

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: McGRAW-EDISON

Report Number: P237511

Luminaire Tested: **CTN-8-3-D-E1-T4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237511
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-27)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-3-D-E1-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 4000K LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27445 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 226
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: 25 FT

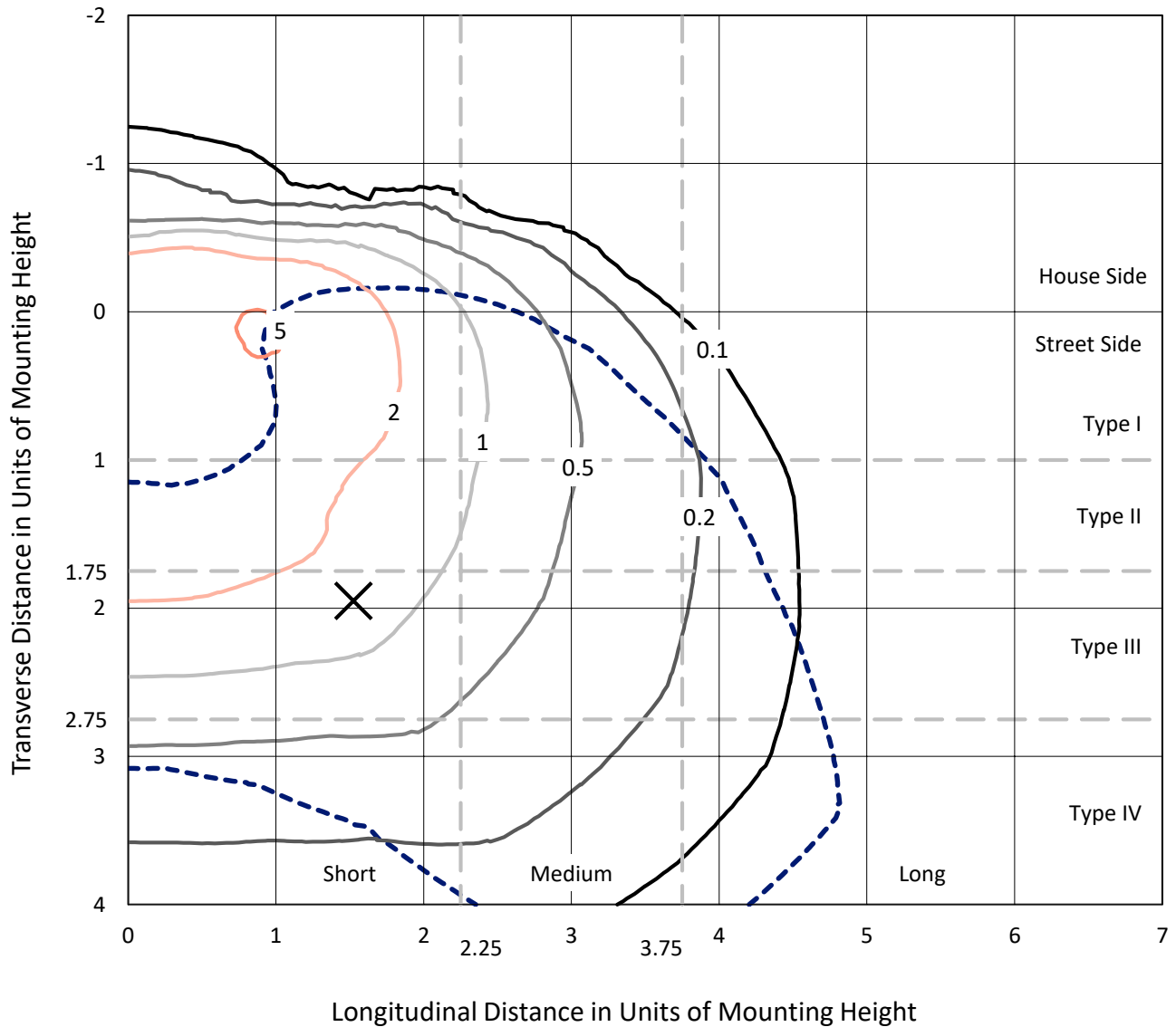


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

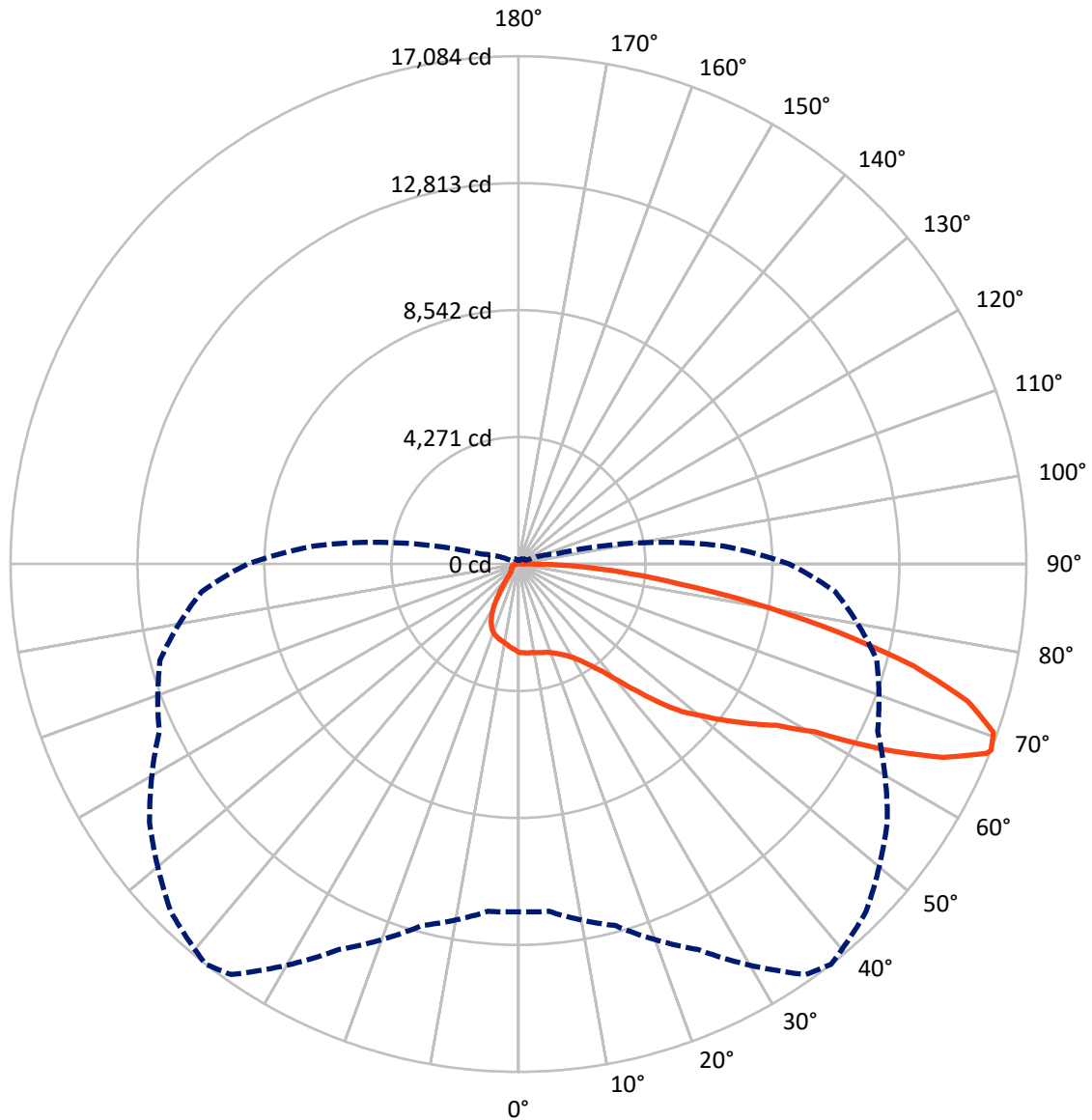


Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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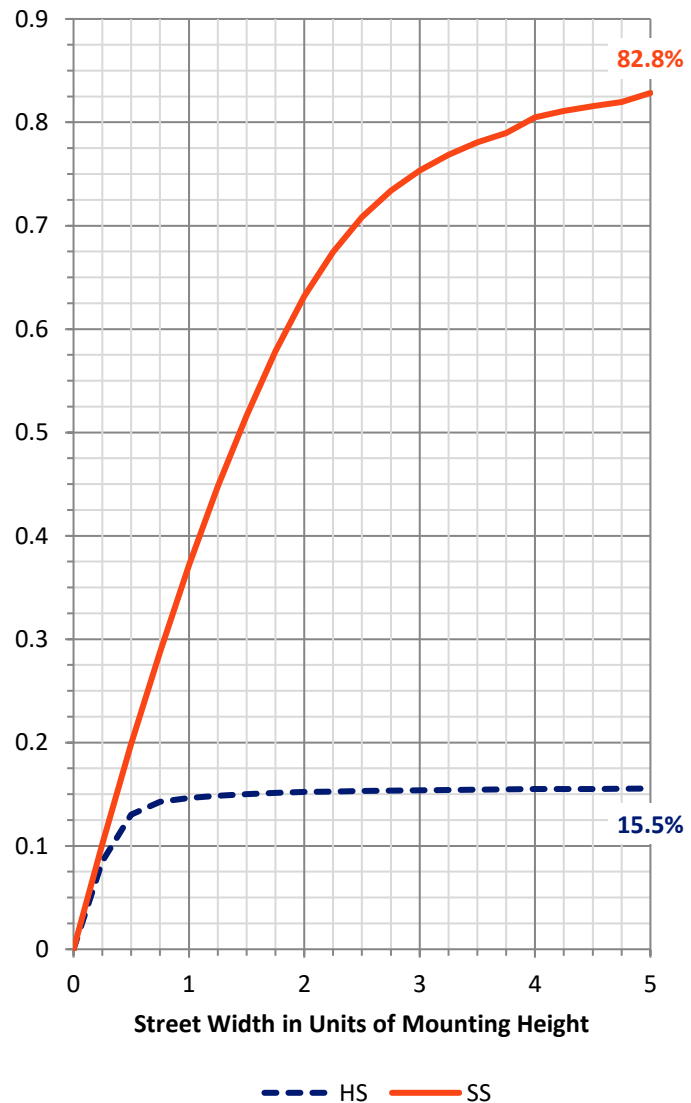
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4328.9	0.0	4328.9
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	23116.1	0.0	23116.1
	% Fixture	84.2	0.0	84.2
Total	Lumens	27445.0	0.0	27445.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.0	1.0
10°-20°	834.6	3.0
20°-30°	1392.8	5.1
30°-40°	2136.3	7.8
40°-50°	3678.0	13.4
50°-60°	5466.0	19.9
60°-70°	7231.0	26.3
70°-80°	5310.6	19.3
80°-90°	1114.7	4.1
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°	27445.0	100.0
