

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: P231213

Luminaire Tested: **ARCH-M-AF48-120-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231213
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-AF48-120-D-U-T3-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 785mA 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: 10171 lumens
Efficiency: N/A
Efficacy: 83.4 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): 122
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

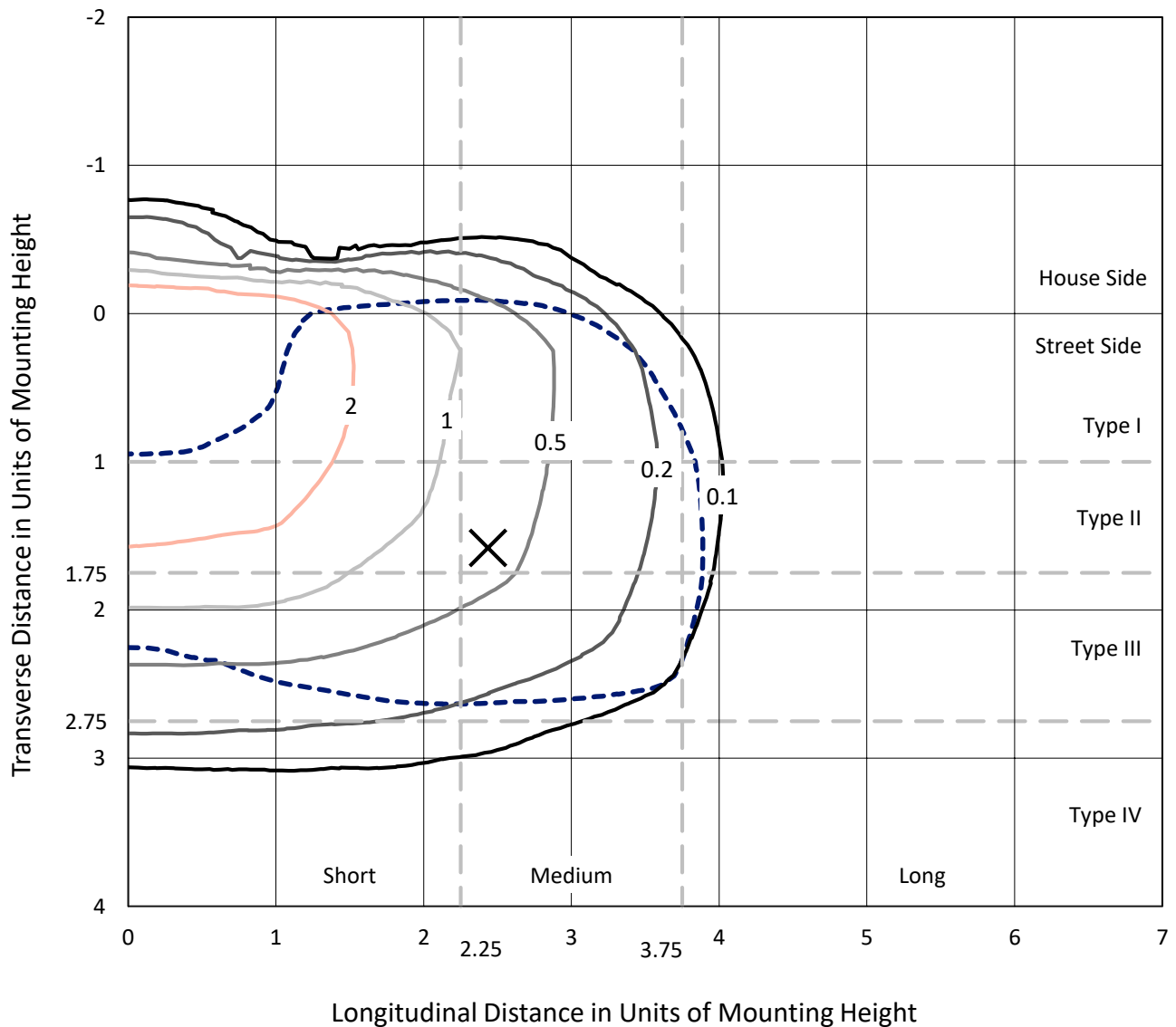


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

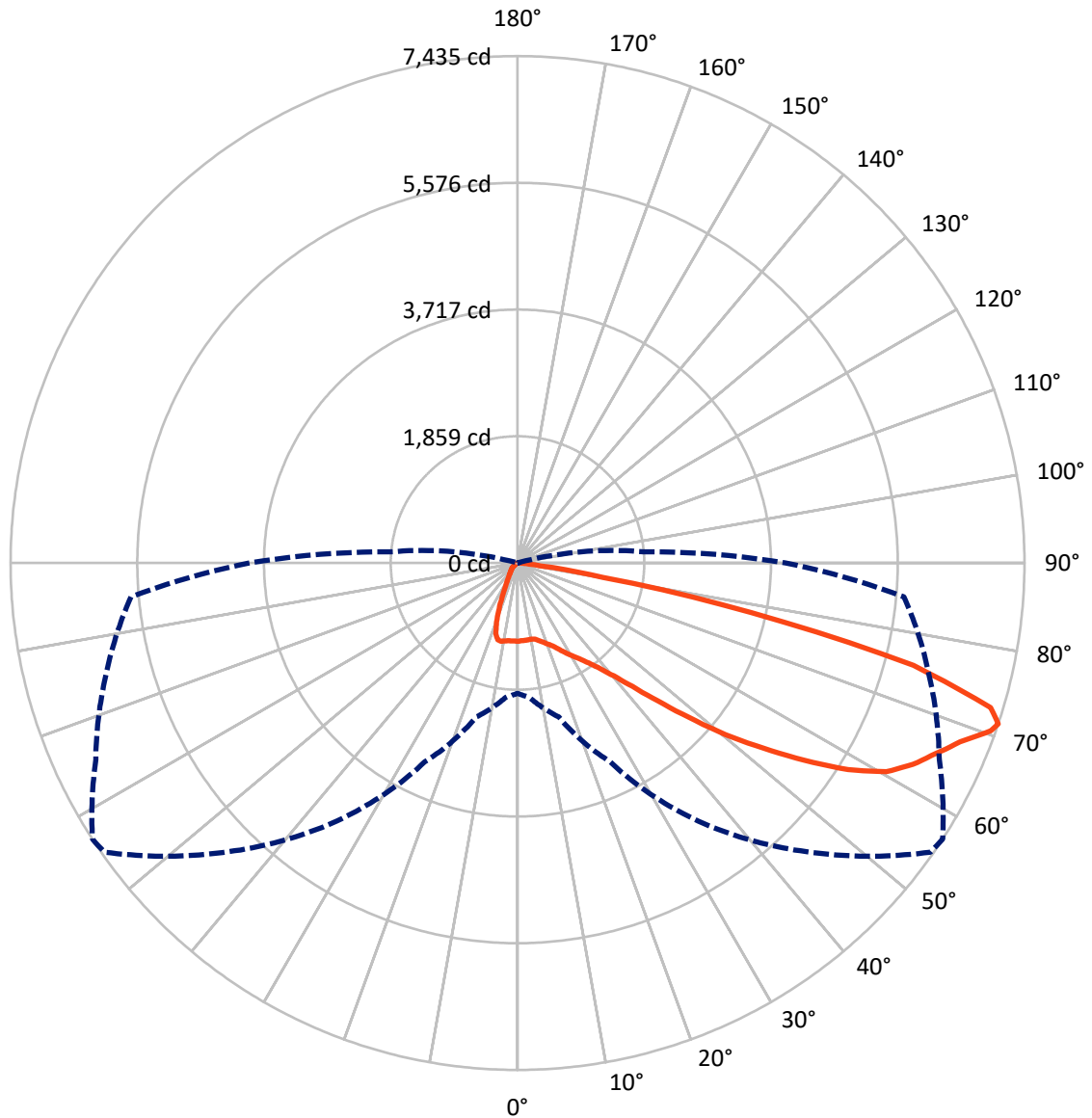


Based on 20 foot mounting height. Maximum calculated value = 3.6 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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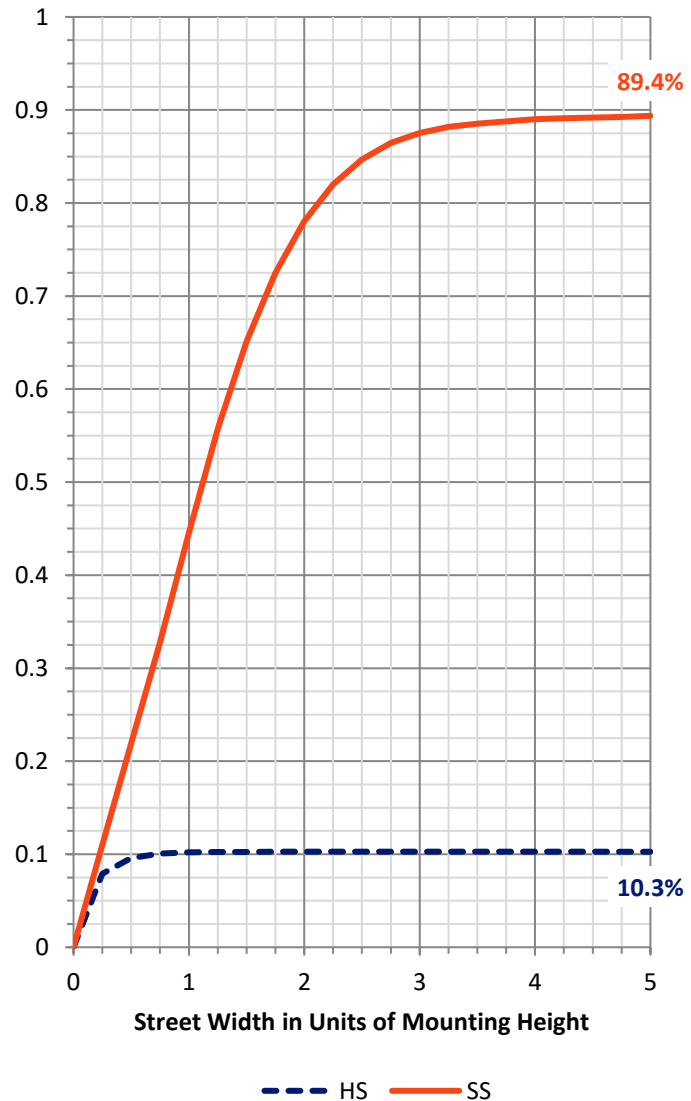
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1054.0	0.0	1054.0
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	9117.0	0.0	9117.0
	% Fixture	89.6	0.0	89.6
Total	Lumens	10171.0	0.0	10171.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.9	1.1
10°-20°	288.6	2.8
20°-30°	450.3	4.4
30°-40°	761.0	7.5
40°-50°	1478.1	14.5
50°-60°	2482.2	24.4
