

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: P146630

Luminaire Tested: **LDRL-T3-E06-E**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P146630  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33695)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-T3-E06-E  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 3  
Light Source: (126) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17914.8 lumens  
Efficiency: N/A  
Efficacy: 119.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

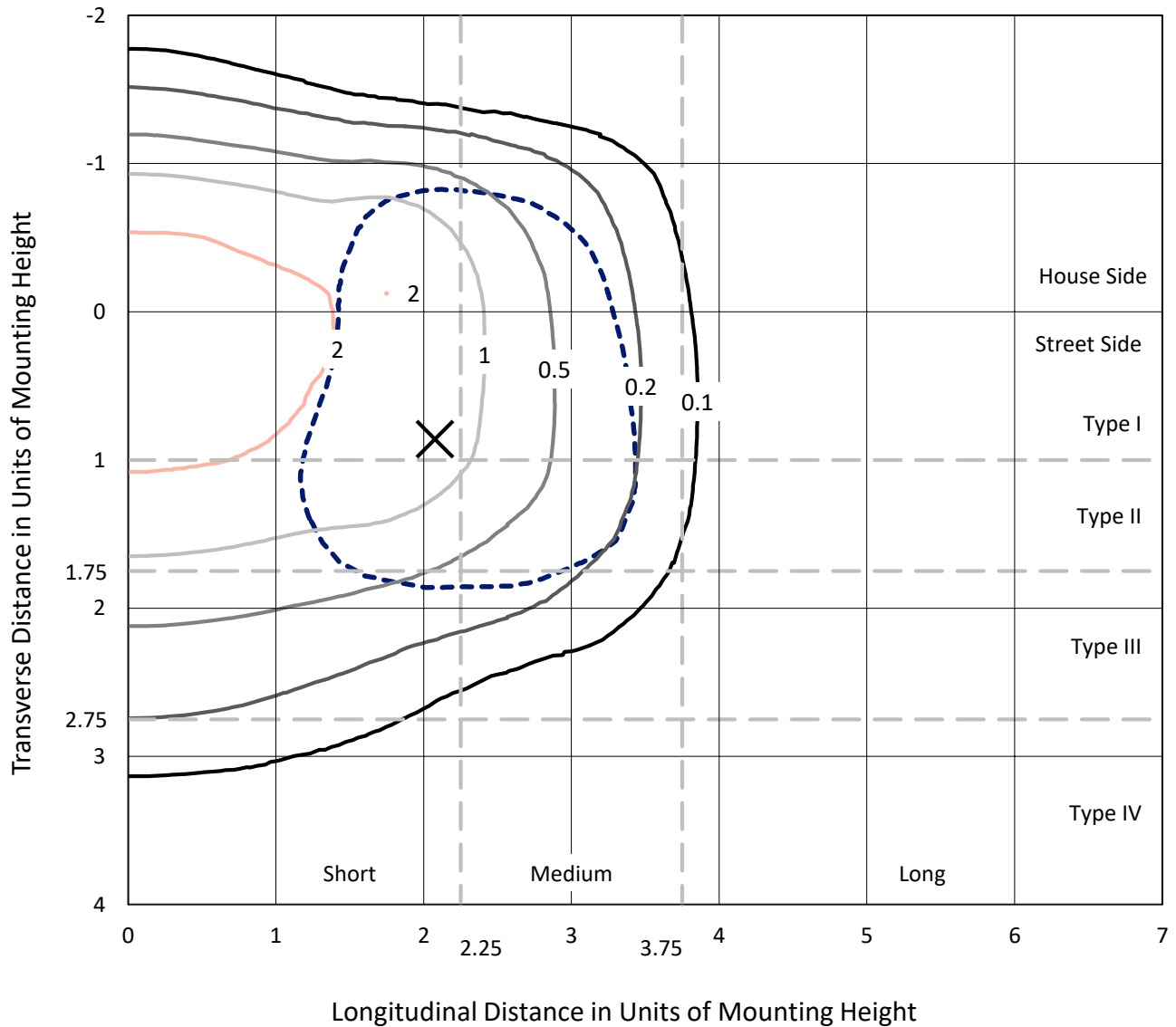
Input Watts (W): 150.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

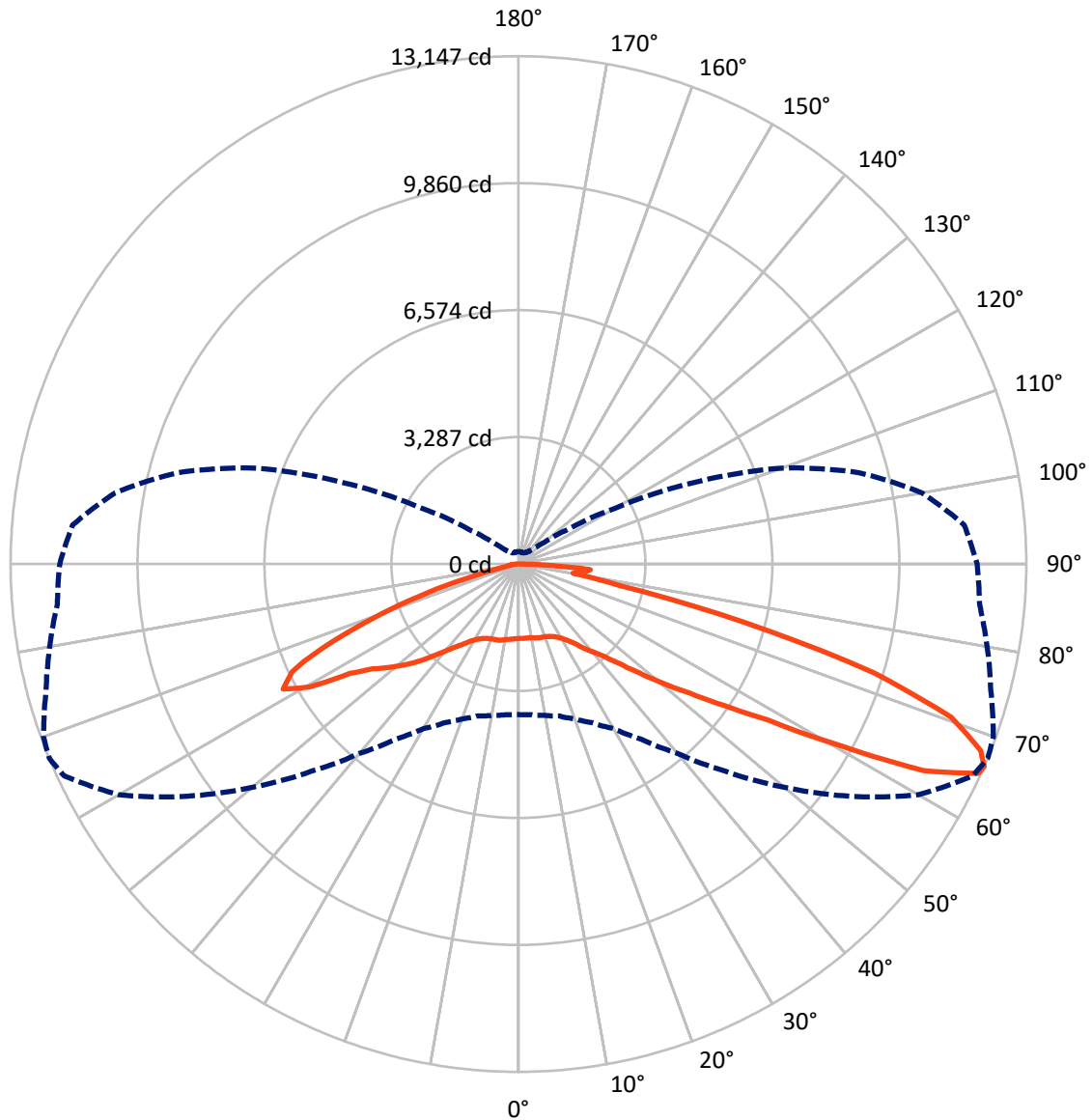
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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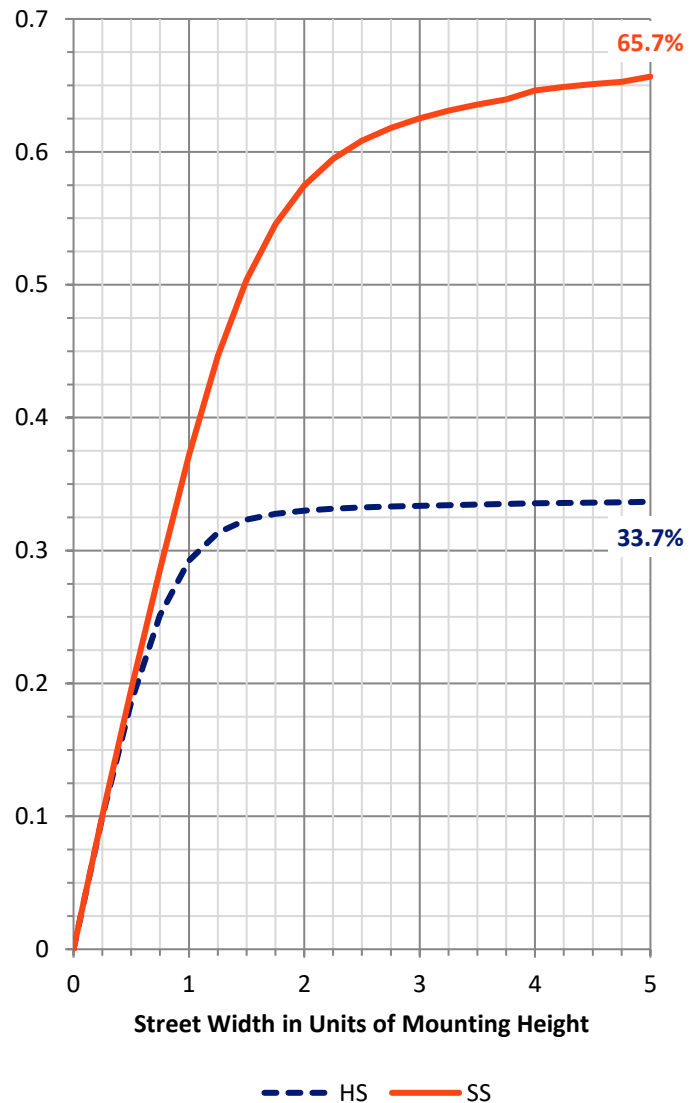
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6086.3	0.0	6086.3
	% Fixture	34.0	0.0	34.0
<b>Street Side</b>	Lumens	11828.6	0.0	11828.6
	% Fixture	66.0	0.0	66.0
<b>Total</b>	Lumens	17914.8	0.0	17914.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.3	1.0
10°-20°	548.9	3.1
20°-30°	943.6	5.3
30°-40°	1517.7	8.5
40°-50°	2501.5	14.0
50°-60°	3921.2	21.9
60°-70°	5426.6	30.3
70°-80°	2455.8	13.7
80°-90°	414.3	2.3
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°	17914.8	100.0
0°-180°	17914.8	100.0



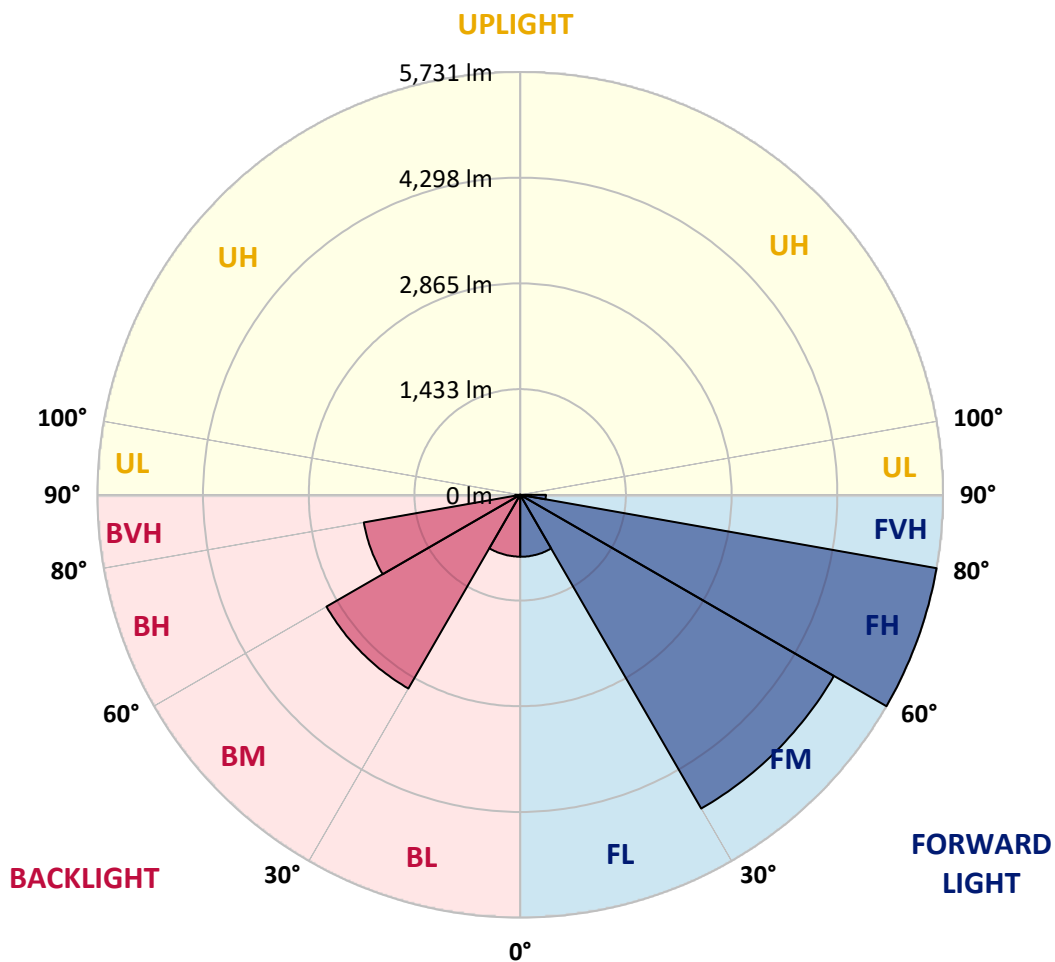
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	840.2	4.7			
FM	(30°-60°)	4909.4	27.4			
FH	(60°-80°)	5730.8	32.0			G3/7500
