

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: P234829

Luminaire Tested: **ARCH-M-AF48-150-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234829
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-AF48-150-D-U-T3-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 970mA 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: 10415 lumens
Efficiency: N/A
Efficacy: 69.0 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): 151
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

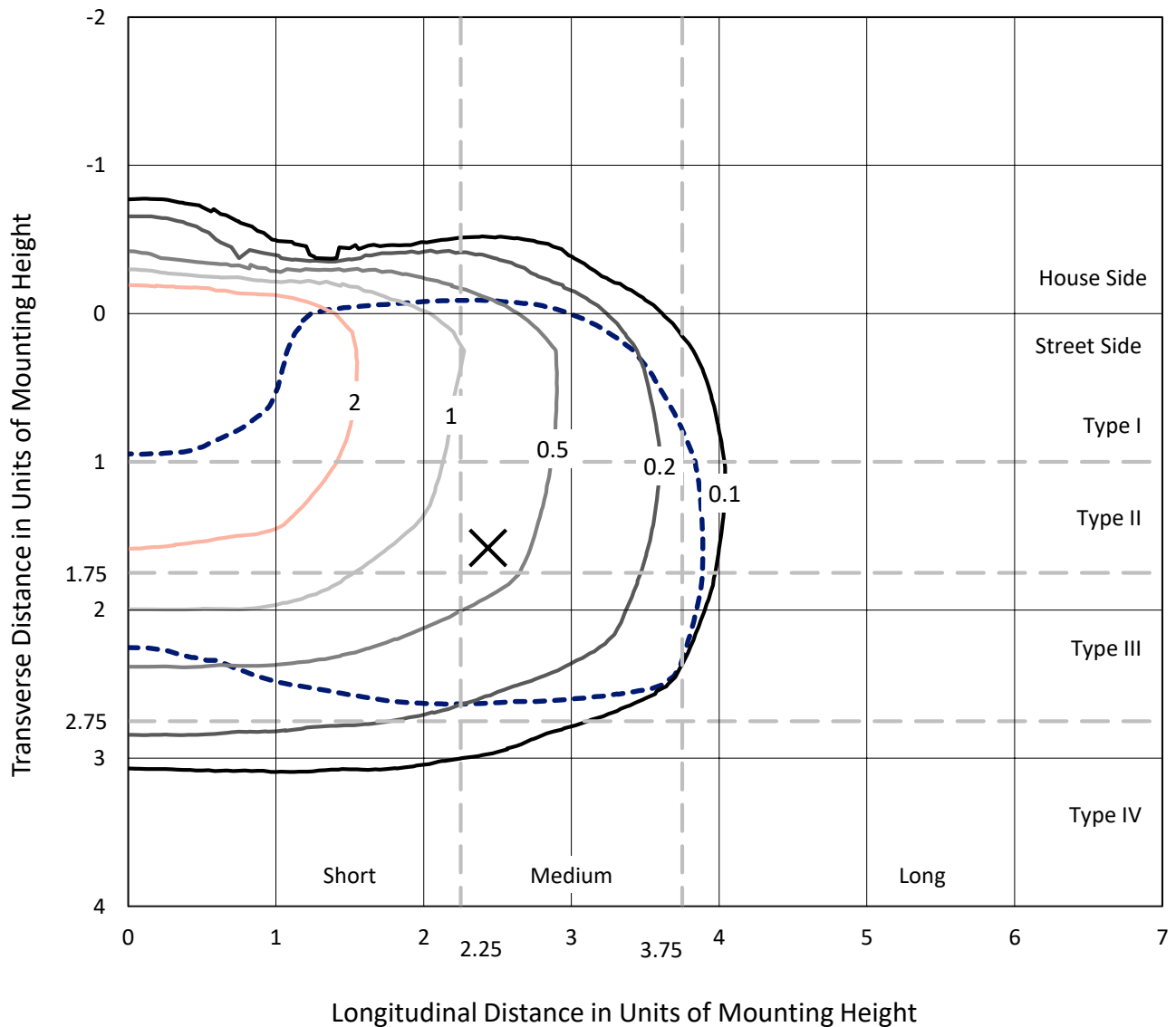


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

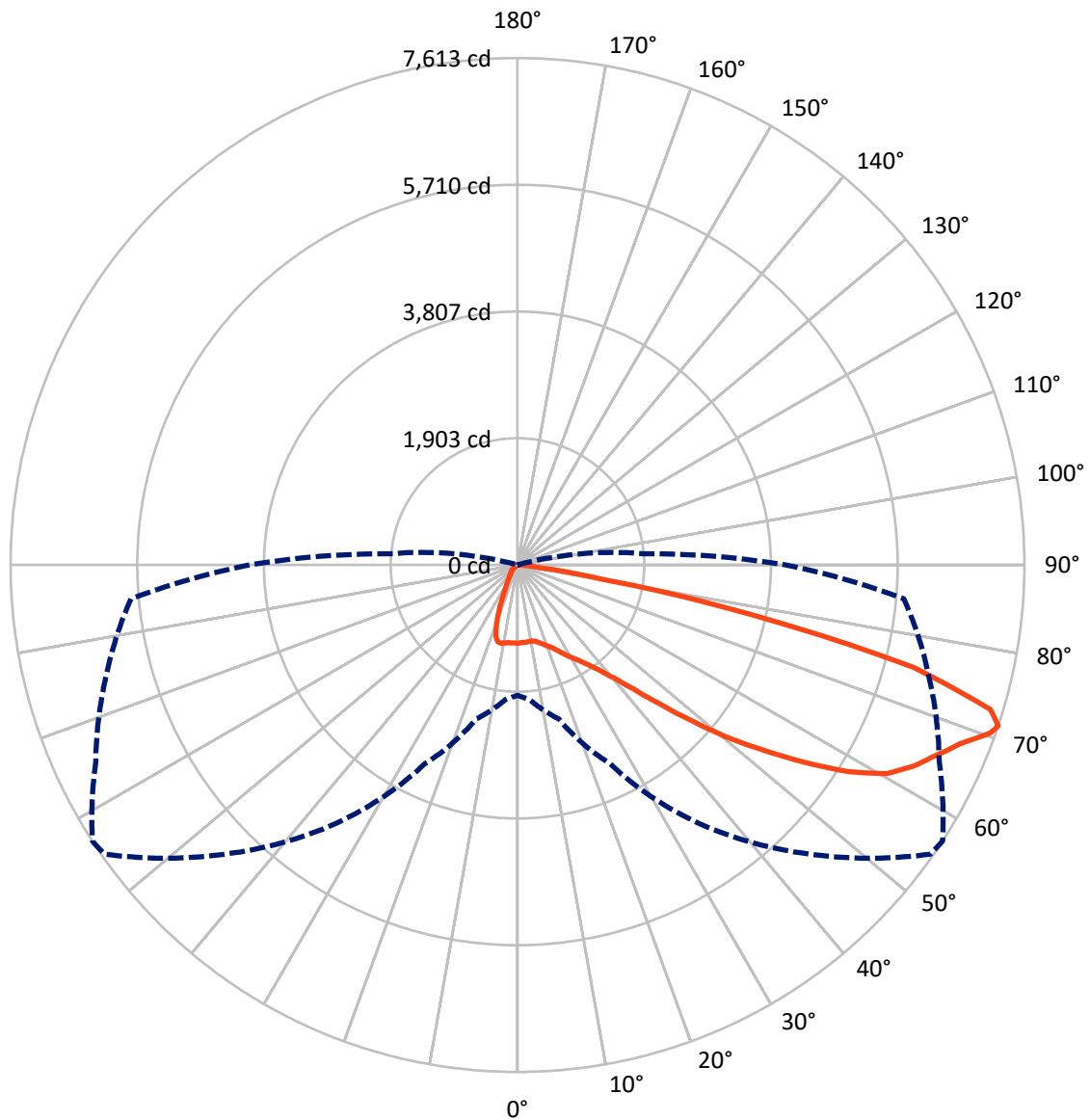


Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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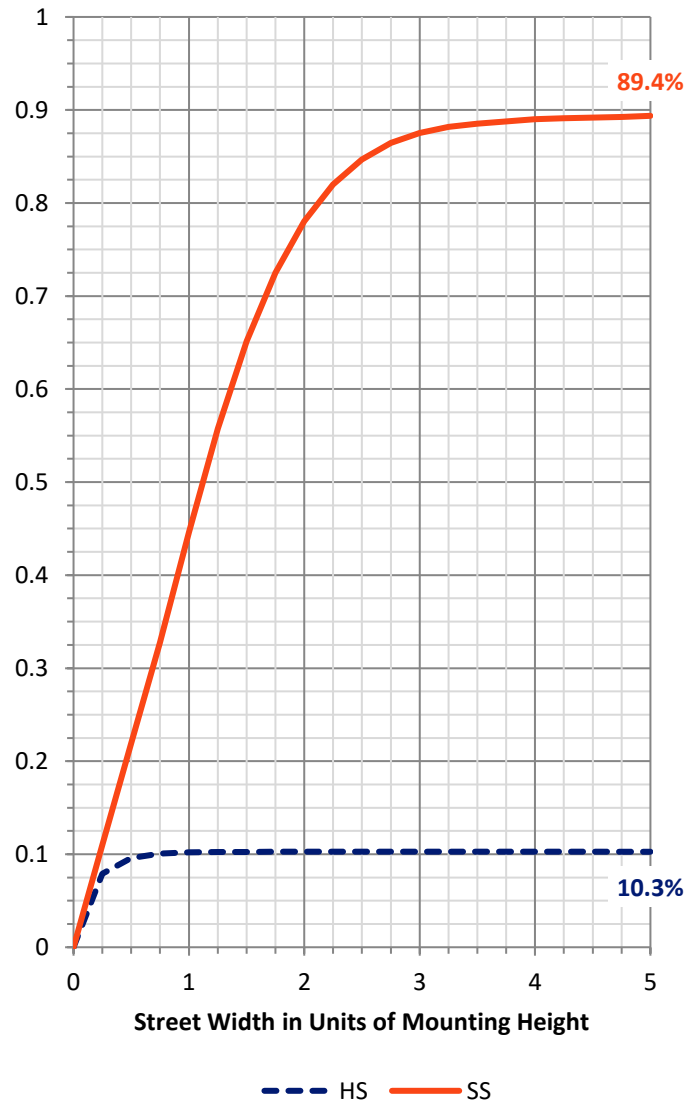
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1079.3	0.0	1079.3
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	9335.7	0.0	9335.7
	% Fixture	89.6	0.0	89.6
Total	Lumens	10415.0	0.0	10415.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.5	1.1
10°-20°	295.6	2.8
20°-30°	461.1	4.4
30°-40°	779.3	7.5
40°-50°	1513.6	14.5
50°-60°	2541.8	24.4
60°-70°	3033.4	29.1
70°-80°	1598.6	15.3
