

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: P234825

Luminaire Tested: **ARCH-M-AF48-110-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234825
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-AF48-110-D-U-T3-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 720mA 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: 8319 lumens
Efficiency: N/A
Efficacy: 74.9 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): 111
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

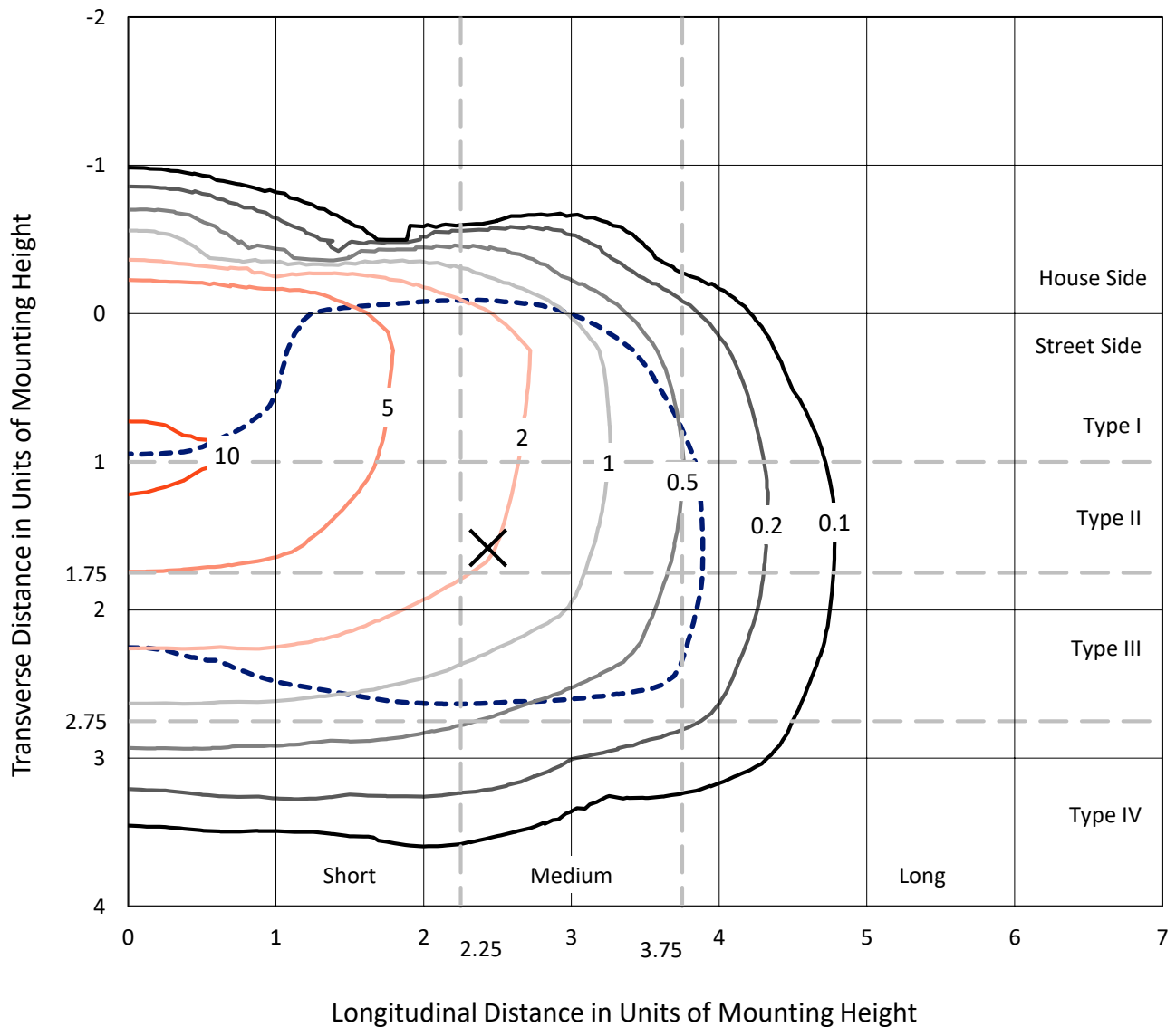


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

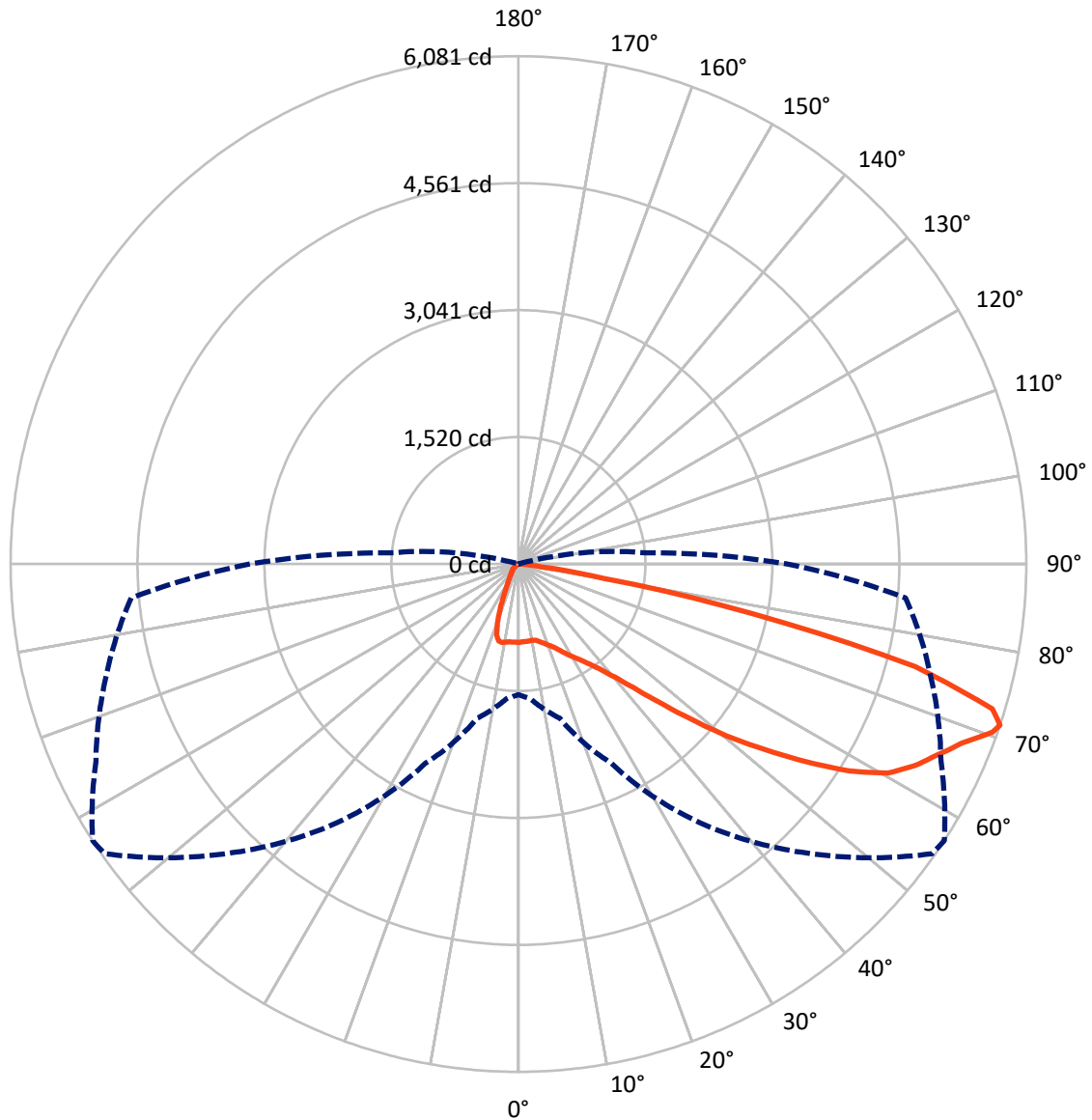


Based on 10 foot mounting height. Maximum calculated value = 11.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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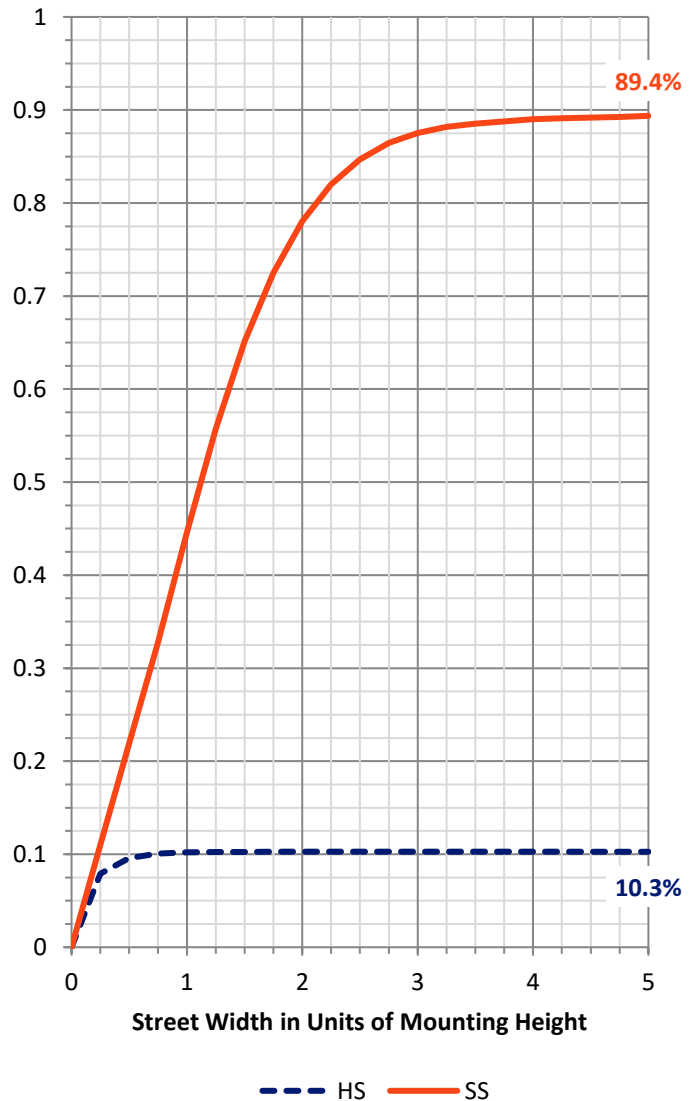
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	862.1	0.0	862.1
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	7456.9	0.0	7456.9
	% Fixture	89.6	0.0	89.6
Total	Lumens	8319.0	0.0	8319.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.3	1.1
10°-20°	236.1	2.8
20°-30°	368.3	4.4
30°-40°	622.5	7.5
40°-50°	1209.0	14.5
