

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: P234800

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234800
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
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-T2R-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9684 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full 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

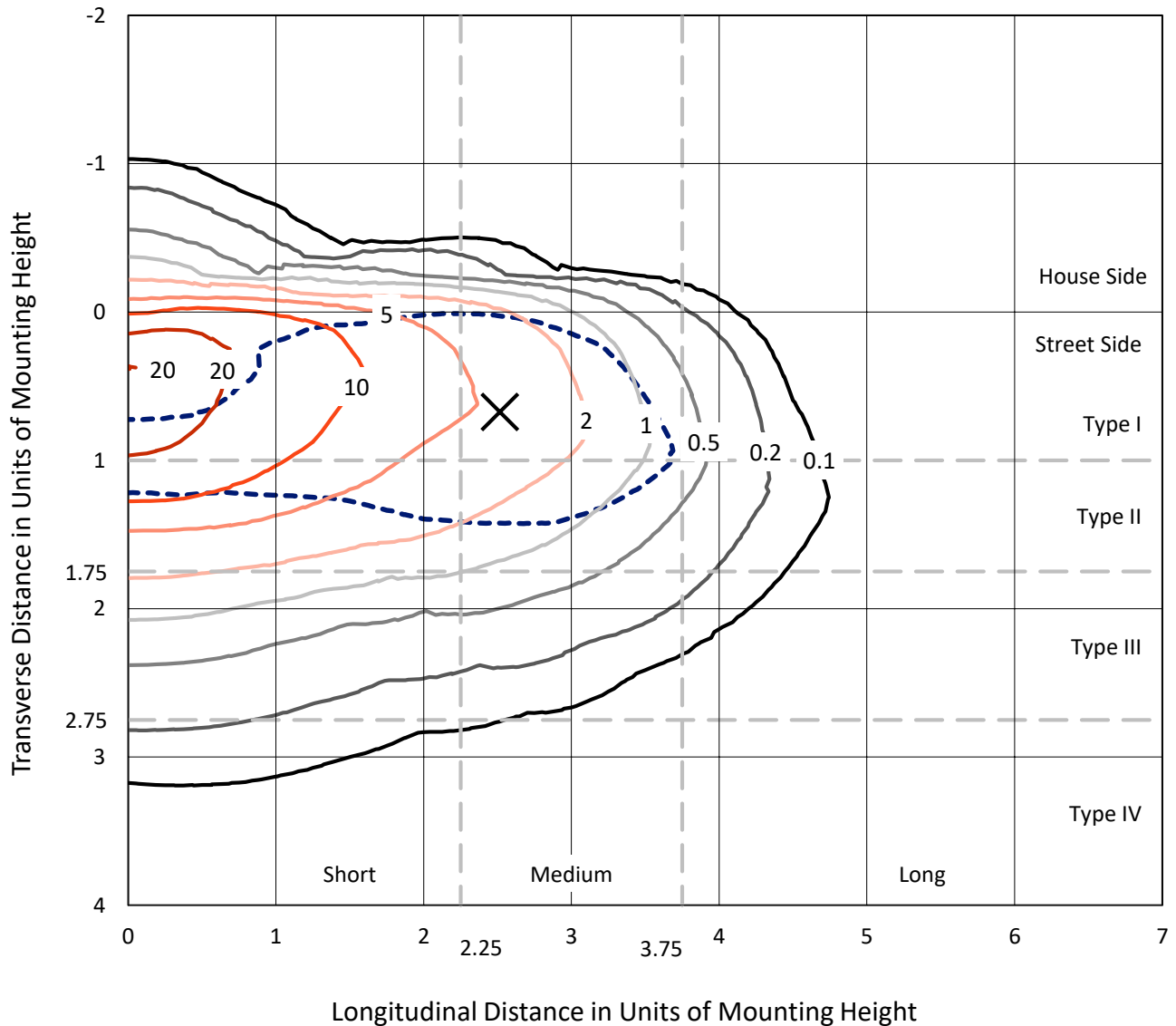


REPORT NUMBER: P234800

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

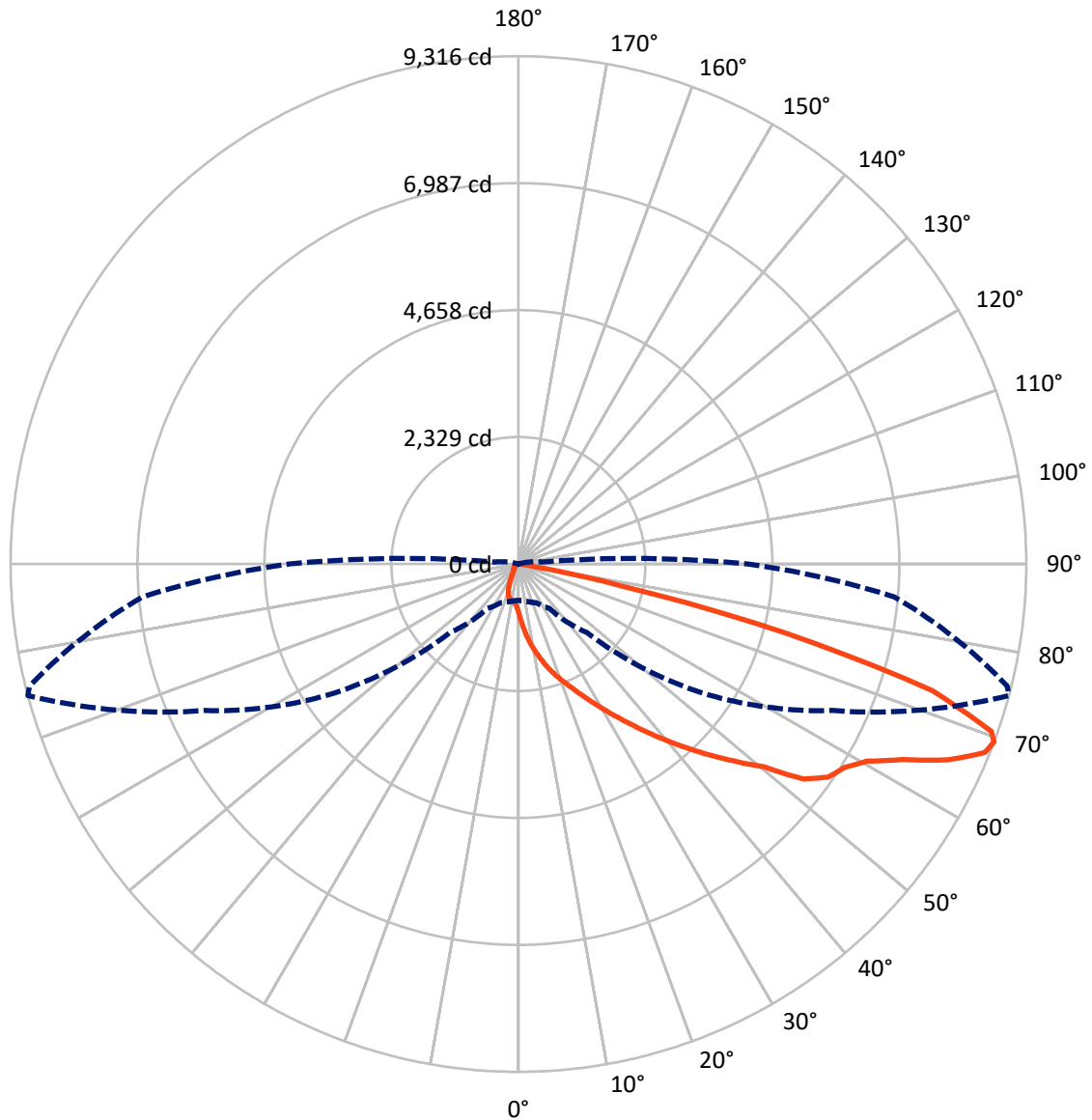


Based on 10 foot mounting height. Maximum calculated value = 24.7 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P234800

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-8027-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P234800