FVH	(80°-90°)	348.2	1.9			G3/500
BL	(0°-30°)	837.5	4.7	B2/1000		
BM	(30°-60°)	3031.0	16.9	B3/5000		
BH	(60°-80°)	2151.6	12.0	B3/2500		G3/2500
BVH	(80°-90°)	66.1	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4
2.5°	1926.0	1924.8	1923.6	1923.6	1922.4	1923.6	1924.8	1926.0	1924.8	1926.0	1924.8
5°	1922.4	1922.4	1921.2	1921.2	1921.2	1921.2	1922.4	1923.6	1922.4	1924.8	1922.4
7.5°	1906.8	1914.0	1911.6	1914.0	1916.4	1918.8	1920.0	1922.4	1926.0	1928.4	1926.0
10°	1886.4	1890.0	1891.2	1893.6	1898.4	1904.4	1909.2	1915.2	1923.6	1926.0	1928.4
12.5°	1849.2	1854.0	1857.6	1862.4	1869.6	1879.2	1887.6	1897.2	1911.6	1921.2	1929.6
15°	1821.6	1827.6	1828.8	1834.8	1842.0	1852.8	1863.6	1878.0	1897.2	1914.0	1930.8
17.5°	1839.6	1842.0	1839.6	1839.6	1842.0	1846.8	1855.2	1867.2	1887.6	1908.0	1928.4
20°	1893.6	1893.6	1891.2	1890.0	1887.6	1882.8	1881.6	1880.4	1893.6	1909.2	1927.2
22.5°	1945.2	1945.2	1944.0	1948.8	1947.6	1947.6	1944.0	1938.0	1932.0	1929.6	1941.6
25°	1977.6	1982.4	1984.8	1992.0	1996.8	2004.0	2006.4	2005.2	1996.8	1982.4	1978.8
27.5°	2030.4	2034.0	2036.4	2044.8	2054.4	2062.8	2071.2	2082.0	2082.0	2068.8	2050.8
30°	2132.4	2127.6	2130.0	2132.4	2140.8	2152.8	2163.6	2178.0	2185.2	2180.4	2156.4
32.5°	2227.2	2232.0	2234.4	2241.6	2250.0	2268.0	2281.2	2298.0	2313.6	2316.0	2304.0
35°	2366.4	2364.0	2360.4	2385.6	2395.2	2415.6	2431.2	2455.2	2467.2	2478.0	2470.8
37.5°	2586.0	2578.8	2574.0	2581.2	2594.4	2607.6	2630.4	2648.4	2668.8	2694.0	2685.6
40°	2896.8	2911.2	2890.8	2900.4	2911.2	2881.2	2901.6	2918.4	2953.2	2954.4	2953.2
