

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: P231217

Luminaire Tested: **ARCH-M-AF48-160-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231217
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-AF48-160-D-U-T3-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 1030mA 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: 12347 lumens
Efficiency: N/A
Efficacy: 76.7 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 - G3

Input Watts (W): 161
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

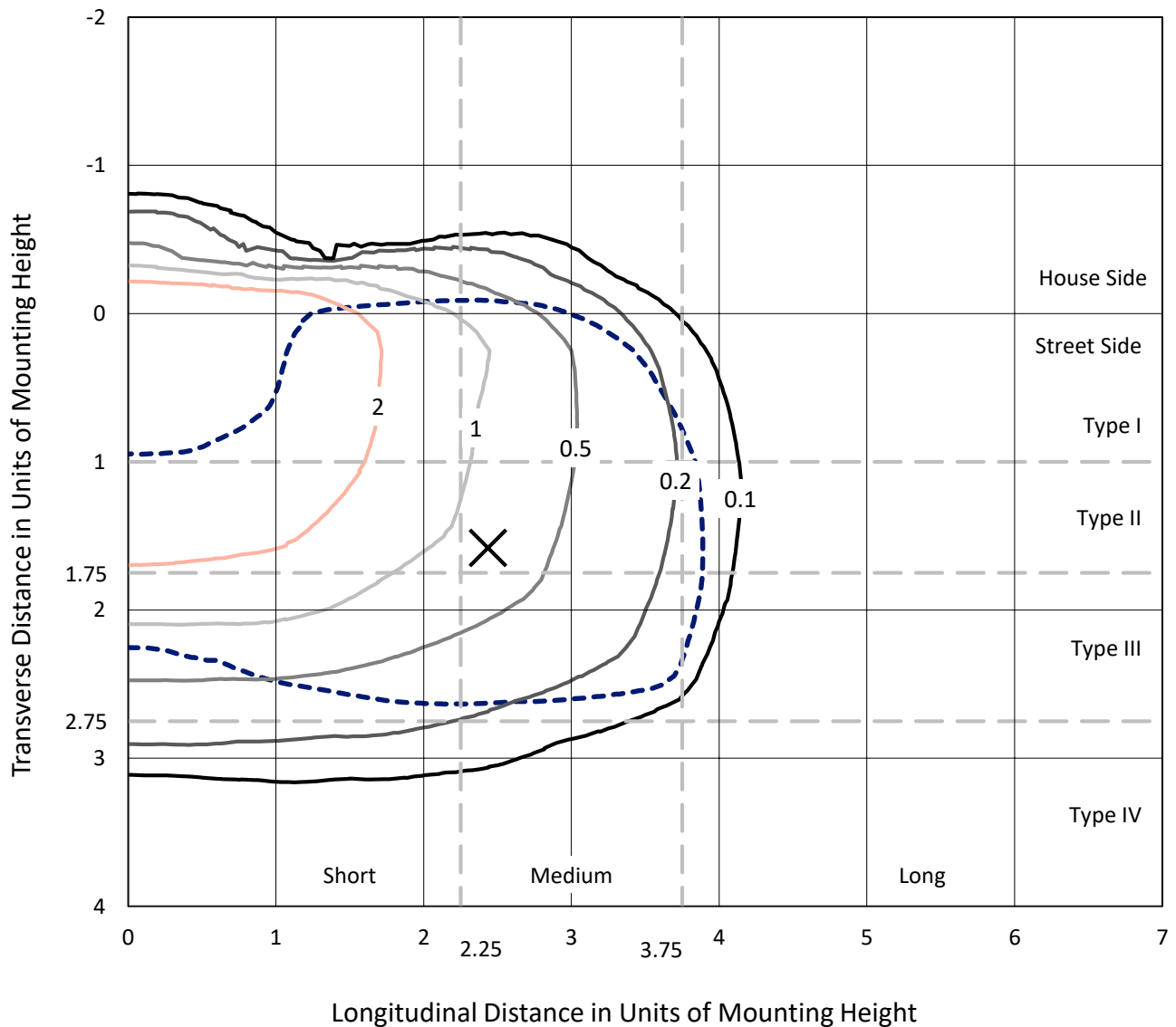


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

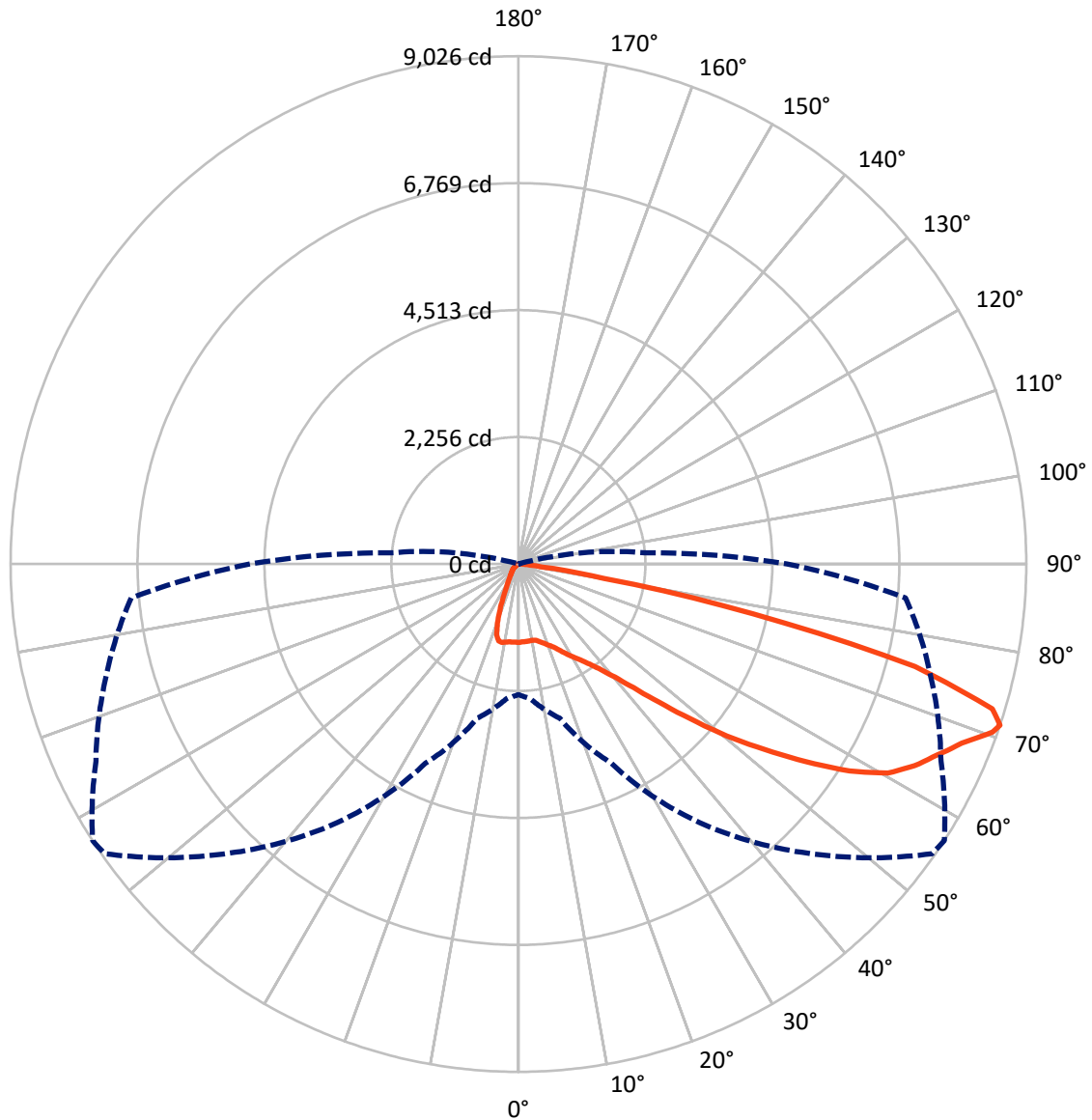


Based on 20 foot mounting height. Maximum calculated value = 4.3 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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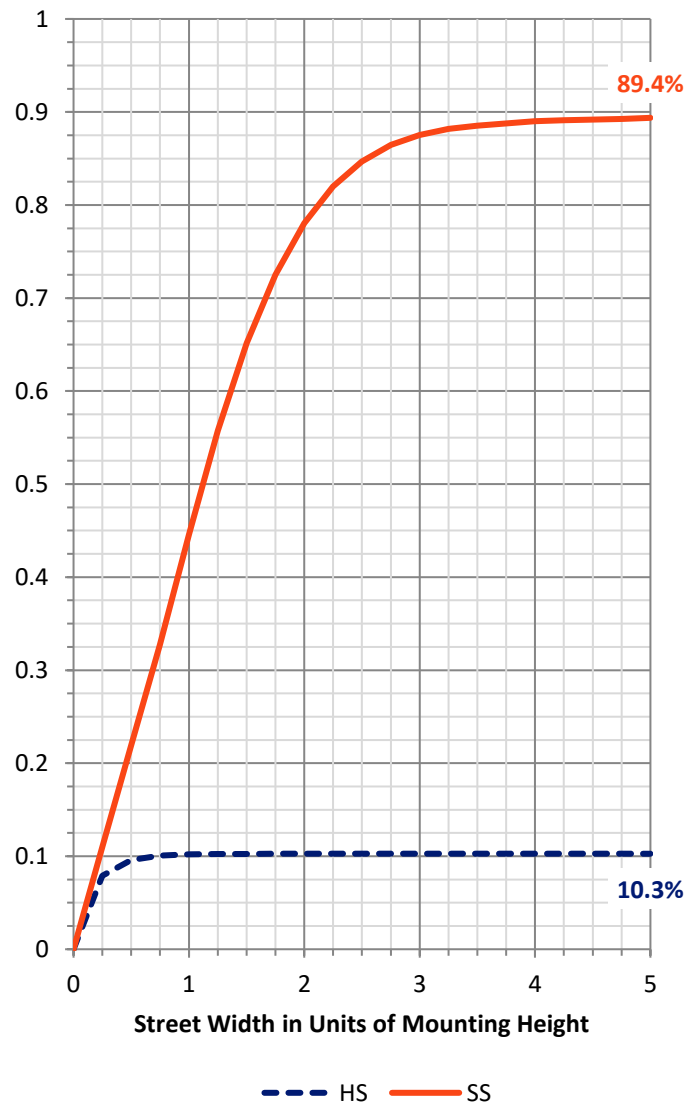
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1279.5	0.0	1279.5
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	11067.5	0.0	11067.5
	% Fixture	89.6	0.0	89.6
Total	Lumens	12347.0	0.0	12347.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.0	1.1
10°-20°	350.4	2.8
20°-30°	546.6	4.4
30°-40°	923.8	7.5
40°-50°	1794.3	14.5
50°-60°	3013.3	24.4
