

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: P522188

Luminaire Tested: **CTN-CA6-230-730-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA6-230-730-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (6) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28646 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U1 - G4

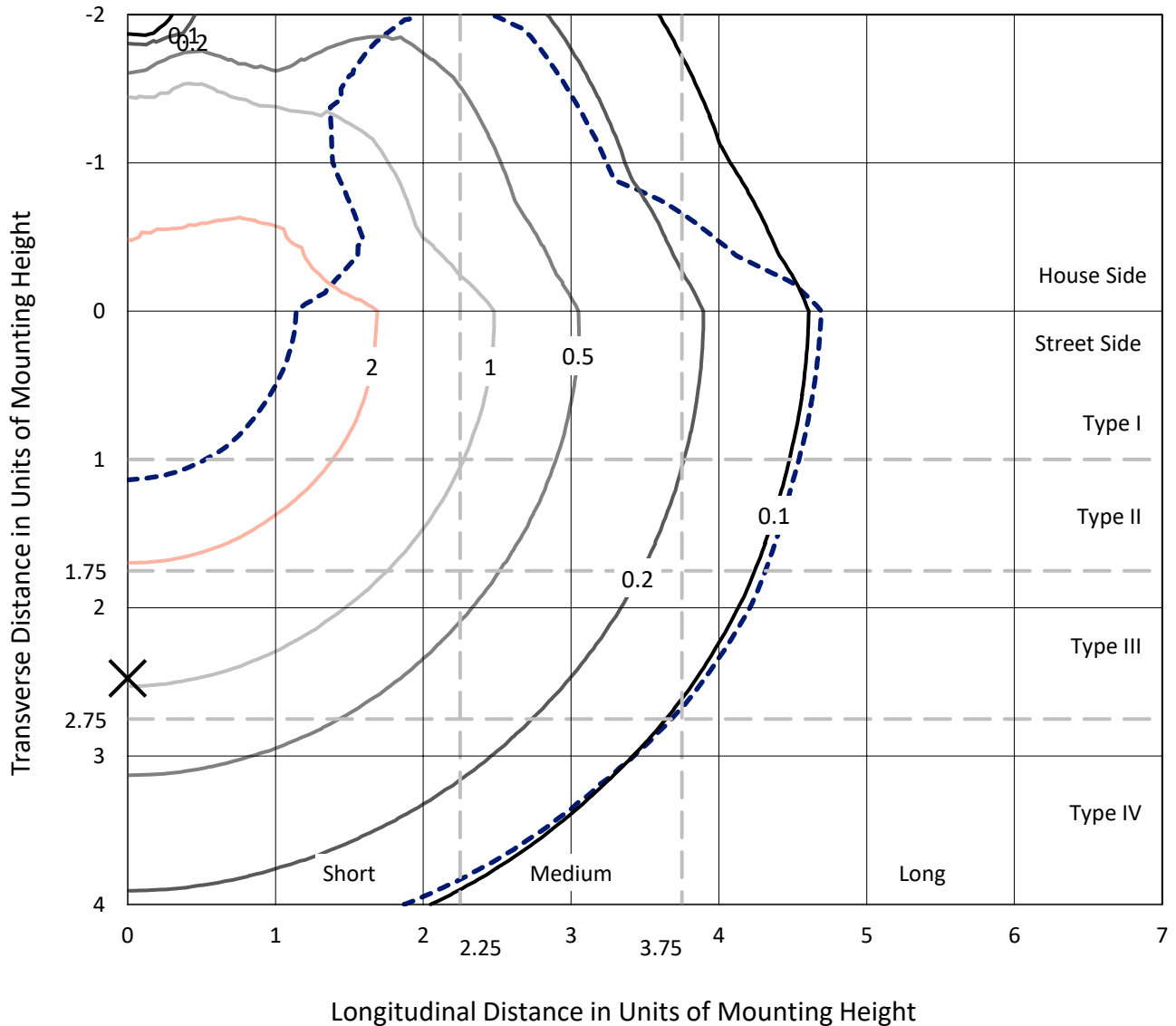
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

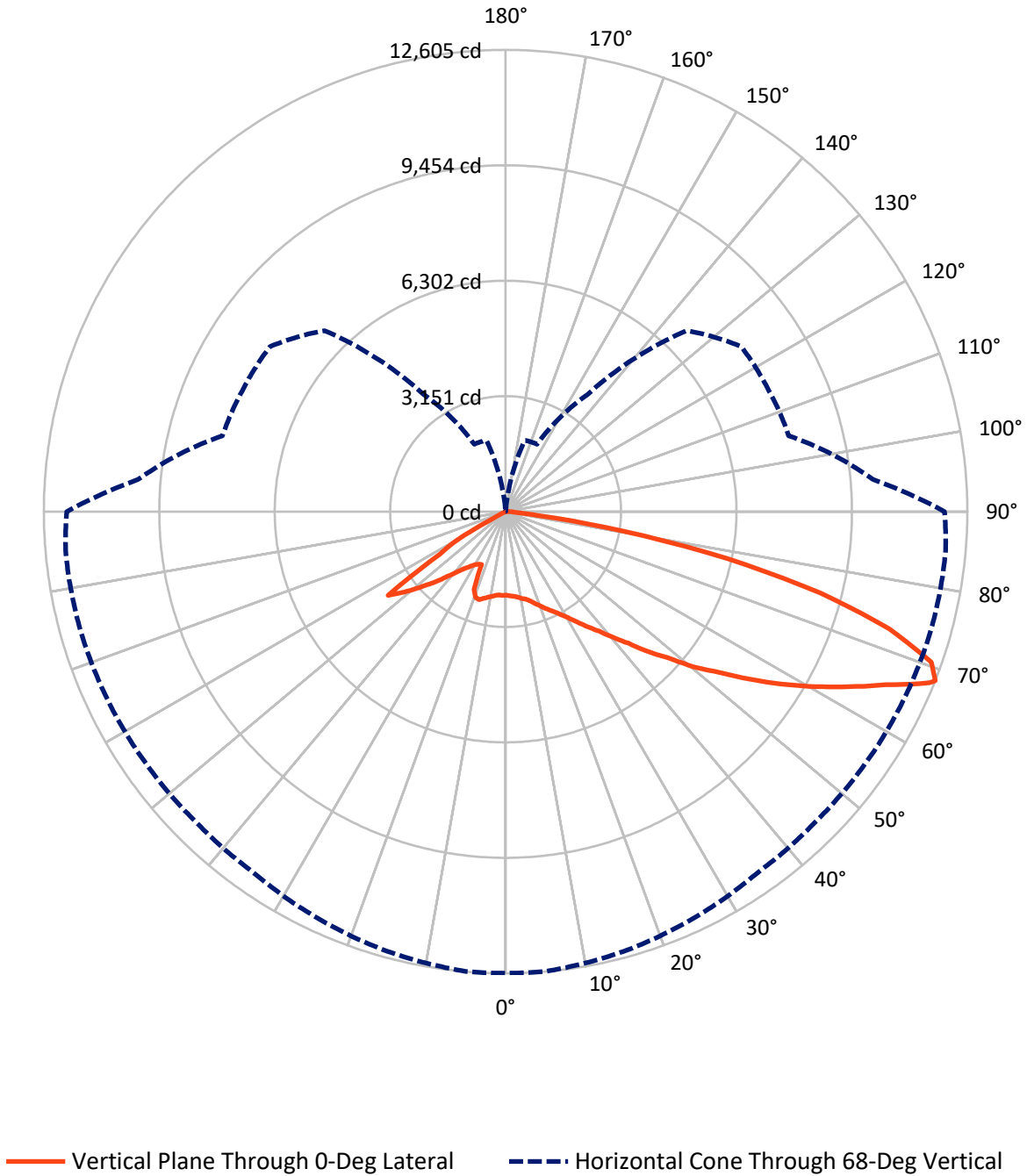
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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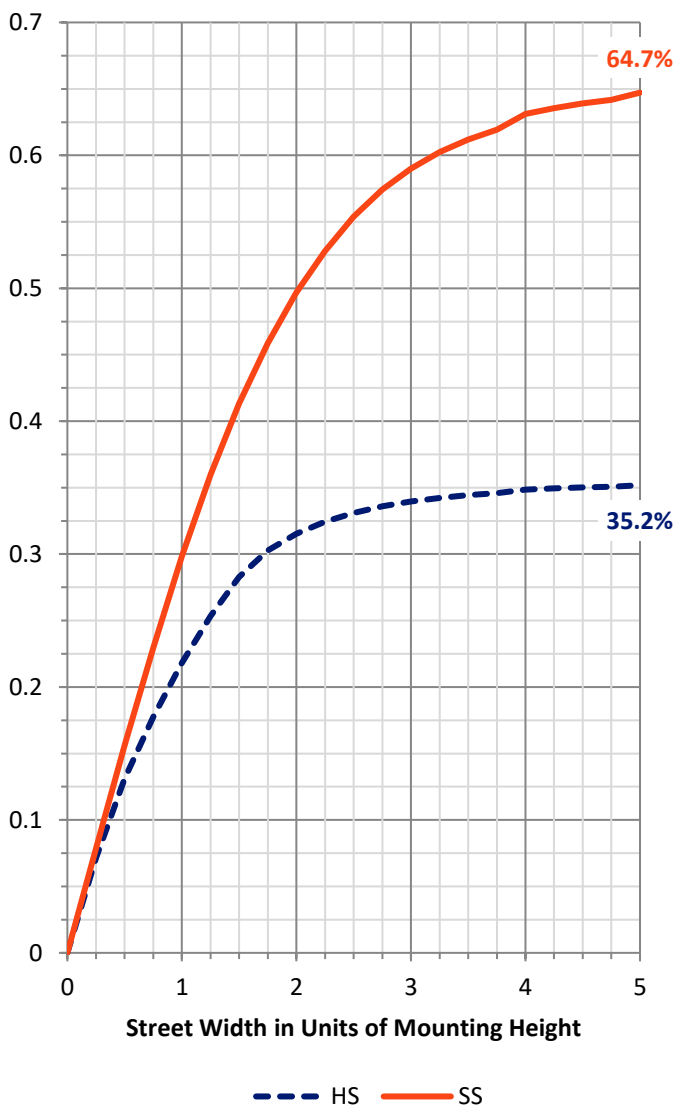
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10081.4	1.8	10083.2
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	18555.3	7.6	18562.8
	% Fixture	64.8	0.0	64.8
Total	Lumens	28636.7	9.3	28646.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.5	0.8
10°-20°	706.6	2.5
20°-30°	1261.4	4.4
30°-40°	2052.1	7.2
40°-50°	3504.4	12.2
50°-60°	5847.2	20.4
60°-70°	8134.6	28.4
70°-80°	6305.6	22.0
80°-90°	604.2	2.1
90°-100°	7.3	0.0
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.1	0.0
0°-90°	28636.7	100.0
0°-180°	28646.0	100.0

Coefficient of Utilization

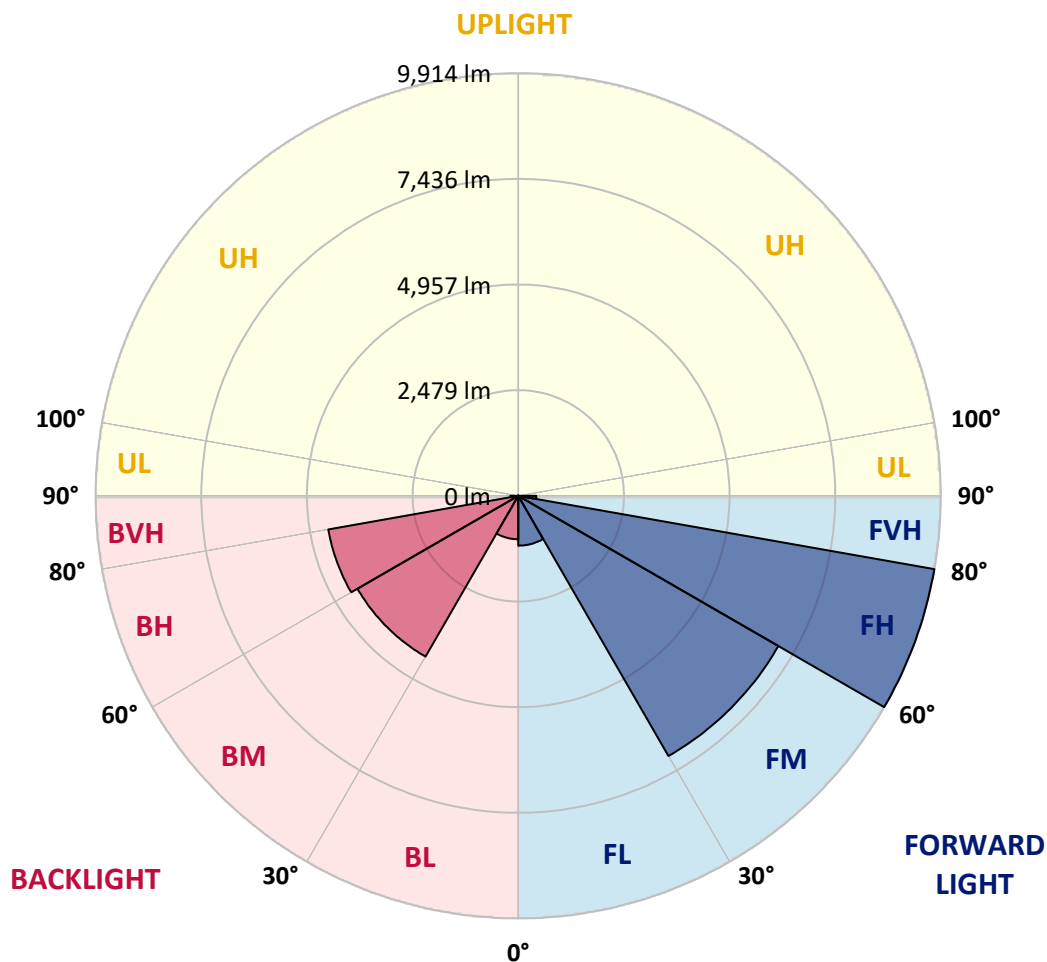


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1169.2	4.1			
FM (30°-60°)	7048.9	24.6			
FH (60°-80°)	9914.5	34.6			G4/12000
