

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: P591172

Luminaire Tested: **CTN-CA8-330-722-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591172  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)  
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-T2-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 28987 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G4

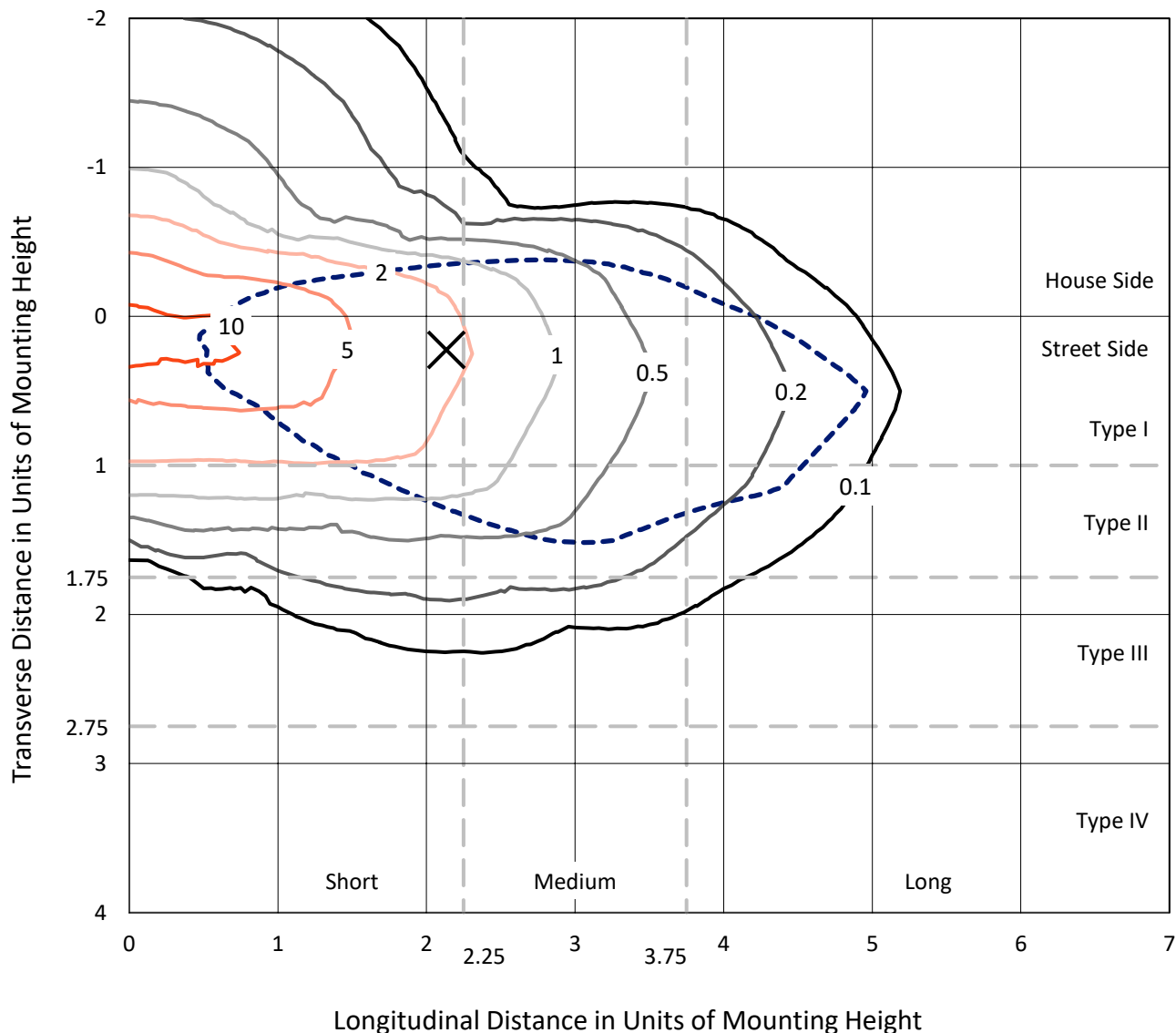
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P591172  
 CATALOG NUMBER: CTN-CA8-330-722-U-T2-SSS-HM-EX90

