

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: P146631

Luminaire Tested: **LDRL-T3-E06-E-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P146631  
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-7050  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 3  
Light Source: (126) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18382.5 lumens  
Efficiency: N/A  
Efficacy: 122.1 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

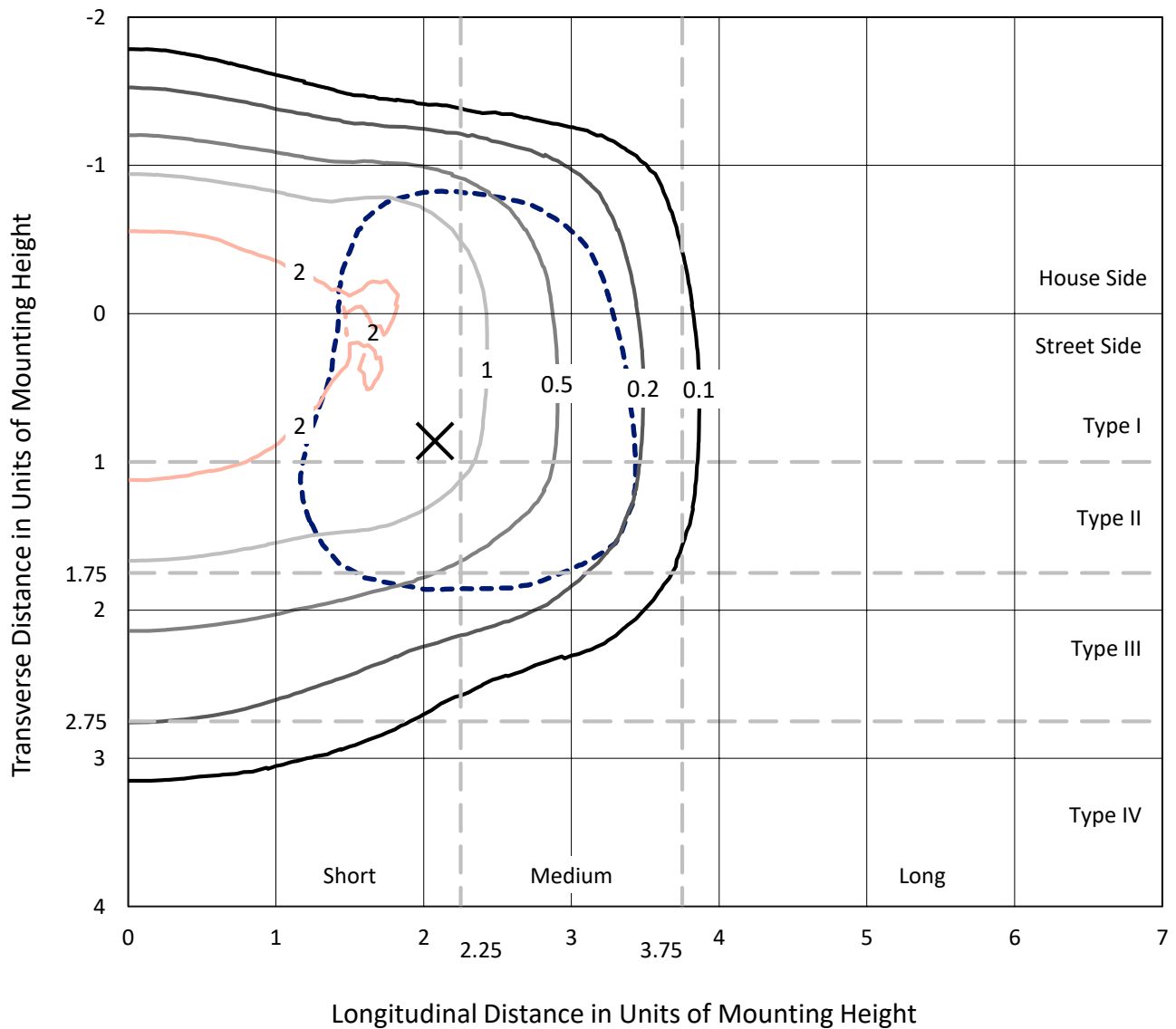
Input Watts (W): 150.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P146631  
 CATALOG NUMBER: LDRL-T3-E06-E-7050

