

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: P231215

Luminaire Tested: **ARCH-M-AF48-140-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231215
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-T3-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 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: 11306 lumens
Efficiency: N/A
Efficacy: 80.2 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

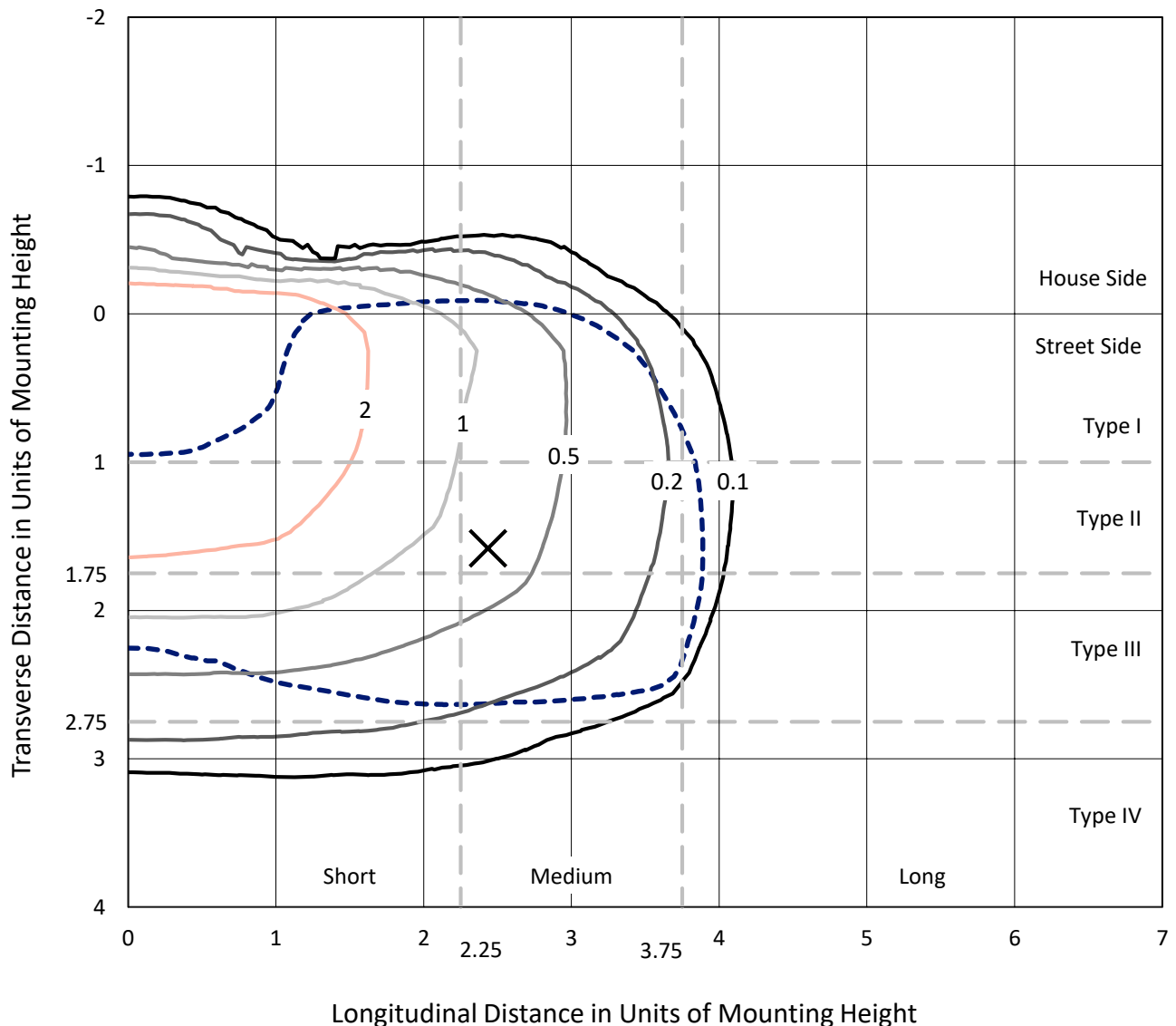


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

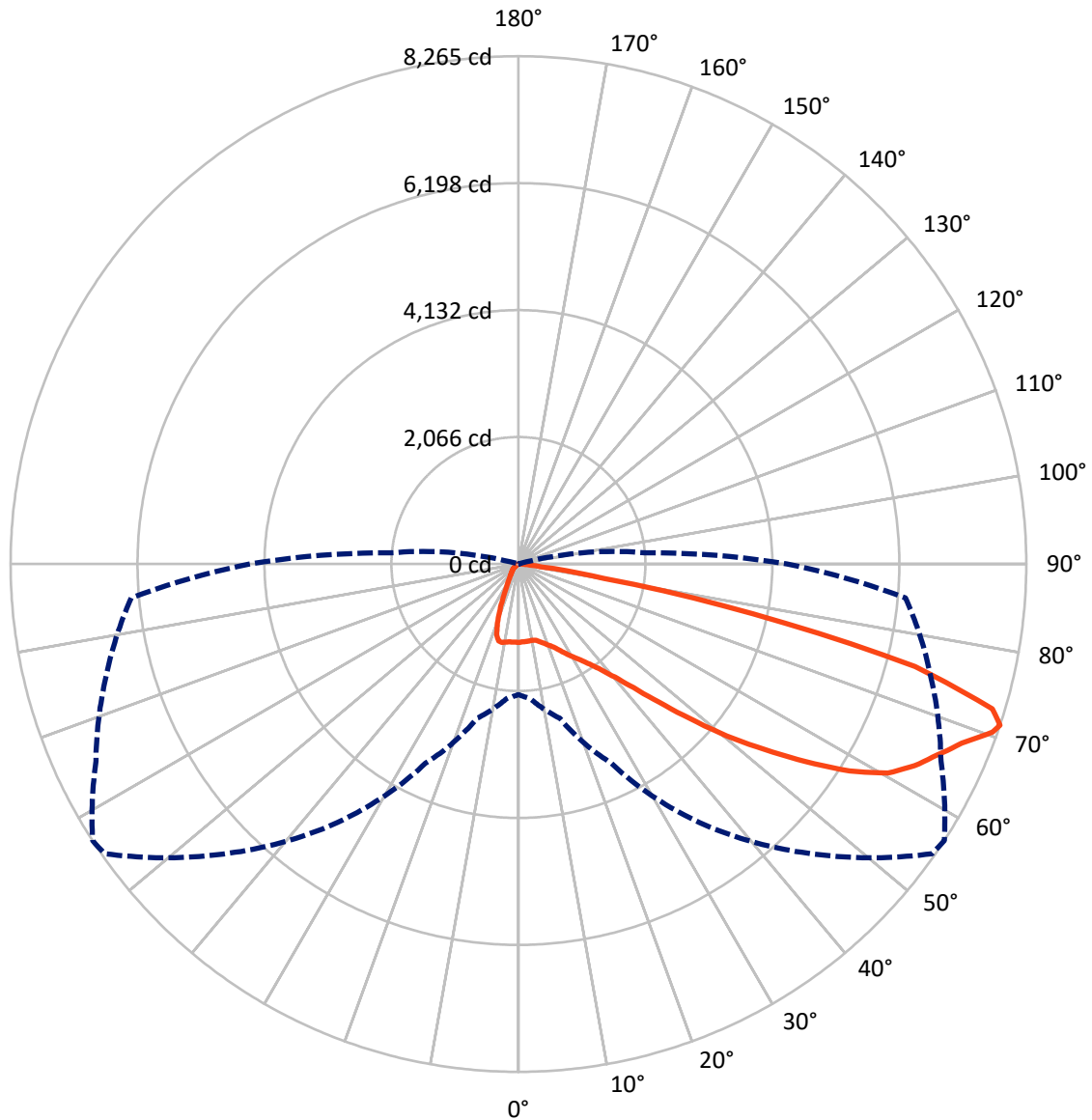


Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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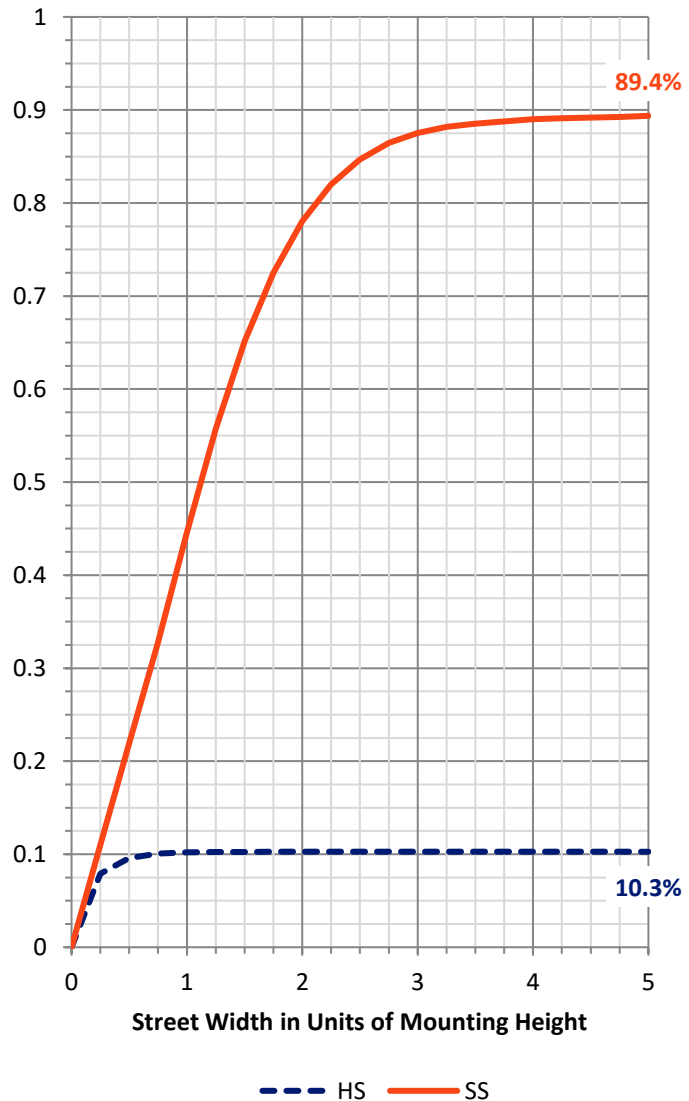
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1171.6	0.0	1171.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	10134.4	0.0	10134.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	11306.0	0.0	11306.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.0	1.1
10°-20°	320.8	2.8
20°-30°	500.5	4.4
30°-40°	846.0	7.5
40°-50°	1643.1	14.5
50°-60°	2759.2	24.4
60°-70°	3292.9	29.1
70°-80°	1735.4	15.3
80°-90°	88.2	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°	11306.0	100.0