42.5°	3301.2	3312.0	3307.2	3313.2	3294.0	3284.4	3276.0	3284.4	3327.6	3321.6	3292.8
45°	3705.6	3721.2	3717.6	3720.0	3757.2	3741.6	3754.8	3757.2	3801.6	3789.6	3768.0
47.5°	4051.2	4077.6	4083.6	4105.2	4155.6	4196.4	4252.8	4294.8	4316.4	4330.8	4347.6
50°	4324.8	4344.0	4377.6	4431.6	4504.8	4575.6	4702.8	4785.6	4861.2	4914.0	4968.0
52.5°	4506.0	4527.6	4579.2	4660.8	4766.4	4896.0	5044.8	5217.6	5377.2	5470.8	5551.2
55°	4580.4	4602.0	4665.6	4772.4	4912.8	5078.4	5292.0	5535.6	5748.0	5962.8	6086.4
57.5°	4537.2	4561.2	4634.4	4754.4	4923.6	5140.8	5406.0	5704.8	6015.6	6340.8	6589.2
60°	4410.0	4431.6	4514.4	4639.2	4832.4	5077.2	5395.2	5769.6	6206.4	6688.8	7160.4
62.5°	4234.8	4267.2	4340.4	4467.6	4659.6	4927.2	5289.6	5776.8	6403.2	7180.8	8098.8
65°	4011.6	4035.6	4100.4	4201.2	4412.4	4692.0	5074.8	5671.2	6489.6	7592.4	8902.8
66°	3896.4	3919.2	3979.2	4074.0	4267.2	4536.0	4918.8	5529.6	6393.6	7590.0	8988.0
67.5°	3693.6	3704.4	3747.6	3841.2	3967.2	4208.4	4563.6	5136.0	5986.8	7269.6	8750.4
70°	3098.4	3114.0	3156.0	3204.0	3250.8	3337.2	3585.6	3963.6	4644.0	5874.0	7286.4
72.5°	2143.2	2167.2	2212.8	2301.6	2374.8	2484.0	2581.2	2707.2	2932.8	3787.2	5212.8
75°	1549.2	1557.6	1624.8	1780.8	1928.4	2146.8	2340.0	2401.2	2324.4	2311.2	3062.4
77.5°	924.0	936.0	1033.2	1190.4	1344.0	1640.4	2036.4	2342.4	2511.6	2451.6	2318.4
80°	388.8	405.6	463.2	504.0	631.2	879.6	1270.8	1750.8	2197.2	2472.0	2409.6
82.5°	124.8	145.2	171.6	207.6	244.8	327.6	507.6	759.6	1200.0	1789.2	2199.6
85°	45.6	46.8	64.8	90.0	99.6	115.2	147.6	228.0	405.6	670.8	1248.0
