

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: P214959

Luminaire Tested: **ARCH-AF24-100-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214959
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-AF24-100-D-U-T4W-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1200mA LIGHT ENGINE 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: 6985 lumens
Efficiency: N/A
Efficacy: 72.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 96
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

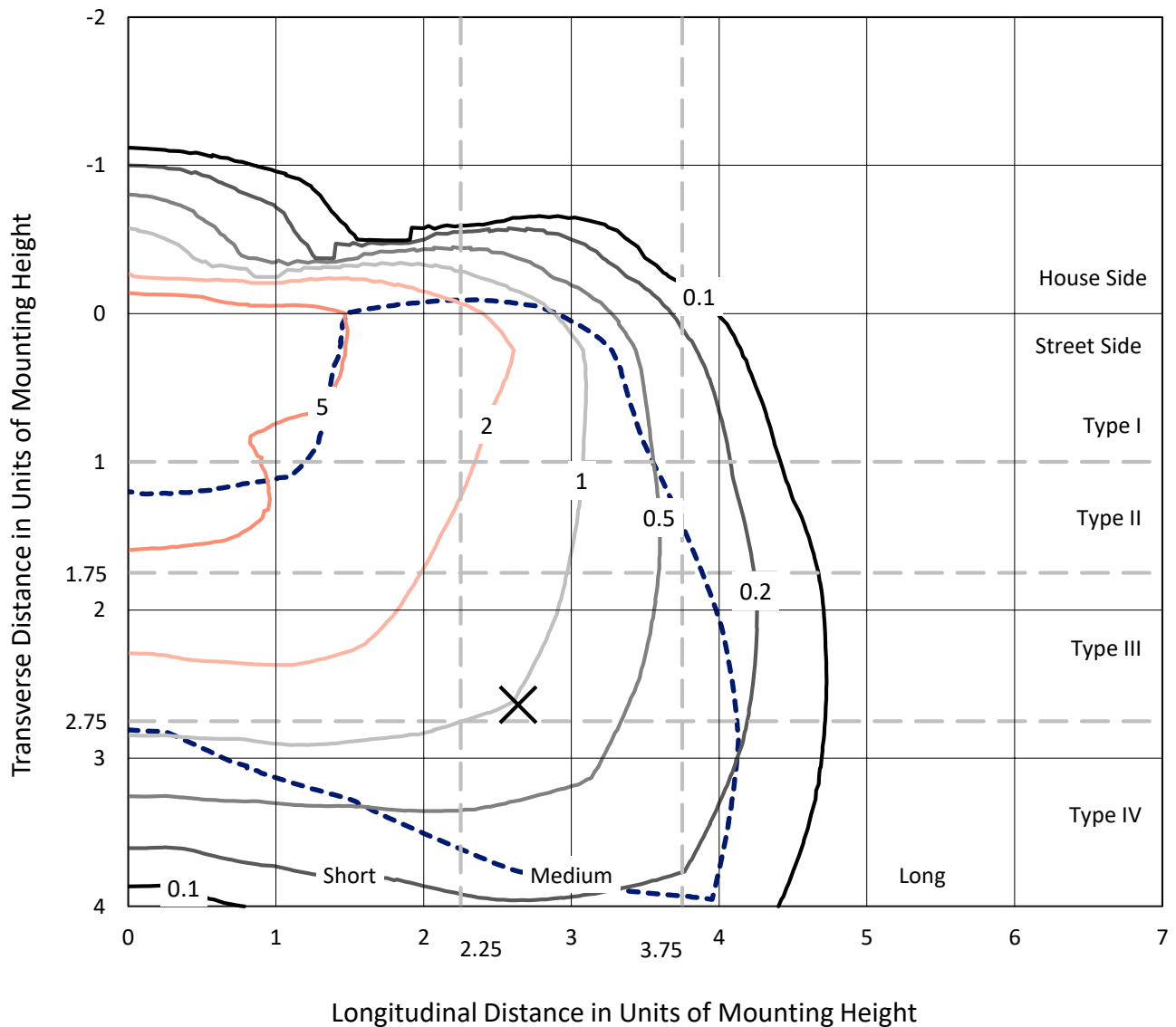


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

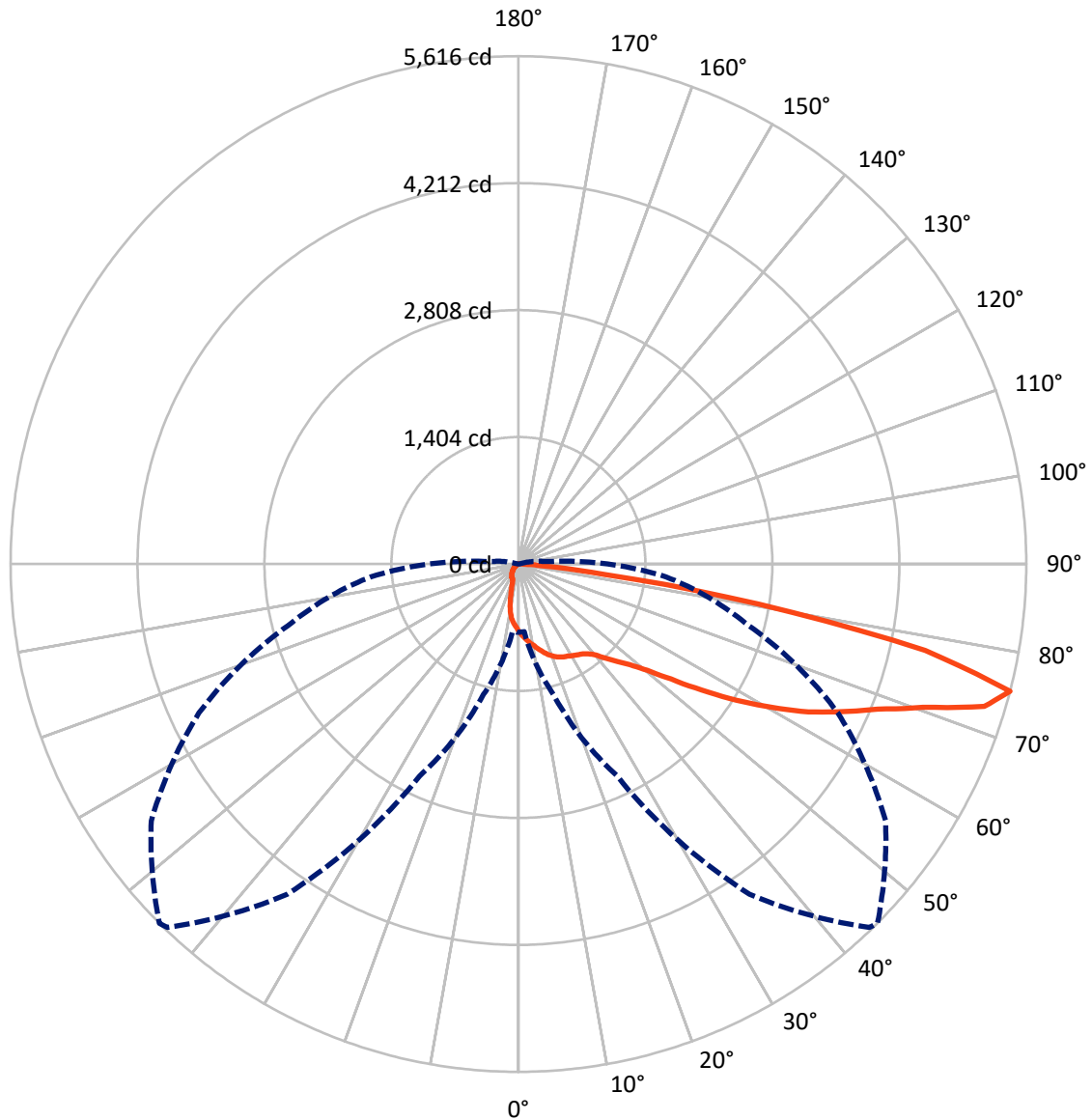


Based on 10 foot mounting height. Maximum calculated value = 10 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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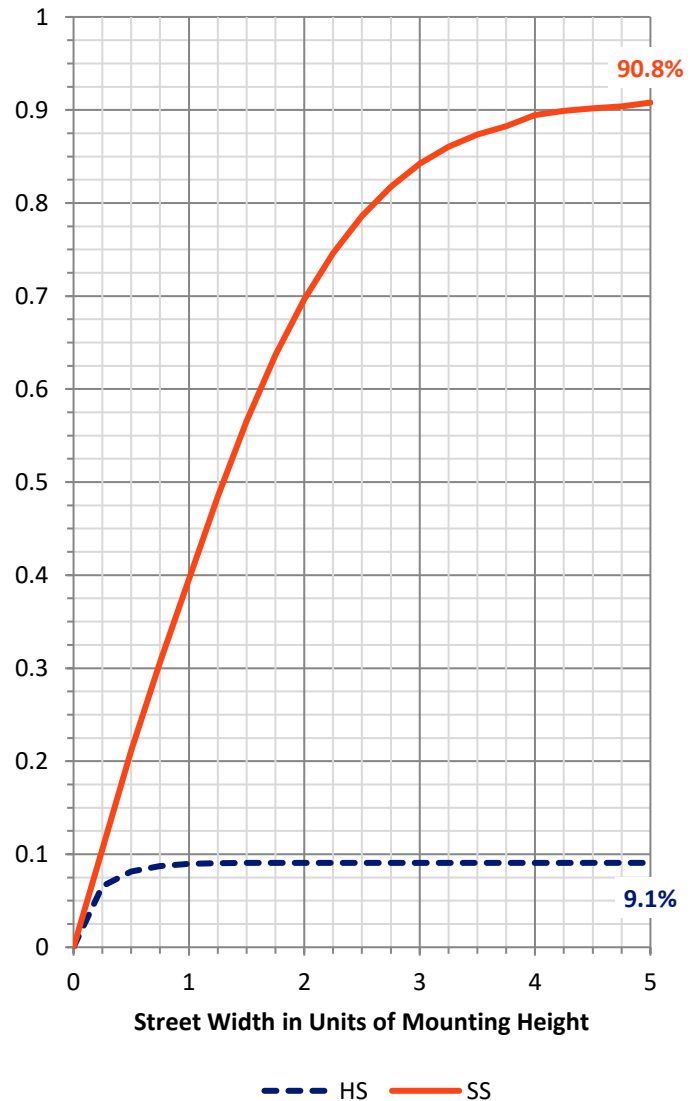
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	638.9	0.0	638.9
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	6346.1	0.0	6346.1
	% Fixture	90.9	0.0	90.9
Total	Lumens	6985.0	0.0	6985.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.5	1.0
10°-20°	199.8	2.9
20°-30°	330.8	4.7
