

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: P214944

Luminaire Tested: **ARCH-AF24-90-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214944
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-AF24-90-D-U-T4W-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1180mA 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: 7072.7 lumens
Efficiency: N/A
Efficacy: 75.2 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

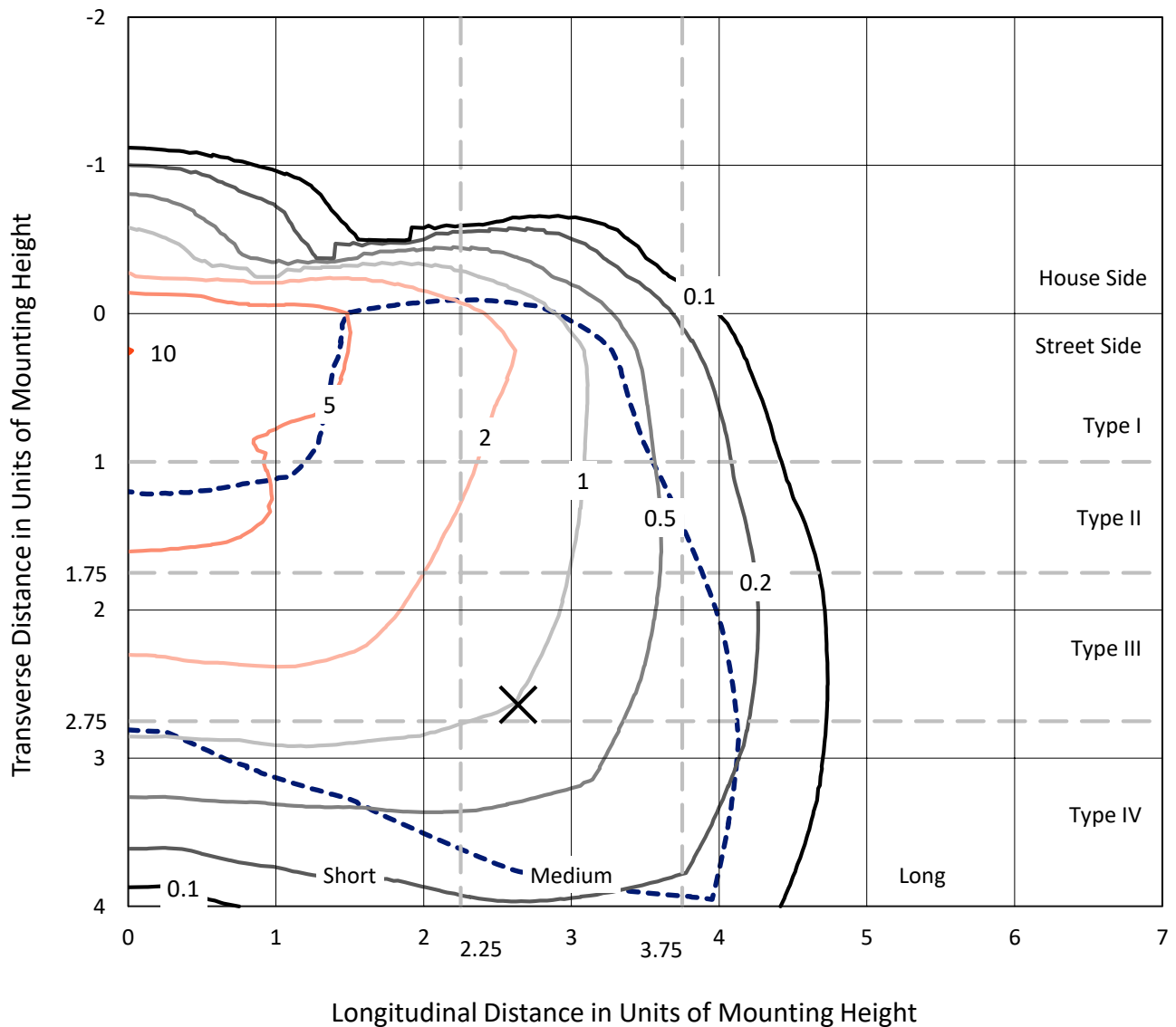
Input Watts (W): 94
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

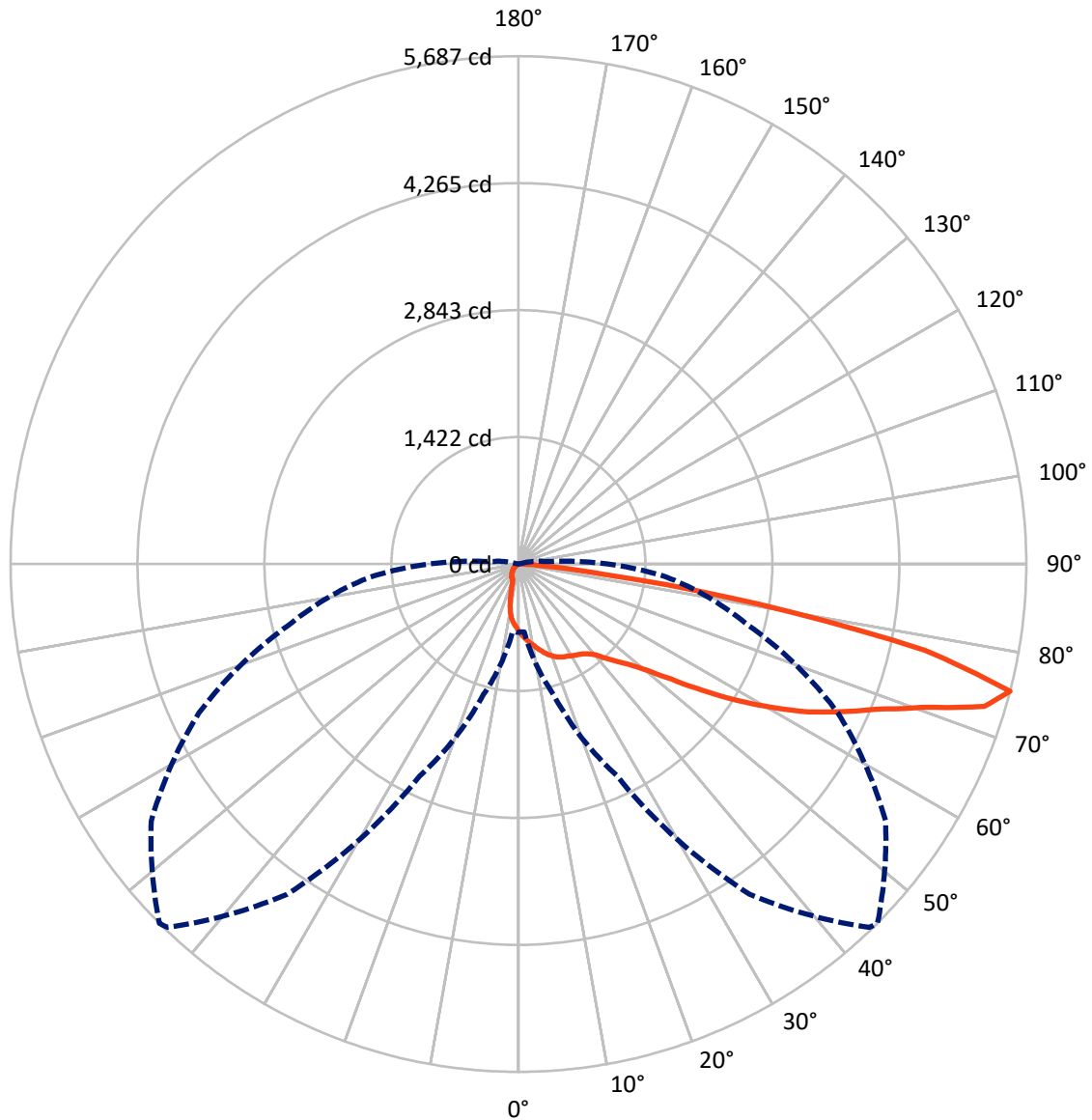
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.1 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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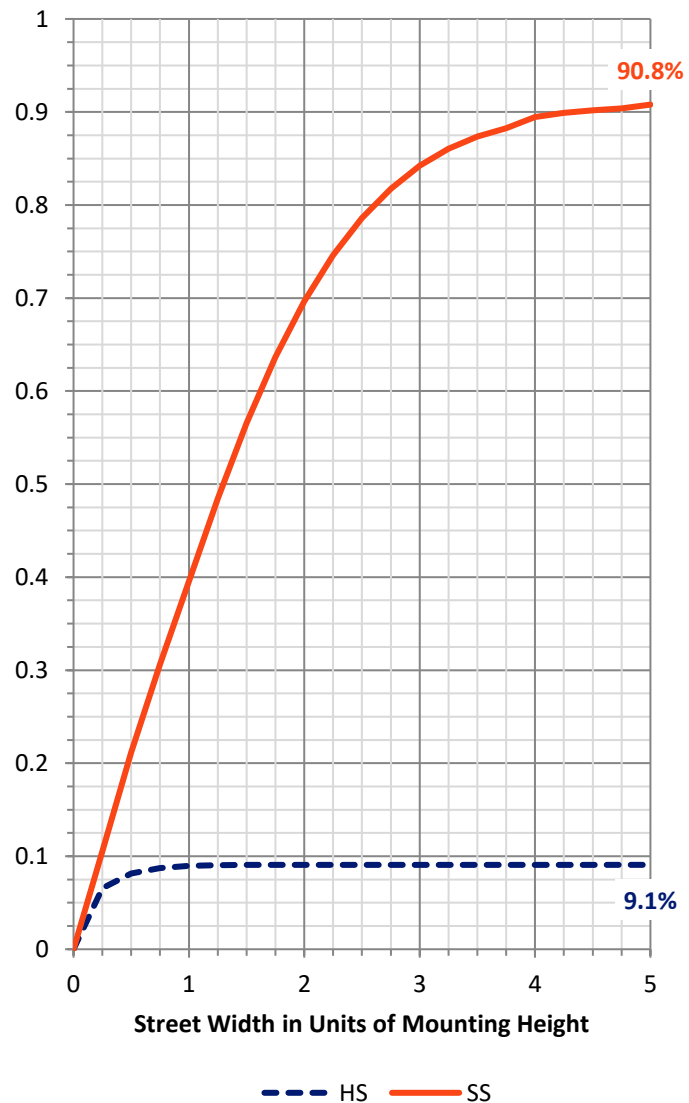
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	646.9	0.0	646.9
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	6425.7	0.0	6425.7
	% Fixture	90.9	0.0	90.9
Total	Lumens	7072.7	0.0	7072.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	1.0
10°-20°	202.3	2.9
20°-30°	335.0	4.7
30°-40°	484.8	6.9
40°-50°	793.8	11.2
50°-60°	1414.4	20.0
