

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: P265847

Luminaire Tested: **ARCH-M-AF48-140-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265847
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-AF48-140-D-U-T3-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 905mA 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: 11096.6 lumens
Efficiency: N/A
Efficacy: 78.7 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): 141
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

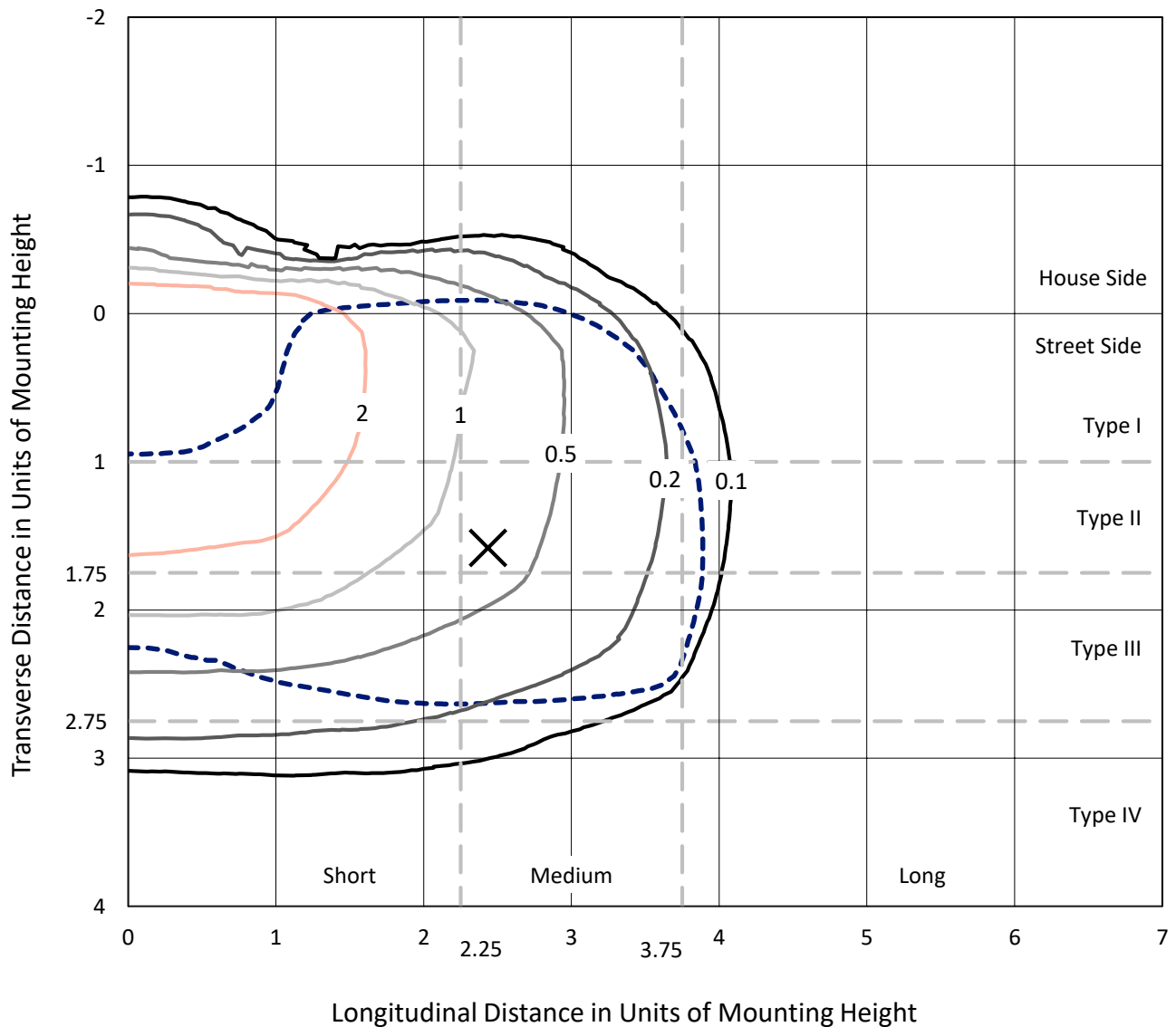


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

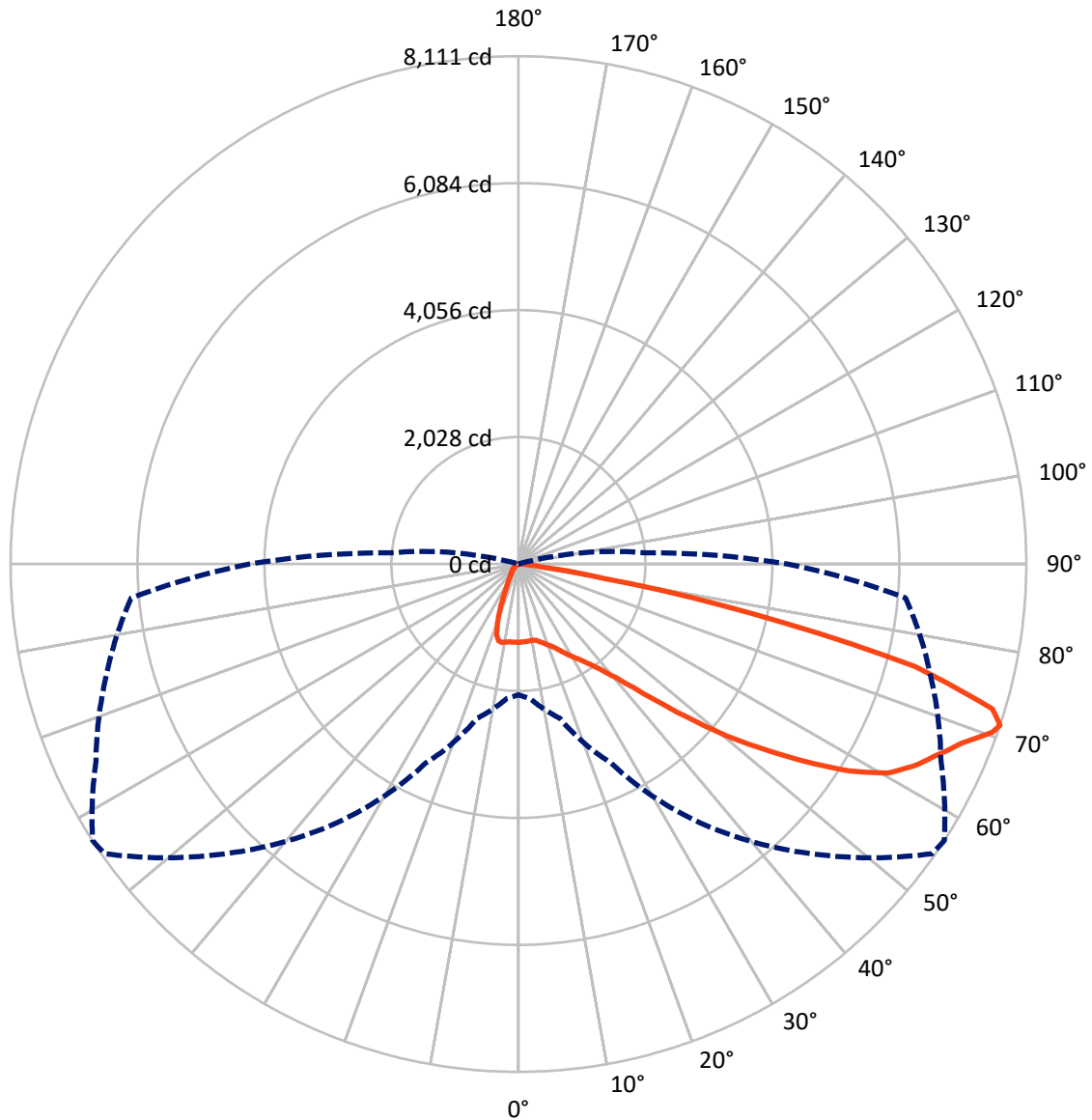


Based on 20 foot mounting height. Maximum calculated value = 3.9 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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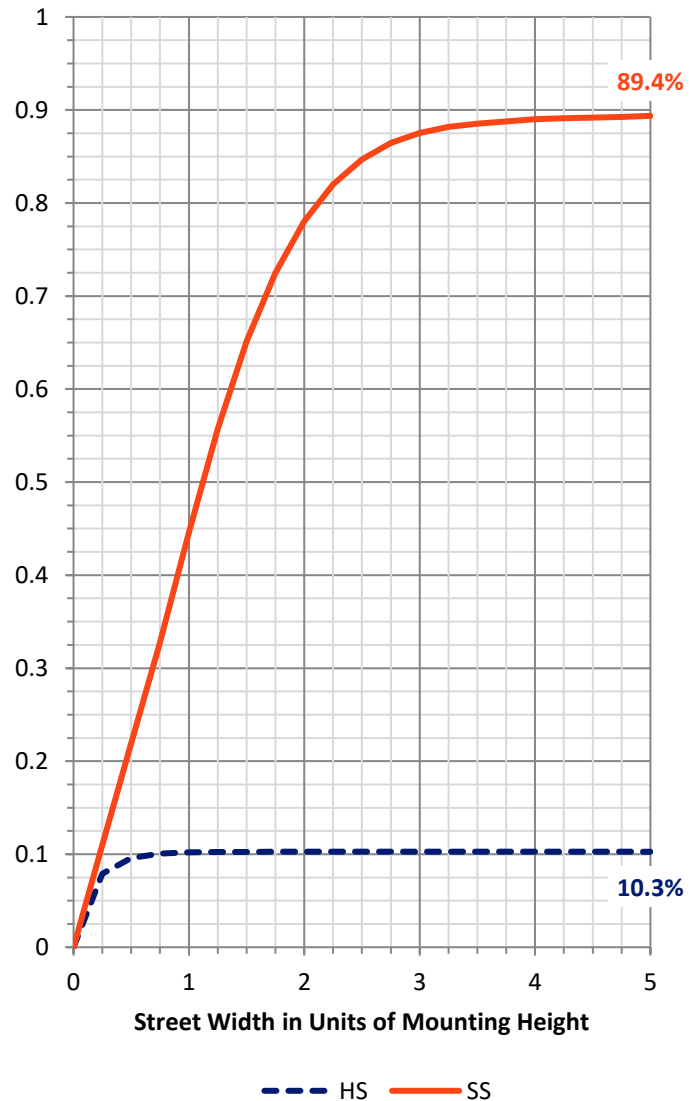
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1149.9	0.0	1149.9
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	9946.7	0.0	9946.7
	% Fixture	89.6	0.0	89.6
Total	Lumens	11096.6	0.0	11096.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.8	1.1
10°-20°	314.9	2.8
20°-30°	491.2	4.4
30°-40°	830.3	7.5
40°-50°	1612.6	14.5
50°-60°	2708.1	24.4