30°-40°	478.8	6.9
40°-50°	784.0	11.2
50°-60°	1396.9	20.0
60°-70°	2053.6	29.4
70°-80°	1549.2	22.2
80°-90°	121.5	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°	6985.0	100.0
0°-180°	6985.0	100.0



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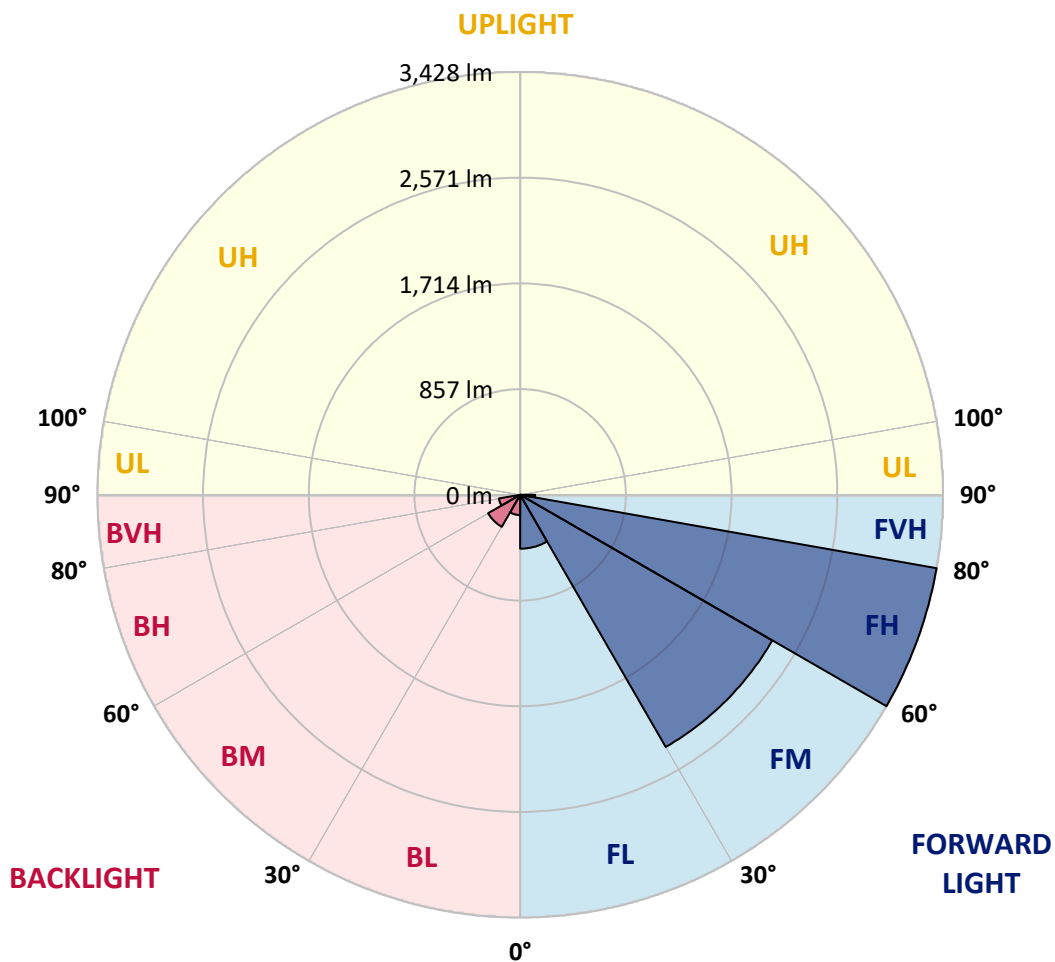
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	436.9	6.3			
FM	(30°-60°)	2360.2	33.8			
FH	(60°-80°)	3427.8	49.1			G2/5000
FVH	(80°-90°)	121.2	1.7			G2/225
BL	(0°-30°)	164.2	2.4	B1/500		
BM	(30°-60°)	299.4	4.3	B1/1000		
BH	(60°-80°)	175.0	2.5	B1/500		G1/500
BVH	(80°-90°)	0.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	747.1	747.1	747.1	747.1	747.1	747.1	747.1	747.1	747.1	747.1	747.1
2.5°	811.5	811.5	809.9	808.2	800.0	791.7	790.1	785.1	770.2	760.3	750.4
5°	879.3	881.0	877.7	869.4	851.2	833.0	831.4	818.2	790.1	770.2	748.7
7.5°	943.8	947.1	938.8	923.9	902.5	876.0	874.4	849.6	813.2	785.1	753.7
10°	998.3	998.3	986.7	968.6	945.4	917.3	914.0	885.9	844.6	809.9	768.6
12.5°	1057.8	1056.2	1039.6	1014.8	988.4	962.0	960.3	925.6	885.9	841.3	790.1
15°	1112.4	1109.1	1087.6	1064.4	1036.3	1008.2	1006.6	971.9	930.5	877.7	821.5