50°-60°	2030.2	24.4
60°-70°	2422.9	29.1
70°-80°	1276.9	15.3
80°-90°	64.9	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°	8319.0	100.0
0°-180°	8319.0	100.0



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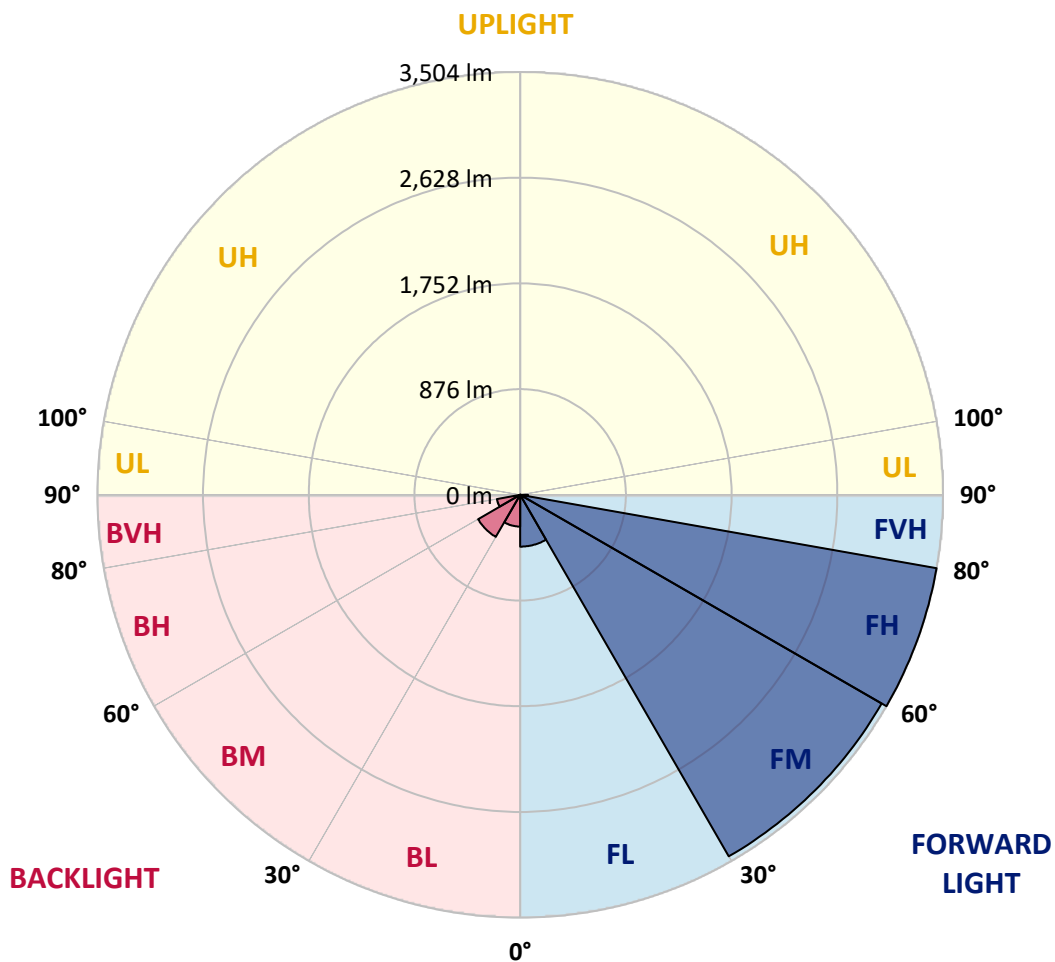
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	429.5	5.2			
FM	(30°-60°)	3459.1	41.6			
FH	(60°-80°)	3504.0	42.1			G2/5000
FVH	(80°-90°)	64.3	0.8			G1/100
BL	(0°-30°)	263.2	3.2	B1/500		
BM	(30°-60°)	402.6	4.8	B1/1000		
BH	(60°-80°)	195.8	2.4	B1/500		G1/500
BVH	(80°-90°)	0.6	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°	940.2	940.2	940.2	940.2	940.2	940.2	940.2	940.2	940.2	940.2	940.2
2.5°	926.6	926.6	926.6	928.5	930.5	930.5	934.4	932.4	932.4	932.4	936.3
5°	901.4	903.3	905.3	909.2	916.9	922.7	932.4	932.4	934.4	938.2	940.2
7.5°	866.5	868.4	874.3	882.0	897.5	911.1	926.6	930.5	936.3	946.0	949.9
10°	845.2	849.1	856.8	866.5	884.0	901.4	920.8	926.6	944.1	961.5	971.2
12.5°	839.4	841.3	849.1	864.6	885.9	907.2	932.4	938.2	963.4	990.6	1006.1
15°	849.1	851.0	854.9	872.3	897.5	924.7	957.6	965.4	996.4	1027.4	1046.8
17.5°	866.5	866.5	870.4	885.9	913.0	944.1	986.7	998.3	1033.2	1068.1	1089.4
