

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: P231339

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231339
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-80-D-U-T4W-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7311 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 83
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

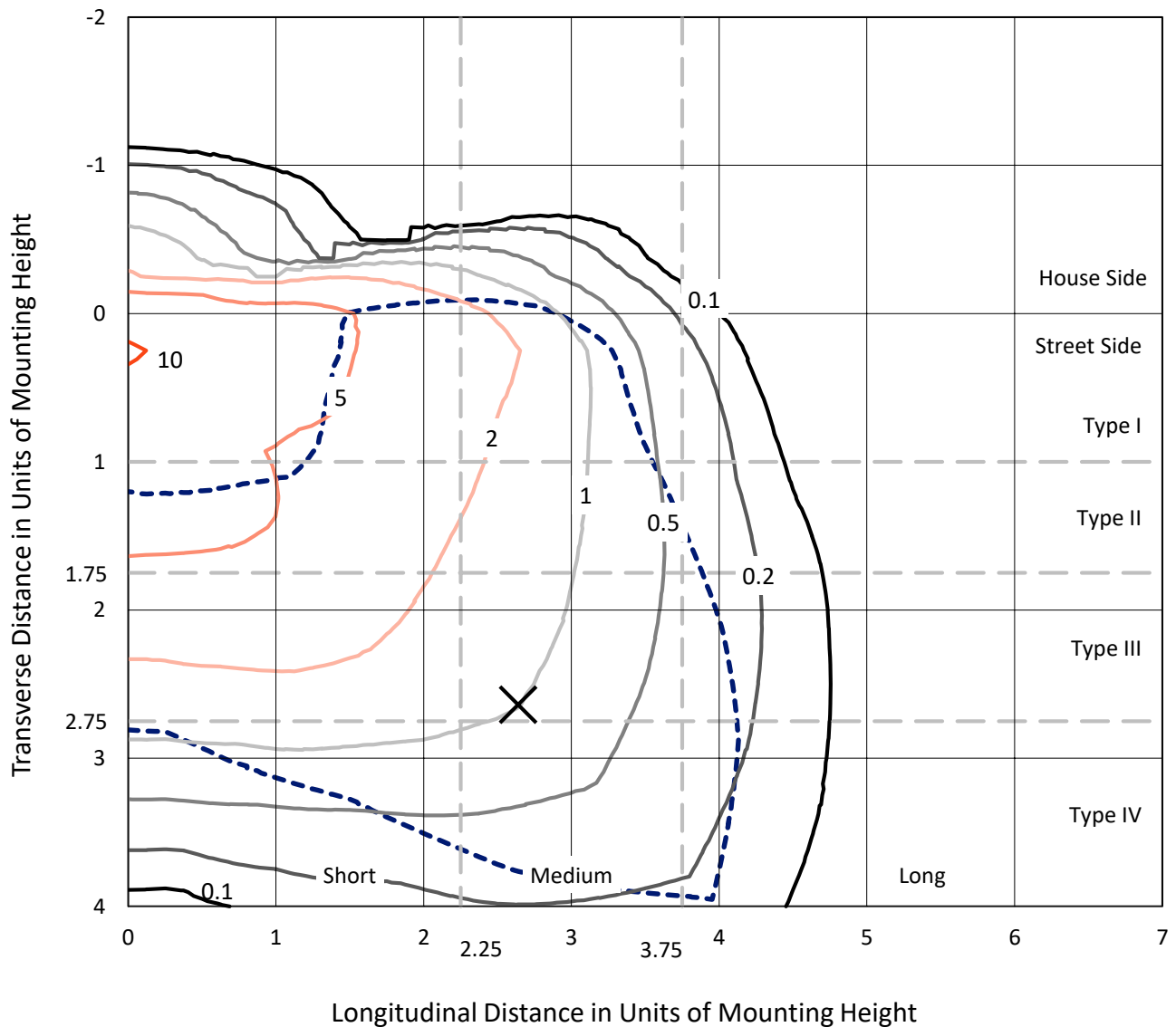


REPORT NUMBER: P231339

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T4W-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