0°-180°	11306.0	100.0

Coefficient of Utilization



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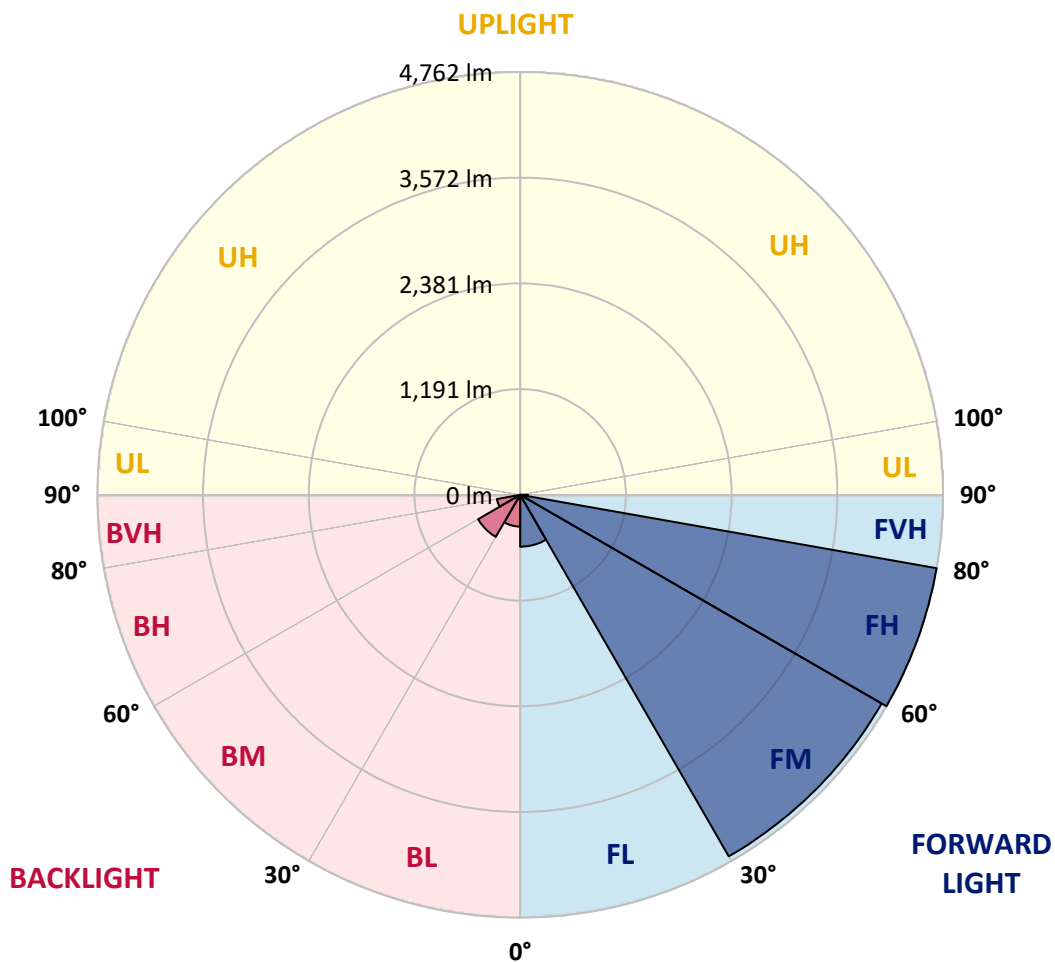
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	583.7	5.2			
FM	(30°-60°)	4701.1	41.6			
FH	(60°-80°)	4762.2	42.1			G2/5000
FVH	(80°-90°)	87.3	0.8			G1/100
BL	(0°-30°)	357.6	3.2	B1/500		
BM	(30°-60°)	547.1	4.8	B1/1000		
BH	(60°-80°)	266.1	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°	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7
2.5°	1259.3	1259.3	1259.3	1261.9	1264.6	1264.6	1269.8	1267.2	1267.2	1267.2	1272.5
5°	1225.1	1227.7	1230.3	1235.6	1246.1	1254.0	1267.2	1267.2	1269.8	1275.1	1277.7
7.5°	1177.6	1180.3	1188.2	1198.7	1219.8	1238.2	1259.3	1264.6	1272.5	1285.7	1290.9
10°	1148.7	1153.9	1164.5	1177.6	1201.3	1225.1	1251.4	1259.3	1283.0	1306.7	1319.9
12.5°	1140.8	1143.4	1153.9	1175.0	1204.0	1233.0	1267.2	1275.1	1309.4	1346.2	1367.3
15°	1153.9	1156.6	1161.8	1185.5	1219.8	1256.7	1301.5	1312.0	1354.2	1396.3	1422.6
17.5°	1177.6	1177.6	1182.9	1204.0	1240.9	1283.0	1341.0	1356.8	1404.2	1451.6	1480.6
20°	1193.4	1193.4	1201.3	1222.4	1264.6	1319.9	1388.4	1409.5	1462.2	1514.9	1541.2
