

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: P196367

Luminaire Tested: **NVN-AF-05-LED-U-T4FT-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196367
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-05-LED-U-T4FT-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34010.1 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

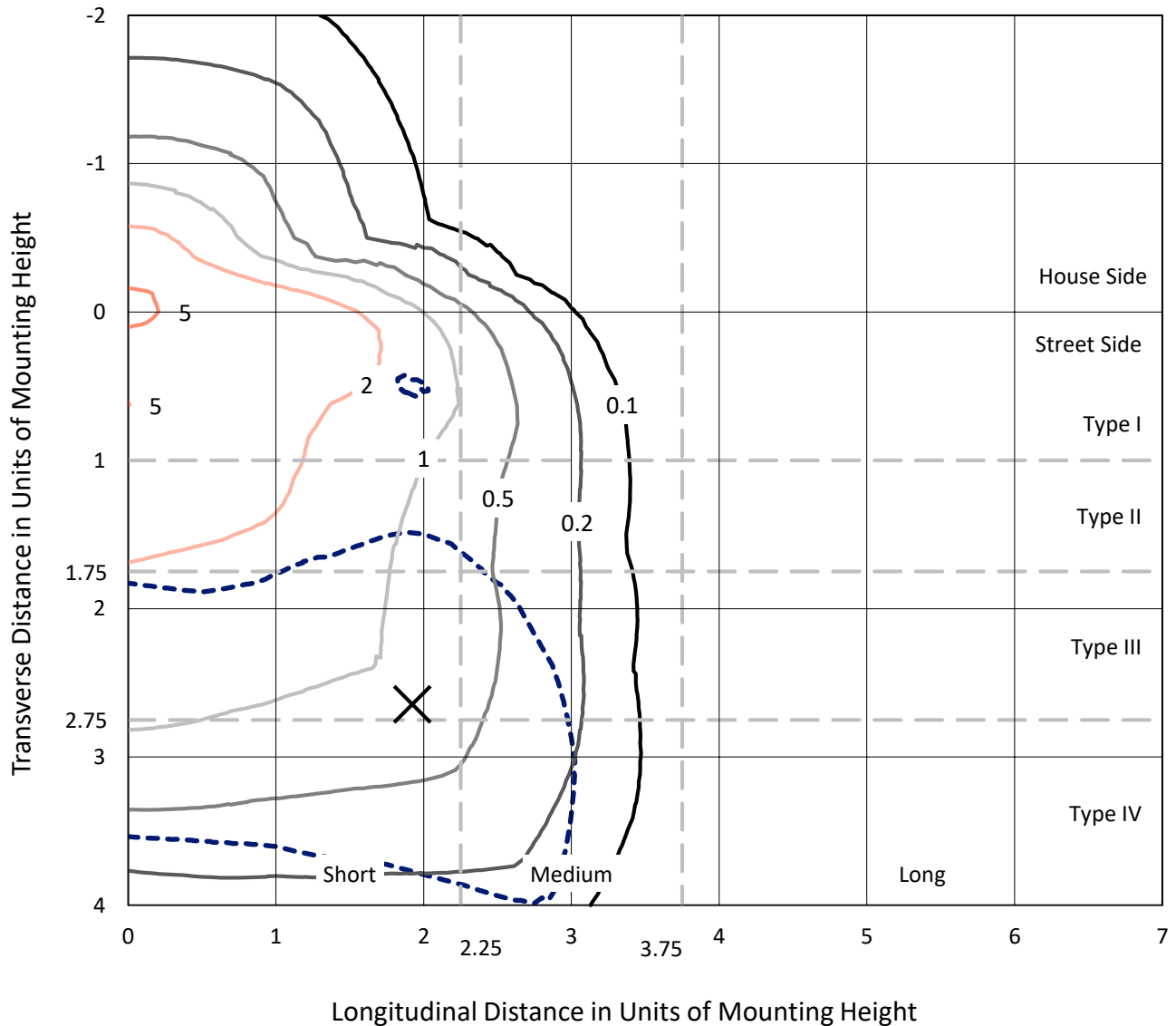
Input Watts (W): 320
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P196367
 CATALOG NUMBER: NVN-AF-05-LED-U-T4FT-1200