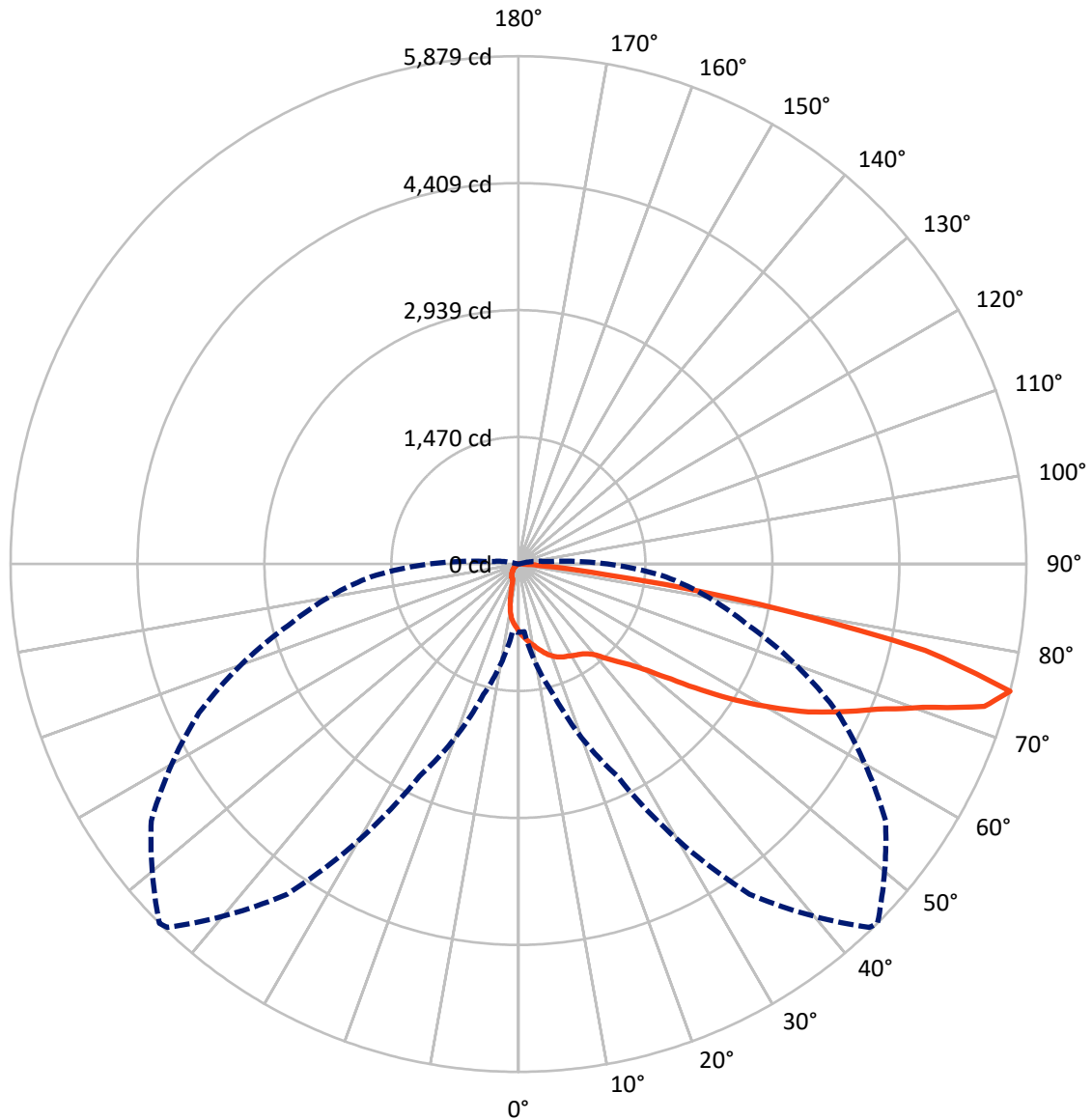


Based on 10 foot mounting height. Maximum calculated value = 10.4 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P231339