87.5°	18.0	21.6	25.2	34.8	36.0	37.2	42.0	54.0	52.8	45.6	236.4
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):**

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4
2.5°	1926.0	1928.4	1927.2	1928.4	1928.4	1926.0	1926.0	1930.8	1927.2	1929.6	1929.6
5°	1924.8	1927.2	1926.0	1928.4	1928.4	1927.2	1927.2	1934.4	1933.2	1936.8	1939.2
7.5°	1929.6	1930.8	1929.6	1929.6	1933.2	1932.0	1933.2	1935.6	1941.6	1947.6	1952.4
10°	1935.6	1938.0	1941.6	1942.8	1947.6	1946.4	1950.0	1953.6	1959.6	1965.6	1971.6
12.5°	1944.0	1951.2	1962.0	1964.4	1969.2	1972.8	1978.8	1982.4	1987.2	1996.8	2004.0
15°	1951.2	1964.4	1977.6	1982.4	1987.2	1992.0	1998.0	2001.6	2010.0	2018.4	2026.8
17.5°	1953.6	1969.2	1986.0	1992.0	1996.8	2005.2	2012.4	2019.6	2029.2	2040.0	2049.6
20°	1954.8	1976.4	1998.0	2005.2	2016.0	2028.0	2040.0	2046.0	2059.2	2072.4	2080.8
22.5°	1965.6	1992.0	2022.0	2035.2	2046.0	2067.6	2083.2	2092.8	2108.4	2119.2	2122.8
25°	1995.6	2023.2	2059.2	2079.6	2097.6	2128.8	2148.0	2166.0	2174.4	2188.8	2185.2
27.5°	2049.6	2071.2	2118.0	2145.6	2168.4	2209.2	2246.4	2263.2	2276.4	2283.6	2275.2
30°	2142.0	2150.4	2202.0	2235.6	2274.0	2337.6	2378.4	2400.0	2416.8	2418.0	2396.4
32.5°	2280.0	2266.8	2312.4	2360.4	2410.8	2487.6	2542.8	2565.6	2578.8	2580.0	2532.0
35°	2467.2	2444.4	2482.8	2529.6	2592.0	2692.8	2762.4	2788.8	2809.2	2799.6	2728.8
37.5°	2703.6	2702.4	2720.4	2780.4	2851.2	2980.8	3054.0	3068.4	3067.2	3038.4	2931.6
40°	2966.4	2944.8	2947.2	2990.4	3072.0	3242.4	3344.4	3368.4	3360.0	3318.0	3178.8