60°-70°	2079.3	29.4
70°-80°	1568.7	22.2
80°-90°	123.1	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°	7072.7	100.0
0°-180°	7072.7	100.0



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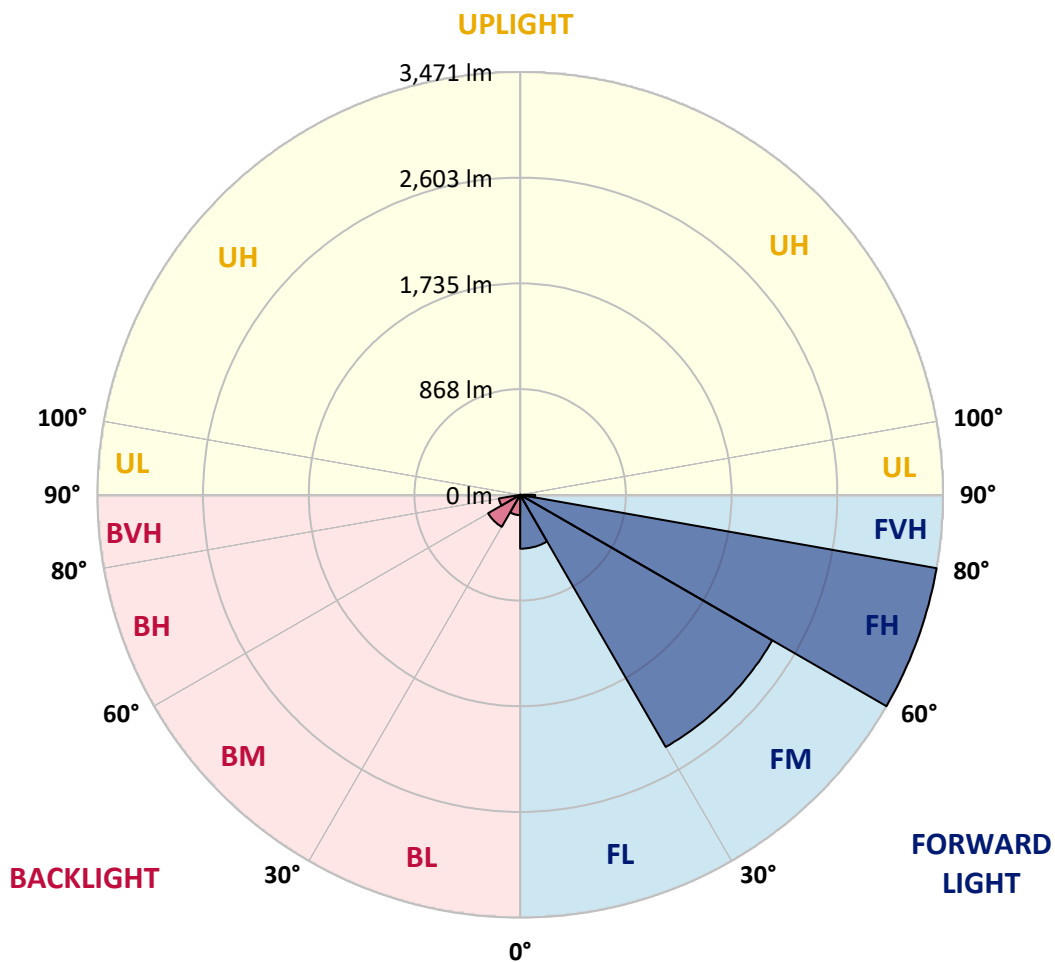
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	442.4	6.3			
FM	(30°-60°)	2389.8	33.8			
FH	(60°-80°)	3470.8	49.1			G2/5000
FVH	(80°-90°)	122.7	1.7			G2/225
BL	(0°-30°)	166.2	2.4	B1/500		
BM	(30°-60°)	303.2	4.3	B1/1000		
BH	(60°-80°)	177.2	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°	756.5	756.5	756.5	756.5	756.5	756.5	756.5	756.5	756.5	756.5	756.5
2.5°	821.7	821.7	820.1	818.4	810.0	801.7	799.9	794.9	779.9	769.9	759.8
5°	890.4	892.0	888.6	880.4	861.9	843.5	841.8	828.4	799.9	779.9	758.1
7.5°	955.6	959.0	950.6	935.5	913.8	887.0	885.4	860.2	823.4	794.9	763.1
10°	1010.9	1010.9	999.1	980.7	957.3	928.8	925.5	897.0	855.2	820.1	778.3
12.5°	1071.1	1069.4	1052.7	1027.6	1000.9	974.1	972.3	937.2	897.0	851.8	799.9
15°	1126.4	1123.0	1101.2	1077.8	1049.3	1020.9	1019.2	984.1	942.2	888.6	831.8
17.5°	1156.4	1154.8	1134.7	1111.2	1087.8	1066.1	1064.4	1027.6	982.4	927.2	863.6
