

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: P591177

Luminaire Tested: **CTN-CA8-330-722-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591177
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-722-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17539 lumens
Efficiency: N/A
Efficacy: 52.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

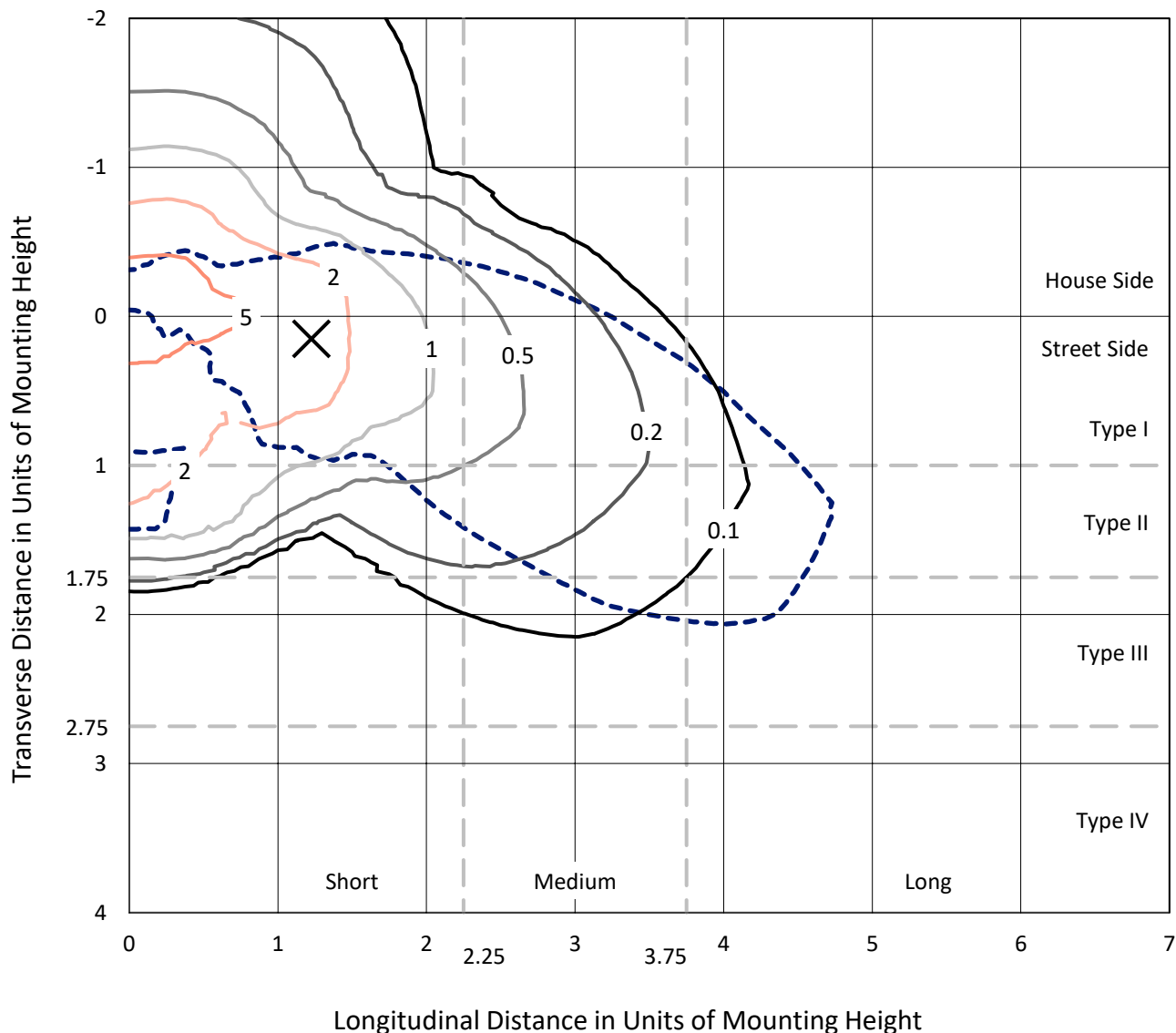
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