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-8027-HSS

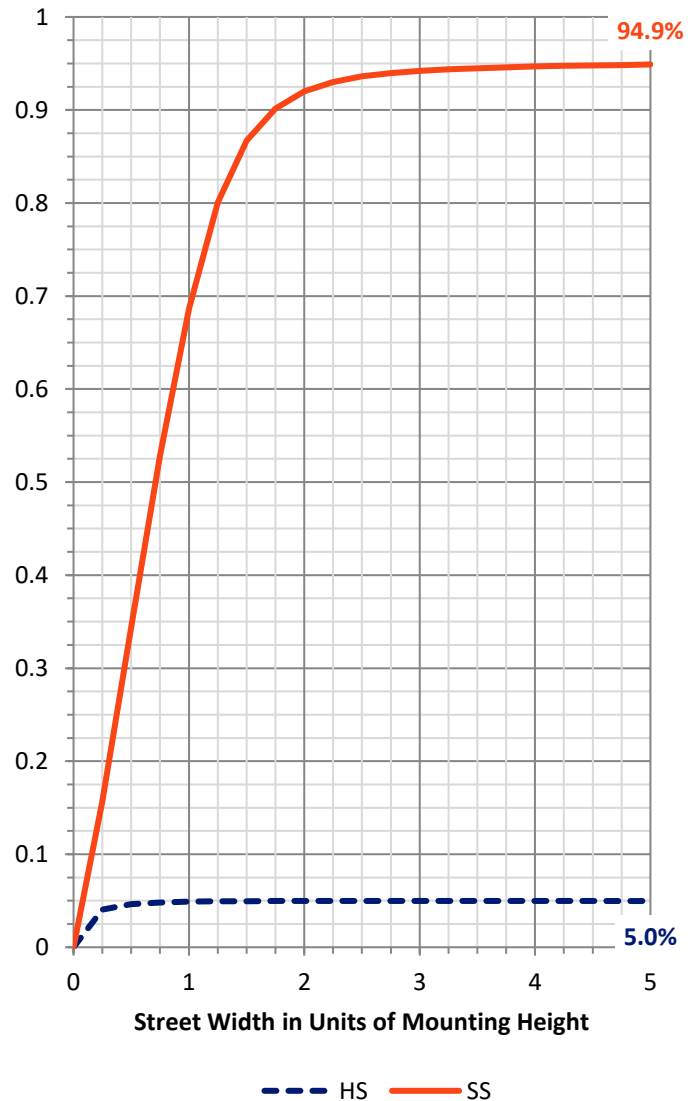
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	483.2	0.0	483.2
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	9200.8	0.0	9200.8
	% Fixture	95.0	0.0	95.0
Total	Lumens	9684.0	0.0	9684.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.1	1.1
10°-20°	375.6	3.9
20°-30°	717.1	7.4
30°-40°	1286.4	13.3
40°-50°	1970.8	20.4
50°-60°	2290.6	23.7
60°-70°	2028.4	20.9
70°-80°	874.9	9.0
80°-90°	35.1	0.4
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°	9684.0	100.0
0°-180°	9684.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234800