60°-70°	3231.9	29.1
70°-80°	1703.2	15.3
80°-90°	86.6	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°	11096.6	100.0
0°-180°	11096.6	100.0



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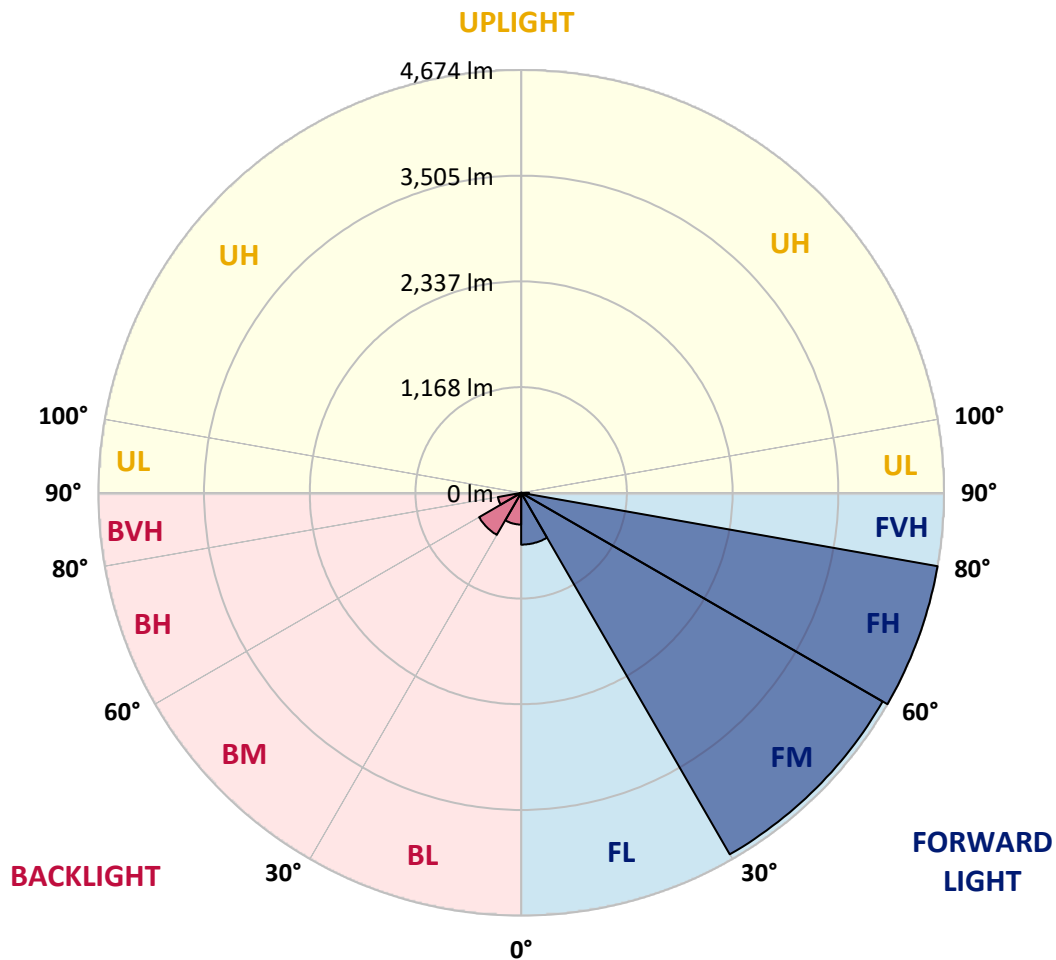
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	572.9	5.2			
FM	(30°-60°)	4614.1	41.6			
FH	(60°-80°)	4674.0	42.1			G2/5000
FVH	(80°-90°)	85.7	0.8			G1/100
BL	(0°-30°)	351.0	3.2	B1/500		
BM	(30°-60°)	537.0	4.8	B1/1000		
BH	(60°-80°)	261.1	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°	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0
2.5°	1236.0	1236.0	1236.0	1238.6	1241.2	1241.2	1246.3	1243.8	1243.8	1243.8	1249.0
5°	1202.4	1204.9	1207.5	1212.7	1223.0	1230.8	1243.8	1243.8	1246.3	1251.5	1254.0
7.5°	1155.8	1158.5	1166.2	1176.5	1197.3	1215.2	1236.0	1241.2	1249.0	1261.8	1267.0
10°	1127.5	1132.6	1143.0	1155.8	1179.0	1202.4	1228.3	1236.0	1259.2	1282.5	1295.4
12.5°	1119.6	1122.3	1132.6	1153.2	1181.7	1210.1	1243.8	1251.5	1285.1	1321.2	1342.0
15°	1132.6	1135.2	1140.3	1163.6	1197.3	1233.5	1277.4	1287.7	1329.1	1370.5	1396.2
17.5°	1155.8	1155.8	1161.0	1181.7	1217.9	1259.2	1316.1	1331.6	1378.2	1424.7	1453.2
20°	1171.3	1171.3	1179.0	1199.7	1241.2	1295.4	1362.6	1383.4	1435.1	1486.9	1512.7