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T4W-7030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



REPORT NUMBER: P231339

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T4W-7030-HSS

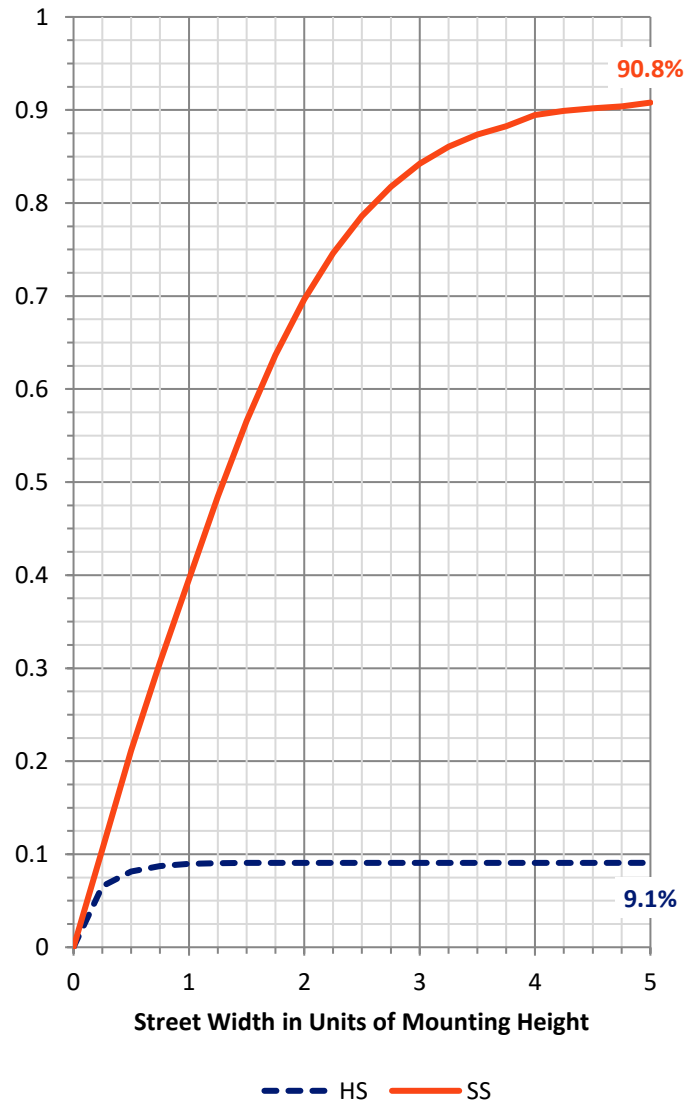
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	668.7	0.0	668.7
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	6642.3	0.0	6642.3
	% Fixture	90.9	0.0	90.9
Total	Lumens	7311.0	0.0	7311.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	1.0
10°-20°	209.1	2.9
20°-30°	346.3	4.7
30°-40°	501.1	6.9
40°-50°	820.6	11.2
50°-60°	1462.1	20.0
60°-70°	2149.4	29.4
70°-80°	1621.5	22.2
80°-90°	127.2	1.7
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°	7311.0	100.0
0°-180°	7311.0	100.0