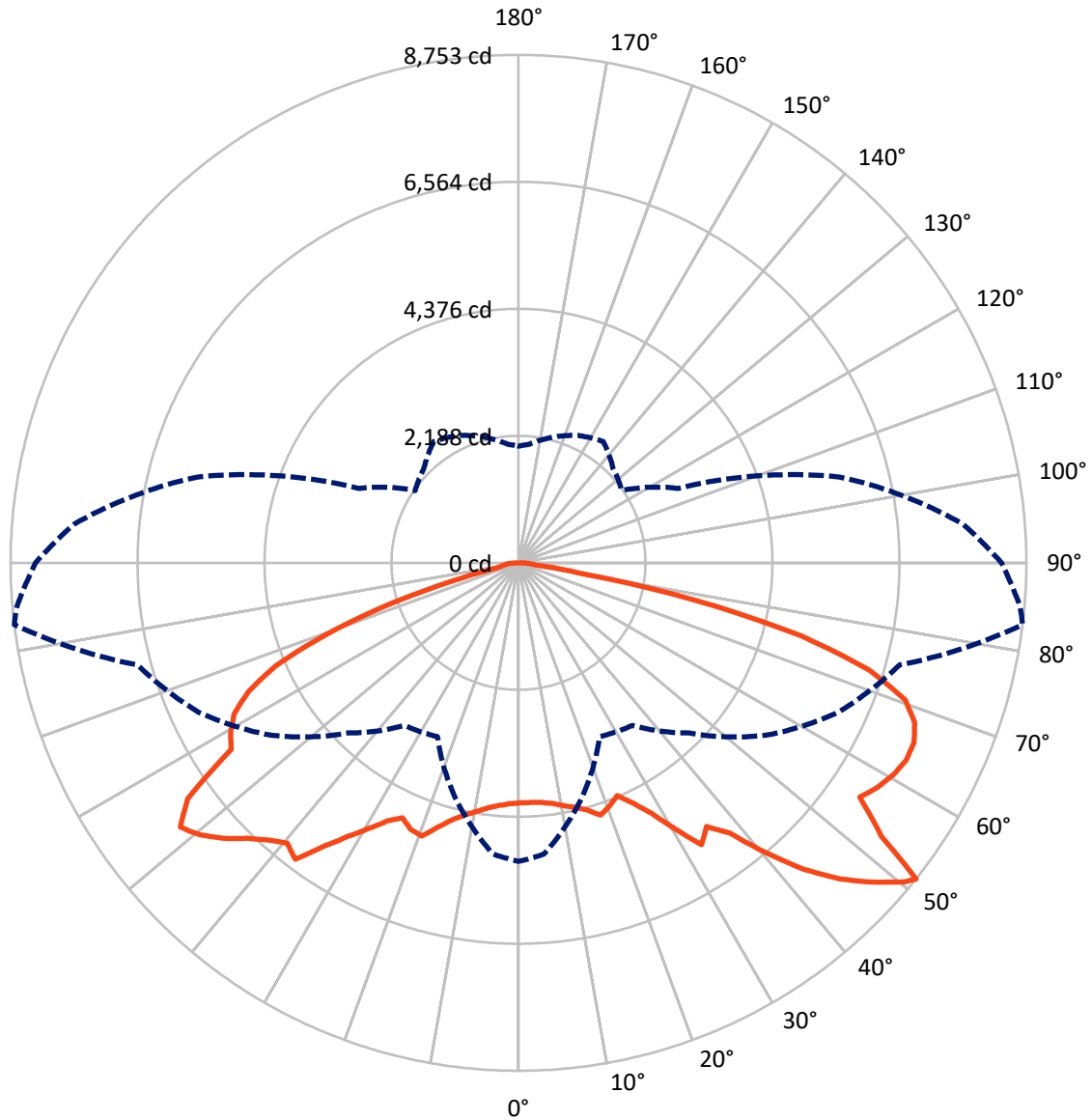
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc
 Type II - Short - N/A

REPORT NUMBER: P591177
CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX180

Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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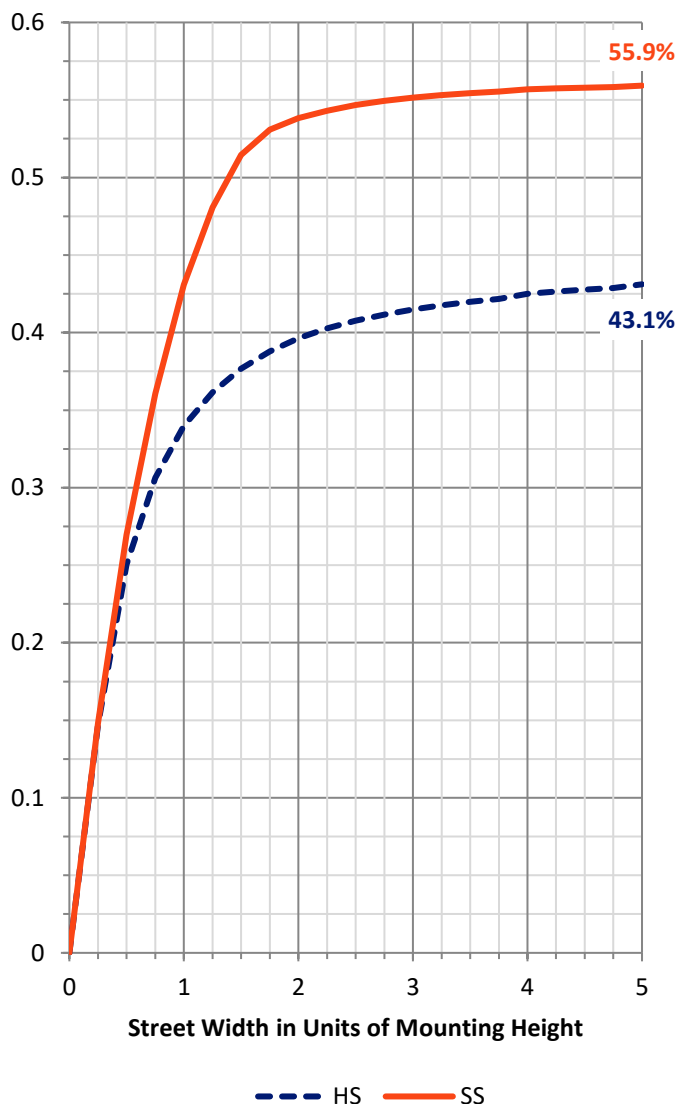
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7730.4	0.0	7730.4
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	9808.6	0.0	9808.6
	% Fixture	55.9	0.0	55.9
Total	Lumens	17539.0	0.0	17539.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	403.8	2.3
10°-20°	1229.0	7.0
20°-30°	1909.1	10.9
30°-40°	2554.5	14.6
40°-50°	3314.2	18.9
50°-60°	3529.7	20.1
60°-70°	2458.8	14.0
70°-80°	1715.4	9.8
80°-90°	424.4	2.4
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°	17539.0	100.0
0°-180°	17539.0	100.0

