

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: P237512

Luminaire Tested: **CTN-10-3-D-E1-T4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237512
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-10-3-D-E1-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 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: 27751 lumens
Efficiency: N/A
Efficacy: 130.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

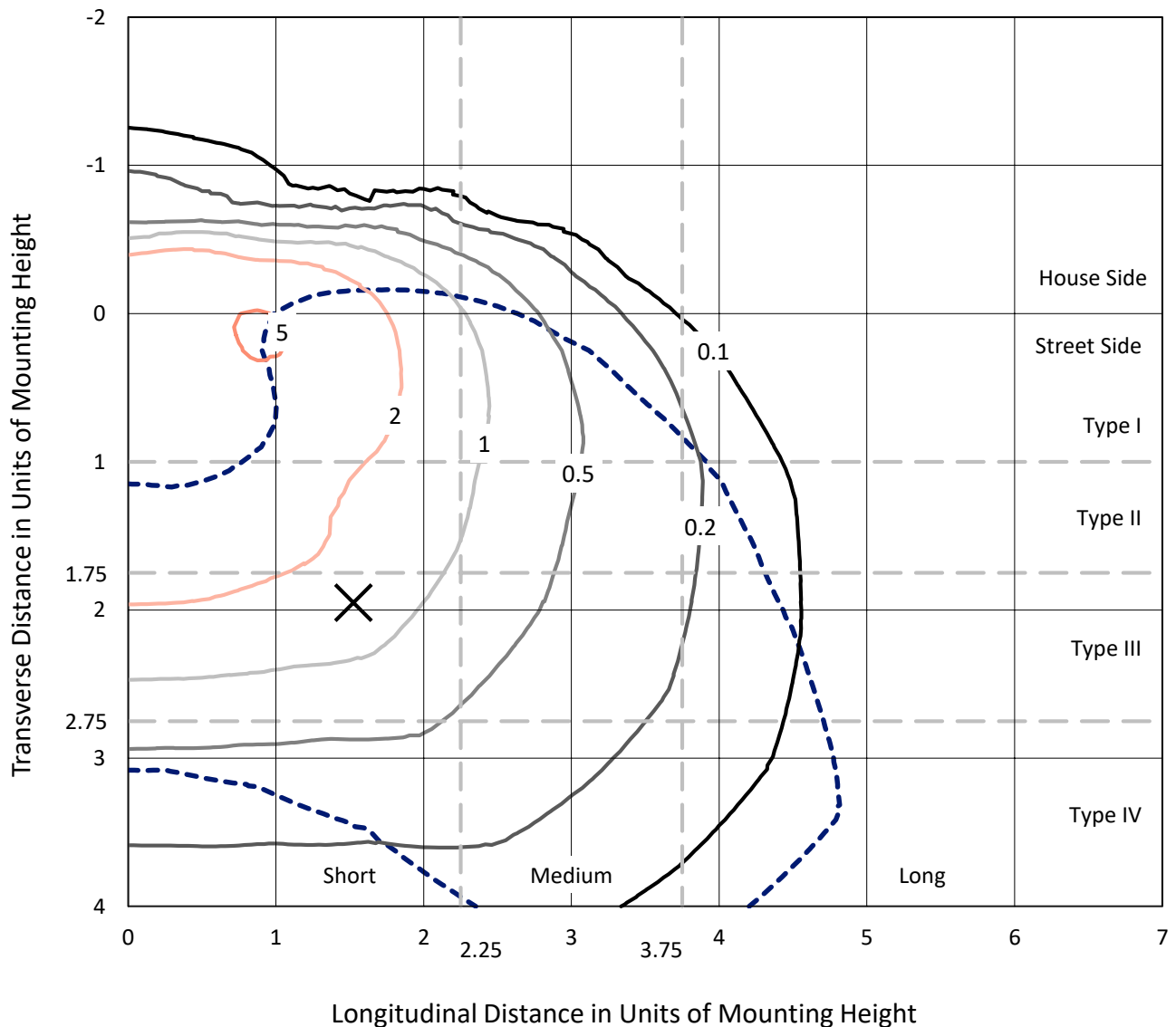
Input Watts (W): 212
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

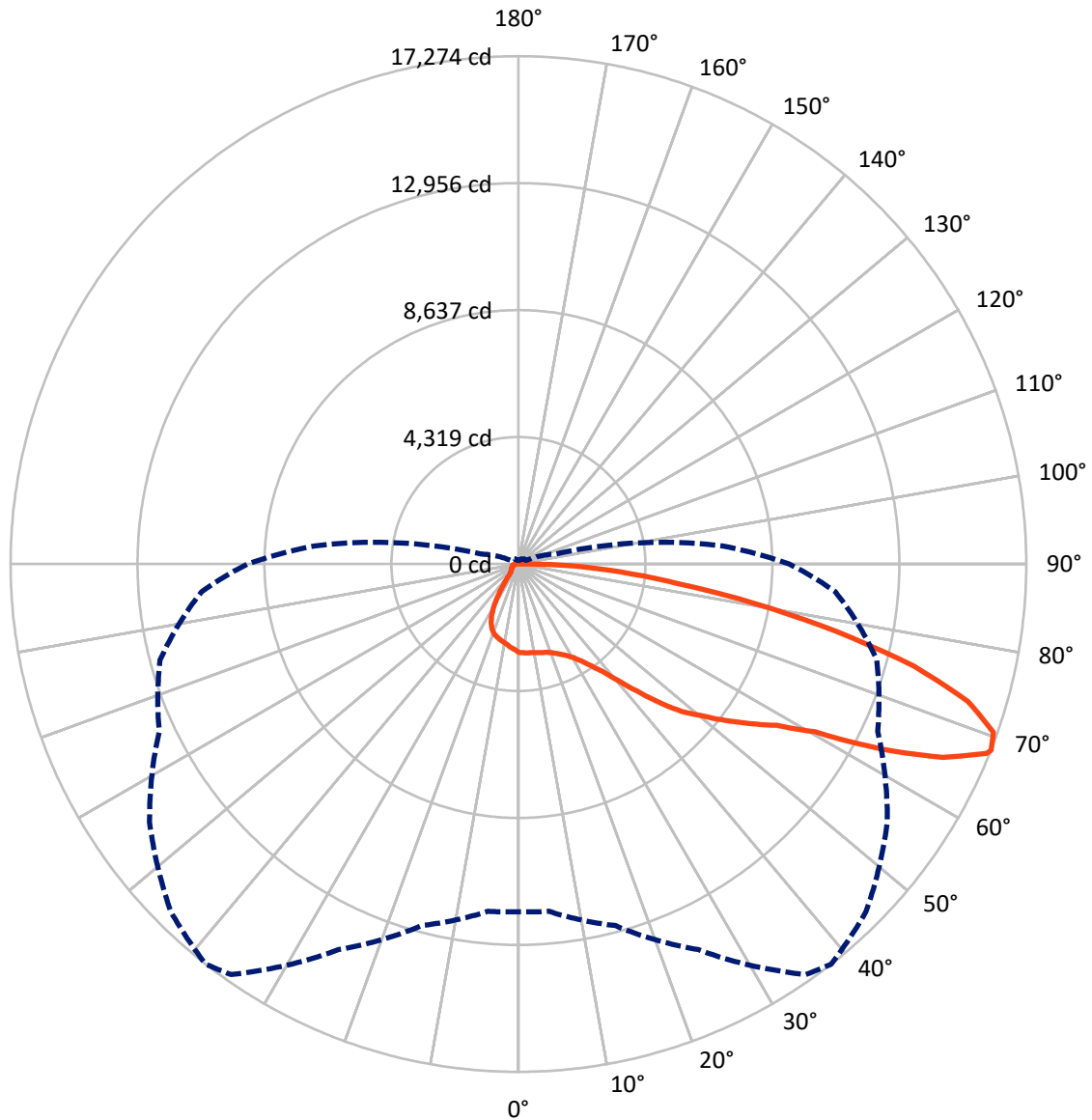


Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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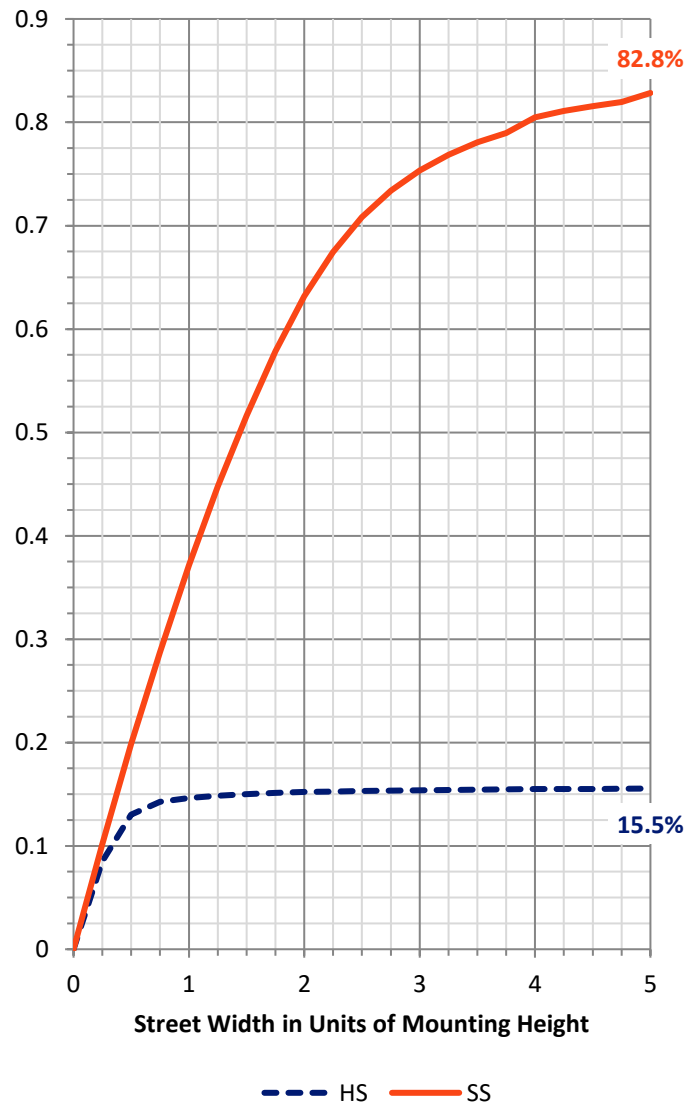
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4377.1	0.0	4377.1
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	23373.9	0.0	23373.9
	% Fixture	84.2	0.0	84.2
Total	Lumens	27751.0	0.0	27751.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.1	1.0
10°-20°	843.9	3.0
20°-30°	1408.3	5.1
30°-40°	2160.2	7.8
40°-50°	3719.0	13.4
50°-60°	5526.9	19.9
60°-70°	7311.7	26.3
70°-80°	5369.8	19.3
80°-90°	1127.2	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°	27751.0	100.0
0°-180°	27751.0	100.0

Coefficient of Utilization



