

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge
or Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: ITL53976_320MP

Luminaire Tested: **GMX32PXX4SFH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: ITL53976_320MP
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GMX32PXX4SFH
Description: 400W MH TYPE IV AREA
WITH HOUSE SIDE SHIELD
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 12304 lumens
Efficiency: 41.0%
Efficacy: 35.2 lumens/watt
Luminous Opening: Circular (Dia: 1.74' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

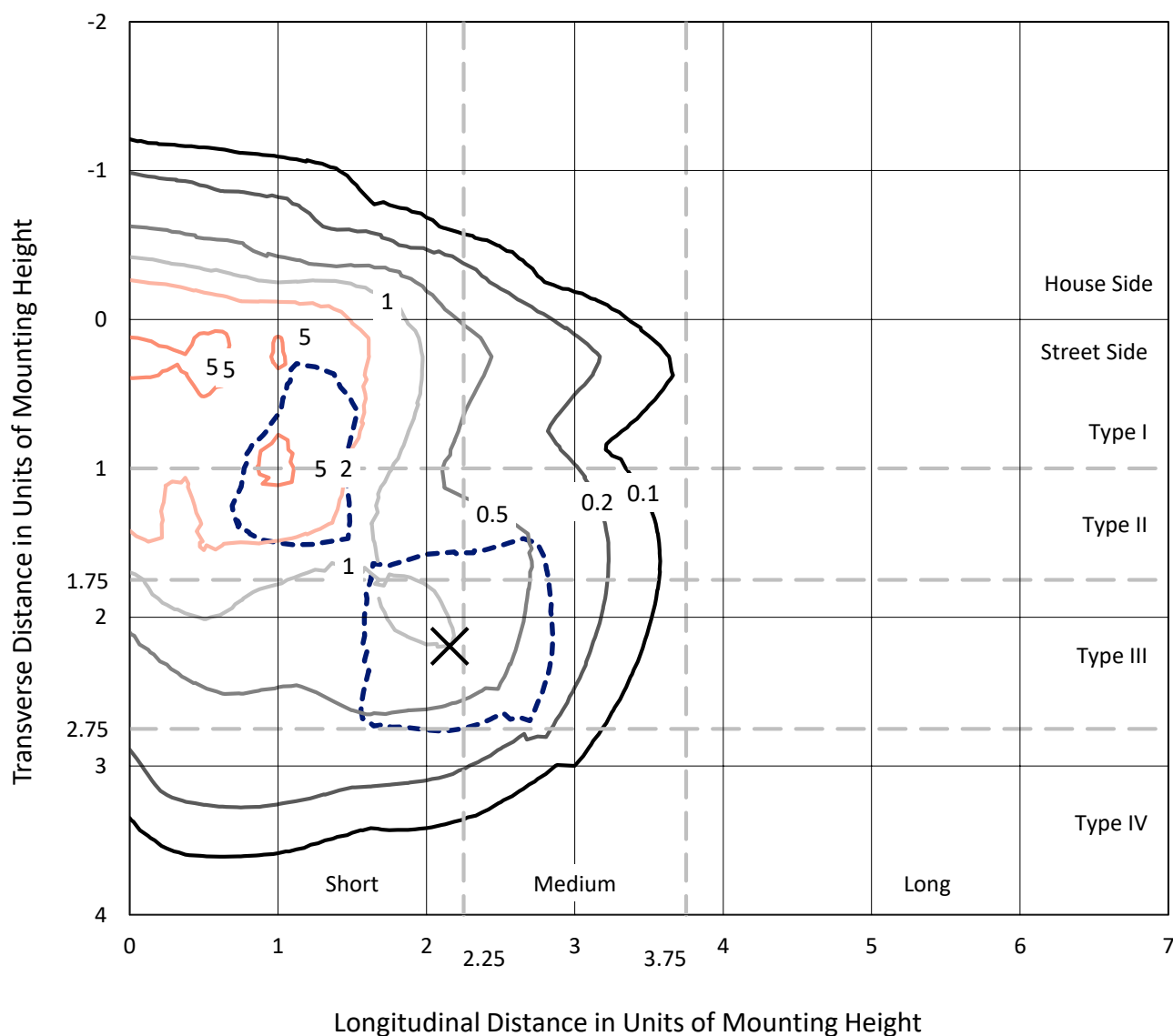
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

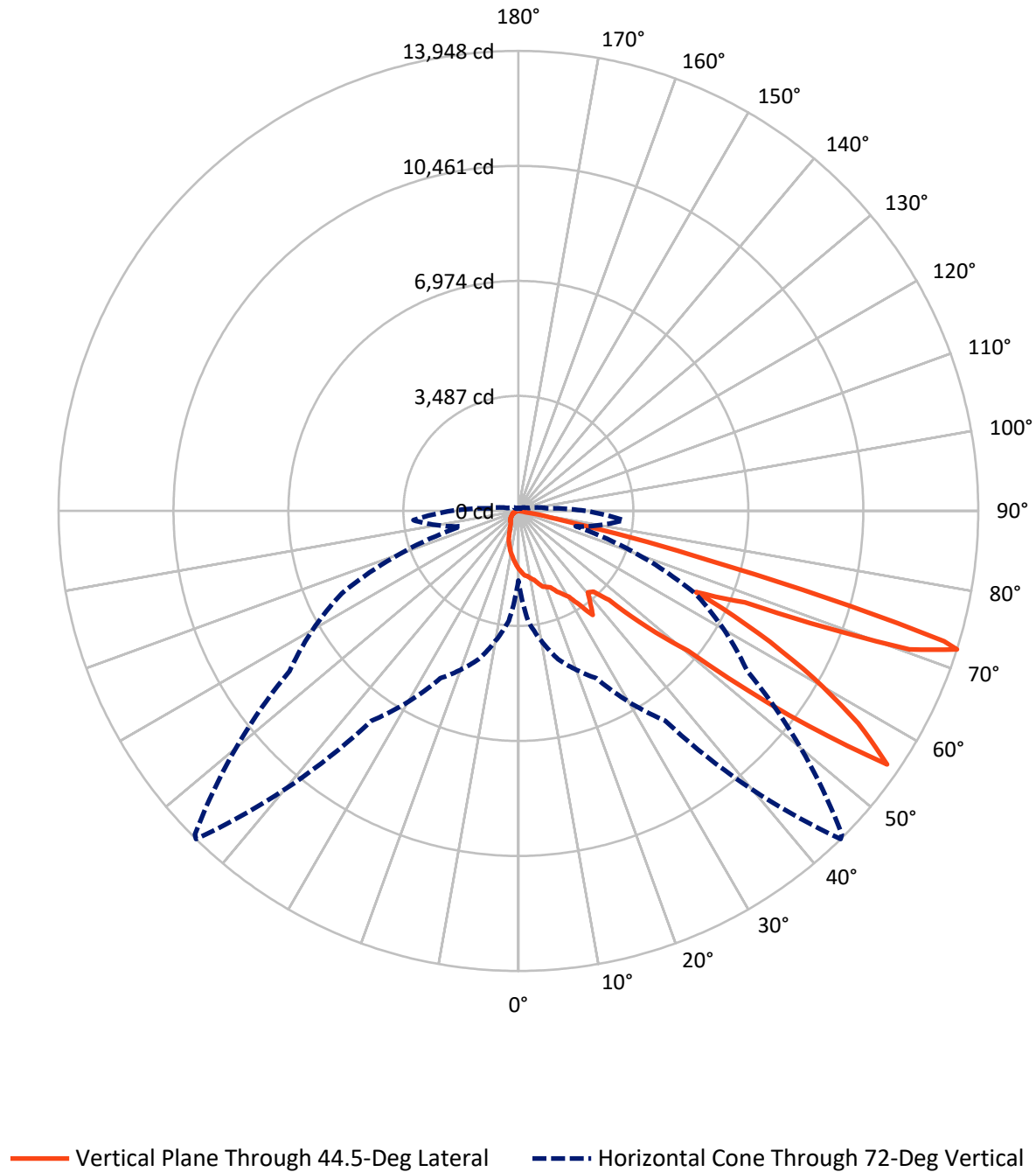
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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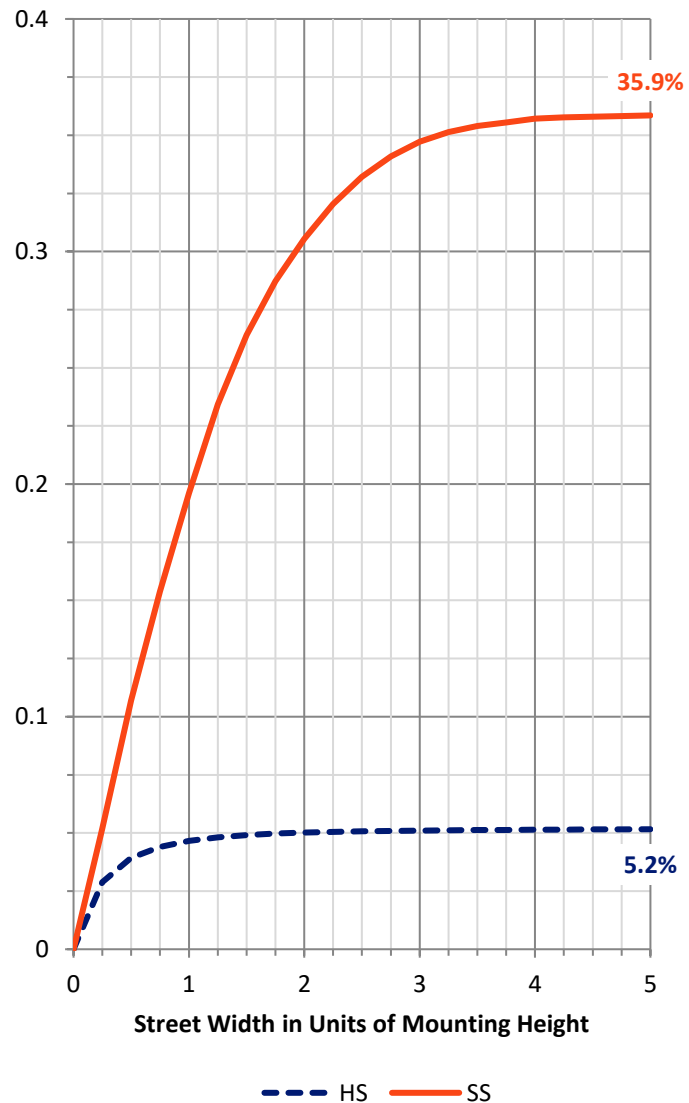
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1561.3	0.0	1561.3
	% Lamp	5.2	0.0	5.2
Street Side	Lumens	10742.7	0.0	10742.7
	% Lamp	35.8	0.0	35.8
Total	Lumens	12304.0	0.0	12304.0
	% Lamp	41.0	0.0	41.0

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	165.0	1.3	0.5
10°-20°	479.6	3.9	1.6
20°-30°	808.9	6.6	2.7
30°-40°	1200.5	9.8	4.0
40°-50°	1880.7	15.3	6.3
50°-60°	3283.2	26.7	10.9