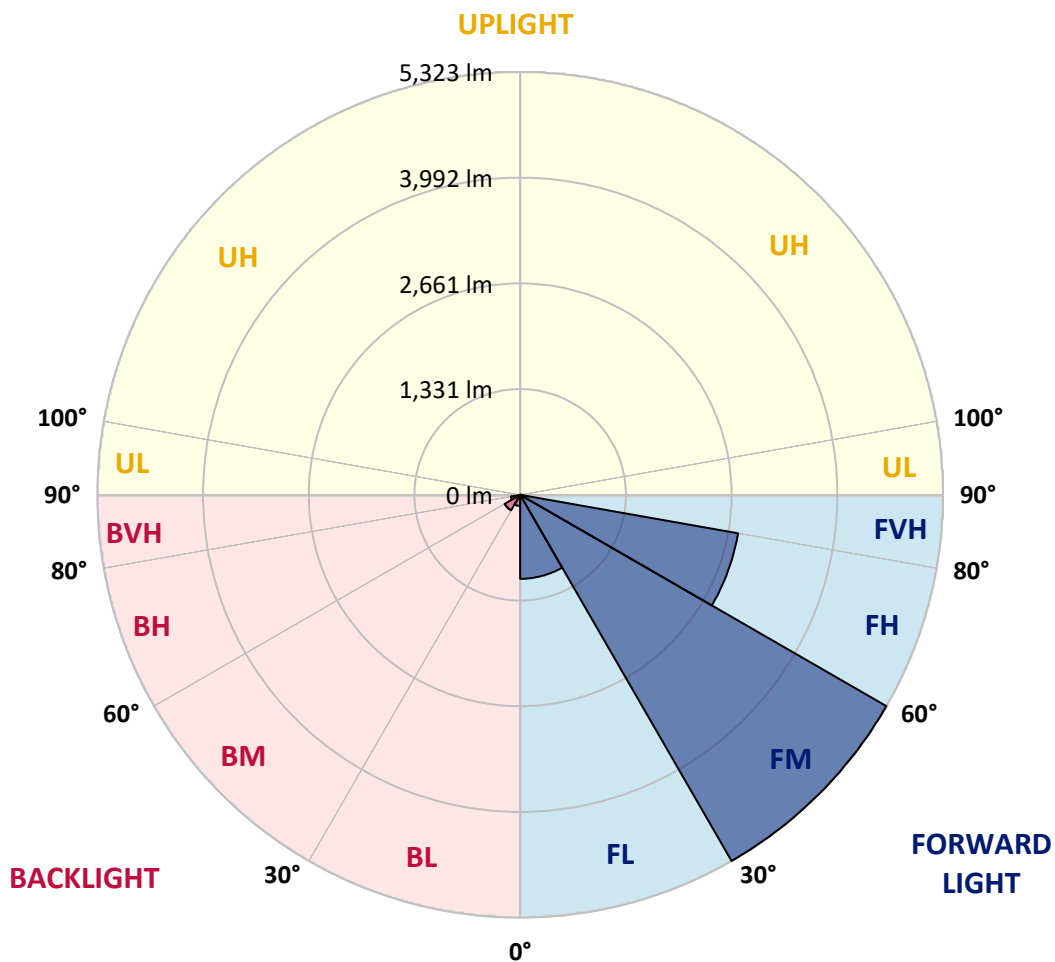
CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1057.5	10.9			
FM	(30°-60°)	5322.6	55.0			
FH	(60°-80°)	2786.2	28.8			G2/5000
FVH	(80°-90°)	34.5	0.4			G1/100
BL	(0°-30°)	140.3	1.4	B1/500		
BM	(30°-60°)	225.3	2.3	B1/1000		
BH	(60°-80°)	117.1	1.2	B1/500		G1/500
BVH	(80°-90°)	0.5	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 II Medium