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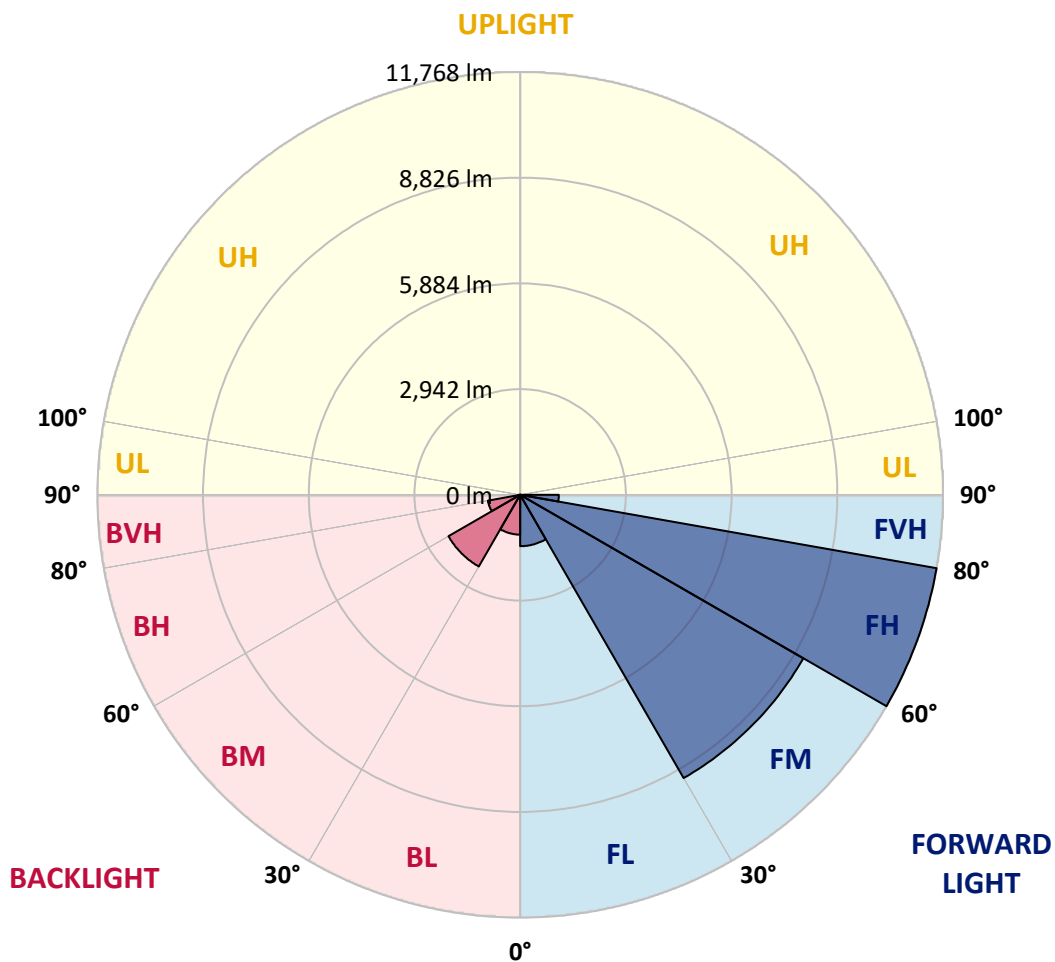
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1428.8	5.1			
FM	(30°-60°)	9101.9	32.8			
FH	(60°-80°)	11767.8	42.4			G4/12000
FVH	(80°-90°)	1075.3	3.9			G5
BL	(0°-30°)	1107.5	4.0	B3/2500		
BM	(30°-60°)	2304.2	8.3	B2/2500		
BH	(60°-80°)	913.6	3.3	B2/1000		G2/1000
BVH	(80°-90°)	51.8	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°	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8
2.5°	3077.7	3056.4	3060.4	3073.6	3019.9	3015.8	3033.0	3013.8	3039.1	3027.0	3028.0
5°	3085.8	3065.5	3073.6	3093.9	3043.2	3042.2	3061.4	3037.1	3056.4	3041.2	3037.1
7.5°	3078.7	3060.4	3066.5	3085.8	3042.2	3045.2	3070.6	3062.5	3090.9	3075.6	3064.5
10°	3075.6	3063.5	3064.5	3090.9	3056.4	3064.5	3096.9	3102.0	3147.7	3134.5	3129.4
12.5°	3048.3	3039.1	3048.3	3089.8	3078.7	3094.9	3138.5	3164.9	3218.7	3213.6	3223.7
15°	3032.0	3028.0	3035.1	3083.8	3096.9	3123.3	3181.1	3232.9	3297.8	3306.9	3330.3
17.5°	3051.3	3057.4	3070.6	3110.1	3128.4	3155.8	3220.7	3291.7	3384.0	3423.6	3451.0
20°	3132.5	3139.6	3151.7	3177.1	3197.4	3220.7	3278.5	3359.7	3482.4	3544.3	3587.9
22.5°	3250.1	3237.9	3255.2	3276.5	3282.6	3302.9	3361.7	3442.9	3581.8	3675.2	3736.0
25°	3341.4	3333.3	3350.5	3387.1	3386.1	3404.3	3462.1	3545.3	3695.4	3829.3	3936.9