22.5°	1209.3	1211.9	1219.8	1243.5	1290.9	1367.3	1446.4	1467.4	1528.0	1583.4	1609.7
25°	1254.0	1251.4	1254.0	1275.1	1330.4	1425.3	1525.4	1551.7	1615.0	1675.6	1688.7
27.5°	1377.9	1372.6	1338.3	1325.2	1367.3	1485.9	1625.5	1651.9	1725.6	1786.2	1786.2
30°	1662.4	1651.9	1567.5	1459.5	1425.3	1541.2	1720.4	1757.2	1852.1	1904.8	1889.0
32.5°	2023.3	1999.6	1891.6	1707.2	1570.2	1615.0	1820.5	1862.6	1983.8	2028.6	1994.3
35°	2418.5	2415.9	2281.5	2044.4	1849.4	1767.8	1949.6	1999.6	2152.4	2191.9	2136.6
37.5°	2837.4	2847.9	2758.4	2431.7	2202.5	2018.1	2120.8	2178.8	2365.8	2413.2	2360.5
40°	3303.7	3301.1	3266.8	2879.5	2626.6	2373.7	2368.4	2421.1	2647.7	2721.5	2647.7
42.5°	3893.8	3888.6	3764.8	3417.0	3140.4	2837.4	2729.4	2747.8	3000.7	3121.9	3013.9
45°	4494.5	4457.6	4315.4	4015.0	3770.0	3411.7	3206.2	3206.2	3422.3	3588.2	3419.6
47.5°	4829.1	4792.2	4734.3	4568.3	4494.5	4094.1	3791.1	3754.2	3922.8	4091.4	3854.3
50°	5269.1	5269.1	5124.2	5060.9	5187.4	4905.5	4436.6	4399.7	4481.3	4615.7	4304.8
52.5°	5616.8	5553.6	5450.9	5506.2	5867.1	5738.0	5082.0	5010.9	5074.1	5108.4	4697.4
55°	5761.7	5701.1	5693.2	5896.1	6454.6	6275.5	5743.3	5680.1	5674.8	5506.2	5039.9
57.5°	5790.7	5738.0	5838.1	6193.8	7026.3	6715.4	6401.9	6354.5	6207.0	5785.4	5390.3