Iso-Footcandle Lines of Horizontal Illumination

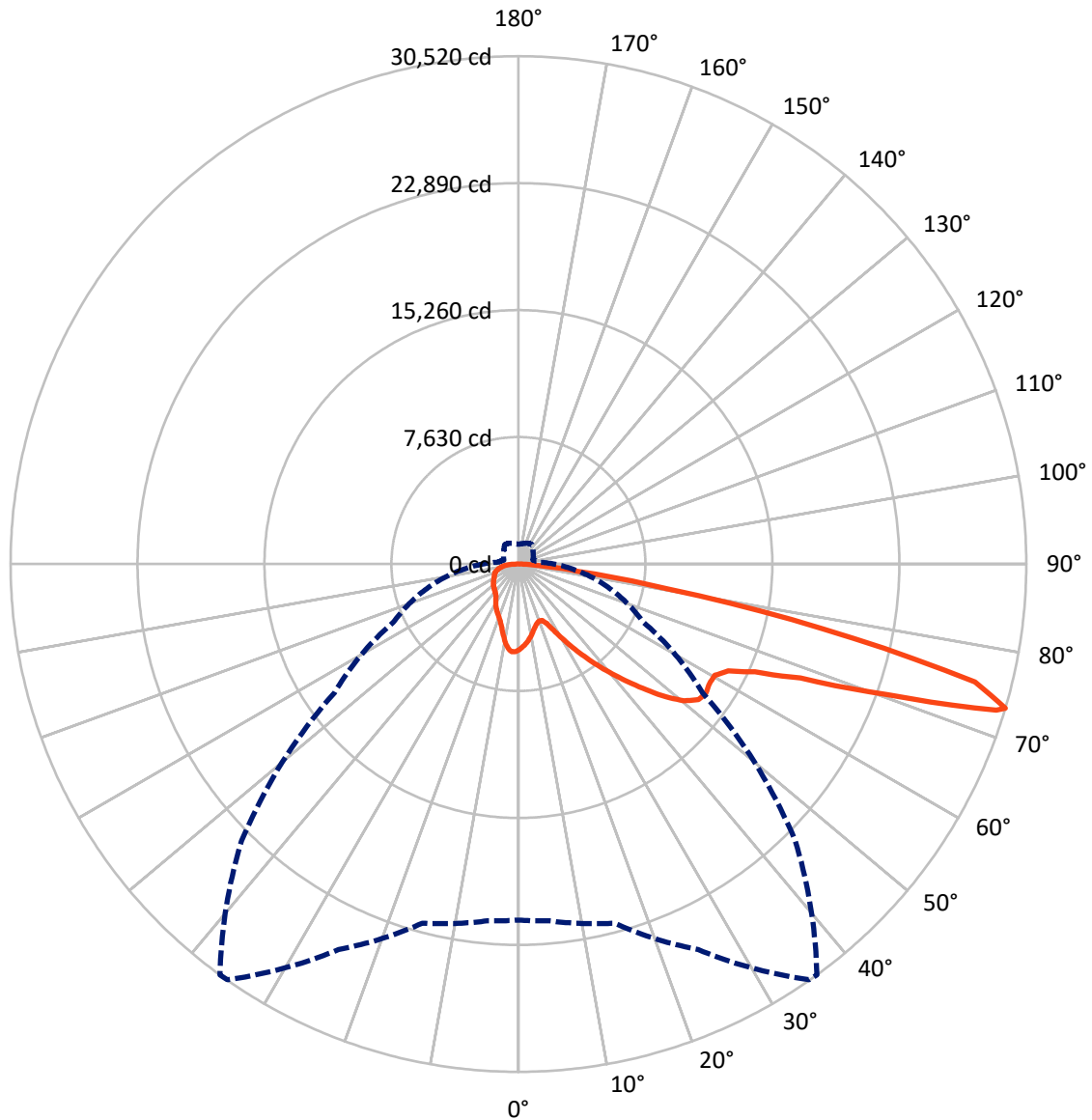
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P196367
CATALOG NUMBER: NVN-AF-05-LED-U-T4FT-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