REPORT NUMBER: P234800

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	901.1	901.1	901.1	901.1	901.1	901.1	901.1	901.1	901.1	901.1	901.1
2.5°	1484.4	1469.8	1455.1	1438.4	1400.8	1336.0	1254.4	1166.6	1057.9	1039.1	951.3
5°	1802.2	1795.9	1781.3	1758.3	1716.5	1645.4	1553.4	1423.8	1241.9	1210.5	1024.4
7.5°	2025.9	2021.7	2009.2	1982.0	1944.4	1873.3	1777.1	1637.0	1425.9	1390.3	1116.4
10°	2226.6	2224.5	2214.1	2189.0	2151.3	2074.0	1971.5	1825.2	1601.5	1561.8	1223.1
12.5°	2408.5	2410.6	2406.4	2393.9	2366.7	2293.5	2176.4	2017.5	1770.8	1726.9	1350.6
15°	2515.1	2521.4	2538.1	2563.2	2571.6	2513.0	2391.8	2216.1	1944.4	1906.7	1496.9
17.5°	2479.6	2485.8	2538.1	2623.8	2705.4	2713.7	2605.0	2404.3	2115.8	2078.2	1641.2
20°	2393.9	2402.2	2456.6	2573.7	2732.5	2843.4	2799.5	2609.2	2278.9	2232.9	1779.2
22.5°	2490.0	2490.0	2506.8	2577.8	2722.1	2895.6	2954.2	2814.1	2446.1	2389.7	1917.2
25°	2820.4	2814.1	2778.5	2749.3	2795.3	2950.0	3071.2	3023.2	2642.6	2577.8	2063.5
27.5°	3238.5	3267.8	3200.9	3094.2	2989.7	3056.6	3175.8	3230.1	2860.1	2793.2	2214.1
30°	3706.8	3719.4	3639.9	3497.7	3313.8	3249.0	3299.1	3407.8	3096.3	3023.2	2370.9
32.5°	4129.1	4118.7	4051.8	3903.3	3675.5	3535.4	3458.0	3550.0	3353.5	3269.9	2531.8
35°	4503.4	4511.7	4430.2	4258.8	4035.1	3886.6	3702.6	3711.0	3642.0	3545.8	2717.9
37.5°	4840.0	4825.3	4748.0	4576.5	4373.7	4212.8	4018.3	3878.3	3957.7	3857.3	2927.0
40°	5113.9	5099.2	5017.7	4850.4	4660.2	4528.5	4375.8	4102.0	4290.1	4175.1	3150.7
42.5°	5331.3	5314.6	5245.6	5084.6	4900.6	4783.5	4710.4	4377.9	4645.5	4530.6	3401.6
45°	5437.9	5423.3	5381.5	5260.2	5099.2	4996.8	5032.3	4695.7	5026.0	4929.9	3677.5
47.5°	5312.5	5306.2	5354.3	5333.4	5241.4	5187.0	5310.4	5042.8	5425.4	5331.3	3995.3
50°	4932.0	4942.4	5082.5	5256.0	5299.9	5364.7	5538.3	5408.6	5854.0	5753.6	4361.2
52.5°	3993.2	4064.3	4486.6	4904.8	5228.8	5473.5	5805.9	5931.3	6552.3	6454.0	4932.0
55°	2981.3	3010.6	3470.6	4185.6	4942.4	5465.1	6004.5	6238.7	6897.2	6796.9	5082.5
57.5°	2364.6	2375.0	2602.9	3332.6	4352.8	5276.9	6109.0	6349.5	7047.8	6964.1	5306.2
60°	1856.5	1869.1	2034.3	2536.0	3522.8	4768.9	5958.5	6445.6	7342.5	7275.6	5697.2
62.5°	1444.7	1457.2	1557.6	1852.4	2642.6	3987.0	5655.3	6600.3	7902.9	7871.5	6336.9
65°	1118.5	1122.7	1191.7	1329.7	1867.0	3140.2	5285.3	6744.6	8659.7	8632.5	6855.4
67.5°	825.8	832.1	880.2	965.9	1260.7	2255.9	4679.0	6633.8	9230.4	9151.0	7043.6
69°	666.9	673.2	715.0	784.0	995.2	1777.1	4125.0	6359.9	9316.2	9240.9	6924.4
70°	570.8	574.9	616.8	675.3	848.8	1509.5	3685.9	6123.7	9203.3	9130.1	6652.6
72.5°	365.9	386.8	428.6	466.2	562.4	999.4	2487.9	5078.3	7940.5	7815.0	5210.0
75°	202.8	209.1	284.3	330.3	374.2	650.2	1384.0	3167.4	5051.1	4963.3	2786.9
77.5°	167.3	171.4	200.7	250.9	250.9	363.8	522.7	1248.1	1921.4	1733.2	754.7
80°	117.1	121.3	152.6	165.2	179.8	204.9	169.3	273.9	296.9	263.4	112.9
82.5°	81.5	85.7	104.5	135.9	144.3	96.2	62.7	81.5	85.7	85.7	43.9
85°	14.6	20.9	77.4	112.9	85.7	29.3	35.5	29.3	27.2	29.3	10.5
87.5°	0.0	0.0	48.1	54.4	46.0	12.5	14.6	10.5	6.3	8.4	4.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P234800

