

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: LUMARK

Report Number: P212957

Luminaire Tested: **NFFLD-S-C15-D-UNV-66**

Test Date: 05/17/16

**Test Information**

Test Method: LM-79-08  
Report Number: P212957  
Test Lab: INNOVATION CENTER(G2)  
Test Date: 05/17/16  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NFFLD-S-C15-D-UNV-66  
Description: LOW WATTAGE LED FLOODLIGHT  
Light Source: (1) CITIZEN 4000 70  
CLU038-1208C4-40AL7K3  
Ballast/Driver: (1) XENERQI ELECTRONIC DRIVER  
XEL-A050A-042-C1X20

**Summary**

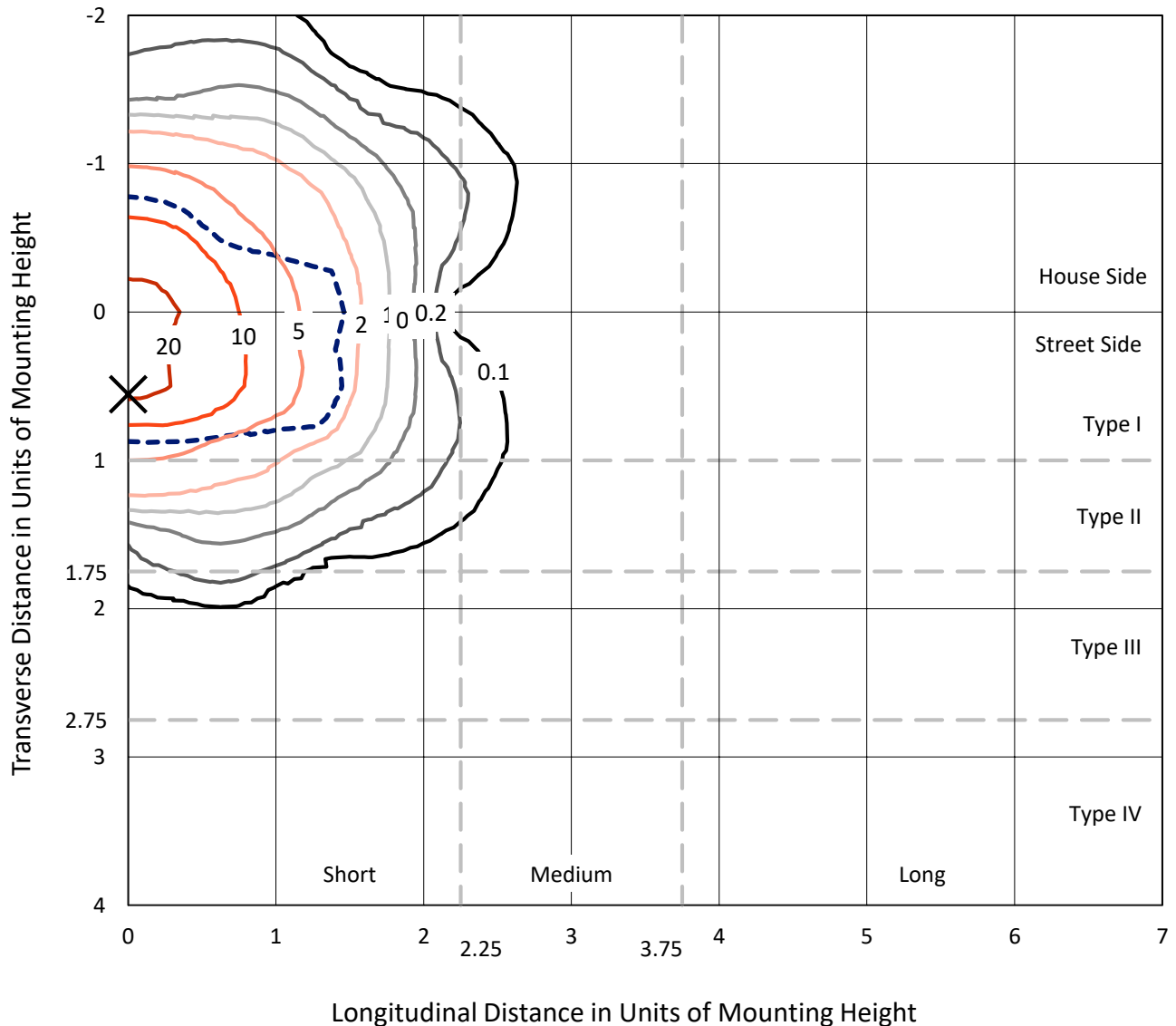
Lumens per Lamp: N/A  
Luminaire Lumens: 5863.6 lumens  
Efficiency: N/A  
Efficacy: 114.5 lumens/watt  
Luminous Opening: (L: 0 ' x W: 0.46 ' x H: 0 '  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B2 - U0 - G1  
  