42.5°	3297.6	3288.0	3255.6	3278.4	3354.0	3561.6	3685.2	3709.2	3716.4	3646.8	3482.4
45°	3762.0	3753.6	3681.6	3686.4	3741.6	3960.0	4088.4	4128.0	4129.2	4063.2	3849.6
47.5°	4324.8	4317.6	4233.6	4209.6	4237.2	4431.6	4591.2	4599.6	4602.0	4510.8	4288.8
50°	4963.2	4942.8	4879.2	4854.0	4821.6	5036.4	5164.8	5163.6	5150.4	5049.6	4800.0
52.5°	5580.0	5625.6	5601.6	5552.4	5553.6	5708.4	5829.6	5762.4	5770.8	5674.8	5388.0
55°	6238.8	6355.2	6442.8	6460.8	6452.4	6531.6	6598.8	6478.8	6434.4	6418.8	6114.0
57.5°	6938.4	7236.0	7506.0	7618.8	7575.6	7720.8	7780.8	7656.0	7658.4	7780.8	7518.0
60°	7873.2	8624.4	9304.8	9516.0	9614.4	9854.4	9747.6	9740.4	9928.8	10087.2	9600.0
62.5°	9291.6	10536.0	11622.0	11779.2	11858.4	11912.4	11864.4	11733.6	11928.0	11947.2	11196.0
65°	10366.8	11827.2	12877.2	13074.0	13059.6	12784.8	12518.4	12256.8	12254.4	12062.4	11095.2
66°	10483.2	11949.6	12973.2	13147.2	13083.6	12660.0	12321.6	11982.0	11872.8	11584.8	10603.2
67.5°	10228.8	11736.0	12752.4	12908.4	12772.8	12128.4	11667.6	11208.0	11043.6	10642.8	9642.0
70°	8744.4	10297.2	11656.8	11882.4	11721.6	10866.0	10183.2	9678.0	9230.4	8835.6	8010.0
72.5°	6780.0	7941.6	9380.4	9615.6	9628.8	8959.2	8190.0	7705.2	7184.4	6788.4	6169.2
75°	4447.2	5325.6	6116.4	6037.2	6060.0	5533.2	5074.8	4671.6	4200.0	3888.0	3592.8
77.5°	2599.2	2913.6	2841.6	2644.8	2479.2	1948.8	1394.4	957.6	835.2	871.2	982.8
80°	2259.6	2083.2	1630.8	1434.0	1304.4	885.6	476.4	336.0	295.2	298.8	316.8
82.5°	2432.4	2523.6	2071.2	1705.2	1486.8	1042.8	560.4	279.6	201.6	235.2	259.2