20°	878.1	878.1	884.0	899.5	930.5	971.2	1021.6	1037.1	1075.9	1114.6	1134.0
22.5°	889.8	891.7	897.5	915.0	949.9	1006.1	1064.2	1079.7	1124.3	1165.0	1184.4
25°	922.7	920.8	922.7	938.2	978.9	1048.7	1122.4	1141.8	1188.3	1232.9	1242.6
27.5°	1013.8	1010.0	984.8	975.1	1006.1	1093.3	1196.1	1215.4	1269.7	1314.3	1314.3
30°	1223.2	1215.4	1153.4	1073.9	1048.7	1134.0	1265.8	1293.0	1362.8	1401.5	1389.9
32.5°	1488.8	1471.3	1391.8	1256.1	1155.3	1188.3	1339.5	1370.5	1459.7	1492.6	1467.4
35°	1779.5	1777.6	1678.7	1504.3	1360.8	1300.7	1434.5	1471.3	1583.8	1612.8	1572.1
37.5°	2087.8	2095.5	2029.6	1789.2	1620.6	1484.9	1560.5	1603.1	1740.8	1775.7	1736.9
40°	2430.9	2428.9	2403.7	2118.8	1932.7	1746.6	1742.7	1781.5	1948.2	2002.5	1948.2
42.5°	2865.1	2861.2	2770.1	2514.2	2310.7	2087.8	2008.3	2021.9	2208.0	2297.1	2217.6
45°	3307.1	3279.9	3175.3	2954.3	2774.0	2510.4	2359.2	2359.2	2518.1	2640.2	2516.2
47.5°	3553.3	3526.1	3483.5	3361.4	3307.1	3012.4	2789.5	2762.4	2886.4	3010.5	2836.0
50°	3877.0	3877.0	3770.4	3723.9	3816.9	3609.5	3264.4	3237.3	3297.4	3396.3	3167.5
52.5°	4132.9	4086.4	4010.8	4051.5	4317.0	4222.1	3739.4	3687.0	3733.6	3758.8	3456.3
55°	4239.5	4194.9	4189.1	4338.4	4749.3	4617.5	4225.9	4179.4	4175.5	4051.5	3708.4