REPORT NUMBER: P196367
 CATALOG NUMBER: NVN-AF-05-LED-U-T4FT-1200

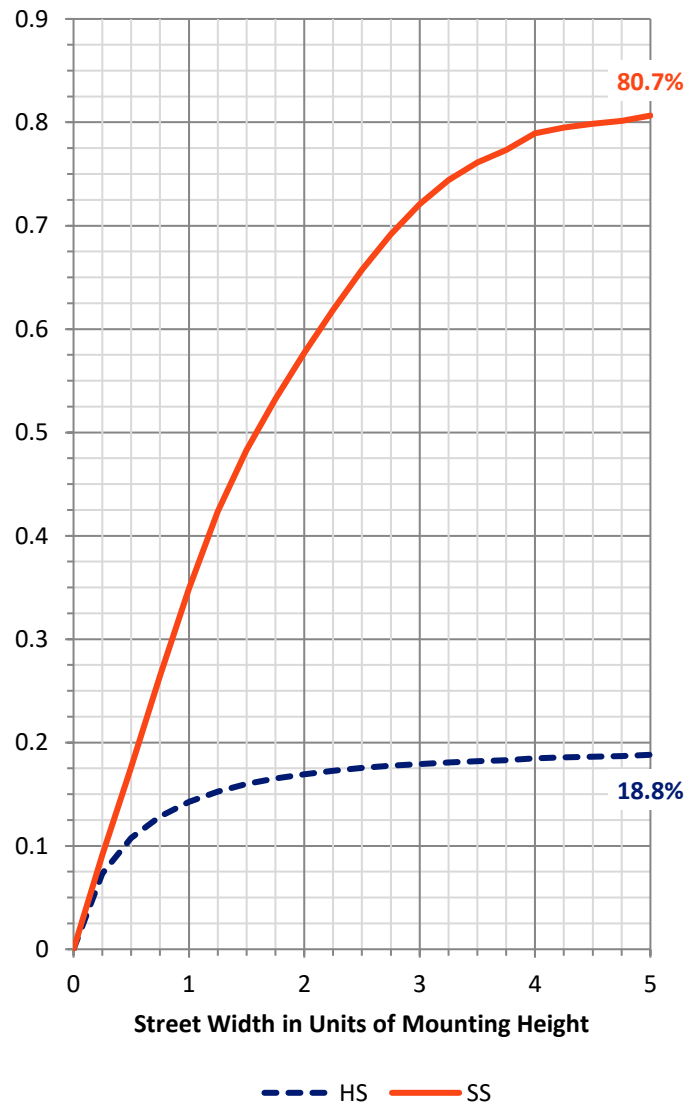
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6558.2	0.0	6558.2
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	27451.9	0.0	27451.9
	% Fixture	80.7	0.0	80.7
Total	Lumens	34010.1	0.0	34010.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	467.9	1.4
10°-20°	1175.2	3.5
20°-30°	1884.1	5.5
30°-40°	3116.4	9.2
40°-50°	4822.4	14.2
50°-60°	6455.7	19.0
60°-70°	8433.2	24.8
70°-80°	6888.4	20.3
80°-90°	766.7	2.3
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°	34010.1	100.0
0°-180°	34010.1	100.0