### Iso-Footcandle Lines of Horizontal Illumination

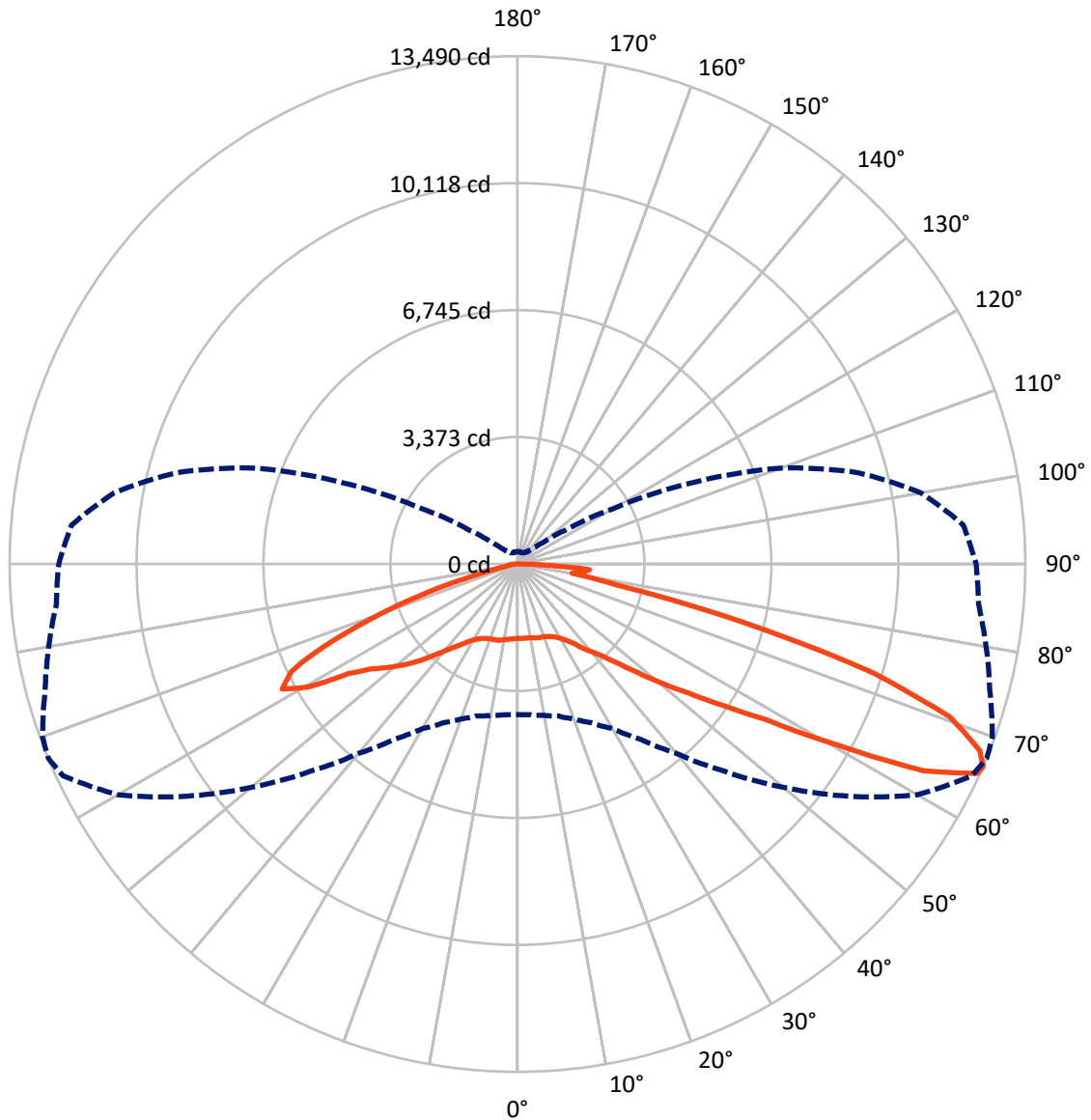
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P146631  
CATALOG NUMBER: LDRL-T3-E06-E-7050