0°-180°	27445.0	100.0



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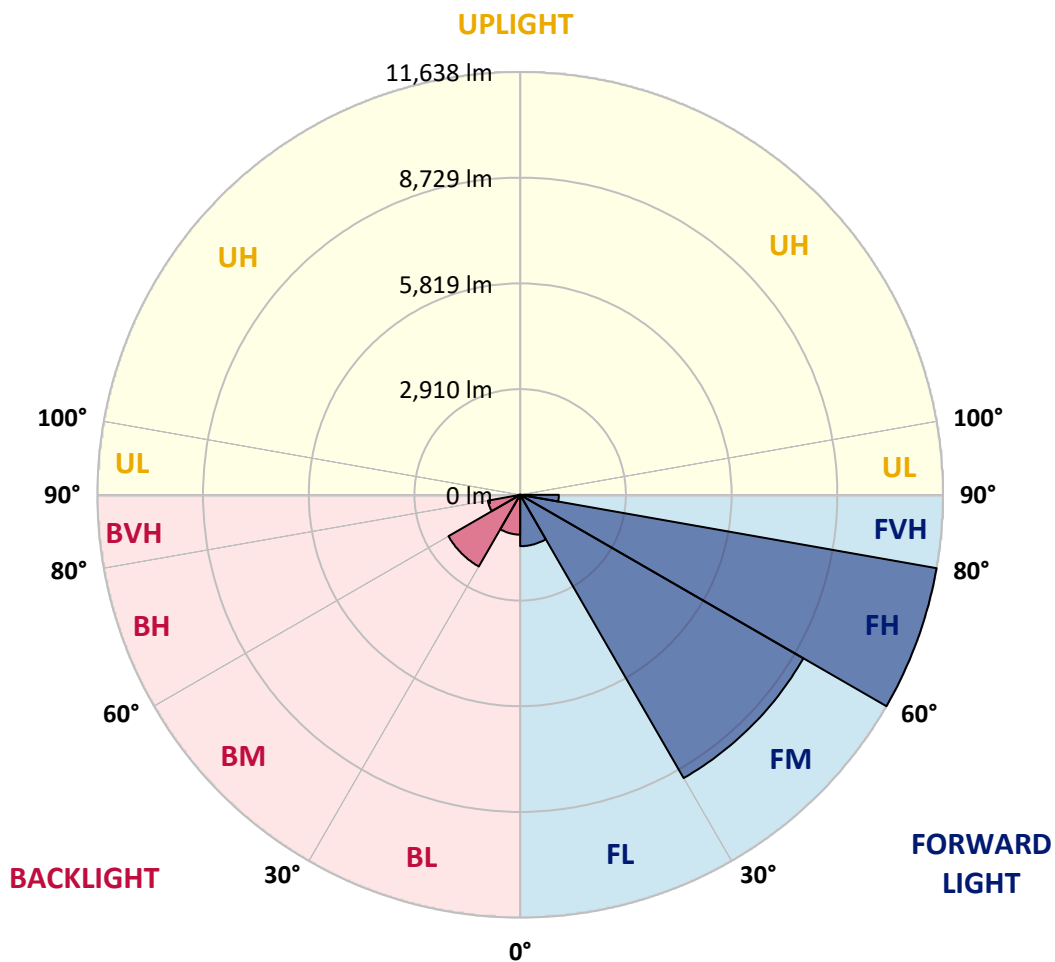
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1413.1	5.1			
FM	(30°-60°)	9001.5	32.8			
FH	(60°-80°)	11638.1	42.4			G4/12000
FVH	(80°-90°)	1063.5	3.9			G5
BL	(0°-30°)	1095.3	4.0	B3/2500		
BM	(30°-60°)	2278.8	8.3	B2/2500		
BH	(60°-80°)	903.5	3.3	B2/1000		G2/1000
BVH	(80°-90°)	51.3	0.2			G1/100
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5
2.5°	3043.7	3022.7	3026.7	3039.7	2986.6	2982.5	2999.6	2980.5	3005.6	2993.6	2994.6
5°	3051.8	3031.7	3039.7	3059.8	3009.6	3008.6	3027.7	3003.6	3022.7	3007.6	3003.6
7.5°	3044.7	3026.7	3032.7	3051.8	3008.6	3011.6	3036.7	3028.7	3056.8	3041.7	3030.7
10°	3041.7	3029.7	3030.7	3056.8	3022.7	3030.7	3062.8	3067.8	3113.0	3099.9	3094.9
12.5°	3014.6	3005.6	3014.6	3055.8	3044.7	3060.8	3103.9	3130.0	3183.2	3178.2	3188.2
15°	2998.6	2994.6	3001.6	3049.8	3062.8	3088.9	3146.1	3197.2	3261.4	3270.5	3293.5
17.5°	3017.7	3023.7	3036.7	3075.8	3093.9	3121.0	3185.2	3255.4	3346.7	3385.8	3412.9
20°	3097.9	3104.9	3117.0	3142.1	3162.1	3185.2	3242.4	3322.6	3444.0	3505.2	3548.4
22.5°	3214.3	3202.2	3219.3	3240.4	3246.4	3266.5	3324.6	3404.9	3542.3	3634.6	3694.8
25°	3304.6	3296.5	3313.6	3349.7	3348.7	3366.8	3424.0	3506.2	3654.7	3787.1	3893.5