22.5°	1186.9	1189.4	1197.3	1220.4	1267.0	1342.0	1419.6	1440.3	1499.7	1554.1	1579.8
25°	1230.8	1228.3	1230.8	1251.5	1305.7	1398.9	1497.1	1522.9	1585.1	1644.5	1657.5
27.5°	1352.4	1347.2	1313.5	1300.7	1342.0	1458.4	1595.4	1621.4	1693.7	1753.1	1753.1
30°	1631.6	1621.4	1538.4	1432.4	1398.9	1512.7	1688.5	1724.7	1817.8	1869.6	1854.0
32.5°	1985.9	1962.5	1856.5	1675.6	1541.1	1585.1	1786.8	1828.1	1947.0	1991.1	1957.3
35°	2373.7	2371.2	2239.3	2006.5	1815.1	1735.0	1913.5	1962.5	2112.5	2151.4	2097.1
37.5°	2784.8	2795.2	2707.3	2386.6	2161.7	1980.8	2081.6	2138.4	2321.9	2368.6	2316.8
40°	3242.5	3239.9	3206.3	2826.2	2578.0	2329.8	2324.5	2376.2	2598.6	2671.1	2598.6
42.5°	3821.7	3816.5	3695.1	3353.7	3082.3	2784.8	2678.8	2696.9	2945.2	3064.1	2958.1
45°	4411.2	4375.0	4235.5	3940.7	3700.2	3348.5	3146.9	3146.9	3358.9	3521.7	3356.2
47.5°	4739.6	4703.4	4646.7	4483.7	4411.2	4018.3	3720.9	3684.7	3850.1	4015.7	3782.9
50°	5171.5	5171.5	5029.3	4967.2	5091.4	4814.6	4354.4	4318.2	4398.3	4530.2	4225.1
52.5°	5512.8	5450.7	5349.9	5404.3	5758.4	5631.7	4987.8	4918.1	4980.2	5013.8	4610.5
55°	5655.0	5595.5	5587.7	5786.9	6335.0	6159.3	5637.0	5574.9	5569.8	5404.3	4946.5