27.5°	3436.8	3431.7	3438.8	3487.5	3506.8	3529.1	3579.8	3673.1	3842.5	4010.9	4180.3
30°	3574.7	3585.9	3573.7	3629.5	3671.1	3696.5	3748.2	3862.8	4044.4	4274.7	4488.7
32.5°	3788.8	3793.8	3773.6	3835.4	3895.3	3933.8	3983.5	4133.7	4332.5	4613.5	4889.4
35°	4245.2	4246.3	4163.1	4153.9	4187.4	4243.2	4316.3	4539.4	4835.6	5268.8	5581.2
37.5°	4937.1	4903.6	4824.5	4670.3	4620.6	4630.7	4735.2	5045.6	5495.0	6294.3	6593.6
40°	5730.3	5691.8	5552.8	5348.9	5202.8	5193.7	5229.2	5601.5	6258.8	7447.7	7598.8
42.5°	6586.5	6560.1	6334.9	6123.9	5937.3	5907.8	5827.7	6201.0	7100.8	8477.3	8476.3
45°	7376.7	7371.6	7096.7	6992.2	6794.4	6717.3	6622.0	6912.1	7966.0	9288.8	9191.4
47.5°	8118.2	8103.0	7810.8	7691.1	7540.0	7498.4	7385.8	7588.7	8705.5	10046.6	9804.1
50°	8905.4	8858.7	8424.6	8303.8	8154.7	8122.3	8063.4	8296.7	9511.0	10709.0	10307.3
52.5°	9820.4	9749.4	9156.9	8932.8	8826.3	8847.6	8810.0	9019.0	10411.8	11262.8	10719.1
55°	10902.7	10689.7	10123.7	9716.9	9480.5	9578.9	9505.9	9766.6	11276.0	11693.9	11019.4
57.5°	11697.0	11696.0	11465.7	10887.5	10351.9	10357.0	10209.9	10507.1	11974.9	12123.0	11194.9
60°	12605.9	12659.7	12738.8	12482.1	11850.2	11585.4	11068.1	11240.5	12536.9	12434.5	11273.0
62.5°	13396.1	13427.5	13777.5	13875.9	13924.6	13859.7	12709.4	12085.5	12996.4	12607.9	11295.3