27.5°	3398.9	3393.9	3400.9	3449.0	3468.1	3490.2	3540.3	3632.6	3800.2	3966.7	4134.2
30°	3535.3	3546.3	3534.3	3589.5	3630.6	3655.7	3706.9	3820.2	3999.8	4227.5	4439.2
32.5°	3747.0	3752.0	3731.9	3793.1	3852.3	3890.4	3939.6	4088.1	4284.7	4562.6	4835.5
35°	4198.4	4199.4	4117.2	4108.1	4141.3	4196.4	4268.7	4489.4	4782.3	5210.7	5519.7
37.5°	4882.6	4849.5	4771.3	4618.8	4569.6	4579.7	4683.0	4990.0	5434.4	6224.9	6520.9
40°	5667.1	5629.0	5491.6	5289.9	5145.5	5136.4	5171.5	5539.7	6189.8	7365.6	7515.0
42.5°	6513.8	6487.8	6265.0	6056.4	5871.8	5842.7	5763.4	6132.6	7022.5	8383.8	8382.8
45°	7295.3	7290.3	7018.5	6915.1	6719.5	6643.3	6549.0	6835.9	7878.2	9186.4	9090.1
47.5°	8028.7	8013.6	7724.7	7606.3	7456.9	7415.7	7304.4	7505.0	8609.5	9935.8	9696.0
50°	8807.2	8761.0	8331.7	8212.3	8064.8	8032.7	7974.5	8205.3	9406.1	10590.9	10193.6
52.5°	9712.1	9641.9	9056.0	8834.3	8728.9	8750.0	8712.9	8919.5	10296.9	11138.6	10600.9
55°	10782.5	10571.8	10012.0	9609.7	9376.0	9473.3	9401.1	9658.9	11151.7	11565.0	10897.9
57.5°	11568.0	11567.0	11339.3	10767.5	10237.8	10242.8	10097.3	10391.2	11842.9	11989.4	11071.4
60°	12466.9	12520.1	12598.3	12344.5	11719.5	11457.7	10946.0	11116.6	12398.7	12297.3	11148.7
62.5°	13248.4	13279.5	13625.6	13722.9	13771.1	13706.9	12569.2	11952.2	12853.1	12468.9	11170.7