17.5°	1142.1	1140.5	1120.6	1097.5	1074.3	1052.9	1051.2	1014.8	970.2	915.7	852.9
20°	1147.1	1148.7	1132.2	1112.4	1099.1	1087.6	1087.6	1054.5	1006.6	948.7	885.9
22.5°	1148.7	1153.7	1142.1	1115.7	1112.4	1114.0	1117.3	1090.9	1041.3	986.7	920.6
25°	1160.3	1166.9	1158.6	1127.2	1123.9	1135.5	1138.8	1127.2	1082.6	1028.1	960.3
27.5°	1183.4	1190.0	1183.4	1143.8	1138.8	1150.4	1153.7	1160.3	1127.2	1067.7	1001.6
30°	1229.7	1231.4	1216.5	1166.9	1157.0	1171.9	1176.8	1195.0	1168.6	1105.7	1041.3
32.5°	1310.7	1294.2	1249.5	1183.4	1175.2	1191.7	1196.7	1216.5	1206.6	1142.1	1082.6
35°	1476.0	1390.0	1287.6	1206.6	1198.3	1214.8	1221.4	1249.5	1254.5	1193.4	1133.8
37.5°	1474.3	1396.6	1376.8	1251.2	1239.6	1251.2	1259.5	1294.2	1314.0	1261.1	1208.2
40°	1578.5	1545.4	1545.4	1335.5	1297.5	1314.0	1322.3	1357.0	1391.7	1350.4	1295.8
42.5°	1905.7	1884.2	1861.1	1497.5	1378.5	1424.7	1429.7	1451.2	1492.5	1479.3	1414.8
45°	2271.0	2251.2	2161.9	1771.8	1517.3	1525.6	1537.1	1571.9	1631.4	1656.1	1580.1
47.5°	2556.9	2537.1	2461.1	2102.4	1733.8	1661.1	1661.1	1728.9	1821.4	1884.2	1811.5
50°	2786.7	2763.5	2717.3	2454.5	2089.2	1856.1	1846.2	1925.6	2062.7	2160.3	2110.7
52.5°	3009.8	2942.1	2914.0	2818.1	2490.8	2138.8	2112.3	2168.5	2358.6	2479.3	2437.9