57.5°	5683.4	5631.7	5730.0	6079.1	6896.2	6591.0	6283.4	6236.8	6092.0	5678.2	5290.5
60°	5443.0	5468.8	5706.8	6239.4	7227.1	6965.9	6828.9	6779.9	6446.2	5910.9	5673.2
62.5°	4949.1	5011.1	5455.9	6254.9	7105.7	7118.6	7131.5	7097.9	6720.4	6123.0	6058.3
65°	4364.8	4382.8	4918.1	6040.4	6893.7	7072.0	7353.9	7351.3	6929.9	6361.0	6492.8
67.5°	3596.8	3627.9	4090.6	5316.3	6469.6	7051.3	7646.1	7638.3	7167.7	6632.5	6751.4
70°	2676.2	2715.0	3090.0	4134.5	5523.1	6792.8	8028.7	8033.9	7418.6	6839.2	6573.0
71°	2086.8	2156.6	2549.6	3511.5	5039.6	6531.5	8065.0	8111.4	7446.9	6810.9	6205.9
72.5°	1024.0	1106.7	1600.6	2472.0	4147.6	5947.1	7827.0	7917.5	7268.5	6456.6	5306.0
75°	266.3	281.9	478.3	1011.0	2223.8	3940.7	6311.9	6541.9	5942.1	4915.5	3242.5
77.5°	168.1	173.3	224.9	393.0	832.5	1497.1	3707.9	3821.7	3395.1	2490.1	1143.0
80°	118.9	121.5	142.2	253.4	486.2	436.9	1334.3	1383.4	1228.3	659.4	204.3
82.5°	72.5	72.5	103.5	163.0	299.9	238.0	351.6	375.0	330.9	183.7	67.3
85°	41.4	43.9	64.7	111.2	142.2	116.4	132.0	139.6	142.2	121.5	28.4
87.5°	33.5	36.2	57.0	93.1	77.6	57.0	57.0	59.5	62.1	72.5	12.9
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°	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0	1254.0
2.5°	1249.0	1249.0	1251.5	1249.0	1249.0	1249.0	1251.5	1251.5	1251.5	1256.6	1259.2