REPORT NUMBER: P231339

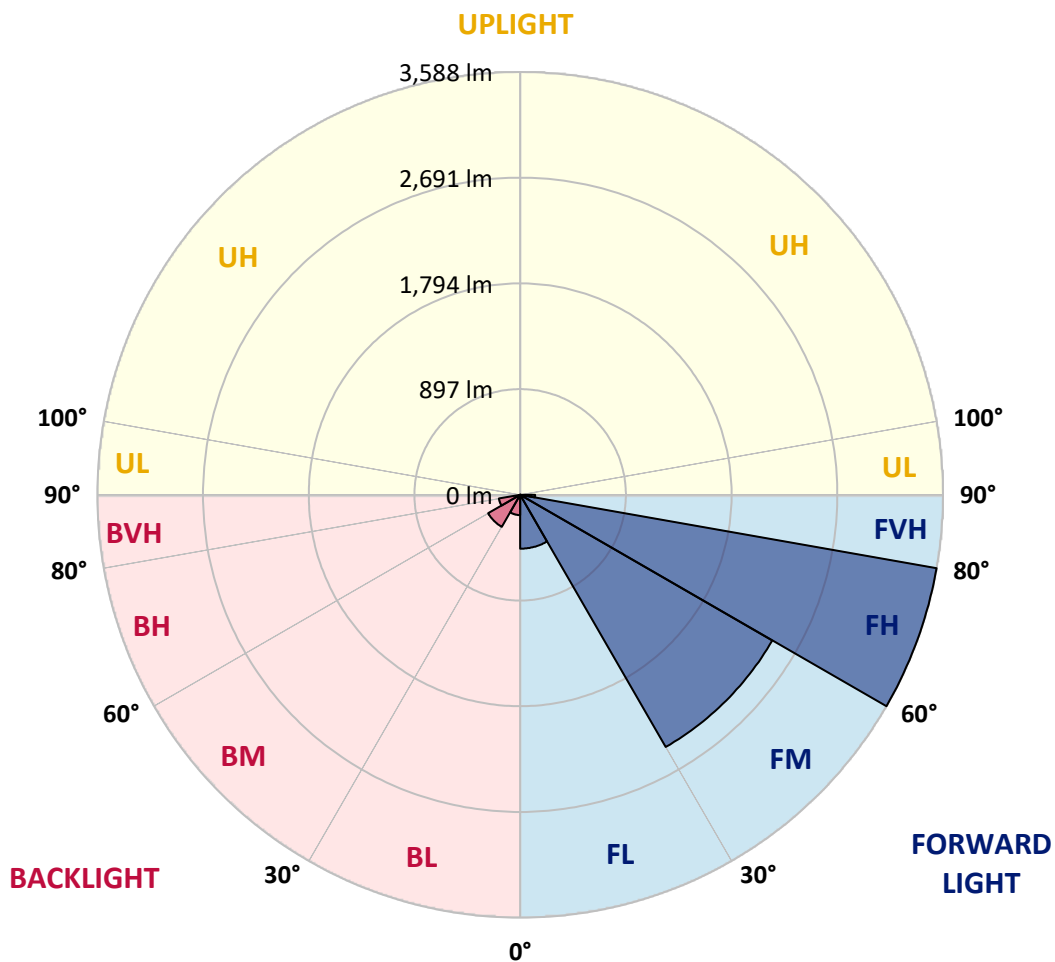
CATALOG NUMBER: ARCH-M-AF48-80-D-U-T4W-7030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	457.3	6.3			
FM (30°-60°)	2470.3	33.8			
FH (60°-80°)	3587.8	49.1			G2/5000
FVH (80°-90°)	126.9	1.7			G2/225
BL (0°-30°)	171.8	2.4	B1/500		
BM (30°-60°)	313.4	4.3	B1/1000		
BH (60°-80°)	183.2	2.5	B1/500		G1/500
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: B1-U0-G2