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P146631

CATALOG NUMBER: LDRL-T3-E06-E-7050

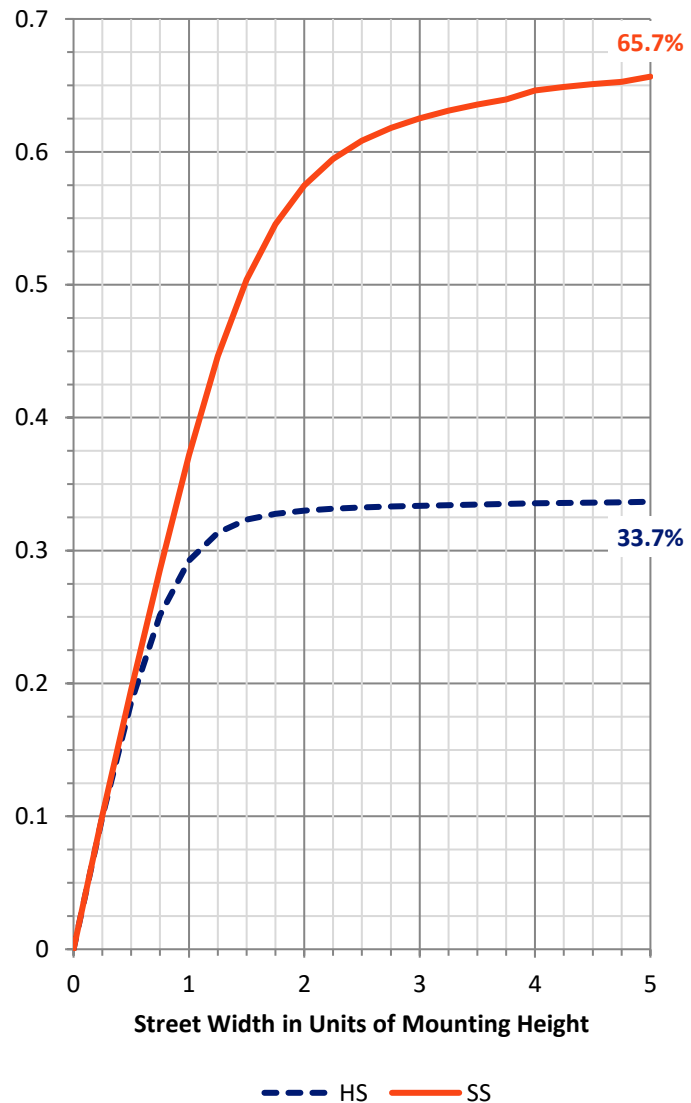
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6245.2	0.0	6245.2
	% Fixture	34.0	0.0	34.0
<b>Street Side</b>	Lumens	12137.4	0.0	12137.4
	% Fixture	66.0	0.0	66.0
<b>Total</b>	Lumens	18382.5	0.0	18382.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.1	1.0
10°-20°	563.2	3.1
20°-30°	968.2	5.3
30°-40°	1557.3	8.5
40°-50°	2566.8	14.0
50°-60°	4023.5	21.9
60°-70°	5568.2	30.3
70°-80°	2519.9	13.7
80°-90°	425.2	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°	18382.5	100.0
0°-180°	18382.5	100.0