60°	5545.7	5572.0	5814.4	6357.1	7363.5	7097.4	6957.8	6907.8	6567.9	6022.5	5780.2
62.5°	5042.5	5105.7	5558.9	6372.9	7239.7	7252.9	7266.0	7231.8	6847.2	6238.6	6172.7
65°	4447.1	4465.5	5010.9	6154.3	7023.7	7205.5	7492.6	7490.0	7060.6	6481.0	6615.3
67.5°	3664.6	3696.3	4167.8	5416.6	6591.6	7184.4	7790.3	7782.4	7302.9	6757.6	6878.8
70°	2726.7	2766.3	3148.3	4212.6	5627.4	6920.9	8180.2	8185.5	7558.5	6968.3	6697.0
71°	2126.1	2197.2	2597.7	3577.7	5134.7	6654.8	8217.1	8264.5	7587.5	6939.4	6322.9
72.5°	1043.3	1127.6	1630.8	2518.6	4225.8	6059.4	7974.7	8066.9	7405.7	6578.4	5406.1
75°	271.4	287.2	487.4	1030.1	2265.7	4015.0	6430.9	6665.4	6054.2	5008.3	3303.7
77.5°	171.2	176.5	229.2	400.4	848.3	1525.4	3777.9	3893.8	3459.1	2537.1	1164.5
80°	121.2	123.8	144.9	258.2	495.3	445.2	1359.4	1409.5	1251.4	671.8	208.1
82.5°	73.8	73.8	105.4	166.0	305.6	242.4	358.3	382.0	337.2	187.1	68.5
85°	42.2	44.8	65.9	113.3	144.9	118.6	134.4	142.3	144.9	123.8	29.0
87.5°	34.2	36.9	58.0	94.8	79.0	58.0	58.0	60.6	63.2	73.8	13.2
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°	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7	1277.7
2.5°	1272.5	1272.5	1275.1	1272.5	1272.5	1272.5	1275.1	1275.1	1275.1	1280.4	1283.0