60°-70°	2641.9	21.5	8.8
70°-80°	1802.0	14.6	6.0
80°-90°	42.2	0.3	0.1
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	12304.0	100.0	41.0
0°-180°	12304.0	100.0	41.0

Coefficient of Utilization

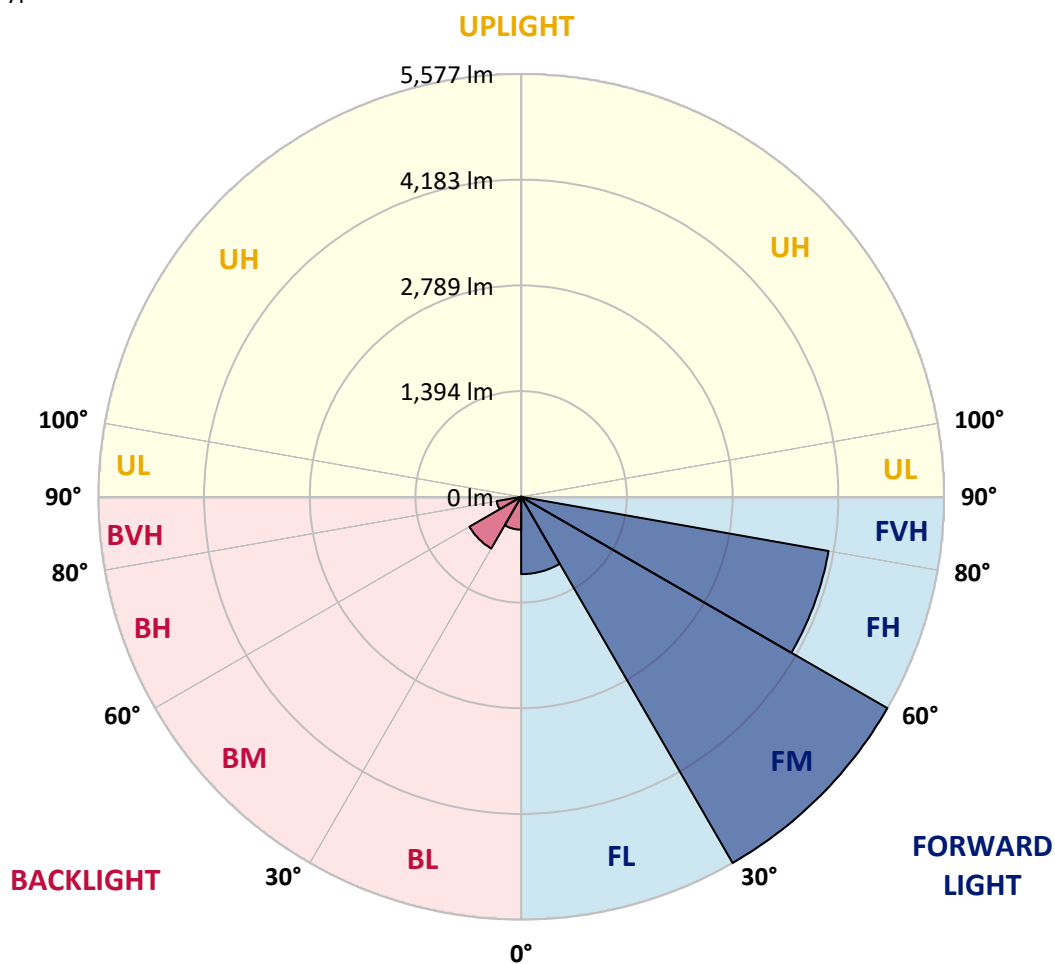


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1020.1	3.4			
FM	(30°-60°)	5577.4	18.6			
FH	(60°-80°)	4116.4	13.7			G2/5000
FVH	(80°-90°)	28.8	0.1			G1/100
BL	(0°-30°)	433.4	1.4	B1/500		
BM	(30°-60°)	787.0	2.6	B1/1000		
BH	(60°-80°)	327.5	1.1	B1/500		G1/500
BVH	(80°-90°)	13.4	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		17696.0	59.0			

BUG Rating: B1-U0-G2
Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44.5°	45°	55°	65°	75°	85°
0°	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2
2.5°	1916.7	1889.2	1889.2	1880.0	1862.5	1862.5	1862.5	1853.3	1825.8	1816.7	1780.8
5°	2043.3	2025.0	2006.7	1988.3	1980.0	1961.7	1952.5	1925.8	1889.2	1844.2	1799.2
7.5°	2060.8	2043.3	2043.3	2034.2	2025.0	1997.5	2006.7	1970.8	1934.2	1880.0	1808.3
10°	2151.7	2133.3	2142.5	2124.2	2105.8	2079.2	2079.2	2043.3	1997.5	1943.3	1862.5
12.5°	2241.7	2224.2	2278.3	2215.0	2196.7	2151.7	2160.8	2133.3	2097.5	2015.8	1889.2
15°	2368.3	2359.2	2386.7	2305.0	2305.0	2286.7	2269.2	2241.7	2142.5	2025.0	1880.0