57.5°	4260.8	4222.1	4295.7	4557.4	5170.0	4941.2	4710.6	4675.7	4567.1	4256.9	3966.2
60°	4080.5	4099.9	4278.3	4677.6	5418.1	5222.3	5119.6	5082.8	4832.7	4431.4	4253.1
62.5°	3710.3	3756.8	4090.2	4689.2	5327.0	5336.7	5346.4	5321.2	5038.2	4590.4	4541.9
65°	3272.2	3285.8	3687.0	4528.3	5168.0	5301.8	5513.1	5511.2	5195.2	4768.7	4867.6
67.5°	2696.5	2719.7	3066.7	3985.6	4850.1	5286.3	5732.1	5726.3	5373.5	4972.3	5061.4
70°	2006.3	2035.4	2316.5	3099.7	4140.6	5092.4	6019.0	6022.9	5561.6	5127.3	4927.7
71°	1564.4	1616.7	1911.4	2632.5	3778.1	4896.7	6046.2	6081.1	5582.9	5106.0	4652.4
72.5°	767.6	829.7	1199.9	1853.2	3109.4	4458.6	5867.8	5935.7	5449.1	4840.4	3977.8
75°	199.7	211.3	358.6	758.0	1667.1	2954.3	4731.9	4904.4	4454.7	3685.1	2430.9
77.5°	126.0	129.9	168.6	294.7	624.2	1122.4	2779.8	2865.1	2545.3	1866.8	856.8
80°	89.2	91.1	106.6	190.0	364.4	327.6	1000.3	1037.1	920.8	494.3	153.1
82.5°	54.3	54.3	77.5	122.1	224.9	178.3	263.6	281.1	248.1	137.6	50.4
85°	31.0	33.0	48.5	83.4	106.6	87.2	98.9	104.7	106.6	91.1	21.3
87.5°	25.2	27.1	42.6	69.8	58.2	42.6	42.6	44.6	46.5	54.3	9.7
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°	940.2	940.2	940.2	940.2	940.2	940.2	940.2	940.2	940.2	940.2	940.2