60°-70°	2962.3	29.1
70°-80°	1561.2	15.3
80°-90°	79.3	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°	10171.0	100.0
0°-180°	10171.0	100.0



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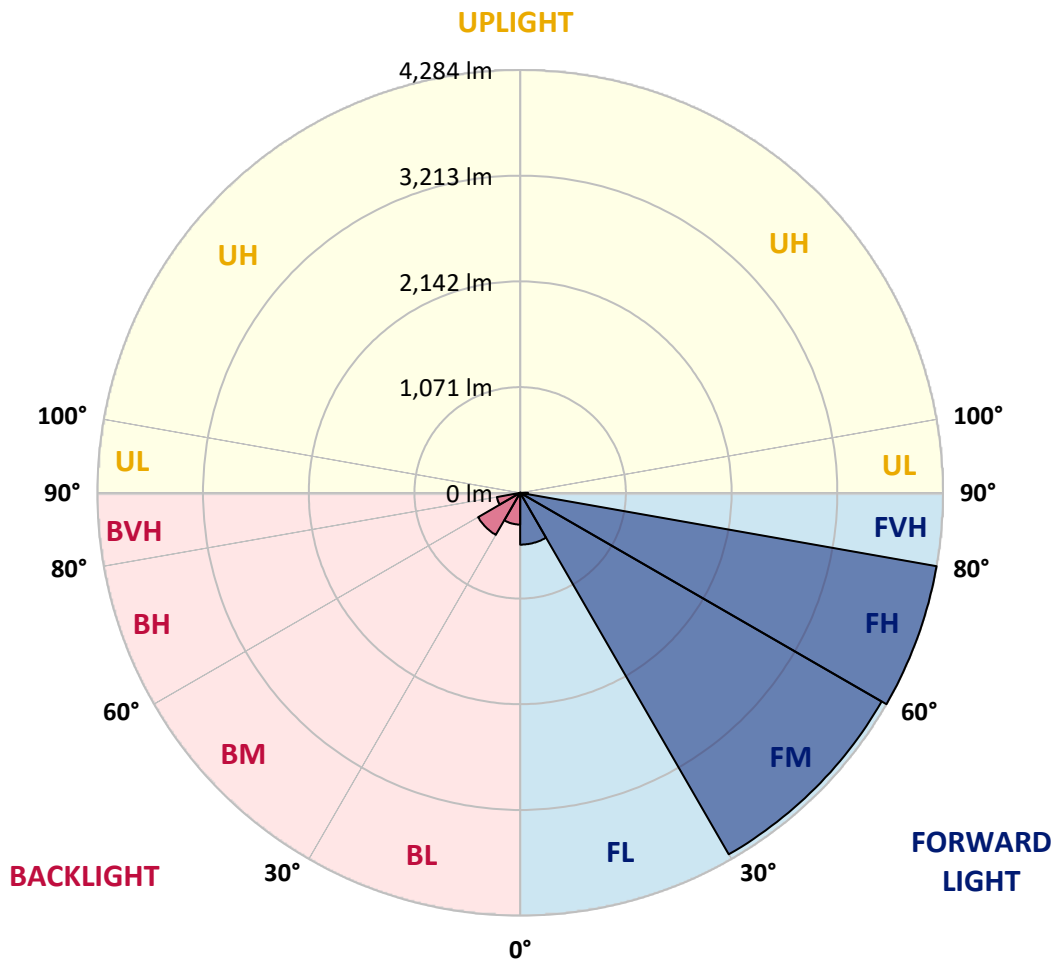
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	525.1	5.2			
FM	(30°-60°)	4229.2	41.6			
FH	(60°-80°)	4284.1	42.1			G2/5000
FVH	(80°-90°)	78.6	0.8			G1/100
BL	(0°-30°)	321.7	3.2	B1/500		
BM	(30°-60°)	492.2	4.8	B1/1000		
BH	(60°-80°)	239.4	2.4	B1/500		G1/500
BVH	(80°-90°)	0.8	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°	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5
2.5°	1132.9	1132.9	1132.9	1135.3	1137.6	1137.6	1142.4	1140.0	1140.0	1140.0	1144.7
5°	1102.1	1104.4	1106.8	1111.6	1121.0	1128.1	1140.0	1140.0	1142.4	1147.1	1149.5
7.5°	1059.4	1061.8	1068.9	1078.4	1097.3	1113.9	1132.9	1137.6	1144.7	1156.6	1161.3
10°	1033.3	1038.1	1047.6	1059.4	1080.7	1102.1	1125.8	1132.9	1154.2	1175.5	1187.4
12.5°	1026.2	1028.6	1038.1	1057.0	1083.1	1109.2	1140.0	1147.1	1177.9	1211.1	1230.1
15°	1038.1	1040.5	1045.2	1066.5	1097.3	1130.5	1170.8	1180.3	1218.2	1256.1	1279.8
17.5°	1059.4	1059.4	1064.2	1083.1	1116.3	1154.2	1206.4	1220.6	1263.2	1305.9	1332.0