5°	1277.7	1277.7	1277.7	1275.1	1272.5	1272.5	1277.7	1280.4	1280.4	1288.3	1288.3
7.5°	1290.9	1290.9	1285.7	1280.4	1275.1	1267.2	1269.8	1272.5	1269.8	1272.5	1272.5
10°	1319.9	1319.9	1312.0	1301.5	1285.7	1261.9	1230.3	1190.8	1153.9	1140.8	1135.5
12.5°	1367.3	1364.7	1348.9	1330.4	1296.2	1214.5	1096.0	956.3	840.4	808.8	798.3
15°	1420.0	1414.7	1396.3	1364.7	1272.5	1056.4	808.8	629.7	519.0	492.7	487.4
17.5°	1475.3	1467.4	1441.1	1377.9	1164.5	785.1	521.6	395.2	334.6	329.3	332.0
20°	1533.3	1522.8	1485.9	1351.5	940.5	524.3	337.2	305.6	300.3	300.3	303.0
22.5°	1599.2	1586.0	1535.9	1256.7	685.0	347.8	289.8	287.2	284.5	281.9	281.9
25°	1675.6	1659.8	1583.4	1085.4	471.6	284.5	276.6	268.7	263.5	258.2	255.5
27.5°	1767.8	1746.7	1620.2	874.7	324.0	266.1	260.8	247.6	237.1	226.6	226.6
30°	1860.0	1833.6	1609.7	658.6	263.5	247.6	237.1	221.3	205.5	195.0	192.3
32.5°	1957.5	1931.1	1541.2	442.6	239.7	226.6	213.4	189.7	171.2	158.1	155.4
35°	2102.4	2081.3	1406.8	292.4	216.0	200.2	181.8	158.1	134.4	121.2	118.6
37.5°	2318.4	2292.0	1240.9	223.9	189.7	166.0	150.2	123.8	100.1	86.9	84.3
40°	2608.2	2529.2	1043.3	197.6	166.0	137.0	115.9	89.6	71.1	63.2	63.2
42.5°	2945.4	2758.4	829.9	179.1	147.5	113.3	84.3	60.6	50.1	47.4	47.4