20°	1161.5	1163.1	1146.4	1126.4	1113.0	1101.2	1101.2	1067.8	1019.2	960.7	897.0
22.5°	1163.1	1168.2	1156.4	1129.6	1126.4	1128.0	1131.4	1104.6	1054.4	999.1	932.2
25°	1174.9	1181.5	1173.2	1141.4	1138.0	1149.8	1153.1	1141.4	1096.2	1041.0	972.3
27.5°	1198.3	1204.9	1198.3	1158.1	1153.1	1164.8	1168.2	1174.9	1141.4	1081.2	1014.2
30°	1245.1	1246.8	1231.7	1181.5	1171.5	1186.6	1191.6	1210.0	1183.2	1119.6	1054.4
32.5°	1327.2	1310.4	1265.2	1198.3	1189.9	1206.7	1211.7	1231.7	1221.7	1156.4	1096.2
35°	1494.5	1407.5	1303.8	1221.7	1213.3	1230.1	1236.7	1265.2	1270.3	1208.3	1148.1
37.5°	1492.8	1414.2	1394.1	1266.9	1255.2	1266.9	1275.3	1310.4	1330.6	1276.9	1223.3
40°	1598.3	1564.8	1564.8	1352.2	1313.8	1330.6	1338.8	1374.0	1409.1	1367.3	1312.1
42.5°	1929.7	1907.9	1884.5	1516.3	1395.8	1442.7	1447.7	1469.4	1511.2	1497.9	1432.5
45°	2299.5	2279.4	2189.0	1794.1	1536.4	1544.8	1556.4	1591.6	1651.9	1676.9	1600.0
47.5°	2589.1	2568.9	2492.0	2128.8	1755.6	1681.9	1681.9	1750.6	1844.3	1907.9	1834.3
50°	2821.7	2798.3	2751.3	2485.3	2115.5	1879.5	1869.4	1949.7	2088.7	2187.4	2137.1
52.5°	3047.6	2978.9	2950.5	2853.4	2522.1	2165.6	2138.9	2195.8	2388.2	2510.4	2468.6