17.5°	2440.8	2495.0	2504.2	2440.8	2386.7	2413.3	2413.3	2295.8	2178.3	2070.0	1907.5
20°	2495.0	2558.3	2504.2	2504.2	2504.2	2459.2	2485.8	2368.3	2314.2	2196.7	2006.7
22.5°	2476.7	2558.3	2530.8	2549.2	2594.2	2521.7	2540.0	2576.7	2467.5	2350.0	2124.2
25°	2422.5	2431.7	2513.3	2558.3	2621.7	2702.5	2666.7	2711.7	2675.8	2594.2	2341.7
27.5°	2422.5	2431.7	2521.7	2576.7	2685.0	2847.5	2838.3	3000.8	3010.0	3118.3	2757.5
30°	2368.3	2386.7	2495.0	2603.3	2748.3	3019.2	3028.3	3362.5	3525.8	3724.2	3317.5
32.5°	2332.5	2332.5	2476.7	2621.7	2838.3	3380.8	3371.7	3941.7	4185.0	4031.7	3181.7
35°	2350.0	2377.5	2450.0	2612.5	2974.2	3878.3	3815.0	4429.2	4130.8	2992.5	2422.5
37.5°	2278.3	2314.2	2694.2	2612.5	3155.0	3543.3	3715.0	4438.3	3489.2	3110.0	2784.2
40°	2241.7	2232.5	2521.7	2784.2	3353.3	3245.0	3308.3	3688.3	3706.7	3742.5	3399.2
42.5°	2205.8	2278.3	2901.7	2965.0	3164.2	3345.0	3290.8	3489.2	4194.2	4727.5	4628.3
45°	3470.8	2838.3	2847.5	2666.7	3724.2	3850.8	3869.2	3923.3	5053.3	5993.3	5776.7
47.5°	4845.0	4004.2	2413.3	2730.0	4881.7	5270.0	4890.8	4863.3	6120.0	6580.8	6165.0
50°	4700.8	4085.8	2341.7	3860.0	5324.2	6671.7	6571.7	6608.3	7240.8	6924.2	5803.3
52.5°	3796.7	4375.0	2504.2	5025.8	5794.2	10314.2	9771.7	9175.0	7855.8	6761.7	6020.0