Type IV Medium





REPORT NUMBER: P231339

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T4W-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	782.0	782.0	782.0	782.0	782.0	782.0	782.0	782.0	782.0	782.0	782.0
2.5°	849.4	849.4	847.7	846.0	837.3	828.7	826.9	821.7	806.2	795.8	785.4
5°	920.3	922.1	918.6	910.0	890.9	871.9	870.2	856.3	826.9	806.2	783.7
7.5°	987.8	991.3	982.6	967.1	944.6	916.9	915.2	889.2	851.2	821.7	788.9
10°	1044.9	1044.9	1032.8	1013.8	989.5	960.1	956.7	927.3	884.0	847.7	804.4
12.5°	1107.2	1105.5	1088.2	1062.2	1034.5	1006.8	1005.1	968.8	927.3	880.6	826.9
15°	1164.3	1160.8	1138.3	1114.1	1084.7	1055.3	1053.6	1017.2	974.0	918.6	859.8
17.5°	1195.4	1193.7	1172.9	1148.7	1124.5	1102.0	1100.3	1062.2	1015.5	958.4	892.7
20°	1200.6	1202.3	1185.0	1164.3	1150.4	1138.3	1138.3	1103.7	1053.6	993.0	927.3
22.5°	1202.3	1207.5	1195.4	1167.7	1164.3	1166.0	1169.5	1141.8	1089.9	1032.8	963.6
25°	1214.4	1221.4	1212.7	1179.8	1176.4	1188.5	1192.0	1179.8	1133.1	1076.0	1005.1
27.5°	1238.7	1245.6	1238.7	1197.1	1192.0	1204.1	1207.5	1214.4	1179.8	1117.6	1048.4
30°	1287.1	1288.8	1273.3	1221.4	1211.0	1226.6	1231.7	1250.8	1223.1	1157.4	1089.9
32.5°	1371.9	1354.6	1307.9	1238.7	1230.0	1247.3	1252.5	1273.3	1262.9	1195.4	1133.1
35°	1544.9	1454.9	1347.7	1262.9	1254.2	1271.5	1278.5	1307.9	1313.1	1249.0	1186.8
37.5°	1543.1	1461.8	1441.1	1309.6	1297.5	1309.6	1318.2	1354.6	1375.3	1320.0	1264.6
40°	1652.1	1617.5	1617.5	1397.8	1358.0	1375.3	1384.0	1420.3	1456.6	1413.4	1356.3
42.5°	1994.7	1972.2	1948.0	1567.4	1442.8	1491.2	1496.4	1518.9	1562.2	1548.3	1480.9
45°	2377.0	2356.2	2262.8	1854.5	1588.1	1596.8	1608.9	1645.2	1707.5	1733.4	1653.9
47.5°	2676.3	2655.5	2575.9	2200.5	1814.7	1738.6	1738.6	1809.6	1906.4	1972.2	1896.1
50°	2916.7	2892.5	2844.1	2569.0	2186.7	1942.8	1932.4	2015.4	2159.0	2261.1	2209.2
52.5°	3150.3	3079.4	3050.0	2949.6	2607.1	2238.6	2210.9	2269.7	2468.7	2595.0	2551.7
55°	3306.0	3295.6	3264.5	3299.1	3048.2	2598.4	2574.2	2586.3	2835.4	2920.2	2866.6
57.5°	3451.3	3449.6	3518.8	3679.7	3529.2	3010.2	2972.1	2953.1	3190.1	3169.3	3216.0
60°	3631.2	3600.1	3761.0	3991.1	3970.3	3411.5	3368.3	3330.2	3461.7	3402.9	3634.7
62.5°	3639.9	3631.2	3958.2	4288.6	4408.0	3819.8	3769.6	3633.0	3698.7	3631.2	4034.3
65°	3309.5	3352.7	4041.2	4446.0	4774.7	4177.9	4117.4	3904.6	3909.8	3864.8	4504.9
67.5°	3235.1	3257.6	3812.9	4615.6	5039.4	4539.5	4482.4	4217.7	4155.4	4158.9	4783.4
70°	3050.0	3084.6	3529.2	4603.5	5248.8	5022.1	4965.0	4677.9	4527.4	4359.6	4568.9
72.5°	2330.3	2389.1	2973.8	4036.0	5191.7	5653.6	5638.0	5260.9	4676.1	4003.2	3456.5
75°	788.9	787.1	1562.2	2710.9	4664.0	5847.3	5878.5	5188.2	4079.3	2761.0	1716.1
77.5°	169.5	171.3	321.8	1098.5	3098.4	4695.2	4814.5	3913.2	2631.3	1230.0	392.7
80°	83.0	84.8	133.2	290.6	1238.7	2633.0	2819.9	2012.0	972.2	245.7	65.7
82.5°	41.5	43.2	69.2	154.0	458.4	935.9	999.9	740.4	278.5	138.4	32.9
85°	15.6	15.6	34.6	91.7	209.3	219.7	269.9	214.5	167.8	112.4	8.6
87.5°	3.5	3.5	19.0	45.0	93.4	69.2	69.2	65.7	102.1	76.1	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P231339