### Iso-Footcandle Lines of Horizontal Illumination

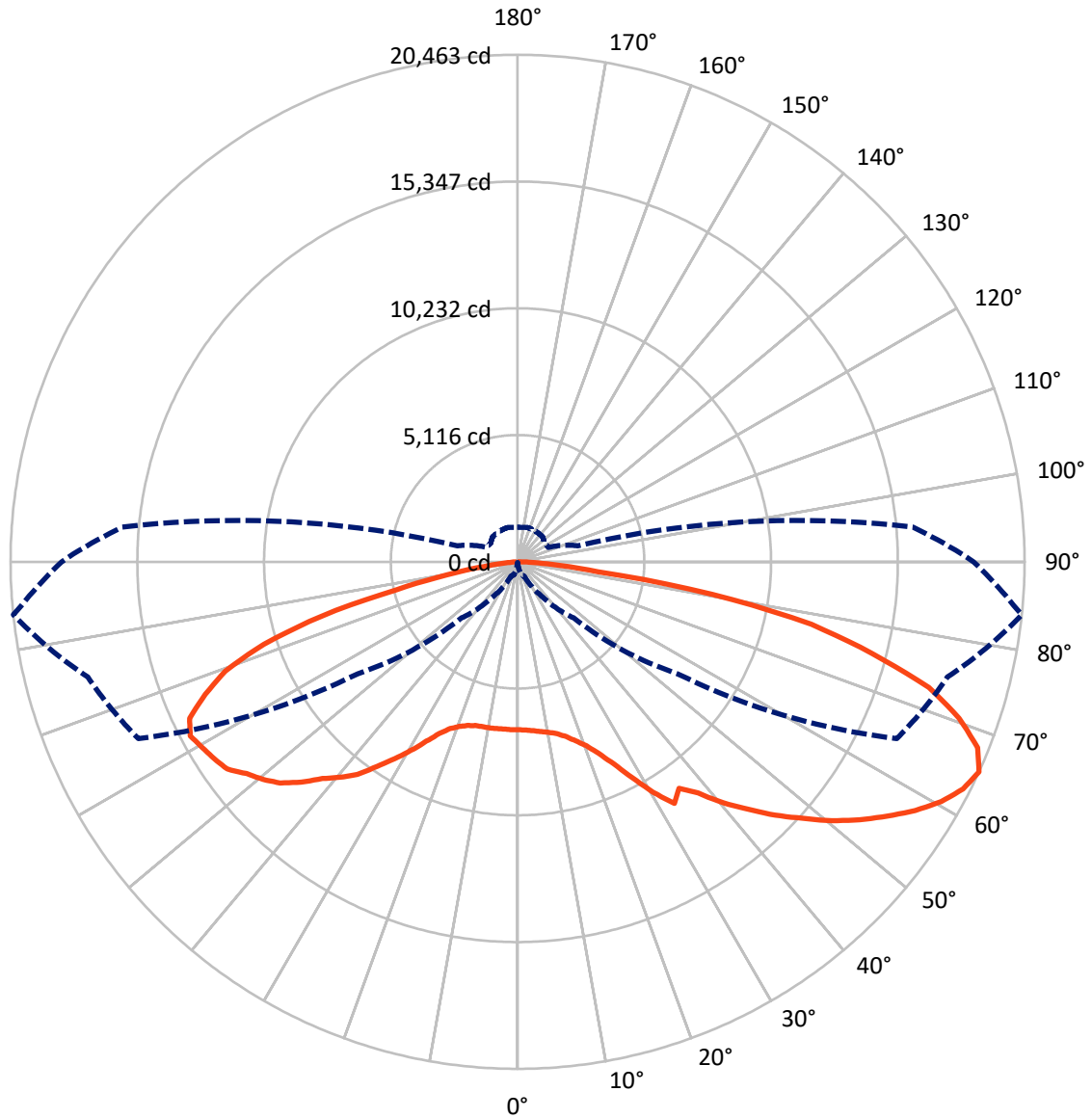
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.6 fc  
 Type II - Short - N/A

REPORT NUMBER: P591172  
CATALOG NUMBER: CTN-CA8-330-722-U-T2-SSS-HM-EX90

### Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P591172  
 CATALOG NUMBER: CTN-CA8-330-722-U-T2-SSS-HM-EX90

