

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: P231210

Luminaire Tested: **ARCH-M-AF48-90-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231210
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-AF48-90-D-U-T3-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 600mA 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: 8188 lumens
Efficiency: N/A
Efficacy: 89.0 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): 92
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

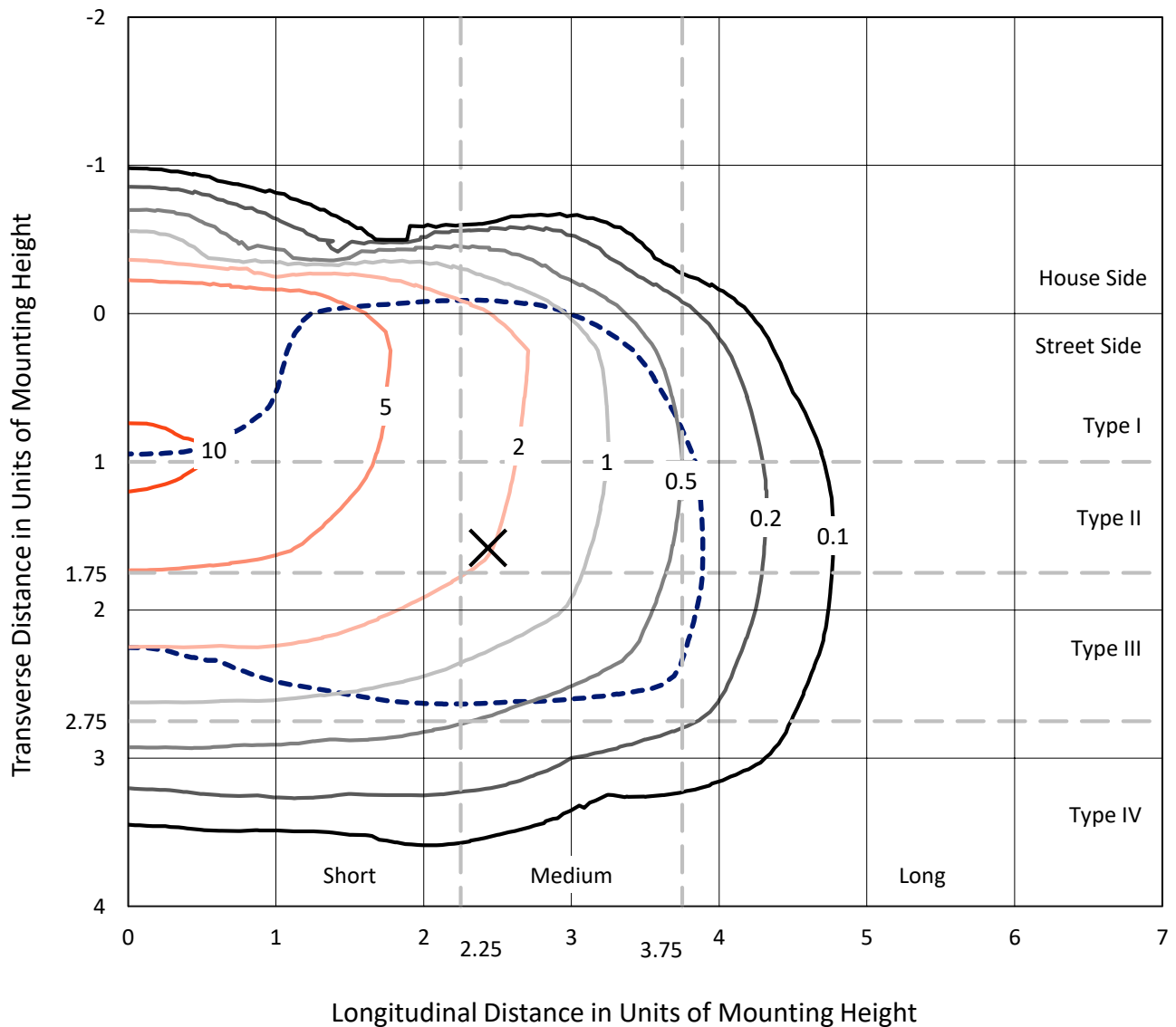


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

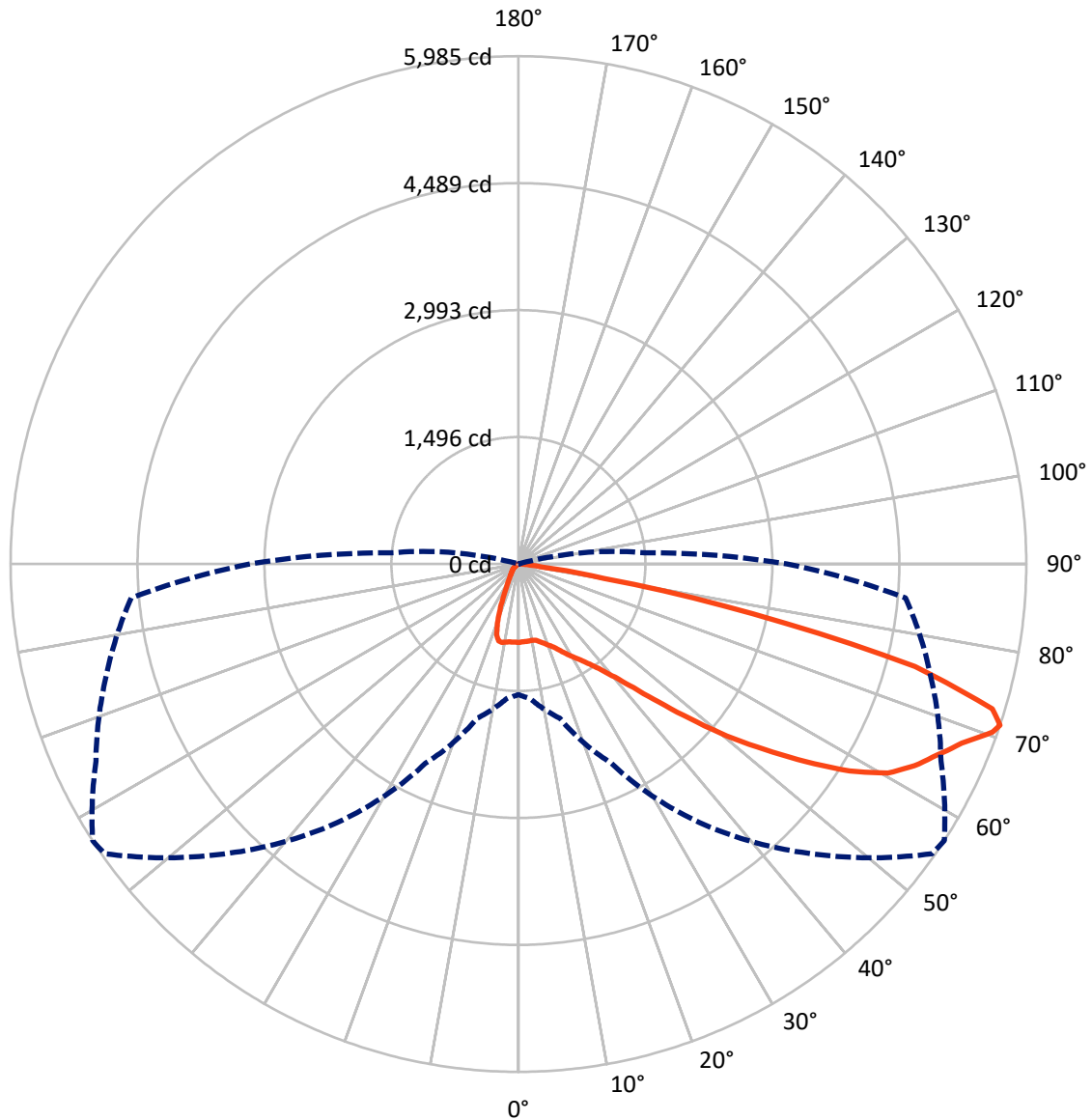


Based on 10 foot mounting height. Maximum calculated value = 11.5 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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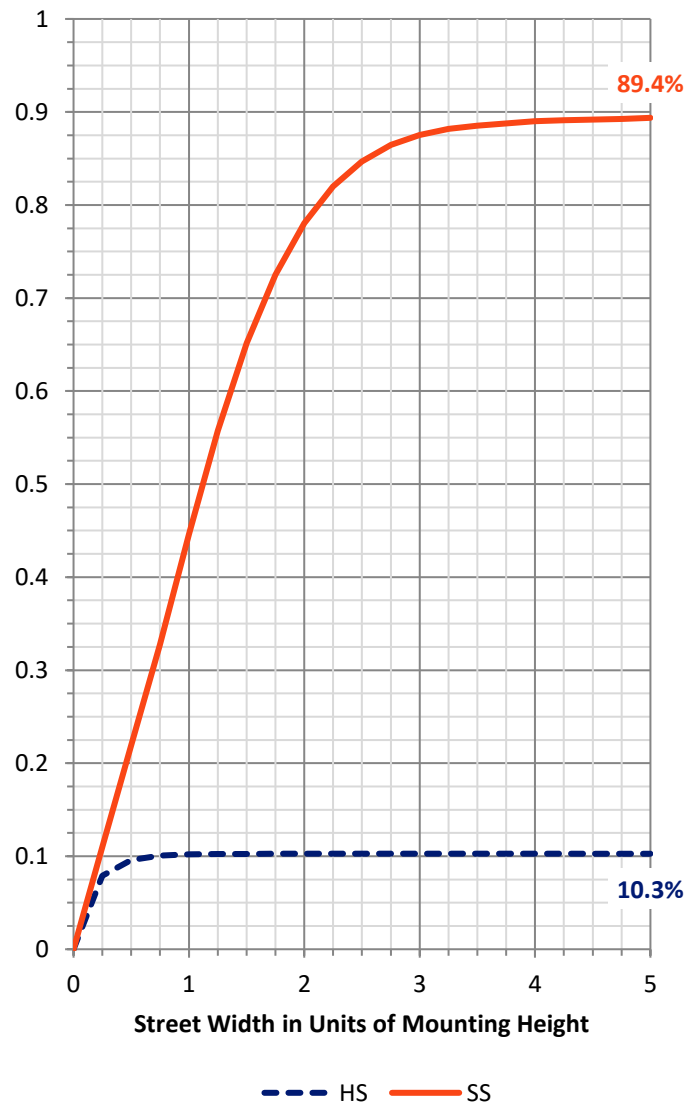
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	848.5	0.0	848.5
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	7339.5	0.0	7339.5
	% Fixture	89.6	0.0	89.6
Total	Lumens	8188.0	0.0	8188.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.9	1.1
10°-20°	232.4	2.8
20°-30°	362.5	4.4
30°-40°	612.7	7.5
40°-50°	1189.9	14.5