60°-70°	3596.1	29.1
70°-80°	1895.2	15.3
80°-90°	96.3	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°	12347.0	100.0
0°-180°	12347.0	100.0

Coefficient of Utilization



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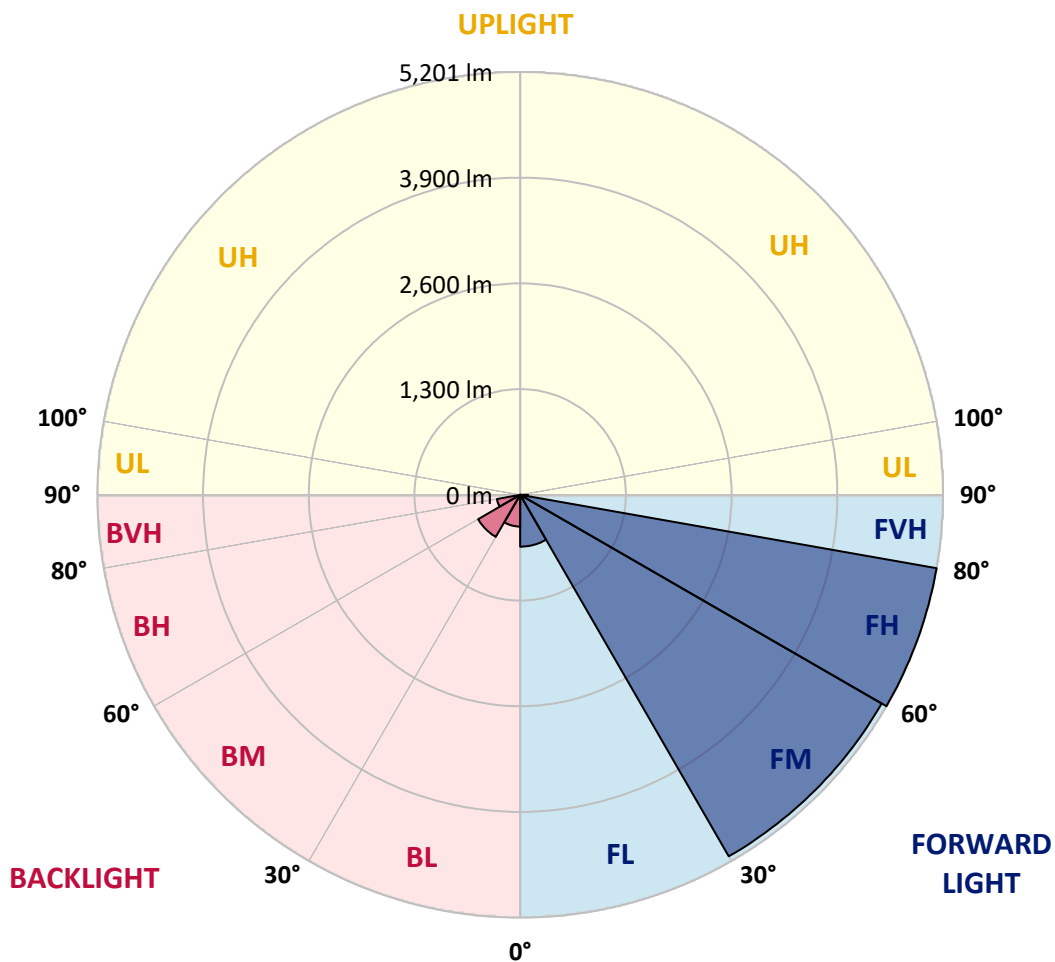
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	637.5	5.2			
FM	(30°-60°)	5134.0	41.6			
FH	(60°-80°)	5200.6	42.1			G3/7500
FVH	(80°-90°)	95.4	0.8			G1/100
BL	(0°-30°)	390.6	3.2	B1/500		
BM	(30°-60°)	597.5	4.8	B1/1000		
BH	(60°-80°)	290.6	2.4	B1/500		G1/500
BVH	(80°-90°)	0.9	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-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4
2.5°	1375.3	1375.3	1375.3	1378.1	1381.0	1381.0	1386.8	1383.9	1383.9	1383.9	1389.6
5°	1337.9	1340.7	1343.6	1349.4	1360.9	1369.5	1383.9	1383.9	1386.8	1392.5	1395.4
7.5°	1286.1	1288.9	1297.6	1309.1	1332.1	1352.2	1375.3	1381.0	1389.6	1404.0	1409.8
10°	1254.4	1260.2	1271.7	1286.1	1312.0	1337.9	1366.6	1375.3	1401.2	1427.0	1441.4
12.5°	1245.8	1248.7	1260.2	1283.2	1314.8	1346.5	1383.9	1392.5	1429.9	1470.2	1493.2
15°	1260.2	1263.1	1268.8	1294.7	1332.1	1372.4	1421.3	1432.8	1478.8	1524.9	1553.6
17.5°	1286.1	1286.1	1291.8	1314.8	1355.1	1401.2	1464.4	1481.7	1533.5	1585.3	1616.9