80°-90°	81.2	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°	10415.0	100.0
0°-180°	10415.0	100.0



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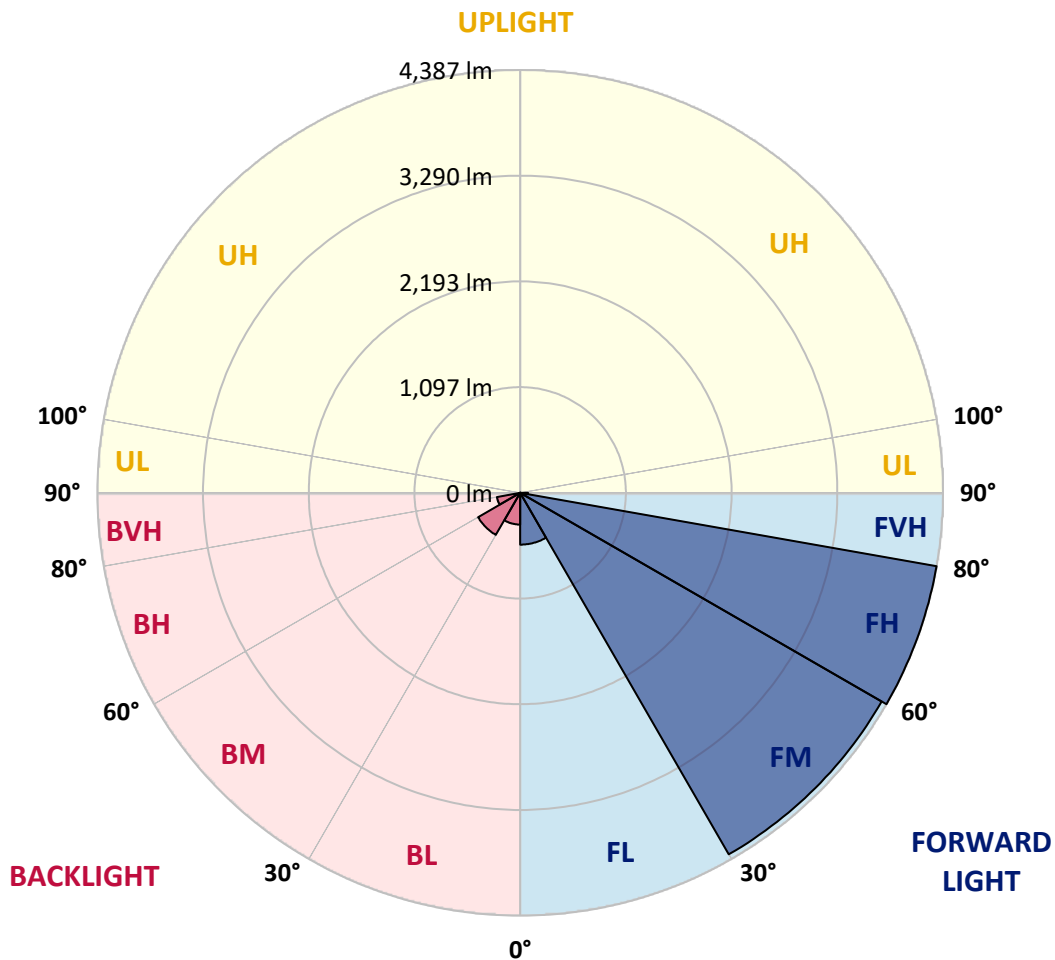
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	537.7	5.2			
FM	(30°-60°)	4330.6	41.6			
FH	(60°-80°)	4386.9	42.1			G2/5000
FVH	(80°-90°)	80.5	0.8			G1/100
BL	(0°-30°)	329.5	3.2	B1/500		
BM	(30°-60°)	504.0	4.8	B1/1000		
BH	(60°-80°)	245.1	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°	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1
2.5°	1160.1	1160.1	1160.1	1162.5	1164.9	1164.9	1169.8	1167.3	1167.3	1167.3	1172.2
5°	1128.5	1130.9	1133.4	1138.2	1147.9	1155.2	1167.3	1167.3	1169.8	1174.6	1177.1
7.5°	1084.8	1087.3	1094.5	1104.2	1123.7	1140.6	1160.1	1164.9	1172.2	1184.3	1189.2
10°	1058.1	1063.0	1072.7	1084.8	1106.7	1128.5	1152.8	1160.1	1181.9	1203.7	1215.9
12.5°	1050.9	1053.3	1063.0	1082.4	1109.1	1135.8	1167.3	1174.6	1206.2	1240.2	1259.6
15°	1063.0	1065.4	1070.3	1092.1	1123.7	1157.6	1198.9	1208.6	1247.4	1286.3	1310.5
17.5°	1084.8	1084.8	1089.7	1109.1	1143.1	1181.9	1235.3	1249.9	1293.5	1337.2	1363.9
20°	1099.4	1099.4	1106.7	1126.1	1164.9	1215.9	1279.0	1298.4	1346.9	1395.5	1419.7