50°-60°	1998.3	24.4
60°-70°	2384.7	29.1
70°-80°	1256.8	15.3
80°-90°	63.9	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°	8188.0	100.0
0°-180°	8188.0	100.0



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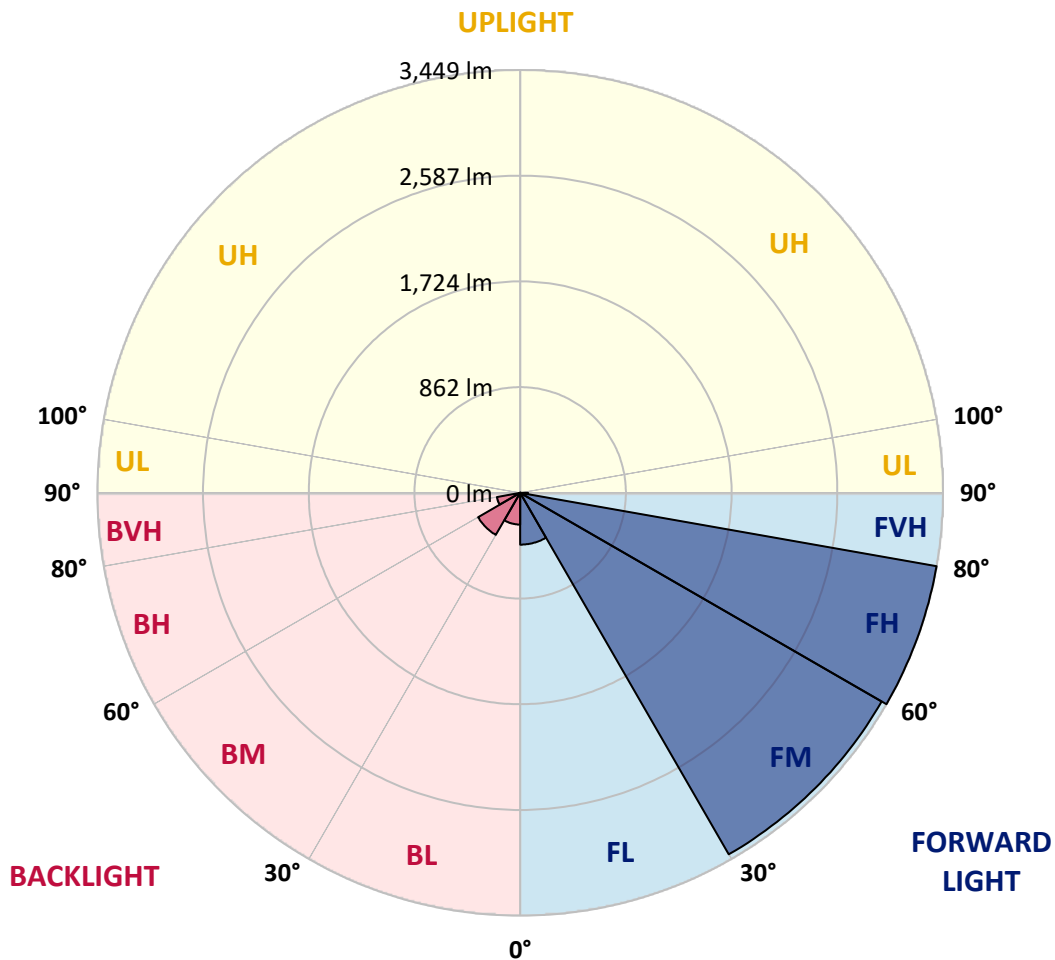
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	422.7	5.2			
FM	(30°-60°)	3404.6	41.6			
FH	(60°-80°)	3448.8	42.1			G2/5000
FVH	(80°-90°)	63.3	0.8			G1/100
BL	(0°-30°)	259.0	3.2	B1/500		
BM	(30°-60°)	396.2	4.8	B1/1000		
BH	(60°-80°)	192.7	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°	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4
2.5°	912.0	912.0	912.0	913.9	915.8	915.8	919.6	917.7	917.7	917.7	921.6
5°	887.2	889.1	891.0	894.8	902.5	908.2	917.7	917.7	919.6	923.5	925.4
7.5°	852.9	854.8	860.5	868.1	883.4	896.7	912.0	915.8	921.6	931.1	934.9
10°	831.9	835.7	843.3	852.9	870.0	887.2	906.3	912.0	929.2	946.4	955.9
12.5°	826.2	828.1	835.7	851.0	871.9	892.9	917.7	923.5	948.3	975.0	990.2
15°	835.7	837.6	841.4	858.6	883.4	910.1	942.5	950.2	980.7	1011.2	1030.3
17.5°	852.9	852.9	856.7	871.9	898.7	929.2	971.2	982.6	1017.0	1051.3	1072.3
20°	864.3	864.3	870.0	885.3	915.8	955.9	1005.5	1020.8	1058.9	1097.1	1116.2