REPORT NUMBER: P146631

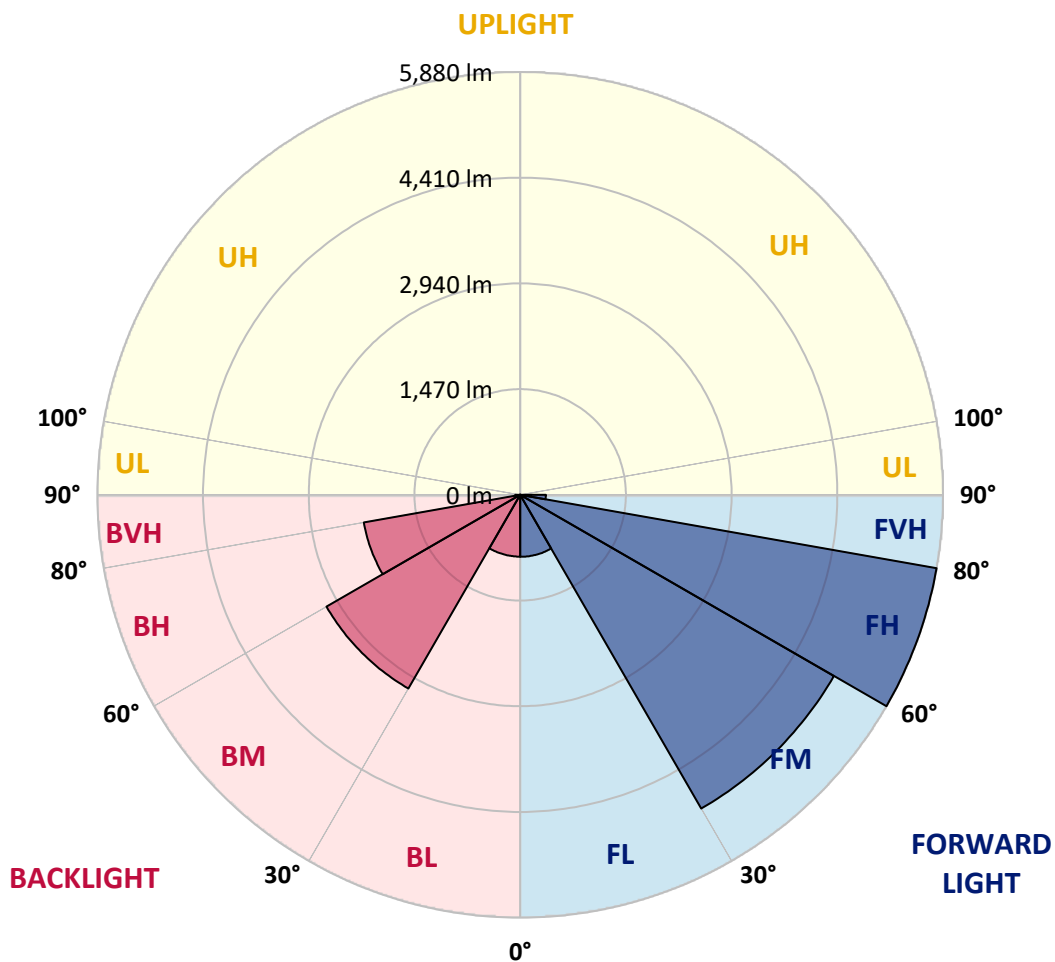
CATALOG NUMBER: LDRL-T3-E06-E-7050

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	862.2	4.7			
FM	(30°-60°)	5037.5	27.4			
FH	(60°-80°)	5880.4	32.0			G3/7500
FVH	(80°-90°)	357.3	1.9			G3/500
BL	(0°-30°)	859.4	4.7	B2/1000		
BM	(30°-60°)	3110.1	16.9	B3/5000		
BH	(60°-80°)	2207.8	12.0	B3/2500		G3/2500
BVH	(80°-90°)	67.9	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