Coefficient of Utilization

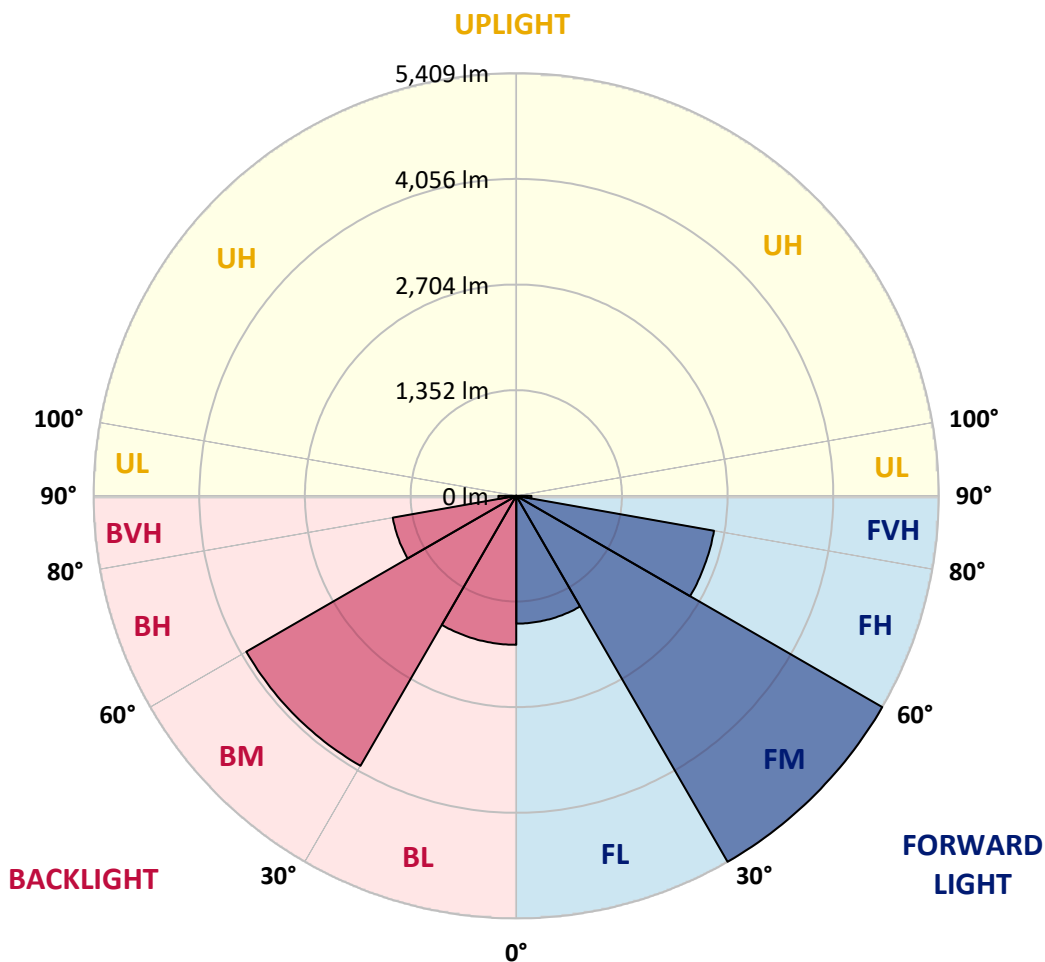


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 CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1635.3	9.3			
FM	(30°-60°)	5408.5	30.8			
FH	(60°-80°)	2569.9	14.7			G2/5000
FVH	(80°-90°)	194.9	1.1			G2/225
BL	(0°-30°)	1906.6	10.9	B3/2500		
BM	(30°-60°)	3989.9	22.7	B3/5000		
BH	(60°-80°)	1604.4	9.1	B3/2500		G3/2500
BVH	(80°-90°)	229.6	1.3			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type II Short