22.5°	1114.0	1116.4	1123.7	1145.5	1189.2	1259.6	1332.4	1351.8	1407.6	1458.6	1482.8
25°	1155.2	1152.8	1155.2	1174.6	1225.6	1313.0	1405.2	1429.5	1487.7	1543.5	1555.7
27.5°	1269.3	1264.4	1232.9	1220.7	1259.6	1368.8	1497.4	1521.7	1589.6	1645.4	1645.4
30°	1531.4	1521.7	1444.0	1344.5	1313.0	1419.7	1584.8	1618.8	1706.1	1754.7	1740.1
32.5°	1863.9	1842.0	1742.5	1572.6	1446.4	1487.7	1677.0	1715.8	1827.5	1868.7	1837.2
35°	2227.9	2225.5	2101.7	1883.3	1703.7	1628.5	1795.9	1842.0	1982.8	2019.2	1968.2
37.5°	2613.8	2623.5	2541.0	2240.0	2028.9	1859.0	1953.7	2007.1	2179.4	2223.1	2174.5
40°	3043.3	3040.9	3009.4	2652.6	2419.6	2186.6	2181.8	2230.3	2439.0	2507.0	2439.0
42.5°	3587.0	3582.1	3468.1	3147.7	2892.9	2613.8	2514.3	2531.3	2764.3	2875.9	2776.4
45°	4140.3	4106.3	3975.3	3698.6	3472.9	3142.9	2953.6	2953.6	3152.6	3305.5	3150.1
47.5°	4448.5	4414.6	4361.2	4208.3	4140.3	3771.4	3492.3	3458.4	3613.7	3769.0	3550.6
50°	4853.8	4853.8	4720.3	4662.1	4778.6	4518.9	4086.9	4052.9	4128.2	4252.0	3965.6
52.5°	5174.2	5115.9	5021.3	5072.2	5404.7	5285.8	4681.5	4616.0	4674.2	4705.8	4327.2
55°	5307.7	5251.8	5244.6	5431.4	5945.9	5780.9	5290.7	5232.4	5227.6	5072.2	4642.7
57.5°	5334.4	5285.8	5378.0	5705.7	6472.6	6186.2	5897.4	5853.7	5717.8	5329.5	4965.5