2.5°	936.3	936.3	938.2	936.3	936.3	936.3	938.2	938.2	938.2	942.1	944.1
5°	940.2	940.2	940.2	938.2	936.3	936.3	940.2	942.1	942.1	947.9	947.9
7.5°	949.9	949.9	946.0	942.1	938.2	932.4	934.4	936.3	934.4	936.3	936.3
10°	971.2	971.2	965.4	957.6	946.0	928.5	905.3	876.2	849.1	839.4	835.5
12.5°	1006.1	1004.1	992.5	978.9	953.7	893.6	806.4	703.7	618.4	595.1	587.4
15°	1044.9	1041.0	1027.4	1004.1	936.3	777.3	595.1	463.3	381.9	362.5	358.6
17.5°	1085.6	1079.7	1060.4	1013.8	856.8	577.7	383.8	290.8	246.2	242.3	244.3
20°	1128.2	1120.5	1093.3	994.5	692.0	385.8	248.1	224.9	221.0	221.0	222.9
22.5°	1176.7	1167.0	1130.1	924.7	504.0	255.9	213.2	211.3	209.4	207.4	207.4
25°	1232.9	1221.3	1165.0	798.7	347.0	209.4	203.5	197.7	193.9	190.0	188.0
27.5°	1300.7	1285.2	1192.2	643.6	238.4	195.8	191.9	182.2	174.5	166.7	166.7
30°	1368.6	1349.2	1184.4	484.6	193.9	182.2	174.5	162.8	151.2	143.4	141.5
32.5°	1440.3	1420.9	1134.0	325.7	176.4	166.7	157.0	139.6	126.0	116.3	114.4
35°	1546.9	1531.4	1035.2	215.2	159.0	147.3	133.8	116.3	98.9	89.2	87.2
37.5°	1705.9	1686.5	913.0	164.8	139.6	122.1	110.5	91.1	73.7	64.0	62.0
40°	1919.1	1861.0	767.6	145.4	122.1	100.8	85.3	65.9	52.3	46.5	46.5
