3522.5	3208.7	2971.2	2942.3	3074.5	3206.6	3020.8
50°	4129.6	4129.6	4016.0	3966.5	4065.6	3844.7	3477.1	3448.2	3512.2	3617.5	3373.9
52.5°	4402.2	4352.6	4272.1	4315.4	4598.3	4497.1	3983.0	3927.2	3976.8	4003.6	3681.5
55°	4515.7	4468.2	4462.0	4621.0	5058.8	4918.4	4501.3	4451.7	4447.6	4315.4	3950.0
57.5°	4538.4	4497.1	4575.6	4854.3	5506.8	5263.2	5017.5	4980.3	4864.7	4534.3	4224.6
60°	4346.4	4367.0	4557.0	4982.4	5771.1	5562.6	5453.1	5413.9	5147.5	4720.1	4530.2
62.5°	3952.0	4001.6	4356.7	4994.7	5674.1	5684.4	5694.7	5667.9	5366.4	4889.4	4837.8
65°	3485.4	3499.8	3927.2	4823.4	5504.8	5647.2	5872.3	5870.2	5533.7	5079.4	5184.7
67.5°	2872.1	2896.9	3266.5	4245.2	5166.1	5630.7	6105.6	6099.4	5723.6	5296.2	5391.2
70°	2137.1	2168.0	2467.4	3301.6	4410.4	5424.2	6411.2	6415.3	5923.9	5461.4	5248.7
71°	1666.3	1722.0	2035.9	2804.0	4024.3	5215.7	6440.1	6477.3	5946.6	5438.7	4955.5
72.5°	817.7	883.7	1278.1	1973.9	3311.9	4749.0	6250.1	6322.4	5804.1	5155.8	4237.0
75°	212.7	225.1	382.0	807.3	1775.7	3146.8	5040.2	5223.9	4744.9	3925.2	2589.3
77.5°	134.2	138.3	179.6	313.8	664.9	1195.5	2960.9	3051.8	2711.1	1988.4	912.6
80°	95.0	97.0	113.6	202.4	388.2	349.0	1065.4	1104.7	980.8	526.5	163.1
82.5°	57.8	57.8	82.6	130.1	239.5	190.0	280.8	299.4	264.3	146.6	53.7
85°	33.0	35.1	51.6	88.8	113.6	92.9	105.3	111.5	113.6	97.0	22.7
87.5°	26.8	28.9	45.4	74.3	61.9	45.4	45.4	47.5	49.6	57.8	10.3
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°	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4	1001.4
2.5°	997.3	997.3	999.4	997.3	997.3	997.3	999.4	999.4	999.4	1003.5	1005.6
5°	1001.4	1001.4	1001.4	999.4	997.3	997.3	1001.4	1003.5	1003.5	1009.7	1009.7
7.5°	1011.8	1011.8	1007.6	1003.5	999.4	993.2	995.2	997.3	995.2	997.3	997.3
10°	1034.5	1034.5	1028.3	1020.0	1007.6	989.0	964.3	933.3	904.4	894.1	889.9
12.5°	1071.6	1069.6	1057.2	1042.7	1015.9	951.9	859.0	749.5	658.7	633.9	625.6
15°	1112.9	1108.8	1094.3	1069.6	997.3	828.0	633.9	493.5	406.8	386.1	382.0
17.5°	1156.3	1150.1	1129.4	1079.9	912.6	615.3	408.8	309.7	262.2	258.1	260.2
20°	1201.7	1193.5	1164.5	1059.2	737.1	410.9	264.3	239.5	235.4	235.4	237.5
22.5°	1253.3	1243.0	1203.8	984.9	536.8	272.6	227.1	225.1	223.0	220.9	220.9
25°	1313.2	1300.8	1240.9	850.7	369.6	223.0	216.8	210.6	206.5	202.4	200.3
27.5°	1385.5	1369.0	1269.9	685.5	254.0	208.5	204.4	194.1	185.8	177.6	177.6
30°	1457.7	1437.1	1261.6	516.2	206.5	194.1	185.8	173.4	161.1	152.8	150.7
32.5°	1534.1	1513.5	1207.9	346.9	187.9	177.6	167.2	148.7	134.2	123.9	121.8
35°	1647.7	1631.2	1102.6	229.2	169.3	156.9	142.5	123.9	105.3	95.0	92.9
37.5°	1817.0	1796.4	972.5	175.5	148.7	130.1	117.7	97.0	78.5	68.1	66.1
40°	2044.2	1982.2	817.7	154.9	130.1	107.4	90.9	70.2	55.7	49.6	49.6
42.5°	2308.4	2161.8	650.4	140.4	115.6	88.8	66.1	47.5	39.2	37.2	37.2
45°	2589.3	2329.1	483.2	130.1	101.2	70.2	47.5	33.0	28.9	26.8	26.8
47.5°	2878.3	2465.4	336.6	117.7	84.7	53.7	33.0	24.8	20.6	18.6	18.6
50°	3148.8	2554.2	237.5	105.3	72.3	39.2	24.8	18.6	14.5	14.5	14.5
52.5°	3336.7	2545.9	171.4	90.9	55.7	26.8	16.5	12.4	12.4	12.4	12.4
55°	3501.9	2514.9	134.2	78.5	43.4	18.6	12.4	10.3	10.3	8.3	8.3
57.5°	3642.3	2465.4	113.6	64.0	31.0	14.5	8.3	8.3	6.2	6.2	6.2
60°	3762.1	2403.4	95.0	53.7	20.6	10.3	6.2	4.1	4.1	2.1	4.1
62.5°	3925.2	2364.2	82.6	41.3	14.5	6.2	4.1	2.1	2.1	0.0	0.0
65°	4044.9	2289.9	70.2	28.9	8.3	4.1	2.1	2.1	0.0	0.0	0.0
67.5°	4049.1	2155.6	51.6	16.5	6.2	4.1	2.1	0.0	0.0	0.0	0.0
70°	3722.8	1837.7	33.0	8.3	4.1	2.1	2.1	0.0	0.0	0.0	0.0
71°	3423.4	1627.1	26.8	6.2	4.1	2.1	0.0	0.0	0.0	0.0	0.0
72.5°	2820.5	1195.5	20.6	6.2	2.1	2.1	0.0	0.0	0.0	0.0	0.0
75°	1554.8	433.6	10.3	4.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	497.6	132.1	6.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	84.7	20.6	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	28.9	8.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.3	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.1	2.1	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)