22.5°	875.8	877.7	883.4	900.6	934.9	990.2	1047.5	1062.7	1106.6	1146.7	1165.8
25°	908.2	906.3	908.2	923.5	963.5	1032.2	1104.7	1123.8	1169.6	1213.5	1223.0
27.5°	997.9	994.1	969.3	959.7	990.2	1076.1	1177.2	1196.3	1249.7	1293.6	1293.6
30°	1203.9	1196.3	1135.2	1057.0	1032.2	1116.2	1245.9	1272.6	1341.3	1379.5	1368.0
32.5°	1465.3	1448.2	1369.9	1236.4	1137.2	1169.6	1318.4	1348.9	1436.7	1469.1	1444.3
35°	1751.5	1749.6	1652.3	1480.6	1339.4	1280.3	1411.9	1448.2	1558.8	1587.4	1547.4
37.5°	2054.9	2062.5	1997.7	1761.1	1595.1	1461.5	1535.9	1577.9	1713.4	1747.7	1709.5
40°	2392.6	2390.7	2365.9	2085.4	1902.3	1719.1	1715.3	1753.4	1917.5	1970.9	1917.5
42.5°	2820.0	2816.2	2726.5	2474.6	2274.3	2054.9	1976.7	1990.0	2173.2	2261.0	2182.7
45°	3255.0	3228.3	3125.3	2907.8	2730.3	2470.8	2322.0	2322.0	2478.5	2598.7	2476.6
47.5°	3497.3	3470.6	3428.6	3308.4	3255.0	2965.0	2745.6	2718.9	2841.0	2963.1	2791.4
50°	3816.0	3816.0	3711.0	3665.2	3756.8	3552.7	3213.0	3186.3	3245.5	3342.8	3117.6
52.5°	4067.8	4022.0	3947.6	3987.7	4249.1	4155.6	3680.5	3629.0	3674.8	3699.6	3401.9
55°	4172.7	4128.9	4123.1	4270.0	4674.5	4544.8	4159.4	4113.6	4109.8	3987.7	3650.0