FVH (80°-90°)	422.7	1.5			G3/500
BL (0°-30°)	1019.4	3.6	B3/2500		
BM (30°-60°)	4354.7	15.2	B3/5000		
BH (60°-80°)	4525.8	15.8	B4/5000		G4/5000
BVH (80°-90°)	181.5	0.6			G2/225
UL (90°-100°)	7.3	0.0		U1/10	
UH (100°-180°)	2.0	0.0		U1/10	

BUG Rating: B4-U1-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7
2.5°	2305.6	2302.4	2300.2	2314.2	2274.3	2290.5	2279.7	2293.8	2290.5	2297.0	2298.1
5°	2321.8	2316.4	2308.8	2323.9	2300.2	2311.0	2299.1	2305.6	2285.1	2302.4	2304.5
7.5°	2358.4	2343.3	2342.3	2346.6	2330.4	2337.9	2317.5	2325.0	2314.2	2307.8	2314.2
10°	2413.4	2400.5	2386.5	2395.1	2368.1	2377.8	2356.3	2362.7	2357.3	2343.3	2356.3
12.5°	2451.1	2455.4	2445.7	2452.2	2428.5	2419.9	2412.3	2411.2	2408.0	2387.5	2384.3
15°	2535.2	2537.4	2520.1	2524.4	2519.0	2514.7	2503.9	2495.3	2478.1	2465.1	2456.5
17.5°	2645.1	2633.3	2617.1	2621.4	2636.5	2617.1	2610.7	2594.5	2569.7	2548.1	2543.8
20°	2760.5	2752.9	2737.8	2746.5	2745.4	2732.5	2735.7	2708.7	2673.2	2654.8	2640.8
22.5°	2888.7	2878.0	2867.2	2883.4	2870.4	2861.8	2858.6	2840.2	2796.0	2775.6	2772.3
25°	3017.0	3011.6	3019.2	3013.8	2995.5	2989.0	2993.3	2986.8	2935.1	2910.3	2895.2
27.5°	3177.6	3164.7	3176.5	3170.1	3150.7	3151.8	3152.8	3153.9	3095.7	3063.4	3041.8
30°	3360.9	3356.6	3371.6	3351.2	3332.8	3344.7	3354.4	3332.8	3282.2	3234.8	3227.2
32.5°	3599.1	3572.1	3589.4	3563.5	3535.5	3563.5	3580.8	3537.6	3496.7	3436.3	3447.1