Input Watts (W): 51.2  
Input Voltage (V): 120.0  
Input Current (Ain): 0.427  
Voltage Rise (V): NR  
Power Factor: 0.9995  
Total Harmonic Distortion (THDi): 4.69%  
Frequency (hertz): 60  
Stabilization Time: 0.5 HR  
Operation Time: 24 HR  
Ambient Temperature (°C): 24.3  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

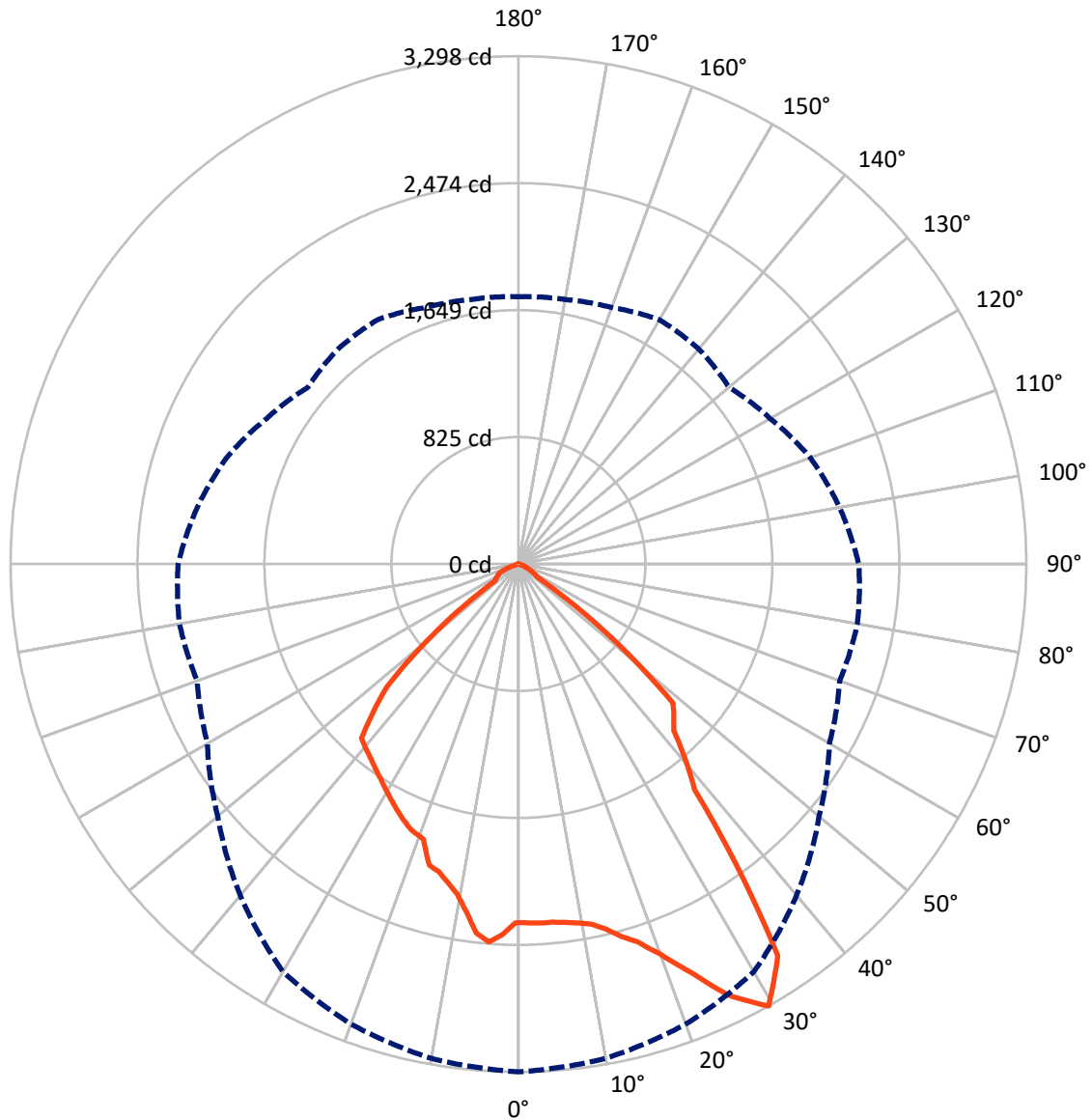


Based on 10 foot mounting height. Maximum calculated value = 23.5 fc  
 Type I - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 29-Deg Vertical