85°	1887.6	2402.4	2215.2	1872.0	1574.4	1108.8	572.4	177.6	120.0	160.8	202.8
87.5°	537.6	850.8	680.4	601.2	484.8	331.2	136.8	70.8	64.8	84.0	116.4
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4	1928.4
2.5°	1930.8	1930.8	1934.4	1935.6	1936.8	1936.8	1939.2	1939.2	1940.4	1945.2	1944.0
5°	1942.8	1946.4	1951.2	1953.6	1957.2	1958.4	1962.0	1962.0	1965.6	1969.2	1968.0
7.5°	1957.2	1960.8	1964.4	1968.0	1971.6	1976.4	1975.2	1974.0	1972.8	1970.4	1968.0
10°	1977.6	1981.2	1984.8	1983.6	1981.2	1978.8	1969.2	1958.4	1953.6	1944.0	1936.8
12.5°	2011.2	2014.8	2011.2	2001.6	1988.4	1972.8	1952.4	1934.4	1923.6	1909.2	1900.8
15°	2036.4	2040.0	2032.8	2016.0	1994.4	1974.0	1946.4	1923.6	1904.4	1888.8	1876.8
17.5°	2055.6	2053.2	2037.6	2018.4	1995.6	1978.8	1953.6	1928.4	1905.6	1884.0	1867.2
20°	2083.2	2070.0	2047.2	2023.2	2000.4	1986.0	1965.6	1942.8	1918.8	1887.6	1866.0
22.5°	2119.2	2095.2	2065.2	2041.2	2019.6	2005.2	1984.8	1963.2	1940.4	1904.4	1874.4
25°	2170.8	2132.4	2097.6	2072.4	2053.2	2038.8	2013.6	1990.8	1965.6	1929.6	1891.2
27.5°	2242.8	2187.6	2151.6	2126.4	2107.2	2090.4	2058.0	2030.4	1998.0	1962.0	1916.4
30°	2336.4	2269.2	2229.6	2208.0	2187.6	2163.6	2128.8	2088.0	2046.0	1998.0	1948.8
32.5°	2452.8	2377.2	2340.0	2318.4	2292.0	2259.6	2214.0	2160.0	2097.6	2034.0	1972.8
35°	2618.4	2532.0	2491.2	2454.0	2415.6	2367.6	2299.2	2221.2	2138.4	2055.6	1980.0
37.5°	2782.8	2702.4	2652.0	2613.6	2553.6	2475.6	2380.8	2272.8	2162.4	2056.8	1965.6
40°	3015.6	2922.0	2863.2	2794.8	2697.6	2576.4	2438.4	2293.2	2156.4	2029.2	1921.2