35°	3863.2	3854.5	3854.5	3821.1	3806.0	3850.2	3867.5	3825.4	3761.8	3709.0	3696.1
37.5°	4143.4	4152.0	4179.0	4165.0	4151.0	4177.9	4216.7	4160.7	4078.7	4022.7	4007.6
40°	4515.3	4536.8	4555.2	4536.8	4520.7	4537.9	4582.1	4508.8	4451.7	4421.5	4389.2
42.5°	4915.2	4951.8	4940.0	4942.1	4956.1	4980.9	5025.1	4958.3	4892.5	4891.5	4844.0
45°	5456.3	5456.3	5431.5	5455.2	5453.0	5514.5	5533.9	5497.2	5442.3	5426.1	5385.1
47.5°	5961.8	6014.6	6004.9	6039.4	6012.5	6064.2	6130.0	6098.7	6035.1	5978.0	5969.4
50°	6666.8	6653.8	6640.9	6692.6	6688.3	6723.9	6784.2	6764.8	6676.5	6611.8	6599.9
52.5°	7286.5	7354.4	7338.3	7415.9	7372.8	7423.4	7495.7	7492.4	7384.6	7321.0	7302.7
55°	8069.1	8114.4	8111.1	8190.9	8131.6	8198.4	8258.8	8265.3	8147.8	8057.2	8085.3
57.5°	8884.0	8921.7	8900.1	8965.9	8907.7	8999.3	9036.0	9012.2	8943.3	8829.0	8871.0
60°	9699.9	9732.3	9757.1	9762.5	9729.0	9782.9	9817.4	9837.9	9729.0	9598.6	9649.3
62.5°	10528.8	10565.5	10543.9	10552.6	10459.9	10533.1	10576.3	10581.7	10456.6	10341.3	10376.9
65°	11401.9	11452.6	11375.0	11323.2	11209.0	11207.9	11265.0	11274.7	11186.4	11104.4	11090.4
67.5°	12483.1	12505.7	12339.7	12166.2	11973.2	11931.2	11971.1	11993.7	12044.4	12042.2	11978.6
68°	12604.9	12600.5	12432.4	12225.4	12018.5	11970.0	11989.4	12018.5	12051.9	12058.4	11981.8
70°	12327.8	12275.0	12179.1	11918.2	11713.4	11586.2	11518.3	11572.2	11481.7	11482.8	11339.4