65°	13367.7	13364.7	14121.4	14780.8	15805.3	15863.1	15531.4	13340.3	13352.5	12630.2	11179.6
67.5°	12063.2	12125.1	13137.4	14550.5	16994.2	17176.8	16719.3	15162.2	13484.4	12620.1	10903.7
68°	11829.9	11856.3	12731.7	14469.3	17044.9	17274.1	16721.3	15314.3	13480.3	12621.1	10818.5
70°	10343.8	10383.3	11403.8	13486.4	17059.1	17138.2	16470.7	15397.5	13346.4	12526.8	10203.8
72.5°	8165.9	8211.5	9141.7	11379.5	15996.0	15993.0	15347.8	14700.6	12893.0	11837.0	8655.8
75°	5916.0	6065.1	6878.6	8937.8	13693.3	13902.3	13819.1	13690.3	11602.7	10003.0	6108.7
77.5°	4147.9	4223.9	4989.8	6722.4	10760.7	11080.2	11641.2	11807.6	9672.3	7428.4	2751.0
80°	2616.1	2759.2	3393.2	4773.7	7839.2	8134.4	8814.1	9094.1	7139.3	3643.7	481.8
82.5°	1524.6	1609.8	2076.5	3091.9	5270.8	5476.7	5922.0	5578.2	2894.1	484.9	267.8
85°	738.5	816.6	1114.8	1759.0	3290.7	3498.6	3739.1	2432.5	478.8	190.7	180.6
87.5°	299.2	307.4	456.5	781.1	1640.3	1818.8	1760.0	798.3	124.8	69.0	56.8
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°	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8	3013.8
2.5°	3033.0	3017.8	2999.6	2993.5	2950.9	2948.8	2913.3	2965.1	2949.9	2950.9	2963.0
5°	3035.1	3017.8	2982.3	2966.1	2920.4	2908.3	2849.4	2881.9	2847.4	2844.4	2864.7
7.5°	3056.4	3037.1	2986.4	2961.0	2875.8	2835.2	2779.4	2807.8	2755.1	2743.9	2748.0