REPORT NUMBER: P146631

CATALOG NUMBER: LDRL-T3-E06-E-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7
2.5°	1976.3	1975.0	1973.8	1973.8	1972.6	1973.8	1975.0	1976.3	1975.0	1976.3	1975.0
5°	1972.6	1972.6	1971.4	1971.4	1971.4	1971.4	1972.6	1973.8	1972.6	1975.0	1972.6
7.5°	1956.6	1964.0	1961.5	1964.0	1966.4	1968.9	1970.1	1972.6	1976.3	1978.7	1976.3
10°	1935.6	1939.3	1940.6	1943.0	1948.0	1954.1	1959.0	1965.2	1973.8	1976.3	1978.7
12.5°	1897.5	1902.4	1906.1	1911.0	1918.4	1928.3	1936.9	1946.7	1961.5	1971.4	1980.0
15°	1869.2	1875.3	1876.5	1882.7	1890.1	1901.2	1912.3	1927.0	1946.7	1964.0	1981.2
17.5°	1887.6	1890.1	1887.6	1887.6	1890.1	1895.0	1903.6	1915.9	1936.9	1957.8	1978.7
20°	1943.0	1943.0	1940.6	1939.3	1936.9	1932.0	1930.7	1929.5	1943.0	1959.0	1977.5
22.5°	1996.0	1996.0	1994.7	1999.7	1998.4	1998.4	1994.7	1988.6	1982.4	1980.0	1992.3
25°	2029.2	2034.2	2036.6	2044.0	2048.9	2056.3	2058.8	2057.5	2048.9	2034.2	2030.5
27.5°	2083.4	2087.1	2089.6	2098.2	2108.0	2116.7	2125.3	2136.4	2136.4	2122.8	2104.3
30°	2188.1	2183.1	2185.6	2188.1	2196.7	2209.0	2220.1	2234.9	2242.2	2237.3	2212.7
32.5°	2285.3	2290.3	2292.7	2300.1	2308.7	2327.2	2340.8	2358.0	2374.0	2376.5	2364.1
35°	2428.2	2425.7	2422.0	2447.9	2457.7	2478.7	2494.7	2519.3	2531.6	2542.7	2535.3
37.5°	2653.5	2646.1	2641.2	2648.6	2662.1	2675.7	2699.1	2717.5	2738.5	2764.3	2755.7
40°	2972.4	2987.2	2966.3	2976.1	2987.2	2956.4	2977.3	2994.6	3030.3	3031.5	3030.3
42.5°	3387.4	3398.5	3393.5	3399.7	3380.0	3370.1	3361.5	3370.1	3414.5	3408.3	3378.8
45°	3802.3	3818.3	3814.6	3817.1	3855.3	3839.3	3852.8	3855.3	3900.8	3888.5	3866.4
47.5°	4157.0	4184.0	4190.2	4212.4	4264.1	4305.9	4363.8	4406.9	4429.1	4443.9	4461.1
50°	4437.7	4457.4	4491.9	4547.3	4622.4	4695.0	4825.6	4910.5	4988.1	5042.3	5097.7
52.5°	4623.6	4645.8	4698.7	4782.5	4890.8	5023.8	5176.5	5353.8	5517.6	5613.6	5696.1
55°	4700.0	4722.1	4787.4	4897.0	5041.1	5211.0	5430.2	5680.1	5898.1	6118.5	6245.3
57.5°	4655.6	4680.3	4755.4	4878.5	5052.1	5275.0	5547.1	5853.7	6172.6	6506.3	6761.2
60°	4525.1	4547.3	4632.3	4760.3	4958.6	5209.7	5536.0	5920.2	6368.4	6863.4	7347.3
62.5°	4345.4	4378.6	4453.7	4584.2	4781.2	5055.8	5427.7	5927.6	6570.4	7368.3	8310.2
65°	4116.3	4141.0	4207.4	4310.9	4527.6	4814.5	5207.3	5819.2	6659.0	7790.6	9135.2
66°	3998.1	4021.5	4083.1	4180.4	4378.6	4654.4	5047.2	5674.0	6560.5	7788.1	9222.6
67.5°	3790.0	3801.1	3845.4	3941.5	4070.8	4318.3	4682.7	5270.1	6143.1	7459.4	8978.8
70°	3179.3	3195.3	3238.4	3287.6	3335.7	3424.3	3679.2	4067.1	4765.2	6027.3	7476.6
72.5°	2199.1	2223.8	2270.6	2361.7	2436.8	2548.8	2648.6	2777.9	3009.4	3886.1	5348.9
75°	1589.6	1598.3	1667.2	1827.3	1978.7	2202.8	2401.1	2463.9	2385.1	2371.5	3142.3
77.5°	948.1	960.4	1060.2	1221.5	1379.1	1683.2	2089.6	2403.5	2577.2	2515.6	2378.9
80°	398.9	416.2	475.3	517.2	647.7	902.6	1304.0	1796.5	2254.6	2536.5	2472.5
82.5°	128.1	149.0	176.1	213.0	251.2	336.2	520.9	779.4	1231.3	1835.9	2257.0
85°	46.8	48.0	66.5	92.3	102.2	118.2	151.5	234.0	416.2	688.3	1280.6
87.5°	18.5	22.2	25.9	35.7	36.9	38.2	43.1	55.4	54.2	46.8	242.6
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: P146631