55°	3158.6	3148.7	3118.9	3152.0	2912.3	2482.6	2459.4	2471.0	2709.0	2790.0	2738.8
57.5°	3297.4	3295.8	3361.9	3515.6	3371.8	2875.9	2839.6	2821.4	3047.8	3028.0	3072.6
60°	3469.3	3439.6	3593.3	3813.1	3793.3	3259.4	3218.1	3181.7	3307.3	3251.1	3472.6
62.5°	3477.6	3469.3	3781.7	4097.4	4211.4	3649.5	3601.5	3471.0	3533.8	3469.3	3854.4
65°	3161.9	3203.2	3861.0	4247.8	4561.8	3991.6	3933.8	3730.5	3735.4	3692.4	4304.0
67.5°	3090.8	3112.3	3642.9	4409.8	4814.7	4337.1	4282.5	4029.6	3970.1	3973.4	4570.1
70°	2914.0	2947.0	3371.8	4398.2	5014.7	4798.2	4743.7	4469.3	4325.5	4165.2	4365.1
72.5°	2226.4	2282.6	2841.2	3856.1	4960.2	5401.5	5386.6	5026.3	4467.6	3824.7	3302.4
75°	753.7	752.0	1492.5	2590.0	4456.1	5586.6	5616.3	4956.9	3897.4	2637.9	1639.6
77.5°	162.0	163.6	307.4	1049.6	2960.2	4485.8	4599.9	3738.7	2514.0	1175.2	375.2
80°	79.3	81.0	127.3	277.7	1183.4	2515.6	2694.1	1922.3	928.9	234.7	62.8
82.5°	39.7	41.3	66.1	147.1	438.0	894.2	955.3	707.4	266.1	132.2	31.4
85°	14.9	14.9	33.1	87.6	200.0	209.9	257.8	205.0	160.3	107.4	8.3
87.5°	3.3	3.3	18.2	43.0	89.3	66.1	66.1	62.8	97.5	72.7	3.3
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°	747.1	747.1	747.1	747.1	747.1	747.1	747.1	747.1	747.1	747.1	747.1