55°	4375.0	4872.5	3055.0	5695.0	8632.5	13568.3	13297.5	8506.7	8099.2	6743.3	5758.3
57.5°	4121.7	4565.0	4962.5	5894.2	8741.7	12158.3	12402.5	8334.2	8542.5	5541.7	5306.7
60°	2603.3	3715.0	6355.0	5378.3	7565.8	10295.8	10567.5	6987.5	5740.0	5288.3	6092.5
62.5°	2585.0	3751.7	5595.8	4727.5	6110.8	8180.8	8280.0	5306.7	5215.8	5387.5	4583.3
65°	2495.0	3000.8	4845.0	3995.8	4248.3	5920.8	6146.7	4004.2	3995.8	3588.3	3606.7
67.5°	2820.0	3110.0	4546.7	4212.5	4176.7	7412.5	6897.5	4854.2	2920.0	3209.2	3832.5
70°	2422.5	3136.7	4294.2	4881.7	6345.8	12583.3	11715.0	6653.3	4221.7	2829.2	3390.0
72°	2115.0	3345.0	4655.0	5595.8	7765.0	13948.3	13875.8	8479.2	5911.7	1799.2	3200.0
72.5°	2006.7	3281.7	4483.3	5486.7	7765.0	13505.0	13613.3	8524.2	5568.3	1726.7	3082.5
75°	1139.2	1762.5	2215.0	2422.5	4710.0	5911.7	7448.3	5324.2	3453.3	1229.2	2232.5
77.5°	415.8	587.5	505.8	623.3	958.3	1184.2	1473.3	1346.7	958.3	605.8	1301.7
80°	90.0	117.5	108.3	162.5	235.0	225.8	298.3	325.8	235.0	235.0	578.3
82.5°	54.2	45.0	27.5	45.0	63.3	54.2	72.5	72.5	63.3	81.7	171.7
85°	0.0	0.0	0.0	0.0	18.3	9.2	27.5	27.5	35.8	35.8	45.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2	1759.2
2.5°	1771.7	1753.3	1726.7	1699.2	1663.3	1645.0	1627.5	1618.3	1600.0	1600.0	1627.5