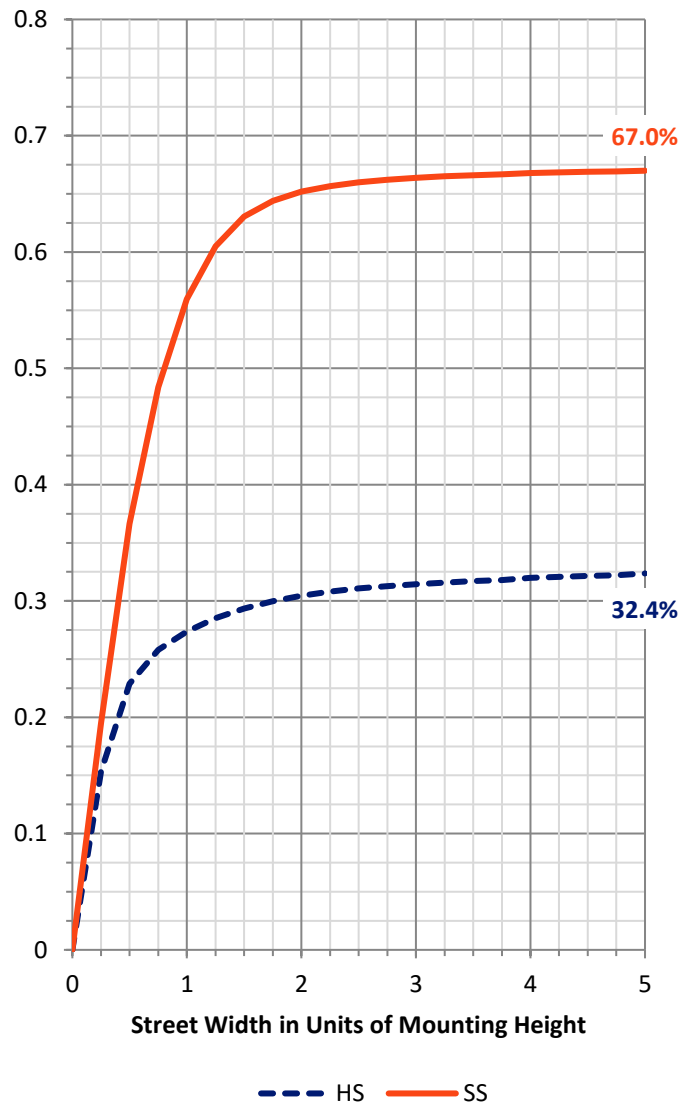
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9596.1	0.0	9596.1
	% Fixture	33.1	0.0	33.1
<b>Street Side</b>	Lumens	19390.9	0.0	19390.9
	% Fixture	66.9	0.0	66.9
<b>Total</b>	Lumens	28987.0	0.0	28987.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	654.2	2.3
10°-20°	1947.2	6.7
20°-30°	2925.6	10.1
30°-40°	3890.5	13.4
40°-50°	4803.5	16.6
50°-60°	5397.8	18.6
60°-70°	5294.1	18.3
70°-80°	3442.4	11.9
80°-90°	631.7	2.2
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°	28987.0	100.0
0°-180°	28987.0	100.0