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T4W-7030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	782.0	782.0	782.0	782.0	782.0	782.0	782.0	782.0	782.0	782.0	782.0
2.5°	780.2	773.3	761.2	749.1	740.4	730.1	724.9	719.7	717.9	716.2	719.7
5°	771.6	761.2	738.7	719.7	702.4	688.5	678.2	667.8	662.6	659.1	660.9
7.5°	771.6	756.0	723.1	693.7	666.0	636.6	607.2	584.7	567.4	557.1	558.8
10°	780.2	759.5	716.2	676.4	624.5	562.2	498.2	449.8	416.9	397.9	397.9
12.5°	799.3	771.6	717.9	655.7	567.4	458.4	361.6	302.7	278.5	264.7	266.4
15°	825.2	792.3	726.6	628.0	487.9	340.8	252.6	214.5	214.5	218.0	219.7
17.5°	854.6	818.3	733.5	586.5	385.8	243.9	198.9	195.5	200.7	209.3	209.3
20°	884.0	844.2	737.0	520.7	288.9	193.8	188.6	188.6	192.0	200.7	202.4
22.5°	920.3	877.1	733.5	439.4	216.2	183.4	181.6	181.6	181.6	192.0	192.0
25°	958.4	915.2	719.7	352.9	183.4	176.5	174.7	173.0	173.0	181.6	183.4
27.5°	1001.7	954.9	686.8	269.9	173.0	169.5	167.8	164.3	164.3	171.3	171.3
30°	1044.9	999.9	636.6	204.1	164.3	162.6	159.2	155.7	152.2	159.2	159.2
32.5°	1091.6	1046.6	570.9	162.6	152.2	152.2	150.5	145.3	141.9	145.3	147.0
35°	1153.9	1100.3	496.5	141.9	136.7	136.7	136.7	134.9	128.0	131.5	131.5
37.5°	1236.9	1174.7	410.0	131.5	124.6	121.1	121.1	121.1	115.9	117.6	117.6
40°	1342.5	1261.2	327.0	122.8	115.9	107.3	103.8	105.5	102.1	102.1	100.3
42.5°	1486.1	1354.6	245.7	115.9	109.0	96.9	90.0	88.2	84.8	83.0	83.0
45°	1691.9	1468.8	176.5	109.0	103.8	84.8	77.8	72.7	64.0	58.8	58.8
47.5°	1958.3	1598.5	131.5	102.1	98.6	74.4	65.7	55.4	43.2	39.8	39.8
50°	2283.6	1743.8	110.7	91.7	90.0	65.7	51.9	36.3	24.2	20.8	22.5
52.5°	2600.2	1880.5	98.6	81.3	79.6	57.1	38.1	19.0	10.4	10.4	10.4
55°	2866.6	1977.4	90.0	72.7	69.2	45.0	20.8	8.6	5.2	5.2	5.2
57.5°	3107.0	2032.7	81.3	64.0	55.4	31.1	8.6	3.5	3.5	1.7	1.7
60°	3326.8	2065.6	70.9	55.4	43.2	17.3	3.5	1.7	1.7	0.0	0.0
62.5°	3543.0	2089.8	60.5	45.0	32.9	6.9	1.7	1.7	0.0	0.0	0.0
65°	3707.3	2081.2	48.4	36.3	20.8	3.5	1.7	0.0	0.0	0.0	0.0
67.5°	3702.2	1963.5	36.3	27.7	10.4	1.7	0.0	0.0	0.0	0.0	0.0
70°	3311.2	1653.9	24.2	17.3	3.5	1.7	0.0	0.0	0.0	0.0	0.0
72.5°	2349.3	1060.5	15.6	10.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	1034.5	321.8	8.6	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	202.4	74.4	5.2	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	48.4	8.6	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	20.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.5	1.7	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)