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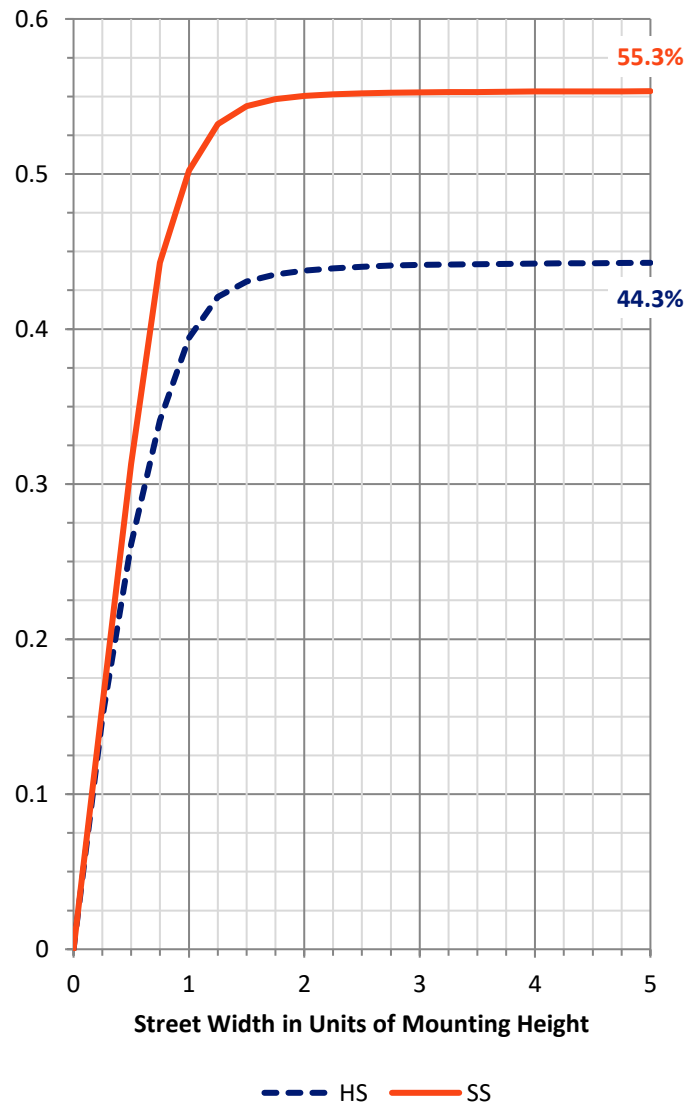
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2619.5	0.0	2619.5
	% Fixture	44.7	0.0	44.7
<b>Street Side</b>	Lumens	3244.1	0.0	3244.1
	% Fixture	55.3	0.0	55.3
<b>Total</b>	Lumens	5863.6	0.0	5863.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	226.1	3.9
10°-20°	653.9	11.2
20°-30°	1061.4	18.1
30°-40°	1318.0	22.5
40°-50°	1304.0	22.2
50°-60°	915.9	15.6
60°-70°	376.2	6.4
70°-80°	78.0	1.3
80°-90°	11.8	0.2
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°	5863.6	100.0
0°-180°	5863.6	100.0