20°	1303.3	1303.3	1312.0	1335.0	1381.0	1441.4	1516.2	1539.3	1596.8	1654.3	1683.1
22.5°	1320.6	1323.5	1332.1	1358.0	1409.8	1493.2	1579.5	1602.6	1668.7	1729.1	1757.9
25°	1369.5	1366.6	1369.5	1392.5	1452.9	1556.5	1665.8	1694.6	1763.7	1829.8	1844.2
27.5°	1504.7	1499.0	1461.6	1447.2	1493.2	1622.7	1775.2	1803.9	1884.5	1950.7	1950.7
30°	1815.5	1803.9	1711.9	1593.9	1556.5	1683.1	1878.8	1919.0	2022.6	2080.2	2062.9
32.5°	2209.6	2183.7	2065.8	1864.4	1714.8	1763.7	1988.1	2034.1	2166.5	2215.4	2178.0
35°	2641.2	2638.3	2491.6	2232.6	2019.7	1930.5	2129.1	2183.7	2350.6	2393.8	2333.3
37.5°	3098.6	3110.2	3012.3	2655.6	2405.3	2203.9	2316.1	2379.4	2583.6	2635.4	2577.9
40°	3607.9	3605.0	3567.6	3144.7	2868.5	2592.3	2586.5	2644.1	2891.5	2972.1	2891.5
42.5°	4252.4	4246.6	4111.4	3731.6	3429.5	3098.6	2980.7	3000.8	3277.0	3409.4	3291.4
45°	4908.3	4868.1	4712.7	4384.7	4117.1	3725.9	3501.4	3501.4	3737.4	3918.6	3734.5
47.5°	5273.7	5233.5	5170.2	4988.9	4908.3	4471.0	4140.2	4099.9	4284.0	4468.2	4209.2
50°	5754.2	5754.2	5596.0	5526.9	5665.0	5357.2	4845.1	4804.8	4894.0	5040.7	4701.2
52.5°	6134.0	6064.9	5952.7	6013.2	6407.3	6266.3	5549.9	5472.3	5541.3	5578.7	5129.9
55°	6292.2	6226.1	6217.4	6439.0	7048.9	6853.3	6272.1	6203.0	6197.3	6013.2	5503.9