2.5°	745.4	738.8	727.2	715.7	707.4	697.5	692.5	687.6	685.9	684.3	687.6
5°	737.2	727.2	705.8	687.6	671.1	657.8	647.9	638.0	633.0	629.7	631.4
7.5°	737.2	722.3	690.9	662.8	636.3	608.2	580.1	558.7	542.1	532.2	533.9
10°	745.4	725.6	684.3	646.3	596.7	537.2	476.0	429.7	398.3	380.2	380.2
12.5°	763.6	737.2	685.9	626.4	542.1	438.0	345.4	289.2	266.1	252.9	254.5
15°	788.4	757.0	694.2	600.0	466.1	325.6	241.3	205.0	205.0	208.3	209.9
17.5°	816.5	781.8	700.8	560.3	368.6	233.1	190.1	186.8	191.7	200.0	200.0
20°	844.6	806.6	704.1	497.5	276.0	185.1	180.2	180.2	183.5	191.7	193.4
22.5°	879.3	838.0	700.8	419.8	206.6	175.2	173.5	173.5	173.5	183.5	183.5
25°	915.7	874.4	687.6	337.2	175.2	168.6	166.9	165.3	165.3	173.5	175.2
27.5°	957.0	912.4	656.2	257.8	165.3	162.0	160.3	157.0	157.0	163.6	163.6
30°	998.3	955.3	608.2	195.0	157.0	155.4	152.1	148.8	145.4	152.1	152.1
32.5°	1042.9	1000.0	545.4	155.4	145.4	145.4	143.8	138.8	135.5	138.8	140.5
35°	1102.4	1051.2	474.4	135.5	130.6	130.6	130.6	128.9	122.3	125.6	125.6
37.5°	1181.8	1122.3	391.7	125.6	119.0	115.7	115.7	115.7	110.7	112.4	112.4