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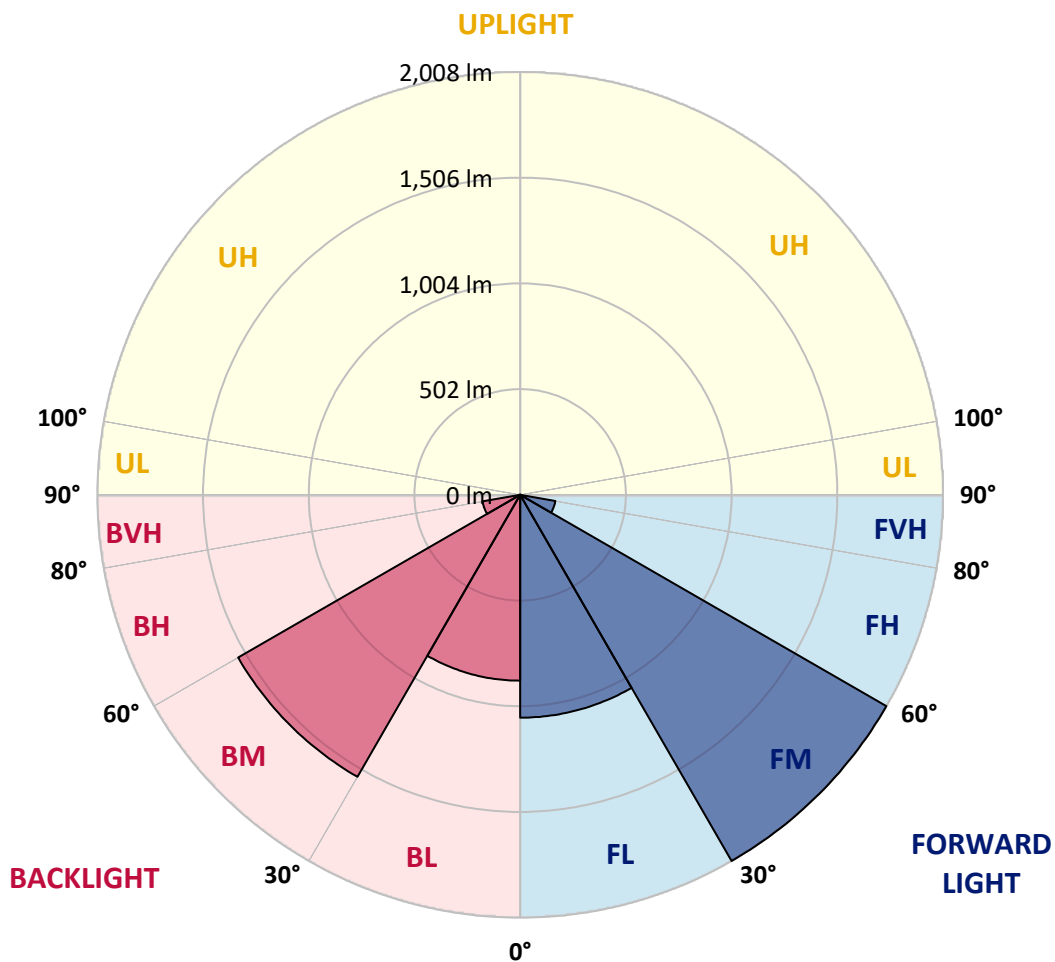
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1058.4	18.1			
FM	(30°-60°)	2008.1	34.2			
FH	(60°-80°)	169.6	2.9			G0/660
FVH	(80°-90°)	5.4	0.1			G0/10
BL	(0°-30°)	882.6	15.1	B2/1000		
BM	(30°-60°)	1546.2	26.4	B2/2500		
BH	(60°-80°)	181.4	3.1	B1/500		G1/500
BVH	(80°-90°)	7.0	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G1**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3
1°	2332.2	2332.3	2332.3	2332.2	2331.9	2331.6	2331.1	2330.6	2330.0	2329.3	2329.4
3°	2336.2	2336.6	2336.8	2337.5	2337.9	2337.9	2337.5	2336.8	2335.6	2334.2	2337.1
5°	2336.2	2337.8	2338.8	2340.0	2341.4	2342.3	2341.9	2340.8	2340.0	2340.1	2350.0
7°	2348.0	2348.2	2345.9	2344.2	2342.3	2341.4	2341.7	2342.0	2343.6	2350.0	2374.8
9°	2363.8	2362.8	2359.3	2354.1	2346.8	2341.9	2341.0	2343.8	2350.8	2367.7	2403.8
11°	2386.5	2386.5	2379.2	2366.3	2351.9	2341.1	2340.3	2346.4	2359.4	2387.5	2418.3
13°	2437.8	2433.4	2416.7	2385.8	2360.0	2341.1	2334.0	2342.1	2362.7	2401.3	2415.0
15°	2509.8	2501.8	2475.8	2426.9	2379.6	2344.4	2324.8	2328.8	2355.4	2407.2	2394.4
17°	2572.9	2564.5	2535.7	2484.5	2416.5	2355.3	2317.5	2315.8	2348.3	2386.5	2343.6
19.5°	2696.3	2678.2	2626.1	2541.1	2471.8	2389.8	2319.8	2306.6	2356.0	2403.2	2293.5
22.5°	2884.7	2854.0	2776.9	2660.2	2532.8	2439.5	2330.1	2298.2	2350.0	2323.3	2238.2
25.5°	3116.5	3068.7	2967.4	2823.9	2650.4	2490.9	2340.7	2257.9	2306.5	2256.3	2174.6
29°	3298.1	3260.1	3179.4	3057.4	2810.1	2548.9	2332.0	2219.9	2234.8	2209.9	2117.4
33°	3051.4	3068.5	3133.8	3226.1	2999.1	2612.9	2340.7	2232.4	2111.8	2046.1	1960.5
37.5°	1857.7	1986.4	2323.0	2765.1	2989.5	2751.9	2387.9	2229.9	2073.6	1940.6	1838.3
42.5°	1478.8	1500.3	1602.3	1724.9	2220.5	2670.4	2496.9	2254.0	2018.1	1930.7	1785.5
47.5°	1351.6	1357.8	1356.3	1355.4	1455.7	2010.2	2584.5	2271.8	1850.0	1806.4	1747.4
55°	149.0	299.7	517.4	741.9	1035.4	1092.5	1803.6	1859.8	1612.0	1732.4	1603.2
65°	62.2	56.1	116.3	93.6	123.4	266.7	417.8	445.1	294.1	63.1	302.4
75°	7.9	10.1	18.0	16.2	19.8	17.5	25.3	31.3	33.1	54.3	56.2
85°	0.0	7.9	10.9	10.9	11.7	11.9	13.0	13.8	13.5	15.8	15.1
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):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3
1°	2329.6	2329.7	2329.8	2329.9	2330.0	2330.1	2330.2	2330.2	2330.2	2330.1	2330.0
3°	2340.2	2357.0	2372.0	2384.5	2394.4	2401.2	2406.9	2409.2	2406.9	2401.2	2394.4
5°	2376.6	2403.9	2424.2	2435.8	2446.1	2453.3	2457.8	2461.5	2457.8	2453.3	2446.1
7°	2410.6	2436.7	2452.3	2451.0	2438.2	2429.4	2420.6	2412.1	2420.6	2429.4	2438.2
9°	2437.2	2449.2	2433.4	2400.8	2356.4	2325.4	2300.1	2283.9	2300.1	2325.4	2356.4
11°	2429.9	2411.0	2361.4	2306.6	2252.3	2217.2	2192.0	2179.3	2192.0	2217.2	2252.3
13°	2397.5	2329.1	2271.2	2221.1	2173.5	2145.8	2128.7	2118.1	2128.7	2145.8	2173.5
15°	2338.0	2255.9	2206.3	2162.3	2122.3	2090.8	2073.9	2063.9	2073.9	2090.8	2122.3