57.5°	6323.9	6266.3	6375.7	6764.1	7673.3	7333.8	6991.4	6939.6	6778.5	6318.1	5886.6
60°	6056.3	6085.1	6349.8	6942.5	8041.5	7750.9	7598.4	7543.8	7172.6	6577.1	6312.4
62.5°	5506.8	5575.8	6070.7	6959.7	7906.3	7920.7	7935.1	7897.7	7477.6	6813.0	6741.1
65°	4856.6	4876.7	5472.3	6720.9	7670.4	7868.9	8182.5	8179.6	7710.7	7077.7	7224.4
67.5°	4002.1	4036.6	4551.6	5915.3	7198.5	7845.9	8507.6	8499.0	7975.3	7379.8	7512.1
70°	2977.8	3021.0	3438.1	4600.5	6145.5	7558.2	8933.4	8939.2	8254.4	7610.0	7313.6
71°	2321.8	2399.5	2836.8	3907.1	5607.5	7267.6	8973.7	9025.5	8286.1	7578.3	6905.1
72.5°	1139.3	1231.4	1780.9	2750.5	4614.9	6617.4	8709.0	8809.7	8087.6	7184.1	5903.8
75°	296.3	313.6	532.3	1124.9	2474.3	4384.7	7023.0	7279.1	6611.6	5469.4	3607.9
77.5°	187.0	192.8	250.3	437.3	926.4	1665.8	4125.8	4252.4	3777.6	2770.7	1271.7
80°	132.3	135.2	158.2	282.0	540.9	486.2	1484.6	1539.3	1366.6	733.7	227.3
82.5°	80.6	80.6	115.1	181.3	333.7	264.7	391.3	417.2	368.3	204.3	74.8
85°	46.0	48.9	71.9	123.7	158.2	129.5	146.7	155.4	158.2	135.2	31.6
87.5°	37.4	40.3	63.3	103.6	86.3	63.3	63.3	66.2	69.1	80.6	14.4
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°	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4	1395.4