55°	3198.3	3188.2	3158.1	3191.5	2948.9	2513.7	2490.3	2502.0	2743.0	2825.0	2773.1
57.5°	3338.8	3337.2	3404.1	3559.8	3414.1	2912.0	2875.2	2856.8	3086.1	3066.0	3111.2
60°	3512.8	3482.7	3638.3	3860.9	3840.9	3300.3	3258.5	3221.7	3348.8	3292.0	3516.2
62.5°	3521.2	3512.8	3829.2	4148.8	4264.3	3695.3	3646.7	3514.6	3578.2	3512.8	3902.8
65°	3201.5	3243.4	3909.5	4301.1	4619.1	4041.7	3983.2	3777.2	3782.3	3738.8	4358.0
67.5°	3129.6	3151.4	3688.6	4465.2	4875.2	4391.5	4336.3	4080.2	4020.0	4023.3	4627.4
70°	2950.5	2984.0	3414.1	4453.4	5077.6	4858.4	4803.2	4525.4	4379.8	4217.4	4420.0
72.5°	2254.3	2311.3	2876.9	3904.5	5022.5	5469.3	5454.3	5089.4	4523.7	3872.7	3343.8
75°	763.1	761.5	1511.2	2622.5	4512.0	5656.7	5686.9	5019.1	3946.3	2671.0	1660.2
77.5°	164.0	165.7	311.3	1062.7	2997.3	4542.1	4657.6	3785.6	2545.5	1189.9	379.9
80°	80.3	82.0	128.9	281.2	1198.3	2547.2	2727.9	1946.4	940.6	237.6	63.6
82.5°	40.2	41.8	66.9	148.9	443.6	905.4	967.3	716.3	269.4	133.9	31.8
85°	15.0	15.0	33.5	88.7	202.5	212.6	261.1	207.6	162.3	108.7	8.4
87.5°	3.4	3.4	18.4	43.5	90.3	66.9	66.9	63.6	98.7	73.7	3.4
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°	756.5	756.5	756.5	756.5	756.5	756.5	756.5	756.5	756.5	756.5	756.5