REPORT NUMBER: P196367

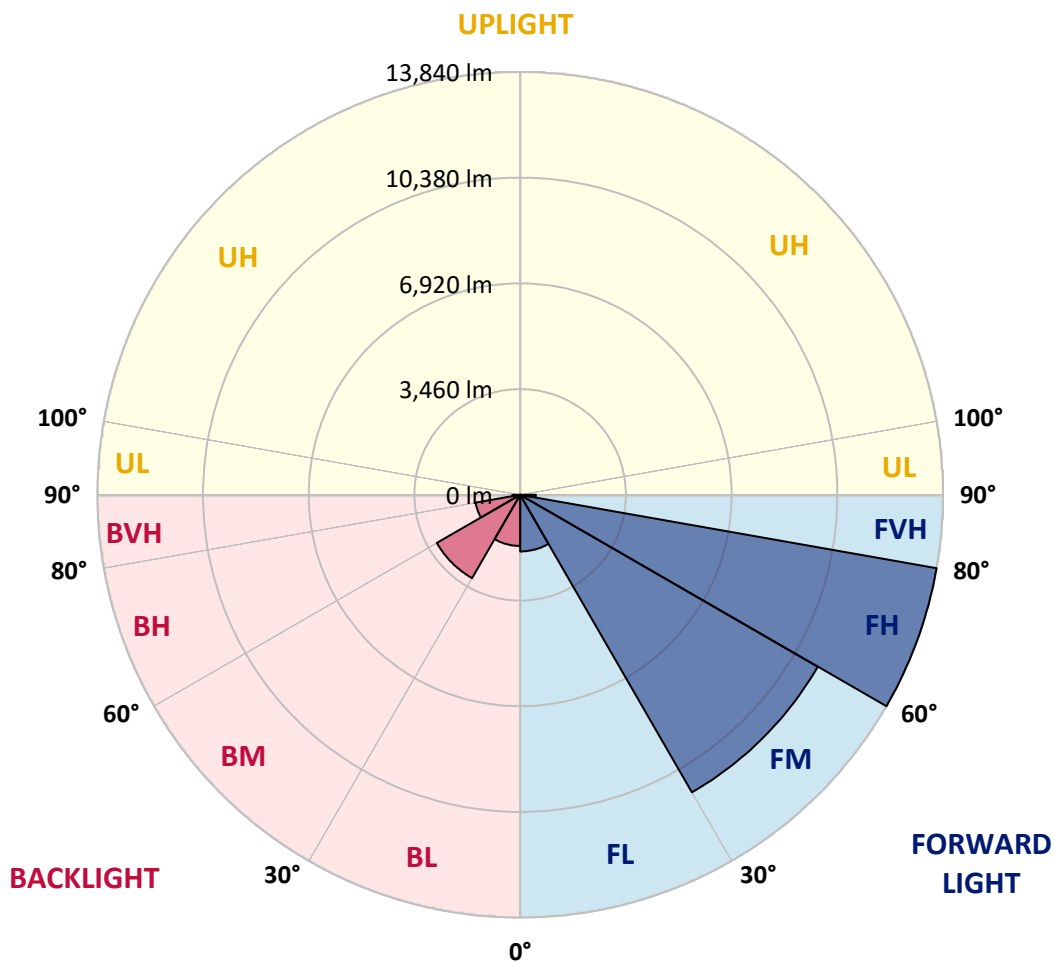
CATALOG NUMBER: NVN-AF-05-LED-U-T4FT-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1853.2	5.4			
FM (30°-60°)	11244.9	33.1			
FH (60°-80°)	13839.6	40.7			G5
FVH (80°-90°)	514.2	1.5			G4/750
BL (0°-30°)	1674.0	4.9	B3/2500		
BM (30°-60°)	3149.6	9.3	B3/5000		
BH (60°-80°)	1482.0	4.4	B3/2500		G3/2500
BVH (80°-90°)	252.5	0.7			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