10°	3113.2	3088.8	3027.0	2967.1	2861.6	2802.8	2693.2	2702.3	2655.7	2640.5	2653.7
12.5°	3199.4	3170.0	3095.9	3007.7	2873.8	2770.3	2636.4	2582.7	2511.6	2488.3	2495.4
15°	3317.1	3282.6	3185.2	3082.7	2900.2	2755.1	2572.5	2460.9	2323.0	2284.4	2270.2
17.5°	3445.9	3409.4	3296.8	3168.0	2946.8	2737.9	2499.5	2322.0	2123.1	2035.9	2030.8
20°	3597.0	3557.5	3439.8	3267.4	2984.4	2716.6	2408.2	2153.6	1894.9	1748.8	1738.7
22.5°	3770.5	3736.0	3603.1	3355.6	3003.6	2660.8	2270.2	1938.5	1614.9	1432.3	1423.2
25°	3974.4	3941.9	3755.3	3417.5	2982.3	2562.4	2081.5	1674.8	1285.2	1102.6	1094.5
27.5°	4217.9	4167.1	3875.0	3435.8	2919.4	2401.1	1845.2	1336.0	949.5	810.5	803.4
30°	4494.8	4404.5	3987.6	3430.7	2807.8	2195.2	1519.6	985.0	674.6	581.2	578.2
32.5°	4843.7	4685.5	4095.1	3390.1	2648.6	1925.3	1156.4	683.7	484.9	439.2	438.2
35°	5426.0	5087.2	4212.8	3317.1	2432.5	1571.3	801.4	465.6	394.6	385.5	385.5
37.5°	6294.3	5749.6	4380.2	3200.4	2152.5	1198.0	527.5	370.3	371.3	376.3	377.4
40°	7186.0	6511.4	4622.6	3027.0	1825.9	841.9	383.4	343.9	356.1	364.2	370.3
42.5°	8004.6	7201.2	4892.4	2789.6	1456.7	555.9	342.9	330.7	336.8	342.9	349.0
45°	8691.3	7805.8	5147.0	2518.7	1079.3	395.6	339.8	315.5	312.4	316.5	320.5
47.5°	9270.6	8297.8	5325.6	2213.4	734.4	338.8	331.7	299.2	289.1	290.1	292.1