60°	5108.7	5132.9	5356.2	5856.1	6783.2	6538.1	6409.5	6363.4	6050.3	5547.9	5324.6
62.5°	4645.1	4703.4	5120.8	5870.7	6669.2	6681.3	6693.4	6661.9	6307.5	5746.9	5686.3
65°	4096.6	4113.6	4616.0	5669.3	6470.2	6637.6	6902.1	6899.7	6504.1	5970.2	6094.0
67.5°	3375.8	3405.0	3839.4	4989.7	6072.1	6618.2	7176.4	7169.1	6727.4	6225.0	6336.7
70°	2511.9	2548.3	2900.2	3880.6	5183.9	6375.5	7535.6	7540.4	6962.8	6419.2	6169.2
71°	1958.5	2024.0	2392.9	3295.7	4730.1	6130.4	7569.5	7613.2	6989.5	6392.5	5824.6
72.5°	961.1	1038.7	1502.3	2320.1	3892.8	5581.9	7346.3	7431.2	6822.1	6060.0	4980.0
75°	250.0	264.5	449.0	948.9	2087.1	3698.6	5924.1	6140.1	5577.0	4613.6	3043.3
77.5°	157.7	162.6	211.1	368.9	781.5	1405.2	3480.2	3587.0	3186.5	2337.1	1072.7
80°	111.6	114.1	133.5	237.8	456.3	410.1	1252.3	1298.4	1152.8	618.9	191.7
82.5°	68.0	68.0	97.1	152.9	281.5	223.3	330.1	351.9	310.6	172.3	63.1
85°	38.8	41.3	60.7	104.4	133.5	109.2	123.8	131.1	133.5	114.1	26.7
87.5°	31.5	34.0	53.4	87.4	72.8	53.4	53.4	55.8	58.2	68.0	12.1
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°	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1
2.5°	1172.2	1172.2	1174.6	1172.2	1172.2	1172.2	1174.6	1174.6	1174.6	1179.5	1181.9