17°	2269.8	2205.6	2163.2	2119.3	2073.9	2054.5	2048.8	2039.2	2048.8	2054.5	2073.9
19.5°	2221.6	2167.2	2118.8	2068.5	2036.8	1959.4	1911.9	1891.2	1911.9	1959.4	2036.8
22.5°	2189.0	2129.0	2045.6	1990.8	1899.4	1877.8	1864.9	1860.6	1864.9	1877.8	1899.4
25.5°	2128.6	2046.6	1950.9	1871.4	1883.3	1838.2	1814.3	1806.4	1814.3	1838.2	1883.3
29°	2017.0	1888.6	1785.2	1822.2	1831.5	1772.2	1743.9	1736.3	1743.9	1772.2	1831.5
33°	1863.7	1731.4	1693.2	1727.2	1710.7	1679.2	1666.1	1660.4	1666.1	1679.2	1710.7
37.5°	1727.7	1629.9	1595.3	1581.1	1588.2	1593.9	1589.3	1588.4	1589.3	1593.9	1588.2
42.5°	1639.7	1559.0	1482.4	1460.2	1487.5	1513.4	1521.5	1522.3	1521.5	1513.4	1487.5
47.5°	1586.4	1507.4	1364.3	1370.0	1354.8	1248.6	1175.2	1165.1	1175.2	1248.6	1354.8
55°	1401.2	1435.0	1196.3	996.0	657.7	400.1	243.0	185.5	243.0	400.1	657.7
65°	490.2	388.3	193.1	146.6	182.5	152.6	135.9	135.2	135.9	152.6	182.5
75°	66.7	40.6	44.6	34.0	41.8	28.9	15.8	10.9	15.8	28.9	41.8
85°	14.7	13.5	13.2	12.1	11.9	12.8	10.8	1.0	10.8	12.8	11.9
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):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3	2328.3
1°	2329.9	2329.8	2329.7	2329.6	2329.4	2329.3	2330.0	2330.6	2331.1	2331.6	2331.9
3°	2384.5	2372.0	2357.0	2340.2	2337.1	2334.2	2335.6	2336.8	2337.5	2337.9	2337.9
5°	2435.8	2424.2	2403.9	2376.6	2350.0	2340.1	2340.0	2340.8	2341.9	2342.3	2341.4
7°	2451.0	2452.3	2436.7	2410.6	2374.8	2350.0	2343.6	2342.0	2341.7	2341.4	2342.3
9°	2400.8	2433.4	2449.2	2437.2	2403.8	2367.7	2350.8	2343.8	2341.0	2341.9	2346.8
11°	2306.6	2361.4	2411.0	2429.9	2418.3	2387.5	2359.4	2346.4	2340.3	2341.1	2351.9
13°	2221.1	2271.2	2329.1	2397.5	2415.0	2401.3	2362.7	2342.1	2334.0	2341.1	2360.0
15°	2162.3	2206.3	2255.9	2338.0	2394.4	2407.2	2355.4	2328.8	2324.8	2344.4	2379.6
17°	2119.3	2163.2	2205.6	2269.8	2343.6	2386.5	2348.3	2315.8	2317.5	2355.3	2416.5
19.5°	2068.5	2118.8	2167.2	2221.6	2293.5	2403.2	2356.0	2306.6	2319.8	2389.8	2471.8
22.5°	1990.8	2045.6	2129.0	2189.0	2238.2	2323.3	2350.0	2298.2	2330.1	2439.5	2532.8
25.5°	1871.4	1950.9	2046.6	2128.6	2174.6	2256.3	2306.5	2257.9	2340.7	2490.9	2650.4
29°	1822.2	1785.2	1888.6	2017.0	2117.4	2209.9	2234.8	2219.9	2332.0	2548.9	2810.1
33°	1727.2	1693.2	1731.4	1863.7	1960.5	2046.1	2111.8	2232.4	2340.7	2612.9	2999.1
37.5°	1581.1	1595.3	1629.9	1727.7	1838.3	1940.6	2073.6	2229.9	2387.9	2751.9	2989.5
42.5°	1460.2	1482.4	1559.0	1639.7	1785.5	1930.7	2018.1	2254.0	2496.9	2670.4	2220.5
47.5°	1370.0	1364.3	1507.4	1586.4	1747.4	1806.4	1850.0	2271.8	2584.5	2010.2	1455.7
55°	996.0	1196.3	1435.0	1401.2	1603.2	1732.4	1612.0	1859.8	1803.6	1092.5	1035.4
65°	146.6	193.1	388.3	490.2	302.4	63.1	294.1	445.1	417.8	266.7	123.4
75°	34.0	44.6	40.6	66.7	56.2	54.3	33.1	31.3	25.3	17.5	19.8
85°	12.1	13.2	13.5	14.7	15.1	15.8	13.5	13.8	13.0	11.9	11.7
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):**