5°	1254.0	1254.0	1254.0	1251.5	1249.0	1249.0	1254.0	1256.6	1256.6	1264.5	1264.5
7.5°	1267.0	1267.0	1261.8	1256.6	1251.5	1243.8	1246.3	1249.0	1246.3	1249.0	1249.0
10°	1295.4	1295.4	1287.7	1277.4	1261.8	1238.6	1207.5	1168.8	1132.6	1119.6	1114.4
12.5°	1342.0	1339.5	1323.9	1305.7	1272.2	1192.1	1075.7	938.5	824.9	793.8	783.5
15°	1393.7	1388.5	1370.5	1339.5	1249.0	1036.9	793.8	618.0	509.3	483.6	478.3
17.5°	1448.0	1440.3	1414.4	1352.4	1143.0	770.6	511.9	387.9	328.4	323.2	325.8
20°	1504.9	1494.6	1458.4	1326.4	923.1	514.5	330.9	299.9	294.7	294.7	297.3
22.5°	1569.6	1556.7	1507.4	1233.5	672.3	341.4	284.5	281.9	279.3	276.7	276.7
25°	1644.5	1629.0	1554.1	1065.3	462.8	279.3	271.5	263.7	258.6	253.4	250.7
27.5°	1735.0	1714.3	1590.2	858.5	318.0	261.1	255.9	243.0	232.8	222.4	222.4
30°	1825.5	1799.7	1579.8	646.4	258.6	243.0	232.8	217.2	201.7	191.3	188.7
32.5°	1921.3	1895.3	1512.7	434.4	235.3	222.4	209.5	186.2	168.1	155.1	152.5
35°	2063.4	2042.7	1380.8	287.0	212.0	196.5	178.5	155.1	132.0	118.9	116.4
37.5°	2275.4	2249.5	1217.9	219.7	186.2	163.0	147.4	121.5	98.3	85.2	82.7
40°	2559.9	2482.3	1024.0	193.9	163.0	134.4	113.7	87.9	69.8	62.1	62.1
42.5°	2890.8	2707.3	814.6	175.8	144.7	111.2	82.7	59.5	49.1	46.5	46.5