42.5°	3301.2	3194.4	3106.8	2983.2	2832.0	2656.8	2466.0	2281.2	2114.4	1968.0	1849.2
45°	3662.4	3523.2	3376.8	3182.4	2950.8	2706.0	2464.8	2239.2	2042.4	1876.8	1759.2
47.5°	4083.6	3888.0	3642.0	3345.6	3028.8	2718.0	2426.4	2163.6	1934.4	1752.0	1616.4
50°	4516.8	4233.6	3884.4	3471.6	3068.4	2688.0	2341.2	2040.0	1792.8	1585.2	1438.8
52.5°	5050.8	4611.6	4104.0	3556.8	3051.6	2599.2	2199.6	1866.0	1602.0	1399.2	1231.2
55°	5686.8	5046.0	4312.8	3603.6	2977.2	2439.6	1984.8	1638.0	1360.8	1176.0	1024.8
57.5°	6739.2	5726.4	4669.2	3673.2	2830.8	2202.0	1723.2	1364.4	1104.0	946.8	825.6
60°	8553.6	7122.0	5422.8	3844.8	2628.0	1863.6	1390.8	1069.2	854.4	728.4	643.2
62.5°	9819.6	7968.0	5828.4	3786.0	2283.6	1467.6	1028.4	764.4	622.8	540.0	482.4
65°	9573.6	7634.4	5340.0	3216.0	1789.2	1038.0	684.0	517.2	436.8	385.2	356.4
66°	9132.0	7266.0	4968.0	2887.2	1551.6	865.2	564.0	428.4	375.6	338.4	319.2
67.5°	8326.8	6502.8	4299.6	2317.2	1161.6	638.4	428.4	333.6	304.8	285.6	272.4
70°	6894.0	5142.0	2960.4	1369.2	614.4	357.6	272.4	246.0	232.8	224.4	223.2
72.5°	5286.0	3688.8	1712.4	662.4	328.8	237.6	208.8	199.2	194.4	192.0	192.0
75°	3265.2	2080.8	765.6	332.4	226.8	194.4	181.2	176.4	175.2	175.2	175.2
77.5°	1148.4	724.8	343.2	243.6	199.2	175.2	164.4	162.0	164.4	164.4	164.4
80°	316.8	279.6	248.4	216.0	180.0	162.0	152.4	151.2	156.0	157.2	152.4
82.5°	247.2	232.8	212.4	193.2	164.4	147.6	142.8	145.2	147.6	144.0	136.8
85°	211.2	201.6	148.8	148.8	133.2	128.4	127.2	129.6	128.4	118.8	109.2
87.5°	120.0	105.6	80.4	87.6	93.6	96.0	80.4	86.4	85.2	75.6	70.8