57.5°	4193.7	4155.6	4228.1	4485.7	5088.6	4863.4	4636.4	4602.0	4495.2	4189.9	3903.7
60°	4016.3	4035.4	4210.9	4603.9	5332.8	5140.1	5039.0	5002.7	4756.6	4361.6	4186.1
62.5°	3651.9	3697.7	4025.8	4615.4	5243.1	5252.7	5262.2	5237.4	4958.8	4518.1	4470.4
65°	3220.7	3234.0	3629.0	4457.0	5086.7	5218.3	5426.3	5424.4	5113.4	4693.6	4790.9
67.5°	2654.0	2676.9	3018.4	3922.8	4773.8	5203.0	5641.9	5636.2	5288.9	4894.0	4981.7
70°	1974.8	2003.4	2280.0	3050.9	4075.4	5012.3	5924.3	5928.1	5474.0	5046.6	4850.1
71°	1539.7	1591.3	1881.3	2591.0	3718.6	4819.5	5951.0	5985.3	5495.0	5025.6	4579.1
72.5°	755.6	816.6	1181.0	1824.0	3060.4	4388.3	5775.4	5842.2	5363.3	4764.2	3915.2
75°	196.5	208.0	353.0	746.0	1640.9	2907.8	4657.4	4827.2	4384.5	3627.1	2392.6
77.5°	124.0	127.8	166.0	290.0	614.4	1104.7	2736.0	2820.0	2505.2	1837.4	843.3
80°	87.8	89.7	104.9	187.0	358.7	322.4	984.5	1020.8	906.3	486.5	150.7
82.5°	53.4	53.4	76.3	120.2	221.3	175.5	259.5	276.7	244.2	135.5	49.6
85°	30.5	32.4	47.7	82.0	104.9	85.9	97.3	103.0	104.9	89.7	21.0
87.5°	24.8	26.7	42.0	68.7	57.2	42.0	42.0	43.9	45.8	53.4	9.5
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°	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4