45°	3242.5	2916.7	605.1	163.0	126.8	87.9	59.5	41.4	36.2	33.5	33.5
47.5°	3604.4	3087.4	421.5	147.4	106.0	67.3	41.4	31.0	25.8	23.3	23.3
50°	3943.3	3198.5	297.3	132.0	90.5	49.1	31.0	23.3	18.1	18.1	18.1
52.5°	4178.6	3188.3	214.7	113.7	69.8	33.5	20.8	15.5	15.5	15.5	15.5
55°	4385.4	3149.5	168.1	98.3	54.3	23.3	15.5	12.9	12.9	10.3	10.3
57.5°	4561.2	3087.4	142.2	80.2	38.7	18.1	10.3	10.3	7.7	7.7	7.7
60°	4711.3	3009.9	118.9	67.3	25.8	12.9	7.7	5.2	5.2	2.5	5.2
62.5°	4915.5	2960.6	103.5	51.7	18.1	7.7	5.2	2.5	2.5	0.0	0.0
65°	5065.5	2867.6	87.9	36.2	10.3	5.2	2.5	2.5	0.0	0.0	0.0
67.5°	5070.7	2699.5	64.7	20.8	7.7	5.2	2.5	0.0	0.0	0.0	0.0
70°	4662.2	2301.3	41.4	10.3	5.2	2.5	2.5	0.0	0.0	0.0	0.0
71°	4287.3	2037.5	33.5	7.7	5.2	2.5	0.0	0.0	0.0	0.0	0.0
72.5°	3532.1	1497.1	25.8	7.7	2.5	2.5	0.0	0.0	0.0	0.0	0.0
75°	1947.0	543.0	12.9	5.2	2.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	623.2	165.5	7.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	106.0	25.8	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	36.2	10.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	10.3	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.2	2.5	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)