CATALOG NUMBER: LDRL-T3-E06-E-7050

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7
2.5°	1976.3	1978.7	1977.5	1978.7	1978.7	1976.3	1976.3	1981.2	1977.5	1980.0	1980.0
5°	1975.0	1977.5	1976.3	1978.7	1978.7	1977.5	1977.5	1984.9	1983.7	1987.4	1989.8
7.5°	1980.0	1981.2	1980.0	1980.0	1983.7	1982.4	1983.7	1986.1	1992.3	1998.4	2003.4
10°	1986.1	1988.6	1992.3	1993.5	1998.4	1997.2	2000.9	2004.6	2010.8	2016.9	2023.1
12.5°	1994.7	2002.1	2013.2	2015.7	2020.6	2024.3	2030.5	2034.2	2039.1	2048.9	2056.3
15°	2002.1	2015.7	2029.2	2034.2	2039.1	2044.0	2050.2	2053.9	2062.5	2071.1	2079.7
17.5°	2004.6	2020.6	2037.8	2044.0	2048.9	2057.5	2064.9	2072.3	2082.2	2093.3	2103.1
20°	2005.8	2028.0	2050.2	2057.5	2068.6	2080.9	2093.3	2099.4	2113.0	2126.5	2135.1
22.5°	2016.9	2044.0	2074.8	2088.3	2099.4	2121.6	2137.6	2147.4	2163.4	2174.5	2178.2
25°	2047.7	2076.0	2113.0	2133.9	2152.4	2184.4	2204.1	2222.5	2231.2	2245.9	2242.2
27.5°	2103.1	2125.3	2173.3	2201.6	2225.0	2266.9	2305.0	2322.3	2335.8	2343.2	2334.6
30°	2197.9	2206.5	2259.5	2294.0	2333.4	2398.6	2440.5	2462.7	2479.9	2481.1	2459.0
32.5°	2339.5	2326.0	2372.8	2422.0	2473.7	2552.5	2609.2	2632.6	2646.1	2647.4	2598.1
35°	2531.6	2508.2	2547.6	2595.6	2659.7	2763.1	2834.5	2861.6	2882.5	2872.7	2800.0
37.5°	2774.2	2772.9	2791.4	2853.0	2925.6	3058.6	3133.7	3148.5	3147.3	3117.7	3008.1
40°	3043.8	3021.7	3024.1	3068.5	3152.2	3327.0	3431.7	3456.3	3447.7	3404.6	3261.8
42.5°	3383.7	3373.8	3340.6	3364.0	3441.6	3654.6	3781.4	3806.0	3813.4	3742.0	3573.3
45°	3860.2	3851.6	3777.7	3782.6	3839.3	4063.4	4195.1	4235.8	4237.0	4169.3	3950.1
47.5°	4437.7	4430.3	4344.1	4319.5	4347.8	4547.3	4711.1	4719.7	4722.1	4628.6	4400.8
50°	5092.8	5071.8	5006.6	4980.7	4947.5	5167.9	5299.6	5298.4	5284.9	5181.4	4925.3
52.5°	5725.7	5772.5	5747.8	5697.3	5698.6	5857.4	5981.8	5912.8	5921.4	5822.9	5528.7
55°	6401.7	6521.1	6611.0	6629.5	6620.8	6702.1	6771.1	6647.9	6602.4	6586.4	6273.6
57.5°	7119.5	7424.9	7701.9	7817.7	7773.4	7922.4	7983.9	7855.9	7858.3	7983.9	7714.3
60°	8078.7	8849.5	9547.7	9764.4	9865.4	10111.7	10002.1	9994.7	10188.0	10350.5	9850.6
62.5°	9534.2	10811.0	11925.4	12086.7	12168.0	12223.4	12174.1	12039.9	12239.4	12259.1	11488.3
65°	10637.4	12136.0	13213.4	13415.3	13400.5	13118.6	12845.2	12576.8	12574.3	12377.3	11384.8
66°	10756.9	12261.5	13311.9	13490.4	13425.2	12990.5	12643.3	12294.8	12182.7	11887.2	10880.0
67.5°	10495.8	12042.4	13085.3	13245.4	13106.2	12445.0	11972.2	11500.6	11331.9	10920.6	9893.7
70°	8972.7	10566.0	11961.1	12192.6	12027.6	11149.7	10449.0	9930.6	9471.4	9066.3	8219.1
72.5°	6957.0	8148.9	9625.3	9866.6	9880.2	9193.1	8403.8	7906.3	7372.0	6965.6	6330.2
75°	4563.3	5464.6	6276.1	6194.8	6218.2	5677.6	5207.3	4793.6	4309.6	3989.5	3686.6
77.5°	2667.1	2989.7	2915.8	2713.8	2543.9	1999.7	1430.8	982.6	857.0	893.9	1008.5
80°	2318.6	2137.6	1673.4	1471.4	1338.5	908.7	488.8	344.8	302.9	306.6	325.1
82.5°	2495.9	2589.5	2125.3	1749.7	1525.6	1070.0	575.0	286.9	206.9	241.3	266.0
85°	1936.9	2465.1	2273.0	1920.9	1615.5	1137.7	587.3	182.2	123.1	165.0	208.1
87.5°	551.6	873.0	698.2	616.9	497.5	339.8	140.4	72.6	66.5	86.2	119.4
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: P146631