2.5°	921.6	921.6	923.5	921.6	921.6	921.6	923.5	923.5	923.5	927.3	929.2
5°	925.4	925.4	925.4	923.5	921.6	921.6	925.4	927.3	927.3	933.0	933.0
7.5°	934.9	934.9	931.1	927.3	923.5	917.7	919.6	921.6	919.6	921.6	921.6
10°	955.9	955.9	950.2	942.5	931.1	913.9	891.0	862.4	835.7	826.2	822.3
12.5°	990.2	988.3	976.9	963.5	938.7	879.6	793.7	692.6	608.6	585.7	578.1
15°	1028.4	1024.6	1011.2	988.3	921.6	765.1	585.7	456.0	375.9	356.8	353.0
17.5°	1068.5	1062.7	1043.7	997.9	843.3	568.6	377.8	286.2	242.3	238.5	240.4
20°	1110.4	1102.8	1076.1	978.8	681.1	379.7	244.2	221.3	217.5	217.5	219.4
22.5°	1158.1	1148.6	1112.3	910.1	496.1	251.9	209.9	208.0	206.1	204.2	204.2
25°	1213.5	1202.0	1146.7	786.1	341.5	206.1	200.3	194.6	190.8	187.0	185.1
27.5°	1280.3	1265.0	1173.4	633.4	234.7	192.7	188.9	179.3	171.7	164.1	164.1
30°	1347.0	1328.0	1165.8	477.0	190.8	179.3	171.7	160.3	148.8	141.2	139.3
32.5°	1417.6	1398.5	1116.2	320.5	173.6	164.1	154.5	137.4	124.0	114.5	112.6
35°	1522.6	1507.3	1018.9	211.8	156.5	145.0	131.7	114.5	97.3	87.8	85.9
37.5°	1679.0	1659.9	898.7	162.2	137.4	120.2	108.8	89.7	72.5	63.0	61.1
40°	1888.9	1831.7	755.6	143.1	120.2	99.2	84.0	64.9	51.5	45.8	45.8
42.5°	2133.1	1997.7	601.0	129.7	106.8	82.0	61.1	43.9	36.3	34.3	34.3