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):**

	160°	165°	170°	175°	180°
0°	1928.4	1928.4	1928.4	1928.4	1928.4
2.5°	1946.4	1946.4	1948.8	1948.8	1947.6
5°	1970.4	1970.4	1974.0	1971.6	1972.8
7.5°	1965.6	1960.8	1960.8	1958.4	1957.2
10°	1932.0	1923.6	1918.8	1921.2	1917.6
12.5°	1893.6	1886.4	1881.6	1880.4	1879.2
15°	1869.6	1861.2	1857.6	1855.2	1855.2
17.5°	1856.4	1846.8	1842.0	1838.4	1837.2
20°	1850.4	1838.4	1831.2	1827.6	1825.2
22.5°	1852.8	1838.4	1828.8	1824.0	1821.6
25°	1862.4	1844.4	1832.4	1826.4	1822.8
27.5°	1879.2	1855.2	1842.0	1833.6	1828.8
30°	1899.6	1866.0	1846.8	1834.8	1830.0
32.5°	1912.8	1867.2	1843.2	1825.2	1820.4
35°	1910.4	1854.0	1822.8	1800.0	1796.4
37.5°	1886.4	1819.2	1780.8	1750.8	1747.2
40°	1834.8	1766.4	1722.0	1692.0	1684.8
42.5°	1762.8	1692.0	1644.0	1616.4	1606.8
45°	1657.2	1570.8	1526.4	1503.6	1490.4
47.5°	1508.4	1426.8	1377.6	1358.4	1341.6
50°	1339.2	1249.2	1213.2	1191.6	1172.4
52.5°	1140.0	1063.2	1035.6	1015.2	999.6
55°	946.8	892.8	860.4	838.8	840.0
57.5°	760.8	728.4	710.4	687.6	690.0
60°	598.8	571.2	571.2	556.8	552.0
62.5°	457.2	446.4	442.8	438.0	429.6
65°	346.8	346.8	348.0	348.0	343.2
66°	312.0	315.6	320.4	320.4	314.4
67.5°	270.0	274.8	279.6	282.0	282.0
70°	223.2	229.2	231.6	234.0	232.8
72.5°	195.6	200.4	200.4	201.6	199.2
75°	177.6	180.0	181.2	178.8	177.6
77.5°	164.4	165.6	164.4	163.2	162.0
80°	148.8	147.6	144.0	139.2	138.0
82.5°	128.4	123.6	121.2	114.0	112.8
85°	103.2	97.2	92.4	82.8	78.0
87.5°	68.4	66.0	62.4	45.6	37.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)