20°	1073.6	1073.6	1080.7	1099.7	1137.6	1187.4	1249.0	1268.0	1315.4	1362.8	1386.5
22.5°	1087.9	1090.2	1097.3	1118.7	1161.3	1230.1	1301.2	1320.1	1374.6	1424.4	1448.1
25°	1128.1	1125.8	1128.1	1147.1	1196.9	1282.2	1372.3	1396.0	1452.8	1507.4	1519.2
27.5°	1239.5	1234.8	1204.0	1192.1	1230.1	1336.7	1462.3	1486.0	1552.4	1606.9	1606.9
30°	1495.5	1486.0	1410.2	1313.0	1282.2	1386.5	1547.6	1580.8	1666.1	1713.6	1699.3
32.5°	1820.2	1798.9	1701.7	1535.8	1412.6	1452.8	1637.7	1675.6	1784.7	1824.9	1794.1
35°	2175.7	2173.3	2052.5	1839.2	1663.8	1590.3	1753.8	1798.9	1936.3	1971.9	1922.1
37.5°	2552.6	2562.0	2481.4	2187.6	1981.4	1815.5	1907.9	1960.0	2128.3	2171.0	2123.6
40°	2972.1	2969.7	2938.9	2590.5	2362.9	2135.4	2130.7	2178.1	2381.9	2448.3	2381.9
42.5°	3502.9	3498.2	3386.8	3074.0	2825.1	2552.6	2455.4	2472.0	2699.5	2808.5	2711.3
45°	4043.3	4010.1	3882.2	3612.0	3391.6	3069.2	2884.4	2884.4	3078.7	3228.0	3076.3
47.5°	4344.3	4311.1	4259.0	4109.7	4043.3	3683.1	3410.5	3377.3	3529.0	3680.7	3467.4
50°	4740.1	4740.1	4609.8	4552.9	4666.6	4413.0	3991.2	3958.0	4031.5	4152.3	3872.7
52.5°	5053.0	4996.1	4903.6	4953.4	5278.1	5162.0	4571.8	4507.8	4564.7	4595.5	4225.8
55°	5183.3	5128.8	5121.7	5304.2	5806.6	5645.5	5166.7	5109.8	5105.1	4953.4	4533.9