72.5°	10950.3	10943.8	10767.1	10637.7	10455.5	10244.3	10147.3	10146.2	10154.8	10092.3	9944.6
75°	8870.0	8878.6	8672.7	8583.2	8527.2	8487.3	8507.8	8571.4	8577.9	8576.8	8525.0
77.5°	6186.0	6221.6	6166.6	6021.1	6177.4	6311.1	6568.7	6700.2	6658.1	6784.2	6864.0
80°	3242.3	3313.4	3315.6	3418.0	3544.1	3665.9	3888.0	4087.4	3940.8	3876.1	3809.3
82.5°	852.6	878.5	917.3	858.0	876.3	894.6	1067.1	1050.9	970.1	1013.2	1077.9
85°	243.6	251.1	240.4	217.7	199.4	183.2	187.6	158.4	138.0	136.9	132.6
87.5°	171.4	184.3	162.8	140.1	126.1	117.5	113.2	95.9	77.6	67.9	53.9
90°	79.8	78.7	67.9	52.8	46.3	44.2	44.2	34.5	19.4	11.9	10.8
92.5°	33.4	34.5	28.0	22.6	19.4	15.1	11.9	7.5	4.3	2.2	1.1
95°	11.9	12.9	10.8	8.6	7.5	6.5	5.4	4.3	2.2	1.1	1.1
97.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.2	2.2	1.1	1.1
100°	0.0	0.0	0.0	1.1	2.2	2.2	2.2	2.2	1.1	1.1	1.1
102.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
105°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
165°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
170°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
172.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
175°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
177.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
180°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7	2279.7