65°	13220.3	13217.3	13965.7	14617.8	15631.0	15688.2	15360.1	13193.2	13205.3	12491.0	11056.4
67.5°	11930.2	11991.4	12992.6	14390.0	16806.8	16987.4	16534.9	14995.0	13335.7	12480.9	10783.5
68°	11699.4	11725.5	12591.3	14309.8	16856.9	17083.7	16536.9	15145.5	13331.7	12481.9	10699.2
70°	10229.7	10268.9	11278.1	13337.7	16871.0	16949.2	16289.1	15227.7	13199.2	12388.6	10091.3
72.5°	8075.8	8121.0	9040.9	11254.0	15819.6	15816.6	15178.6	14538.5	12750.8	11706.5	8560.4
75°	5850.7	5998.2	6802.8	8839.3	13542.3	13749.0	13666.7	13539.3	11474.7	9892.7	6041.3
77.5°	4102.1	4177.4	4934.8	6648.3	10642.1	10958.1	11512.8	11677.4	9565.6	7346.5	2720.7
80°	2587.3	2728.7	3355.7	4721.1	7752.8	8044.7	8716.9	8993.8	7060.6	3603.5	476.5
82.5°	1507.8	1592.1	2053.6	3057.8	5212.7	5416.3	5856.7	5516.7	2862.2	479.5	264.8
85°	730.3	807.6	1102.5	1739.6	3254.4	3460.1	3697.8	2405.7	473.5	188.6	178.6
87.5°	295.9	304.0	451.4	772.5	1622.2	1798.8	1740.6	789.5	123.4	68.2	56.2
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°	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5	2980.5
2.5°	2999.6	2984.5	2966.5	2960.5	2918.3	2916.3	2881.2	2932.4	2917.3	2918.3	2930.4
5°	3001.6	2984.5	2949.4	2933.4	2888.2	2876.2	2818.0	2850.1	2816.0	2813.0	2833.1
7.5°	3022.7	3003.6	2953.4	2928.4	2844.1	2804.0	2748.8	2776.9	2724.7	2713.7	2717.7