57.5°	5209.4	5162.0	5252.0	5572.0	6320.9	6041.3	5759.2	5716.6	5583.9	5204.6	4849.1
60°	4989.0	5012.7	5230.7	5718.9	6624.3	6384.9	6259.3	6214.3	5908.5	5417.9	5199.9
62.5°	4536.3	4593.2	5000.8	5733.2	6512.9	6524.8	6536.6	6505.8	6159.8	5612.3	5553.0
65°	4000.7	4017.2	4507.8	5536.5	6318.6	6482.1	6740.4	6738.1	6351.8	5830.3	5951.2
67.5°	3296.7	3325.2	3749.4	4872.8	5929.9	6463.1	7008.3	7001.1	6569.8	6079.2	6188.2
70°	2453.0	2488.6	2832.2	3789.7	5062.4	6226.1	7359.0	7363.8	6799.7	6268.8	6024.7
71°	1912.6	1976.6	2336.9	3218.5	4619.2	5986.8	7392.2	7434.9	6825.8	6242.7	5688.1
72.5°	938.5	1014.4	1467.1	2265.8	3801.6	5451.1	7174.2	7257.1	6662.2	5918.0	4863.4
75°	244.1	258.3	438.5	926.7	2038.2	3612.0	5785.3	5996.2	5446.4	4505.5	2972.1
77.5°	154.1	158.8	206.2	360.2	763.2	1372.3	3398.7	3502.9	3111.9	2282.4	1047.6
80°	109.0	111.4	130.4	232.3	445.6	400.5	1222.9	1268.0	1125.8	604.4	187.2
82.5°	66.4	66.4	94.8	149.3	274.9	218.0	322.3	343.7	303.4	168.3	61.6
85°	37.9	40.3	59.3	101.9	130.4	106.7	120.9	128.0	130.4	111.4	26.1
87.5°	30.8	33.2	52.1	85.3	71.1	52.1	52.1	54.5	56.9	66.4	11.9
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°	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5	1149.5