2.5°	1389.6	1389.6	1392.5	1389.6	1389.6	1389.6	1392.5	1392.5	1392.5	1398.3	1401.2
5°	1395.4	1395.4	1395.4	1392.5	1389.6	1389.6	1395.4	1398.3	1398.3	1406.9	1406.9
7.5°	1409.8	1409.8	1404.0	1398.3	1392.5	1383.9	1386.8	1389.6	1386.8	1389.6	1389.6
10°	1441.4	1441.4	1432.8	1421.3	1404.0	1378.1	1343.6	1300.5	1260.2	1245.8	1240.0
12.5°	1493.2	1490.3	1473.1	1452.9	1415.5	1326.3	1196.9	1044.4	917.8	883.3	871.8
15°	1550.8	1545.0	1524.9	1490.3	1389.6	1153.7	883.3	687.6	566.8	538.0	532.3
17.5°	1611.2	1602.6	1573.8	1504.7	1271.7	857.4	569.7	431.6	365.4	359.6	362.5
20°	1674.5	1663.0	1622.7	1476.0	1027.1	572.5	368.3	333.7	328.0	328.0	330.9
22.5°	1746.4	1732.0	1677.4	1372.4	748.0	379.8	316.5	313.6	310.7	307.9	307.9
25°	1829.8	1812.6	1729.1	1185.4	515.0	310.7	302.1	293.5	287.7	282.0	279.1
27.5°	1930.5	1907.5	1769.4	955.2	353.9	290.6	284.8	270.4	258.9	247.4	247.4
30°	2031.2	2002.5	1757.9	719.3	287.7	270.4	258.9	241.7	224.4	212.9	210.0
32.5°	2137.7	2108.9	1683.1	483.4	261.8	247.4	233.0	207.2	187.0	172.6	169.7
35°	2295.9	2272.9	1536.4	319.4	235.9	218.7	198.5	172.6	146.7	132.3	129.5
37.5°	2531.9	2503.1	1355.1	244.6	207.2	181.3	164.0	135.2	109.3	94.9	92.1
40°	2848.3	2762.0	1139.3	215.8	181.3	149.6	126.6	97.8	77.7	69.1	69.1