45°	3303.7	2971.8	616.5	166.0	129.1	89.6	60.6	42.2	36.9	34.2	34.2
47.5°	3672.5	3145.6	429.4	150.2	108.0	68.5	42.2	31.6	26.3	23.7	23.7
50°	4017.7	3258.9	303.0	134.4	92.2	50.1	31.6	23.7	18.4	18.4	18.4
52.5°	4257.4	3248.4	218.7	115.9	71.1	34.2	21.1	15.8	15.8	15.8	15.8
55°	4468.2	3208.9	171.2	100.1	55.3	23.7	15.8	13.2	13.2	10.5	10.5
57.5°	4647.3	3145.6	144.9	81.7	39.5	18.4	10.5	10.5	7.9	7.9	7.9
60°	4800.1	3066.6	121.2	68.5	26.3	13.2	7.9	5.3	5.3	2.6	5.3
62.5°	5008.3	3016.5	105.4	52.7	18.4	7.9	5.3	2.6	2.6	0.0	0.0
65°	5161.1	2921.7	89.6	36.9	10.5	5.3	2.6	2.6	0.0	0.0	0.0
67.5°	5166.3	2750.5	65.9	21.1	7.9	5.3	2.6	0.0	0.0	0.0	0.0
70°	4750.1	2344.7	42.2	10.5	5.3	2.6	2.6	0.0	0.0	0.0	0.0
71°	4368.1	2076.0	34.2	7.9	5.3	2.6	0.0	0.0	0.0	0.0	0.0
72.5°	3598.8	1525.4	26.3	7.9	2.6	2.6	0.0	0.0	0.0	0.0	0.0
75°	1983.8	553.3	13.2	5.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	634.9	168.6	7.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	108.0	26.3	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	36.9	10.5	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	10.5	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.3	2.6	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)