**Coefficient of Utilization**

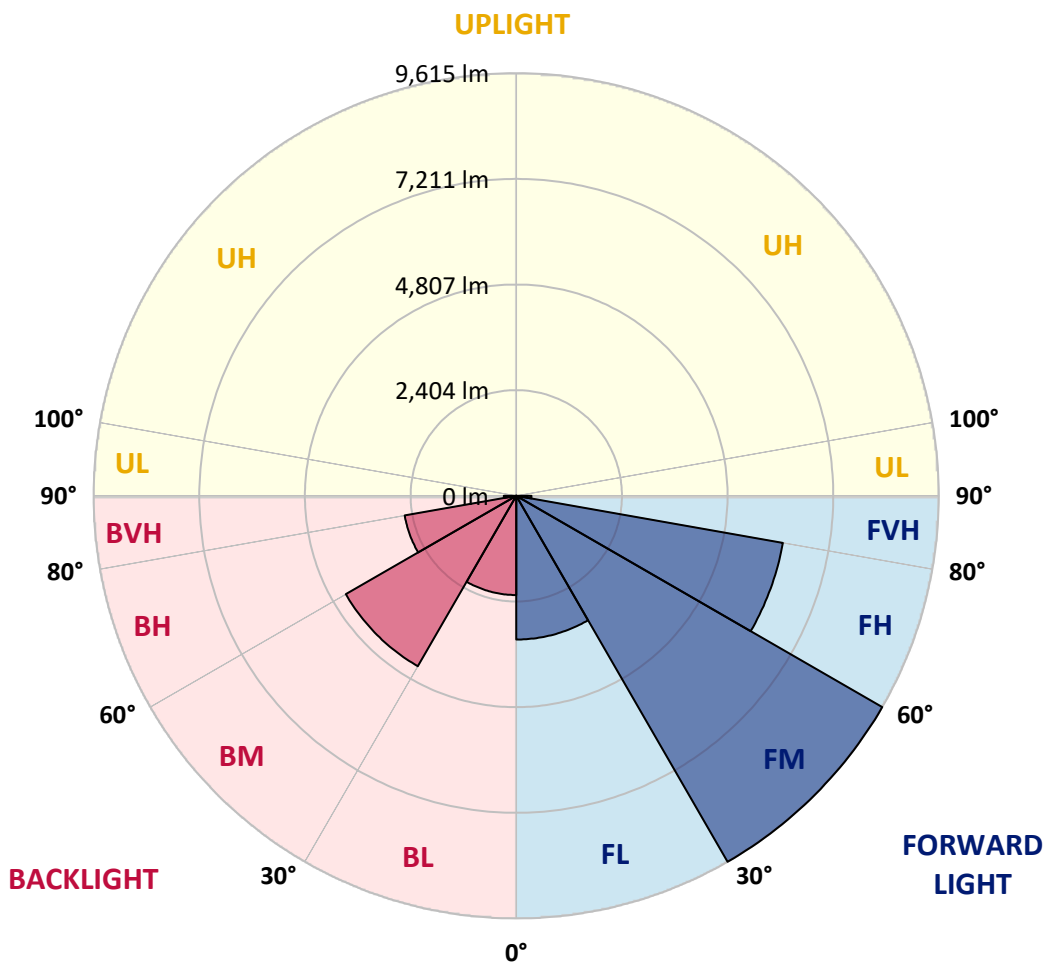


REPORT NUMBER: P591172  
 CATALOG NUMBER: CTN-CA8-330-722-U-T2-SSS-HM-EX90

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3269.6	11.3			
FM	(30°-60°)	9614.9	33.2			
FH	(60°-80°)	6159.4	21.2			G3/7500
FVH	(80°-90°)	347.0	1.2			G3/500
BL	(0°-30°)	2257.4	7.8	B3/2500		
BM	(30°-60°)	4477.0	15.4	B3/5000		
BH	(60°-80°)	2577.1	8.9	B4/5000		G4/5000
BVH	(80°-90°)	284.7	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type II Short