2.5°	1144.7	1144.7	1147.1	1144.7	1144.7	1144.7	1147.1	1147.1	1147.1	1151.8	1154.2
5°	1149.5	1149.5	1149.5	1147.1	1144.7	1144.7	1149.5	1151.8	1151.8	1159.0	1159.0
7.5°	1161.3	1161.3	1156.6	1151.8	1147.1	1140.0	1142.4	1144.7	1142.4	1144.7	1144.7
10°	1187.4	1187.4	1180.3	1170.8	1156.6	1135.3	1106.8	1071.3	1038.1	1026.2	1021.5
12.5°	1230.1	1227.7	1213.5	1196.9	1166.1	1092.6	985.9	860.3	756.0	727.6	718.1
15°	1277.5	1272.7	1256.1	1227.7	1144.7	950.4	727.6	566.4	466.9	443.2	438.5
17.5°	1327.2	1320.1	1296.4	1239.5	1047.6	706.3	469.3	355.5	301.0	296.3	298.6
20°	1379.4	1369.9	1336.7	1215.8	846.1	471.6	303.4	274.9	270.2	270.2	272.6
22.5°	1438.6	1426.8	1381.7	1130.5	616.2	312.8	260.7	258.3	256.0	253.6	253.6
25°	1507.4	1493.1	1424.4	976.5	424.2	256.0	248.9	241.7	237.0	232.3	229.9
27.5°	1590.3	1571.3	1457.6	786.9	291.5	239.4	234.6	222.8	213.3	203.8	203.8
30°	1673.3	1649.6	1448.1	592.5	237.0	222.8	213.3	199.1	184.9	175.4	173.0
32.5°	1761.0	1737.3	1386.5	398.2	215.7	203.8	192.0	170.6	154.1	142.2	139.8
35°	1891.3	1872.3	1265.6	263.1	194.3	180.1	163.5	142.2	120.9	109.0	106.7
37.5°	2085.6	2061.9	1116.3	201.5	170.6	149.3	135.1	111.4	90.1	78.2	75.8
40°	2346.4	2275.3	938.5	177.8	149.3	123.2	104.3	80.6	64.0	56.9	56.9