5°	1771.7	1745.0	1681.7	1627.5	1564.2	1527.5	1500.8	1473.3	1455.0	1437.5	1464.2
7.5°	1762.5	1717.5	1635.8	1545.8	1473.3	1410.0	1374.2	1337.5	1310.8	1292.5	1320.0
10°	1816.7	1771.7	1627.5	1500.8	1400.8	1320.0	1247.5	1202.5	1165.8	1148.3	1156.7
12.5°	1835.0	1753.3	1581.7	1437.5	1301.7	1202.5	1111.7	1048.3	1003.3	985.0	1012.5
15°	1799.2	1708.3	1527.5	1374.2	1220.0	1085.0	976.7	904.2	859.2	840.8	867.5
17.5°	1825.8	1717.5	1500.8	1301.7	1130.0	985.0	850.0	759.2	705.0	678.3	705.0
20°	1889.2	1745.0	1464.2	1220.0	1030.8	867.5	723.3	632.5	587.5	578.3	578.3
22.5°	1952.5	1771.7	1419.2	1156.7	930.8	732.5	623.3	551.7	497.5	488.3	505.8
25°	2105.8	1835.0	1355.8	1048.3	804.2	623.3	515.0	460.8	425.0	406.7	415.8
27.5°	2386.7	1988.3	1320.0	985.0	714.2	560.8	470.0	425.0	388.3	388.3	397.5
30°	2739.2	2115.0	1275.0	895.0	605.8	470.0	406.7	380.0	343.3	334.2	343.3
32.5°	2521.7	1952.5	1238.3	822.5	533.3	434.2	380.0	343.3	325.8	316.7	325.8
35°	2097.5	1753.3	1193.3	741.7	497.5	406.7	343.3	316.7	298.3	280.0	289.2
37.5°	2386.7	1898.3	1156.7	669.2	479.2	397.5	325.8	289.2	270.8	262.5	270.8
40°	2802.5	2070.0	1111.7	587.5	497.5	388.3	298.3	262.5	253.3	244.2	253.3
42.5°	3597.5	2314.2	1075.8	533.3	497.5	370.8	270.8	253.3	235.0	225.8	235.0
45°	4248.3	2513.3	1039.2	505.8	479.2	343.3	253.3	235.0	207.5	207.5	216.7