REPORT NUMBER: P591172

CATALOG NUMBER: CTN-CA8-330-722-U-T2-SSS-HM-EX90

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3
2.5°	7067.3	7000.7	7008.1	7040.1	6916.9	6957.5	6888.5	6900.8	6818.2	6803.4	6812.1
5°	7564.2	7492.6	7492.6	7512.4	7305.2	7249.8	7057.4	7025.4	6903.3	6849.0	6851.5
7.5°	7820.6	7750.3	7736.8	7755.3	7606.1	7618.4	7421.1	7232.5	7015.5	6919.3	6914.4
10°	8197.9	8119.0	8072.1	8073.4	7872.4	7795.9	7650.5	7518.5	7186.9	6999.5	6976.0
12.5°	8502.4	8442.0	8417.4	8398.9	8176.9	8126.4	7852.7	7745.4	7391.5	7121.5	7090.7
15°	8678.7	8622.0	8586.3	8544.3	8421.1	8338.4	8220.1	7976.0	7634.4	7317.6	7279.3
17.5°	8218.8	8121.4	7952.5	7878.6	7850.2	7969.8	8479.0	8354.5	7947.6	7596.2	7555.5
20°	7005.6	7094.4	7222.6	6931.6	7021.7	7910.6	8866.1	8855.1	8385.3	7930.3	7877.3
22.5°	5960.1	5725.8	6130.2	6574.1	6857.7	7696.1	9016.6	9433.3	8978.3	8400.1	8338.4
25°	4886.2	5019.3	5564.3	6458.2	6855.2	7533.3	8934.0	9877.2	9736.6	9040.0	8967.3
27.5°	4740.7	4743.2	5267.2	5951.5	6990.8	7910.6	9024.0	9894.4	10593.5	9867.3	9726.7
30°	4709.9	4695.1	4836.9	5667.9	6751.6	8263.2	9603.5	10048.5	10801.9	10792.0	10604.6
32.5°	4565.6	4557.0	4704.9	5082.2	6240.0	8636.8	10152.1	10767.4	10726.7	11625.5	11574.9
35°	4359.7	4390.5	4574.2	4966.3	5999.5	8326.1	10715.6	11591.0	11660.0	11221.1	11422.1
37.5°	4145.2	4162.4	4340.0	4813.4	5597.6	7782.4	11144.6	12398.6	12635.3	11842.5	11682.2
40°	3853.0	3888.7	4097.1	4629.7	5516.2	7278.1	10841.3	13318.3	13687.0	12790.6	12544.0
42.5°	3543.5	3560.8	3814.7	4331.4	5380.6	7285.5	10218.7	14112.4	14656.1	13656.2	13405.9
45°	3272.3	3277.2	3515.1	3977.5	5113.0	7239.9	9825.4	14144.4	15816.3	14583.3	14268.9
47.5°	2940.6	2987.4	3222.9	3684.1	4771.5	7087.0	10009.1	13149.4	16980.2	15467.4	15180.1
50°	2255.1	2292.1	2748.2	3396.8	4397.9	6831.8	10134.9	13950.8	15683.1	16426.6	16220.7
52.5°	1939.4	1876.6	2204.5	3073.7	4056.4	6406.4	10187.9	15075.3	15680.7	17294.6	17088.7
55°	829.8	1272.4	1986.3	2523.9	3744.5	5839.3	10149.7	16175.1	16445.1	18113.3	18041.8
57.5°	655.9	686.8	1459.8	2041.8	3374.6	5168.5	9977.0	16902.5	17115.8	18933.2	18729.8
60°	120.8	136.9	717.6	863.1	2443.7	4167.4	9348.2	17006.1	17605.3	19647.1	19386.9
62.5°	55.5	65.3	577.0	718.8	1954.2	3427.6	8809.4	16972.8	18057.8	20177.2	19947.9
65°	25.9	33.3	516.6	652.2	1691.6	3198.3	7876.1	16882.8	17957.9	20463.3	20090.9
67.5°	19.7	28.4	474.7	585.7	1406.8	2970.2	6989.6	15938.4	17477.1	20020.7	19504.0
70°	19.7	28.4	434.0	532.6	1193.5	2680.4	5674.0	14756.0	16379.8	18902.4	18472.1
72.5°	21.0	28.4	385.9	482.1	1034.4	2314.2	4432.5	12868.3	15064.2	17358.7	16906.2
75°	21.0	28.4	332.9	426.6	871.7	1938.2	2967.7	9197.8	12975.6	14774.4	14271.4
77.5°	21.0	28.4	276.2	356.3	710.2	1548.6	1919.7	4958.9	10208.8	12116.2	11471.4
80°	21.0	28.4	205.9	270.0	533.9	1092.4	1146.6	2500.4	5492.8	7959.9	8072.1
82.5°	21.0	27.1	143.0	197.3	348.9	599.2	633.7	1207.1	2027.0	3264.9	3310.5
85°	19.7	23.4	102.3	130.7	191.1	225.6	308.2	600.4	971.6	1393.2	1382.1
87.5°	12.3	12.3	33.3	51.8	77.7	88.8	138.1	221.9	335.4	459.9	434.0
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: P591172