2.5°	754.8	748.1	736.4	724.7	716.3	706.2	701.2	696.2	694.6	692.8	696.2
5°	746.4	736.4	714.6	696.2	679.4	666.0	656.0	646.0	641.0	637.6	639.3
7.5°	746.4	731.3	699.6	671.2	644.4	615.9	587.4	565.7	548.9	538.9	540.5
10°	754.8	734.7	692.8	654.4	604.2	543.9	482.0	435.2	403.3	384.9	384.9
12.5°	773.2	746.4	694.6	634.3	548.9	443.6	349.7	292.9	269.4	256.0	257.8
15°	798.3	766.5	702.9	607.5	472.0	329.7	244.4	207.6	207.6	210.8	212.6
17.5°	826.7	791.6	709.6	567.3	373.2	236.0	192.4	189.1	194.2	202.5	202.5
20°	855.2	816.7	713.0	503.7	279.5	187.4	182.4	182.4	185.8	194.2	195.8
22.5°	890.4	848.5	709.6	425.1	209.2	177.4	175.7	175.7	175.7	185.8	185.8
25°	927.2	885.4	696.2	341.5	177.4	170.7	169.0	167.4	167.4	175.7	177.4
27.5°	969.0	923.8	664.4	261.1	167.4	164.0	162.3	159.0	159.0	165.7	165.7
30°	1010.9	967.3	615.9	197.5	159.0	157.3	154.0	150.6	147.3	154.0	154.0
32.5°	1056.0	1012.5	552.3	157.3	147.3	147.3	145.6	140.6	137.3	140.6	142.3
35°	1116.2	1064.4	480.3	137.3	132.2	132.2	132.2	130.5	123.9	127.2	127.2
37.5°	1196.6	1136.4	396.6	127.2	120.5	117.1	117.1	117.1	112.1	113.9	113.9
40°	1298.7	1220.1	316.3	118.9	112.1	103.7	100.5	102.1	98.7	98.7	97.1