2.5°	2295.9	2290.5	2288.4	2261.4	2269.0	2252.8	2290.5	2279.7	2277.6	2292.7
5°	2301.3	2276.5	2291.6	2274.3	2278.7	2254.9	2285.1	2272.2	2273.3	2280.8
7.5°	2304.5	2290.5	2305.6	2275.4	2287.3	2278.7	2300.2	2287.3	2300.2	2306.7
10°	2336.9	2330.4	2319.6	2311.0	2319.6	2299.1	2326.1	2323.9	2331.5	2350.9
12.5°	2381.1	2373.5	2362.7	2347.6	2354.1	2346.6	2367.0	2369.2	2383.2	2392.9
15°	2446.8	2437.1	2431.7	2416.6	2418.8	2413.4	2425.3	2427.4	2455.4	2452.2
17.5°	2539.5	2528.7	2533.0	2519.0	2513.6	2500.7	2479.1	2471.6	2505.0	2514.7
20°	2640.8	2629.0	2634.4	2622.5	2522.3	2318.5	2455.4	2549.2	2478.1	2472.7
22.5°	2756.2	2743.2	2747.5	2729.2	2605.3	2223.7	1934.8	1911.1	2182.7	2292.7
25°	2883.4	2866.1	2864.0	2840.2	2432.8	2013.5	1981.2	1939.1	1740.8	1583.4
27.5°	3040.7	3014.9	3001.9	2644.1	2415.6	2092.2	2043.7	1893.9	1606.1	1615.8
30°	3211.0	3173.3	2930.8	2694.7	2541.7	2184.9	2120.2	1660.0	1662.1	1657.8
32.5°	3405.1	3321.0	2871.5	2849.9	2692.6	2284.1	1760.2	1740.8	1742.9	1749.4
35°	3659.4	3082.8	3070.9	3072.0	2876.9	2209.7	1864.8	1846.4	1848.6	1852.9
37.5°	3713.3	3323.1	3325.3	3300.5	3073.1	2018.9	1991.9	1990.9	1986.6	1982.2
40°	3756.4	3626.0	3594.8	3554.9	2848.9	2174.1	2165.5	2159.0	2162.2	2170.9
42.5°	4093.8	3995.7	3965.6	3918.1	2922.2	2409.1	2381.1	2373.5	2382.1	2377.8
45°	4542.2	4460.3	4401.0	3622.8	3228.3	2664.5	2641.9	2632.2	2635.4	2662.4
47.5°	5016.5	4968.0	4786.9	3913.8	3585.1	2966.4	2943.7	2928.6	2934.0	2927.6