45°	2392.6	2152.2	446.5	120.2	93.5	64.9	43.9	30.5	26.7	24.8	24.8
47.5°	2659.7	2278.1	311.0	108.8	78.2	49.6	30.5	22.9	19.1	17.2	17.2
50°	2909.7	2360.2	219.4	97.3	66.8	36.3	22.9	17.2	13.4	13.4	13.4
52.5°	3083.3	2352.5	158.4	84.0	51.5	24.8	15.3	11.4	11.4	11.4	11.4
55°	3235.9	2323.9	124.0	72.5	40.1	17.2	11.4	9.5	9.5	7.6	7.6
57.5°	3365.7	2278.1	104.9	59.1	28.6	13.4	7.6	7.6	5.7	5.7	5.7
60°	3476.3	2220.9	87.8	49.6	19.1	9.5	5.7	3.8	3.8	1.9	3.8
62.5°	3627.1	2184.6	76.3	38.2	13.4	5.7	3.8	1.9	1.9	0.0	0.0
65°	3737.7	2115.9	64.9	26.7	7.6	3.8	1.9	1.9	0.0	0.0	0.0
67.5°	3741.5	1991.9	47.7	15.3	5.7	3.8	1.9	0.0	0.0	0.0	0.0
70°	3440.1	1698.1	30.5	7.6	3.8	1.9	1.9	0.0	0.0	0.0	0.0
71°	3163.4	1503.5	24.8	5.7	3.8	1.9	0.0	0.0	0.0	0.0	0.0
72.5°	2606.3	1104.7	19.1	5.7	1.9	1.9	0.0	0.0	0.0	0.0	0.0
75°	1436.7	400.7	9.5	3.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	459.8	122.1	5.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	78.2	19.1	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	26.7	7.6	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.6	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.8	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)