42.5°	1437.7	1310.4	237.6	112.1	105.5	93.7	87.1	85.3	82.0	80.3	80.3
45°	1636.7	1420.9	170.7	105.5	100.5	82.0	75.3	70.3	61.9	56.9	56.9
47.5°	1894.5	1546.4	127.2	98.7	95.4	71.9	63.6	53.6	41.8	38.5	38.5
50°	2209.2	1686.9	107.1	88.7	87.1	63.6	50.2	35.2	23.4	20.0	21.8
52.5°	2515.4	1819.2	95.4	78.7	77.0	55.2	36.8	18.4	10.0	10.0	10.0
55°	2773.1	1912.9	87.1	70.3	66.9	43.5	20.0	8.4	5.0	5.0	5.0
57.5°	3005.7	1966.4	78.7	61.9	53.6	30.1	8.4	3.4	3.4	1.6	1.6
60°	3218.3	1998.2	68.6	53.6	41.8	16.8	3.4	1.6	1.6	0.0	0.0
62.5°	3427.5	2021.7	58.6	43.5	31.8	6.6	1.6	1.6	0.0	0.0	0.0
65°	3586.5	2013.4	46.9	35.2	20.0	3.4	1.6	0.0	0.0	0.0	0.0
67.5°	3581.5	1899.5	35.2	26.8	10.0	1.6	0.0	0.0	0.0	0.0	0.0
70°	3203.3	1600.0	23.4	16.8	3.4	1.6	0.0	0.0	0.0	0.0	0.0
72.5°	2272.7	1025.9	15.0	10.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	1000.9	311.3	8.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	195.8	71.9	5.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	46.9	8.4	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	20.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	1.6	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)