50°	5532.8	5488.6	4431.2	4352.5	3979.6	3291.9	3258.5	3253.1	3255.2	3254.2
52.5°	6093.3	5169.6	4910.9	4829.0	4395.6	3632.5	3620.6	3591.5	3598.0	3591.5
55°	6750.8	5445.5	5439.0	5343.1	4863.4	4028.1	4014.1	3973.1	3715.5	3940.8
57.5°	7374.9	5972.6	5972.6	5879.9	5342.0	4421.5	4398.9	4368.7	2640.8	2129.9
60°	8058.3	6500.8	6485.7	6409.1	5803.4	4796.6	3898.7	3890.1	1595.3	1600.7
62.5°	8649.0	6971.8	6998.7	6927.6	6247.5	3591.5	1806.5	1769.9	157.4	242.5
65°	9310.8	7492.4	7524.8	7451.5	6728.2	3809.3	1960.7	1942.4	35.6	32.3
67.5°	10061.0	8012.0	7938.7	7857.8	7009.5	3922.4	2037.2	2021.0	9.7	6.5
68°	10067.5	8001.2	7906.3	7851.4	6982.6	3900.9	2030.7	2015.7	9.7	6.5
70°	9550.1	7598.1	7503.2	7517.2	6648.4	3730.6	1946.7	1918.6	9.7	6.5
72.5°	8378.4	6761.6	6654.9	6579.4	5896.1	3316.7	1745.1	1692.3	9.7	6.5
75°	7169.1	5730.1	5553.3	5387.3	4743.8	2714.1	1431.4	1372.2	9.7	6.5
77.5°	5650.3	4367.6	4116.5	4007.6	3564.6	2004.9	1063.9	999.2	9.7	5.4
80°	3122.6	2506.1	2292.7	2225.8	2038.3	1178.1	610.1	571.3	8.6	5.4
82.5°	807.3	605.8	528.2	509.8	478.6	279.2	148.7	141.2	7.5	4.3
85°	115.3	85.2	93.8	111.0	106.7	72.2	51.7	44.2	6.5	3.2
87.5°	60.4	50.7	59.3	66.8	67.9	42.0	21.6	11.9	3.2	0.0
90°	9.7	9.7	10.8	11.9	11.9	5.4	4.3	0.0	0.0	0.0
92.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.1	2.2	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)