42.5°	2167.2	2029.6	610.6	131.8	108.6	83.4	62.0	44.6	36.8	34.9	34.9
45°	2430.9	2186.6	453.6	122.1	95.0	65.9	44.6	31.0	27.1	25.2	25.2
47.5°	2702.3	2314.6	316.0	110.5	79.5	50.4	31.0	23.3	19.4	17.4	17.4
50°	2956.2	2397.9	222.9	98.9	67.8	36.8	23.3	17.4	13.6	13.6	13.6
52.5°	3132.6	2390.2	160.9	85.3	52.3	25.2	15.5	11.6	11.6	11.6	11.6
55°	3287.7	2361.1	126.0	73.7	40.7	17.4	11.6	9.7	9.7	7.8	7.8
57.5°	3419.5	2314.6	106.6	60.1	29.1	13.6	7.8	7.8	5.8	5.8	5.8
60°	3531.9	2256.4	89.2	50.4	19.4	9.7	5.8	3.9	3.9	1.9	3.9
62.5°	3685.1	2219.6	77.5	38.8	13.6	5.8	3.9	1.9	1.9	0.0	0.0
65°	3797.5	2149.8	65.9	27.1	7.8	3.9	1.9	1.9	0.0	0.0	0.0
67.5°	3801.4	2023.8	48.5	15.5	5.8	3.9	1.9	0.0	0.0	0.0	0.0
70°	3495.1	1725.3	31.0	7.8	3.9	1.9	1.9	0.0	0.0	0.0	0.0
71°	3214.0	1527.5	25.2	5.8	3.9	1.9	0.0	0.0	0.0	0.0	0.0
72.5°	2648.0	1122.4	19.4	5.8	1.9	1.9	0.0	0.0	0.0	0.0	0.0
75°	1459.7	407.1	9.7	3.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	467.2	124.1	5.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	79.5	19.4	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	27.1	7.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.9	1.9	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)