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CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0
2.5°	4084.7	4056.3	4058.8	4097.0	4046.5	4079.7	4074.8	4134.0	4122.9	4135.2	4143.9
5°	4048.9	4026.7	4026.7	4077.3	4041.5	4077.3	4052.6	4104.4	4121.7	4148.8	4158.7
7.5°	4056.3	4032.9	4042.8	4087.1	4047.7	4084.7	4083.4	4132.8	4138.9	4187.0	4203.0
10°	4077.3	4051.4	4056.3	4092.1	4069.9	4134.0	4122.9	4190.7	4190.7	4254.8	4279.5
12.5°	4034.1	4016.9	4026.7	4074.8	4094.5	4161.1	4175.9	4245.0	4254.8	4323.9	4354.7
15°	3987.3	3962.6	3994.7	4063.7	4097.0	4193.2	4225.2	4331.3	4346.1	4417.6	4452.1
17.5°	3760.4	3744.4	3803.6	3859.1	3877.5	3971.2	4034.1	4210.4	4422.5	4571.7	4612.4
20°	3309.2	3306.7	3197.0	3173.5	3460.8	3803.6	3846.7	3997.1	4242.5	4475.5	4558.1
22.5°	2763.0	2837.0	3193.3	3306.7	3299.3	3434.9	3987.3	4129.1	4237.6	4355.9	4405.2
25°	2763.0	2756.8	2967.6	3455.9	3457.1	3515.1	3638.4	4348.5	4452.1	4587.7	4627.2
27.5°	2850.5	2856.7	2843.1	3199.4	3627.3	3681.5	3734.5	4101.9	4736.9	4887.3	4952.7
30°	2998.5	3008.3	2954.1	2955.3	3684.0	3846.7	3947.8	4092.1	4935.4	5321.3	5350.9
32.5°	3290.7	3287.0	3219.2	3131.6	3232.7	4008.2	4156.2	4343.6	4622.2	5789.8	5858.9
35°	3523.7	3507.7	3460.8	3400.4	3267.2	3962.6	4354.7	4613.6	4968.7	5581.4	5946.4
37.5°	3782.6	3759.2	3706.2	3632.2	3511.4	2765.4	4550.7	4921.8	5472.9	5908.2	5931.6
40°	4074.8	4048.9	3976.2	3867.7	3713.6	2833.3	4638.3	5302.8	6130.1	6567.8	6564.1
42.5°	4299.2	4273.3	4235.1	4120.4	3264.8	3125.5	4045.2	5837.9	6841.5	7221.2	7189.2
45°	4489.1	4466.9	4470.6	4349.8	3062.6	3484.2	4506.3	6117.8	7512.2	7771.1	7729.2
47.5°	4637.0	4602.5	4508.8	3659.3	3141.5	3732.1	4881.1	5336.1	8078.1	8224.8	8178.0
50°	4997.0	4939.1	4381.8	3248.8	3341.2	4035.4	5237.5	5886.0	7358.1	8637.9	8555.3
51°	5143.8	5039.0	4199.3	3305.5	3420.1	4145.1	5184.4	6085.7	6797.1	8752.5	8678.5
52.5°	5297.9	5090.7	3698.8	3391.8	3516.3	4296.7	4404.0	6392.7	6953.7	7832.8	8269.2
55°	4469.3	4550.7	3819.6	3707.4	3698.8	3713.6	4497.7	6850.1	7280.4	7132.5	7046.2
57.5°	2628.6	2676.7	3880.0	4151.3	3200.7	2949.2	4745.5	7195.3	7562.8	7296.4	7200.3
60°	1321.7	1383.3	1412.9	1288.4	1726.1	2690.2	3997.1	5215.3	7735.4	7419.7	7303.8
62.5°	57.9	96.2	38.2	41.9	70.3	938.3	2936.8	5357.1	7880.8	7494.9	7342.1
65°	4.9	4.9	6.2	12.3	30.8	985.1	3268.5	5553.1	7940.0	7487.5	7282.9
67.5°	1.2	1.2	2.5	8.6	22.2	1066.5	3658.1	5633.2	7942.5	7361.8	7111.5
70°	0.0	1.2	2.5	7.4	19.7	1115.8	3743.2	5617.2	7841.4	7065.9	6721.9
72.5°	0.0	0.0	1.2	6.2	17.3	1052.9	3644.5	5585.1	7496.2	6321.2	5833.0
75°	0.0	0.0	1.2	4.9	14.8	1071.4	3654.4	5225.1	6545.6	5032.8	4439.8
77.5°	0.0	0.0	1.2	4.9	13.6	988.8	3346.2	4524.8	5173.3	3132.9	2484.3
80°	0.0	0.0	1.2	4.9	12.3	848.3	2751.9	3532.3	2894.9	1062.8	685.5
82.5°	0.0	0.0	1.2	4.9	9.9	574.5	1828.4	1765.5	583.2	304.5	273.7
85°	0.0	0.0	1.2	3.7	7.4	342.8	916.1	240.4	225.6	193.6	175.1
87.5°	0.0	0.0	1.2	2.5	4.9	145.5	282.3	74.0	93.7	78.9	70.3
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: P591177

CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0	4134.0
2.5°	4151.3	4151.3	4164.8	4210.4	4205.5	4242.5	4221.5	4267.1	4270.8	4262.2	4283.2
5°	4167.3	4182.1	4227.7	4275.8	4256.1	4310.3	4336.2	4396.6	4394.1	4386.7	4411.4
7.5°	4212.9	4243.7	4289.3	4347.3	4368.2	4412.6	4415.1	4497.7	4492.8	4489.1	4513.7
10°	4289.3	4330.0	4380.6	4468.1	4455.8	4519.9	4492.8	4553.2	4552.0	4549.5	4574.1
12.5°	4368.2	4427.4	4489.1	4574.1	4572.9	4575.4	4552.0	4582.8	4576.6	4559.4	4577.8
15°	4479.2	4558.1	4643.2	4704.8	4650.6	4639.5	4587.7	4569.2	4533.5	4484.1	4498.9
17.5°	4662.9	4740.6	4849.1	4882.4	4793.6	4743.1	4602.5	4500.2	4389.2	4314.0	4330.0
20°	4828.1	4972.4	5075.9	5073.5	4960.1	4826.9	4608.7	4436.1	4221.5	4076.0	4063.7
22.5°	4622.2	4865.1	5316.4	5263.3	5064.8	4876.2	4601.3	4333.7	3977.4	3751.8	3743.2
25°	4740.6	4745.5	5149.9	5369.4	5111.7	4855.3	4512.5	4155.0	3698.8	3464.5	3451.0
27.5°	5042.7	5015.5	4903.3	5256.0	5068.5	4748.0	4333.7	3850.4	3444.8	3241.4	3231.5
30°	5401.4	5317.6	5053.8	4706.1	4891.0	4539.6	4058.8	3538.5	3215.5	3030.5	3015.7
32.5°	5830.5	5654.2	5190.6	4645.7	4309.1	4225.2	3703.7	3291.9	3025.6	2833.3	2795.0
35°	6339.7	6075.8	5322.5	4543.3	3855.4	3759.2	3369.6	3070.0	2846.8	2652.0	2613.8
37.5°	6338.5	6613.4	5517.3	4402.8	3574.2	3236.4	3126.7	2922.0	2722.3	2486.8	2443.7
40°	6385.3	6393.9	5731.9	4265.9	3311.6	2967.6	2982.4	2849.3	2643.4	2384.5	2340.1
42.5°	6954.9	6535.7	5994.5	4082.2	3063.8	2769.1	2920.8	2823.4	2601.5	2336.4	2287.1
45°	7450.6	6967.2	5418.7	3881.2	2803.7	2615.0	2871.5	2763.0	2542.3	2278.4	2223.0
47.5°	7882.1	7310.0	5565.4	3529.9	2549.7	2489.3	2776.5	2647.1	2436.3	2190.9	2141.6
50°	8210.0	7593.6	5693.6	3057.6	2303.1	2363.5	2622.4	2490.5	2287.1	2088.6	2046.7
51°	8322.2	7684.8	5719.5	3036.7	2172.4	2304.3	2549.7	2421.5	2239.0	2049.1	2010.9
52.5°	8443.1	7803.2	5757.8	3083.5	1987.5	2206.9	2431.3	2319.1	2167.5	2004.7	1961.6
55°	7020.3	7332.2	5660.4	2984.9	1772.9	2013.4	2214.3	2163.8	2079.9	1935.7	1904.9
57.5°	6763.8	6204.1	4695.0	2527.5	1584.3	1782.8	2003.5	2036.8	1972.7	1826.0	1803.8
60°	6819.3	6147.4	4180.8	1885.1	1396.9	1576.9	1845.7	1875.3	1819.8	1708.8	1678.0
62.5°	6809.4	6001.9	3728.4	1327.9	1234.2	1469.6	1732.3	1744.6	1668.1	1575.7	1547.3
65°	6646.7	5667.7	3110.7	1004.8	1144.2	1410.5	1665.7	1671.8	1576.9	1458.5	1443.8
67.5°	6284.2	5138.8	2163.8	882.8	1093.6	1364.8	1621.3	1594.2	1502.9	1378.4	1356.2
70°	5590.1	4187.0	1011.0	812.5	1017.2	1281.0	1512.8	1480.7	1380.9	1265.0	1245.3
72.5°	4481.7	2909.7	479.6	743.5	937.0	1176.2	1379.6	1329.1	1246.5	1203.3	1192.2
75°	2933.1	1366.1	400.7	669.5	831.0	1049.2	1265.0	1246.5	1170.0	1083.7	1041.8
77.5°	1189.8	360.0	362.5	594.3	745.9	966.6	1142.9	1128.1	1027.0	949.4	932.1
80°	299.6	270.0	331.7	490.7	649.8	842.1	1002.4	960.4	923.5	839.6	812.5
82.5°	228.1	217.0	260.1	379.7	533.9	694.1	855.6	872.9	811.3	747.2	733.6
85°	159.0	197.3	157.8	270.0	395.8	547.4	717.6	748.4	706.5	633.7	584.4
87.5°	87.5	103.6	65.3	141.8	209.6	299.6	411.8	415.5	344.0	315.6	297.1
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)