CATALOG NUMBER: LDRL-T3-E06-E-7050

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7	1978.7
2.5°	1981.2	1981.2	1984.9	1986.1	1987.4	1987.4	1989.8	1989.8	1991.1	1996.0	1994.7
5°	1993.5	1997.2	2002.1	2004.6	2008.3	2009.5	2013.2	2013.2	2016.9	2020.6	2019.4
7.5°	2008.3	2012.0	2015.7	2019.4	2023.1	2028.0	2026.8	2025.5	2024.3	2021.8	2019.4
10°	2029.2	2032.9	2036.6	2035.4	2032.9	2030.5	2020.6	2009.5	2004.6	1994.7	1987.4
12.5°	2063.7	2067.4	2063.7	2053.9	2040.3	2024.3	2003.4	1984.9	1973.8	1959.0	1950.4
15°	2089.6	2093.3	2085.9	2068.6	2046.5	2025.5	1997.2	1973.8	1954.1	1938.1	1925.8
17.5°	2109.3	2106.8	2090.8	2071.1	2047.7	2030.5	2004.6	1978.7	1955.3	1933.2	1915.9
20°	2137.6	2124.0	2100.6	2076.0	2052.6	2037.8	2016.9	1993.5	1968.9	1936.9	1914.7
22.5°	2174.5	2149.9	2119.1	2094.5	2072.3	2057.5	2036.6	2014.5	1991.1	1954.1	1923.3
25°	2227.5	2188.1	2152.4	2126.5	2106.8	2092.0	2066.2	2042.8	2016.9	1980.0	1940.6
27.5°	2301.3	2244.7	2207.8	2181.9	2162.2	2145.0	2111.7	2083.4	2050.2	2013.2	1966.4
30°	2397.4	2328.4	2287.8	2265.6	2244.7	2220.1	2184.4	2142.5	2099.4	2050.2	1999.7
32.5°	2516.8	2439.3	2401.1	2378.9	2351.8	2318.6	2271.8	2216.4	2152.4	2087.1	2024.3
35°	2686.8	2598.1	2556.2	2518.1	2478.7	2429.4	2359.2	2279.2	2194.2	2109.3	2031.7
37.5°	2855.4	2772.9	2721.2	2681.8	2620.3	2540.2	2443.0	2332.1	2218.9	2110.5	2016.9
40°	3094.3	2998.3	2937.9	2867.8	2768.0	2643.7	2502.1	2353.1	2212.7	2082.2	1971.4
42.5°	3387.4	3277.8	3187.9	3061.1	2905.9	2726.2	2530.4	2340.8	2169.6	2019.4	1897.5
45°	3758.0	3615.2	3465.0	3265.5	3027.8	2776.6	2529.1	2297.7	2095.7	1925.8	1805.1
47.5°	4190.2	3989.5	3737.1	3432.9	3107.9	2789.0	2489.7	2220.1	1984.9	1797.7	1658.6
50°	4634.7	4344.1	3985.8	3562.2	3148.5	2758.2	2402.3	2093.3	1839.6	1626.6	1476.4
52.5°	5182.7	4732.0	4211.1	3649.7	3131.3	2667.1	2257.0	1914.7	1643.8	1435.7	1263.3
55°	5835.3	5177.7	4425.4	3697.7	3054.9	2503.3	2036.6	1680.8	1396.3	1206.7	1051.6
57.5°	6915.1	5875.9	4791.1	3769.1	2904.7	2259.5	1768.2	1400.0	1132.8	971.5	847.2
60°	8776.9	7307.9	5564.4	3945.2	2696.6	1912.3	1427.1	1097.1	876.7	747.4	660.0
62.5°	10075.9	8176.0	5980.6	3884.8	2343.2	1505.9	1055.2	784.4	639.1	554.1	495.0
65°	9823.5	7833.7	5479.4	3300.0	1835.9	1065.1	701.9	530.7	448.2	395.3	365.7
66°	9370.4	7455.7	5097.7	2962.6	1592.1	887.8	578.7	439.6	385.4	347.2	327.5
67.5°	8544.2	6672.6	4411.8	2377.7	1191.9	655.1	439.6	342.3	312.8	293.1	279.5
70°	7074.0	5276.2	3037.7	1404.9	630.4	366.9	279.5	252.4	238.9	230.3	229.0
72.5°	5424.0	3785.1	1757.1	679.7	337.4	243.8	214.3	204.4	199.5	197.0	197.0
75°	3350.4	2135.1	785.6	341.1	232.7	199.5	185.9	181.0	179.8	179.8	179.8
77.5°	1178.4	743.7	352.2	250.0	204.4	179.8	168.7	166.2	168.7	168.7	168.7
80°	325.1	286.9	254.9	221.6	184.7	166.2	156.4	155.1	160.1	161.3	156.4
82.5°	253.7	238.9	217.9	198.2	168.7	151.5	146.5	149.0	151.5	147.8	140.4
85°	216.7	206.9	152.7	152.7	136.7	131.8	130.5	133.0	131.8	121.9	112.1
87.5°	123.1	108.4	82.5	89.9	96.0	98.5	82.5	88.7	87.4	77.6	72.6
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: P146631