	330°	340°	350°	360°
0°	2328.3	2328.3	2328.3	2328.3
1°	2332.2	2332.3	2332.3	2332.2
3°	2337.5	2336.8	2336.6	2336.2
5°	2340.0	2338.8	2337.8	2336.2
7°	2344.2	2345.9	2348.2	2348.0
9°	2354.1	2359.3	2362.8	2363.8
11°	2366.3	2379.2	2386.5	2386.5
13°	2385.8	2416.7	2433.4	2437.8
15°	2426.9	2475.8	2501.8	2509.8
17°	2484.5	2535.7	2564.5	2572.9
19.5°	2541.1	2626.1	2678.2	2696.3
22.5°	2660.2	2776.9	2854.0	2884.7
25.5°	2823.9	2967.4	3068.7	3116.5
29°	3057.4	3179.4	3260.1	3298.1
33°	3226.1	3133.8	3068.5	3051.4
37.5°	2765.1	2323.0	1986.4	1857.7
42.5°	1724.9	1602.3	1500.3	1478.8
47.5°	1355.4	1356.3	1357.8	1351.6
55°	741.9	517.4	299.7	149.0
65°	93.6	116.3	56.1	62.2
75°	16.2	18.0	10.1	7.9
85°	10.9	10.9	7.9	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)