5°	1177.1	1177.1	1177.1	1174.6	1172.2	1172.2	1177.1	1179.5	1179.5	1186.8	1186.8
7.5°	1189.2	1189.2	1184.3	1179.5	1174.6	1167.3	1169.8	1172.2	1169.8	1172.2	1172.2
10°	1215.9	1215.9	1208.6	1198.9	1184.3	1162.5	1133.4	1097.0	1063.0	1050.9	1046.0
12.5°	1259.6	1257.1	1242.6	1225.6	1194.0	1118.8	1009.6	881.0	774.2	745.1	735.4
15°	1308.1	1303.3	1286.3	1257.1	1172.2	973.2	745.1	580.0	478.1	453.8	449.0
17.5°	1359.1	1351.8	1327.5	1269.3	1072.7	723.2	480.5	364.0	308.2	303.4	305.8
20°	1412.5	1402.8	1368.8	1245.0	866.4	483.0	310.6	281.5	276.7	276.7	279.1
22.5°	1473.1	1461.0	1414.9	1157.6	631.0	320.4	267.0	264.5	262.1	259.7	259.7
25°	1543.5	1529.0	1458.6	999.9	434.4	262.1	254.8	247.5	242.7	237.8	235.4
27.5°	1628.5	1609.0	1492.6	805.7	298.5	245.1	240.3	228.1	218.4	208.7	208.7
30°	1713.4	1689.1	1482.8	606.7	242.7	228.1	218.4	203.9	189.3	179.6	177.2
32.5°	1803.2	1778.9	1419.7	407.7	220.8	208.7	196.6	174.7	157.7	145.6	143.2
35°	1936.7	1917.3	1296.0	269.4	199.0	184.4	167.5	145.6	123.8	111.6	109.2
37.5°	2135.7	2111.4	1143.1	206.3	174.7	152.9	138.3	114.1	92.2	80.1	77.7
40°	2402.6	2329.8	961.1	182.0	152.9	126.2	106.8	82.5	65.5	58.2	58.2
42.5°	2713.3	2541.0	764.5	165.0	135.9	104.4	77.7	55.8	46.1	43.7	43.7