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	901.1	901.1	901.1	901.1	901.1	901.1	901.1	901.1	901.1	901.1	901.1
2.5°	907.4	863.5	788.2	733.8	687.8	652.3	637.7	614.7	597.9	606.3	595.9
5°	932.5	855.1	733.8	656.5	602.1	556.1	518.5	489.2	466.2	462.0	457.9
7.5°	972.2	861.4	702.5	606.3	524.8	453.7	395.1	351.2	317.8	317.8	305.2
10°	1026.5	878.1	683.7	556.1	434.9	338.7	280.2	238.3	221.6	219.5	215.3
12.5°	1101.8	909.5	669.0	491.3	338.7	246.7	211.2	196.5	190.3	188.2	186.1
15°	1204.2	955.5	652.3	411.9	257.2	202.8	188.2	175.6	169.3	167.3	165.2
17.5°	1302.5	997.3	616.8	330.3	209.1	184.0	167.3	156.8	148.4	146.3	146.3
20°	1394.5	1032.8	556.1	257.2	188.2	165.2	148.4	135.9	127.5	125.4	125.4
22.5°	1490.7	1062.1	480.9	209.1	171.4	146.3	129.6	117.1	108.7	106.6	104.5
25°	1593.1	1083.0	395.1	186.1	154.7	129.6	110.8	100.4	94.1	92.0	89.9
27.5°	1703.9	1091.3	313.6	169.3	135.9	112.9	96.2	85.7	81.5	79.4	79.4
30°	1804.3	1083.0	242.5	150.5	119.2	98.3	83.6	75.3	71.1	69.0	69.0
32.5°	1908.8	1062.1	194.4	133.8	104.5	83.6	71.1	64.8	62.7	60.6	60.6
35°	2019.6	1034.9	167.3	119.2	89.9	73.2	62.7	58.5	56.4	54.4	54.4
37.5°	2149.2	1001.4	152.6	106.6	79.4	64.8	54.4	52.3	50.2	50.2	50.2
40°	2295.6	959.6	142.2	96.2	71.1	56.4	48.1	46.0	43.9	43.9	43.9
42.5°	2450.3	911.5	131.7	85.7	62.7	48.1	41.8	41.8	39.7	39.7	37.6
45°	2623.8	863.5	121.3	75.3	54.4	41.8	35.5	33.5	33.5	31.4	31.4
47.5°	2828.7	819.6	110.8	66.9	48.1	35.5	31.4	29.3	27.2	25.1	25.1
50°	3117.2	815.4	98.3	58.5	43.9	29.3	25.1	23.0	20.9	18.8	18.8
52.5°	3403.7	777.7	83.6	48.1	35.5	25.1	18.8	16.7	14.6	14.6	12.5
55°	3468.5	715.0	73.2	41.8	27.2	18.8	14.6	10.5	10.5	8.4	8.4
57.5°	3610.6	685.8	62.7	33.5	20.9	14.6	8.4	6.3	6.3	6.3	6.3
60°	3890.8	677.4	54.4	29.3	14.6	10.5	6.3	4.2	4.2	2.1	2.1
62.5°	4277.6	669.0	46.0	25.1	10.5	6.3	4.2	2.1	0.0	0.0	0.0
65°	4490.8	612.6	37.6	18.8	8.4	6.3	2.1	0.0	0.0	0.0	0.0
67.5°	4434.4	505.9	33.5	12.5	6.3	4.2	2.1	0.0	0.0	0.0	0.0
69°	4198.1	426.5	27.2	10.5	6.3	4.2	2.1	0.0	0.0	0.0	0.0
70°	3913.8	368.0	25.1	8.4	4.2	2.1	2.1	0.0	0.0	0.0	0.0
72.5°	2778.5	192.3	16.7	6.3	4.2	2.1	0.0	0.0	0.0	0.0	0.0
75°	1298.3	85.7	10.5	4.2	2.1	2.1	0.0	0.0	0.0	0.0	0.0
77.5°	286.4	39.7	6.3	4.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0
80°	54.4	14.6	4.2	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.8	6.3	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.1	0.0	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)