42.5°	2649.7	2481.4	746.6	161.2	132.7	101.9	75.8	54.5	45.0	42.7	42.7
45°	2972.1	2673.4	554.6	149.3	116.1	80.6	54.5	37.9	33.2	30.8	30.8
47.5°	3303.9	2829.8	386.3	135.1	97.2	61.6	37.9	28.4	23.7	21.3	21.3
50°	3614.3	2931.8	272.6	120.9	83.0	45.0	28.4	21.3	16.6	16.6	16.6
52.5°	3830.0	2922.3	196.7	104.3	64.0	30.8	19.0	14.2	14.2	14.2	14.2
55°	4019.6	2886.7	154.1	90.1	49.8	21.3	14.2	11.9	11.9	9.5	9.5
57.5°	4180.8	2829.8	130.4	73.5	35.6	16.6	9.5	9.5	7.1	7.1	7.1
60°	4318.2	2758.7	109.0	61.6	23.7	11.9	7.1	4.7	4.7	2.4	4.7
62.5°	4505.5	2713.7	94.8	47.4	16.6	7.1	4.7	2.4	2.4	0.0	0.0
65°	4642.9	2628.4	80.6	33.2	9.5	4.7	2.4	2.4	0.0	0.0	0.0
67.5°	4647.7	2474.3	59.3	19.0	7.1	4.7	2.4	0.0	0.0	0.0	0.0
70°	4273.2	2109.3	37.9	9.5	4.7	2.4	2.4	0.0	0.0	0.0	0.0
71°	3929.6	1867.6	30.8	7.1	4.7	2.4	0.0	0.0	0.0	0.0	0.0
72.5°	3237.5	1372.3	23.7	7.1	2.4	2.4	0.0	0.0	0.0	0.0	0.0
75°	1784.7	497.7	11.9	4.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	571.2	151.7	7.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	97.2	23.7	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	33.2	9.5	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.5	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.7	2.4	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)