45°	3043.3	2737.6	567.9	152.9	118.9	82.5	55.8	38.8	34.0	31.5	31.5
47.5°	3383.1	2897.7	395.6	138.3	99.5	63.1	38.8	29.1	24.3	21.8	21.8
50°	3701.0	3002.1	279.1	123.8	84.9	46.1	29.1	21.8	17.0	17.0	17.0
52.5°	3921.9	2992.4	201.4	106.8	65.5	31.5	19.4	14.6	14.6	14.6	14.6
55°	4116.0	2956.0	157.7	92.2	51.0	21.8	14.6	12.1	12.1	9.7	9.7
57.5°	4281.1	2897.7	133.5	75.2	36.4	17.0	9.7	9.7	7.3	7.3	7.3
60°	4421.8	2824.9	111.6	63.1	24.3	12.1	7.3	4.9	4.9	2.4	4.9
62.5°	4613.6	2778.8	97.1	48.5	17.0	7.3	4.9	2.4	2.4	0.0	0.0
65°	4754.3	2691.4	82.5	34.0	9.7	4.9	2.4	2.4	0.0	0.0	0.0
67.5°	4759.2	2533.7	60.7	19.4	7.3	4.9	2.4	0.0	0.0	0.0	0.0
70°	4375.7	2160.0	38.8	9.7	4.9	2.4	2.4	0.0	0.0	0.0	0.0
71°	4023.8	1912.4	31.5	7.3	4.9	2.4	0.0	0.0	0.0	0.0	0.0
72.5°	3315.2	1405.2	24.3	7.3	2.4	2.4	0.0	0.0	0.0	0.0	0.0
75°	1827.5	509.7	12.1	4.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	584.9	155.3	7.3	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	99.5	24.3	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	34.0	9.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.7	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.9	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)