REPORT NUMBER: P196367

CATALOG NUMBER: NVN-AF-05-LED-U-T4FT-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6
2.5°	4954.9	4967.9	4970.0	4985.1	4985.1	4983.0	4989.4	5015.4	5028.3	5058.6	5084.6
5°	4710.7	4725.8	4732.3	4758.3	4790.7	4792.8	4816.6	4866.3	4913.8	4980.8	5037.0
7.5°	4436.3	4453.5	4470.8	4524.9	4572.4	4576.8	4622.1	4702.1	4764.7	4846.8	4948.4
10°	4170.5	4174.9	4192.1	4261.2	4323.9	4330.4	4395.2	4485.9	4570.2	4684.8	4799.3
12.5°	3952.3	3965.2	3960.9	4012.7	4066.7	4071.1	4157.6	4272.0	4395.2	4524.9	4661.0
15°	3876.6	3874.4	3829.1	3827.0	3850.7	3855.0	3939.3	4073.3	4211.6	4371.5	4546.5
17.5°	3928.4	3911.2	3792.4	3718.8	3703.7	3708.1	3770.7	3917.7	4064.6	4248.3	4457.9
20°	4213.7	4146.7	3868.0	3690.8	3641.1	3641.1	3677.8	3796.7	3958.7	4172.6	4436.3
22.5°	4890.1	4786.4	4192.1	3876.6	3701.5	3684.3	3656.2	3747.0	3926.3	4183.5	4524.9
25°	5741.4	5691.8	4786.4	4371.5	4010.6	3954.4	3768.6	3801.0	3993.3	4300.2	4766.8
27.5°	6530.2	6443.8	5566.4	5091.0	4581.1	4494.6	4101.3	3969.6	4153.2	4516.2	5117.0
30°	6990.4	6932.1	6368.1	5914.3	5307.1	5196.9	4632.9	4302.3	4438.5	4872.8	5614.0
32.5°	7491.8	7457.2	7171.9	6759.2	6093.7	5966.2	5320.1	4844.7	4875.0	5346.0	6212.5
35°	7978.0	8023.3	7861.3	7558.8	6940.7	6821.9	6242.8	5553.5	5413.0	5877.6	6852.1
37.5°	8561.4	8572.2	8470.6	8274.0	7831.0	7733.8	7256.2	6309.8	5998.6	6443.8	7470.2
40°	9726.1	9555.4	9157.8	9002.2	8738.6	8678.1	8133.6	7003.4	6543.1	7025.0	8053.6
42.5°	10985.9	10720.1	10097.8	9842.8	9737.0	9680.7	8864.0	7465.8	7053.1	7606.3	8626.2
45°	12001.6	11785.4	11176.0	10860.6	10873.6	10782.8	9501.4	7878.6	7606.3	8189.7	9265.9
47.5°	13002.0	12641.1	11958.3	11912.9	12064.2	11930.2	10110.7	8291.3	8183.2	8825.0	9905.4
50°	13066.9	12738.4	12461.8	12824.8	13084.2	12917.7	10664.0	8831.5	8781.8	9594.3	10731.0
52.5°	12278.1	12230.6	12652.0	13263.5	13693.5	13544.4	11115.6	9386.9	9393.3	10555.9	11735.7
55°	11990.7	11930.2	12435.8	13187.9	13769.1	13680.5	11452.7	10013.5	10071.9	11722.8	12814.0
57.5°	12474.8	12323.5	12422.9	13045.2	13591.9	13540.1	11802.7	10709.3	10815.1	13066.9	13810.1
60°	13976.6	13667.5	13140.3	13257.0	13598.4	13568.1	12304.1	11485.1	11662.3	14467.1	14441.1
62.5°	16226.0	15876.0	14802.0	14283.4	14207.8	14149.5	13131.6	12438.1	12526.6	15478.4	14073.8
65°	18693.7	18317.8	17040.7	16191.5	15746.3	15621.0	14467.1	13587.7	13032.3	15476.2	12643.3
67.5°	21464.0	21066.4	19793.7	18983.3	18501.4	18287.5	16634.4	14516.8	12868.0	14166.7	10117.2
70°	24301.2	23923.0	23339.6	23622.7	23834.4	23508.2	20048.6	14825.8	11688.2	11106.9	6793.8
72.5°	22795.1	22764.8	23207.8	25891.6	29973.6	30038.3	23458.5	13952.7	9030.3	6601.5	3621.7
73°	21397.1	21524.5	22345.6	25556.7	30498.7	30520.2	23525.5	13501.2	8291.3	5687.4	3180.8
75°	11085.3	11949.7	14996.5	20722.8	28240.5	28342.1	20738.0	10220.9	4942.0	3159.2	2143.6
77.5°	2969.0	2930.1	4831.7	10095.6	18827.7	18693.7	13103.6	4948.4	2368.3	1981.6	1503.9
80°	1017.7	1030.7	1644.4	3693.0	8788.3	9101.6	5687.4	2158.7	1558.0	1380.8	1065.3
82.5°	518.6	535.9	860.0	1570.9	3675.7	3597.8	1830.3	1270.6	1043.7	838.4	596.4
85°	276.6	285.2	473.2	814.7	1348.4	1363.5	643.9	678.5	663.4	475.4	293.9
87.5°	136.2	140.5	226.9	358.7	499.2	481.9	224.7	293.9	326.3	267.9	162.0
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: P196367