42.5°	3216.6	3012.3	906.3	195.6	161.1	123.7	92.1	66.2	54.7	51.8	51.8
45°	3607.9	3245.4	673.2	181.3	141.0	97.8	66.2	46.0	40.3	37.4	37.4
47.5°	4010.7	3435.3	469.0	164.0	118.0	74.8	46.0	34.5	28.8	25.9	25.9
50°	4387.6	3559.0	330.9	146.7	100.7	54.7	34.5	25.9	20.1	20.1	20.1
52.5°	4649.4	3547.5	238.8	126.6	77.7	37.4	23.0	17.3	17.3	17.3	17.3
55°	4879.6	3504.3	187.0	109.3	60.4	25.9	17.3	14.4	14.4	11.5	11.5
57.5°	5075.2	3435.3	158.2	89.2	43.2	20.1	11.5	11.5	8.6	8.6	8.6
60°	5242.1	3349.0	132.3	74.8	28.8	14.4	8.6	5.8	5.8	2.9	5.8
62.5°	5469.4	3294.3	115.1	57.5	20.1	8.6	5.8	2.9	2.9	0.0	0.0
65°	5636.3	3190.7	97.8	40.3	11.5	5.8	2.9	2.9	0.0	0.0	0.0
67.5°	5642.0	3003.7	71.9	23.0	8.6	5.8	2.9	0.0	0.0	0.0	0.0
70°	5187.4	2560.6	46.0	11.5	5.8	2.9	2.9	0.0	0.0	0.0	0.0
71°	4770.2	2267.2	37.4	8.6	5.8	2.9	0.0	0.0	0.0	0.0	0.0
72.5°	3930.1	1665.8	28.8	8.6	2.9	2.9	0.0	0.0	0.0	0.0	0.0
75°	2166.5	604.2	14.4	5.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	693.4	184.1	8.6	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	118.0	28.8	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	40.3	11.5	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	11.5	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.8	2.9	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)