40°	1282.6	1204.9	312.4	117.4	110.7	102.5	99.2	100.8	97.5	97.5	95.9
42.5°	1419.8	1294.2	234.7	110.7	104.1	92.6	85.9	84.3	81.0	79.3	79.3
45°	1616.5	1403.3	168.6	104.1	99.2	81.0	74.4	69.4	61.2	56.2	56.2
47.5°	1871.0	1527.2	125.6	97.5	94.2	71.1	62.8	52.9	41.3	38.0	38.0
50°	2181.7	1666.1	105.8	87.6	85.9	62.8	49.6	34.7	23.1	19.8	21.5
52.5°	2484.2	1796.6	94.2	77.7	76.0	54.5	36.4	18.2	9.9	9.9	9.9
55°	2738.8	1889.2	85.9	69.4	66.1	43.0	19.8	8.3	5.0	5.0	5.0
57.5°	2968.5	1942.1	77.7	61.2	52.9	29.8	8.3	3.3	3.3	1.7	1.7
60°	3178.4	1973.5	67.8	52.9	41.3	16.5	3.3	1.7	1.7	0.0	0.0
62.5°	3385.0	1996.6	57.8	43.0	31.4	6.6	1.7	1.7	0.0	0.0	0.0
65°	3542.0	1988.4	46.3	34.7	19.8	3.3	1.7	0.0	0.0	0.0	0.0
67.5°	3537.1	1876.0	34.7	26.4	9.9	1.7	0.0	0.0	0.0	0.0	0.0
70°	3163.5	1580.1	23.1	16.5	3.3	1.7	0.0	0.0	0.0	0.0	0.0
72.5°	2244.6	1013.2	14.9	9.9	1.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	988.4	307.4	8.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	193.4	71.1	5.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	46.3	8.3	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.8	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.3	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)