10°	3078.9	3054.8	2993.6	2934.4	2830.1	2771.9	2663.5	2672.6	2626.4	2611.4	2624.4
12.5°	3164.1	3135.0	3061.8	2974.5	2842.1	2739.8	2607.3	2554.2	2483.9	2460.9	2467.9
15°	3280.5	3246.4	3150.1	3048.8	2868.2	2724.7	2544.1	2433.8	2297.4	2259.2	2245.2
17.5°	3407.9	3371.8	3260.4	3133.0	2914.3	2707.7	2471.9	2296.3	2099.7	2013.4	2008.4
20°	3557.4	3518.3	3401.9	3231.3	2951.4	2686.6	2381.6	2129.8	1874.0	1729.5	1719.5
22.5°	3728.9	3694.8	3563.4	3318.6	2970.5	2631.4	2245.2	1917.1	1597.1	1416.5	1407.5
25°	3930.6	3898.5	3713.9	3379.8	2949.4	2534.1	2058.6	1656.3	1271.1	1090.5	1082.5
27.5°	4171.3	4121.2	3832.3	3397.9	2887.2	2374.6	1824.8	1321.2	939.0	801.6	794.5
30°	4445.2	4355.9	3943.6	3392.9	2776.9	2170.9	1502.8	974.1	667.1	574.8	571.8
32.5°	4790.3	4633.8	4050.0	3352.7	2619.4	1904.1	1143.7	676.2	479.5	434.4	433.4
35°	5366.2	5031.1	4166.3	3280.5	2405.7	1554.0	792.5	460.5	390.2	381.2	381.2
37.5°	6224.9	5686.2	4331.9	3165.1	2128.8	1184.8	521.7	366.2	367.2	372.2	373.2
40°	7106.7	6439.6	4571.6	2993.6	1805.8	832.7	379.2	340.1	352.1	360.2	366.2
42.5°	7916.3	7121.8	4838.5	2758.8	1440.6	549.8	339.1	327.0	333.1	339.1	345.1
45°	8595.5	7719.7	5090.3	2491.0	1067.4	391.3	336.1	312.0	309.0	313.0	317.0
47.5°	9168.3	8206.3	5266.9	2189.0	726.3	335.1	328.0	295.9	285.9	286.9	288.9