CATALOG NUMBER: NVN-AF-05-LED-U-T4FT-1200

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6	5151.6
2.5°	5117.0	5117.0	5145.0	5192.6	5227.2	5259.6	5281.2	5315.8	5335.2	5333.1	5330.9
5°	5082.4	5104.0	5160.2	5218.5	5257.5	5283.3	5283.3	5298.5	5298.5	5292.0	5283.3
7.5°	5002.4	5039.2	5121.3	5173.2	5183.9	5155.9	5099.7	5056.4	5002.4	4974.3	4963.6
10°	4875.0	4922.4	5026.2	5050.0	4993.7	4894.4	4758.3	4641.5	4537.8	4490.3	4475.2
12.5°	4749.6	4812.3	4909.6	4872.8	4738.8	4544.4	4334.8	4174.9	4058.1	4012.7	3997.6
15°	4645.9	4721.5	4797.1	4682.7	4449.2	4179.2	3947.9	3798.8	3710.2	3675.7	3667.0
17.5°	4576.8	4665.4	4691.3	4477.4	4153.2	3850.7	3645.4	3548.2	3509.2	3494.1	3489.8
20°	4581.1	4680.5	4617.8	4278.5	3868.0	3563.2	3427.2	3399.1	3399.1	3399.1	3396.9
22.5°	4699.9	4786.4	4587.5	4092.7	3593.5	3321.3	3262.9	3286.7	3304.0	3304.0	3301.8
25°	4946.3	4993.7	4609.1	3913.4	3336.4	3111.7	3113.9	3159.2	3174.3	3174.3	3170.0
27.5°	5322.2	5283.3	4648.1	3714.5	3083.6	2921.5	2951.7	2992.8	3003.6	2997.1	2995.0
30°	5793.3	5637.7	4680.5	3481.2	2845.8	2744.3	2770.3	2794.0	2785.4	2770.3	2768.1
32.5°	6320.6	5998.6	4661.0	3219.7	2636.2	2560.7	2575.8	2588.8	2575.8	2539.1	2539.1
35°	6843.5	6324.9	4555.1	2934.4	2469.9	2383.5	2381.3	2422.3	2420.2	2376.9	2379.1
37.5°	7301.6	6582.1	4349.9	2673.0	2327.3	2253.8	2262.5	2288.3	2301.3	2243.0	2236.5
40°	7701.4	6759.2	4060.3	2450.5	2212.7	2217.0	2193.3	2152.2	2137.1	2111.2	2106.9
42.5°	8077.3	6882.4	3753.4	2264.6	2154.4	2204.0	2124.2	2026.9	1985.9	2009.6	2024.7
45°	8446.9	7020.7	3457.4	2111.2	2080.9	2165.2	2055.0	1947.0	1899.4	1910.3	1925.3
47.5°	8898.4	7213.0	3100.9	1947.0	1968.6	2093.9	2011.7	1895.1	1823.8	1780.5	1767.6
50°	9492.8	7491.8	2638.4	1769.8	1849.7	2016.1	1975.0	1819.4	1741.7	1655.2	1633.7
52.5°	10236.1	7755.4	2171.7	1627.1	1752.5	1949.1	1914.6	1754.7	1659.5	1555.8	1538.5
55°	10977.3	7792.1	1769.8	1503.9	1642.2	1858.4	1841.1	1702.8	1568.8	1484.5	1467.2
57.5°	11495.9	7444.2	1499.6	1400.2	1536.4	1746.0	1774.1	1640.1	1493.2	1428.3	1417.5
60°	11504.5	6612.3	1335.5	1331.1	1456.5	1648.8	1705.0	1566.6	1445.6	1402.4	1393.8
62.5°	10590.5	5328.8	1229.6	1279.2	1398.1	1568.8	1653.1	1525.6	1434.8	1417.5	1408.9
65°	8876.9	3937.1	1145.3	1231.7	1344.1	1501.8	1609.8	1512.6	1430.5	1424.0	1417.5
67.5°	6553.9	2699.0	1074.0	1171.2	1283.6	1432.6	1568.8	1493.2	1404.6	1430.5	1421.9
70°	4123.0	1802.1	1007.0	1102.0	1203.6	1352.8	1514.8	1458.6	1372.2	1357.0	1328.9
72.5°	2327.3	1303.0	927.0	1013.4	1099.9	1246.9	1441.3	1400.2	1298.7	1238.2	1210.0
73°	2102.6	1233.9	907.6	991.9	1076.1	1225.2	1424.0	1382.9	1277.1	1210.0	1184.2
75°	1538.5	1009.1	819.0	903.3	976.7	1125.9	1341.9	1296.5	1182.0	1102.0	1084.7
77.5°	1115.0	778.0	704.4	780.1	844.9	987.6	1218.7	1166.9	1054.5	1011.3	994.0
80°	803.8	589.9	583.4	656.9	713.1	857.8	1086.9	1032.9	924.8	1052.3	1024.3
82.5°	479.8	378.2	427.9	509.9	568.4	719.5	944.3	881.7	778.0	786.5	669.8
85°	229.0	213.9	265.8	334.9	376.0	492.7	786.5	736.8	622.4	509.9	499.2
87.5°	101.6	97.3	127.5	149.1	201.0	296.0	538.1	477.5	451.6	270.1	211.8
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)