CATALOG NUMBER: CTN-CA8-330-722-U-T2-SSS-HM-EX90

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3	6776.3
2.5°	6810.8	6782.5	6746.7	6736.8	6653.0	6613.5	6533.4	6569.2	6528.5	6495.2	6533.4
5°	6820.7	6778.8	6703.6	6614.8	6436.0	6354.6	6241.2	6253.5	6194.3	6148.7	6174.6
7.5°	6845.3	6793.6	6675.2	6475.5	6262.2	6133.9	6015.6	6108.0	6067.4	6032.8	6058.7
10°	6857.7	6817.0	6607.4	6396.5	6089.5	6019.3	5871.3	5860.2	5863.9	5860.2	5900.9
12.5°	6891.0	6833.0	6528.5	6259.7	5998.3	5812.1	5720.9	5719.7	5602.5	5552.0	5574.2
15°	6989.6	6863.8	6475.5	6096.9	5808.4	5685.1	5396.6	5397.9	5348.5	5290.6	5289.4
17.5°	7186.9	6956.3	6475.5	5987.2	5633.4	5384.3	5132.8	4995.9	4962.6	4970.0	4965.1
20°	7447.0	7111.7	6473.0	5825.7	5386.8	5129.1	4766.6	4650.7	4545.9	4553.3	4553.3
22.5°	7820.6	7341.0	6477.9	5677.7	5151.3	4801.1	4393.0	4246.3	4134.1	4137.8	4137.8
25°	8356.9	7734.3	6535.9	5587.7	4835.6	4415.2	4003.4	3775.3	3660.6	3661.9	3664.3
27.5°	9040.0	8283.0	6736.8	5396.6	4573.0	3959.0	3507.7	3340.1	3225.4	3195.8	3195.8
30°	9813.1	8941.4	6997.0	5272.1	4166.1	3444.9	3070.0	2945.5	2807.4	2766.7	2766.7
32.5°	10670.0	9602.2	7265.8	5119.2	3782.7	3003.5	2691.5	2576.9	2404.3	2353.7	2336.4
35°	11561.4	10285.3	7592.5	4904.7	3300.6	2639.7	2363.6	2224.2	2099.7	2033.1	2017.1
37.5°	12042.2	11063.3	7887.2	4687.7	2928.3	2352.5	2044.2	1935.7	1853.1	1806.3	1797.6
40°	12703.1	11629.2	8040.1	4328.9	2527.5	2060.3	1749.6	1744.6	1755.7	1713.8	1711.3
42.5°	13376.3	12187.7	7998.2	3848.0	2215.6	1761.9	1601.6	1686.7	1748.3	1711.3	1713.8
45°	14218.4	12939.8	8151.0	3342.5	1907.4	1596.7	1570.8	1670.6	1755.7	1747.1	1747.1
47.5°	15070.4	13667.3	7868.7	2723.6	1700.2	1548.6	1574.5	1644.8	1750.8	1779.1	1773.0
50°	15764.5	14165.4	7694.8	2198.4	1583.1	1549.8	1586.8	1612.7	1728.6	1774.2	1773.0
52.5°	16325.5	14640.1	7046.3	1855.6	1516.5	1554.8	1626.3	1607.8	1689.1	1737.2	1765.6
55°	17119.5	15297.2	6307.8	1723.7	1482.0	1549.8	1639.8	1625.0	1658.3	1680.5	1701.5
57.5°	17733.5	15624.0	5318.9	1638.6	1451.2	1542.4	1628.7	1630.0	1646.0	1637.4	1628.7
60°	18248.9	15922.3	4351.1	1556.0	1411.7	1526.4	1581.9	1599.1	1594.2	1583.1	1560.9
62.5°	18500.4	16245.4	3379.5	1468.4	1369.8	1479.5	1505.4	1525.2	1514.1	1477.1	1474.6
65°	18405.5	16013.6	2505.4	1373.5	1319.3	1427.8	1426.5	1435.2	1440.1	1393.2	1398.2
67.5°	17872.9	14995.1	1908.6	1252.7	1261.3	1353.8	1347.6	1352.5	1339.0	1306.9	1311.9
70°	16324.3	13838.6	1353.8	1049.2	1142.9	1237.9	1246.5	1267.5	1236.6	1179.9	1183.6
72.5°	14034.7	11851.1	949.4	835.9	1003.6	1124.5	1119.5	1118.3	1076.4	1098.6	1125.7
75°	11970.7	9075.8	721.3	673.2	792.8	967.9	1023.3	1027.0	1033.2	1255.1	1271.2
77.5°	9215.1	5490.3	614.0	531.4	615.2	802.7	906.2	948.1	1302.0	1348.8	1324.2
80°	5491.6	3171.1	474.7	414.3	496.9	612.8	774.3	1001.2	1308.2	1168.8	1118.3
82.5°	2673.0	1470.9	345.2	315.6	366.2	445.1	607.8	1166.4	1107.2	903.8	891.4
85°	997.5	496.9	207.1	215.8	244.1	292.2	462.4	1113.4	849.5	736.1	695.4
87.5°	249.1	91.2	83.8	86.3	109.7	146.7	236.7	536.3	411.8	341.5	334.1
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)