50°	9712.8	8645.7	5404.7	1877.6	486.9	329.7	316.5	282.0	265.8	265.8	267.8
52.5°	10011.1	8863.8	5358.0	1499.3	350.0	324.6	304.3	263.7	244.5	247.5	249.5
55°	10232.2	8980.4	5174.4	1101.6	308.4	309.4	290.1	242.4	226.2	234.3	237.4
57.5°	10318.4	8977.4	4866.1	760.8	306.3	286.1	269.8	224.2	211.0	222.2	227.2
60°	10287.0	8829.3	4417.7	518.4	300.3	267.8	248.5	206.9	196.8	196.8	197.8
62.5°	10224.1	8621.3	3767.5	384.5	286.1	254.6	232.3	192.7	180.6	174.5	172.4
65°	9940.1	8117.2	2766.3	331.7	271.9	247.5	217.1	179.5	163.3	153.2	151.1
67.5°	9378.1	7249.9	1545.9	306.3	261.7	243.5	206.9	167.4	149.1	136.9	135.9
68°	9205.6	6979.0	1310.6	304.3	263.7	243.5	205.9	164.3	147.1	133.9	132.9
70°	8185.2	5629.9	541.7	286.1	277.9	244.5	200.9	155.2	139.0	125.8	124.8
72.5°	6190.9	3261.3	286.1	248.5	270.8	240.4	202.9	148.1	131.9	116.7	114.6
75°	3411.4	934.3	254.6	201.9	250.6	253.6	206.9	147.1	127.8	108.5	104.5
77.5°	757.8	304.3	237.4	176.5	216.1	233.3	191.7	140.0	129.8	99.4	95.4
80°	290.1	247.5	225.2	135.9	171.4	197.8	159.3	124.8	132.9	93.3	88.3
82.5°	242.4	217.1	206.9	105.5	118.7	145.1	127.8	106.5	122.7	86.2	82.2
85°	178.5	210.0	146.1	83.2	87.2	89.3	89.3	83.2	105.5	76.1	72.0
87.5°	72.0	101.4	61.9	38.5	44.6	41.6	36.5	44.6	60.9	53.8	53.8
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)