50°	9605.7	8550.4	5345.1	1856.9	481.5	326.0	313.0	278.9	262.8	262.8	264.8
52.5°	9900.7	8766.0	5299.0	1482.7	346.1	321.0	301.0	260.8	241.8	244.8	246.8
55°	10119.4	8881.4	5117.4	1089.5	305.0	306.0	286.9	239.8	223.7	231.7	234.8
57.5°	10204.7	8878.4	4812.4	752.4	303.0	282.9	266.9	221.7	208.7	219.7	224.7
60°	10173.6	8731.9	4369.0	512.6	297.0	264.8	245.8	204.7	194.6	194.6	195.6
62.5°	10111.4	8526.3	3725.9	380.2	282.9	251.8	229.7	190.6	178.6	172.6	170.5
65°	9830.5	8027.7	2735.8	328.0	268.9	244.8	214.7	177.6	161.5	151.5	149.5
67.5°	9274.7	7169.9	1528.9	303.0	258.8	240.8	204.7	165.5	147.5	135.4	134.4
68°	9104.1	6902.1	1296.1	301.0	260.8	240.8	203.7	162.5	145.5	132.4	131.4
70°	8094.9	5567.8	535.7	282.9	274.9	241.8	198.6	153.5	137.4	124.4	123.4
72.5°	6122.6	3225.3	282.9	245.8	267.9	237.8	200.6	146.5	130.4	115.4	113.4
75°	3373.8	924.0	251.8	199.6	247.8	250.8	204.7	145.5	126.4	107.3	103.3
77.5°	749.4	301.0	234.8	174.6	213.7	230.7	189.6	138.4	128.4	98.3	94.3
80°	286.9	244.8	222.7	134.4	169.5	195.6	157.5	123.4	131.4	92.3	87.3
82.5°	239.8	214.7	204.7	104.3	117.4	143.5	126.4	105.3	121.4	85.3	81.3
85°	176.6	207.7	144.5	82.3	86.3	88.3	88.3	82.3	104.3	75.2	71.2
87.5°	71.2	100.3	61.2	38.1	44.1	41.1	36.1	44.1	60.2	53.2	53.2
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)