47.5°	4492.5	2685.0	1003.3	505.8	470.0	325.8	235.0	207.5	180.8	171.7	180.8
50°	4330.0	2955.8	967.5	497.5	443.3	289.2	216.7	180.8	153.3	145.0	162.5
52.5°	4736.7	3345.0	930.8	470.0	397.5	270.8	199.2	162.5	135.8	126.7	126.7
55°	4646.7	3507.5	904.2	434.2	370.8	253.3	180.8	145.0	126.7	117.5	126.7
57.5°	4384.2	3326.7	904.2	388.3	343.3	235.0	162.5	145.0	126.7	117.5	126.7
60°	4592.5	3000.8	876.7	361.7	325.8	216.7	162.5	126.7	117.5	117.5	108.3
62.5°	3335.8	2549.2	768.3	334.2	298.3	199.2	145.0	126.7	117.5	108.3	108.3
65°	2856.7	2043.3	615.0	307.5	262.5	180.8	135.8	117.5	108.3	99.2	108.3
67.5°	2775.0	1590.8	488.3	289.2	235.0	162.5	126.7	108.3	99.2	99.2	108.3
70°	2269.2	1102.5	397.5	253.3	199.2	145.0	108.3	90.0	81.7	81.7	90.0
72°	2034.2	885.8	334.2	225.8	180.8	126.7	90.0	81.7	81.7	72.5	72.5
72.5°	1925.8	850.0	316.7	216.7	162.5	117.5	90.0	72.5	72.5	63.3	72.5
75°	1355.8	596.7	244.2	171.7	126.7	99.2	72.5	72.5	63.3	63.3	72.5
77.5°	795.8	380.0	153.3	117.5	90.0	72.5	54.2	45.0	45.0	45.0	35.8
80°	397.5	216.7	99.2	81.7	72.5	45.0	35.8	35.8	27.5	27.5	35.8
82.5°	135.8	90.0	54.2	45.0	35.8	35.8	27.5	18.3	9.2	18.3	18.3
85°	45.0	35.8	35.8	35.8	18.3	18.3	18.3	9.2	9.2	9.2	18.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)