CATALOG NUMBER: LDRL-T3-E06-E-7050

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	1978.7	1978.7	1978.7	1978.7	1978.7
2.5°	1997.2	1997.2	1999.7	1999.7	1998.4
5°	2021.8	2021.8	2025.5	2023.1	2024.3
7.5°	2016.9	2012.0	2012.0	2009.5	2008.3
10°	1982.4	1973.8	1968.9	1971.4	1967.7
12.5°	1943.0	1935.6	1930.7	1929.5	1928.3
15°	1918.4	1909.8	1906.1	1903.6	1903.6
17.5°	1904.9	1895.0	1890.1	1886.4	1885.2
20°	1898.7	1886.4	1879.0	1875.3	1872.8
22.5°	1901.2	1886.4	1876.5	1871.6	1869.2
25°	1911.0	1892.5	1880.2	1874.1	1870.4
27.5°	1928.3	1903.6	1890.1	1881.5	1876.5
30°	1949.2	1914.7	1895.0	1882.7	1877.8
32.5°	1962.7	1915.9	1891.3	1872.8	1867.9
35°	1960.3	1902.4	1870.4	1847.0	1843.3
37.5°	1935.6	1866.7	1827.3	1796.5	1792.8
40°	1882.7	1812.5	1767.0	1736.2	1728.8
42.5°	1808.8	1736.2	1686.9	1658.6	1648.7
45°	1700.5	1611.8	1566.2	1542.9	1529.3
47.5°	1547.8	1464.0	1413.6	1393.9	1376.6
50°	1374.2	1281.8	1244.9	1222.7	1203.0
52.5°	1169.8	1091.0	1062.6	1041.7	1025.7
55°	971.5	916.1	882.9	860.7	861.9
57.5°	780.7	747.4	728.9	705.6	708.0
60°	614.4	586.1	586.1	571.3	566.4
62.5°	469.1	458.1	454.4	449.4	440.8
65°	355.9	355.9	357.1	357.1	352.2
66°	320.1	323.8	328.8	328.8	322.6
67.5°	277.0	282.0	286.9	289.4	289.4
70°	229.0	235.2	237.6	240.1	238.9
72.5°	200.7	205.6	205.6	206.9	204.4
75°	182.2	184.7	185.9	183.5	182.2
77.5°	168.7	169.9	168.7	167.5	166.2
80°	152.7	151.5	147.8	142.8	141.6
82.5°	131.8	126.8	124.4	117.0	115.7
85°	105.9	99.7	94.8	85.0	80.0
87.5°	70.2	67.7	64.0	46.8	38.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)