

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: P144260

Luminaire Tested: **LDRL-5XQ-E05-E**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P144260  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33699)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-5XQ-E05-E  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (105) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15460.5 lumens  
Efficiency: N/A  
Efficacy: 121.4 lumens/watt  
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B4 - U0 - G3

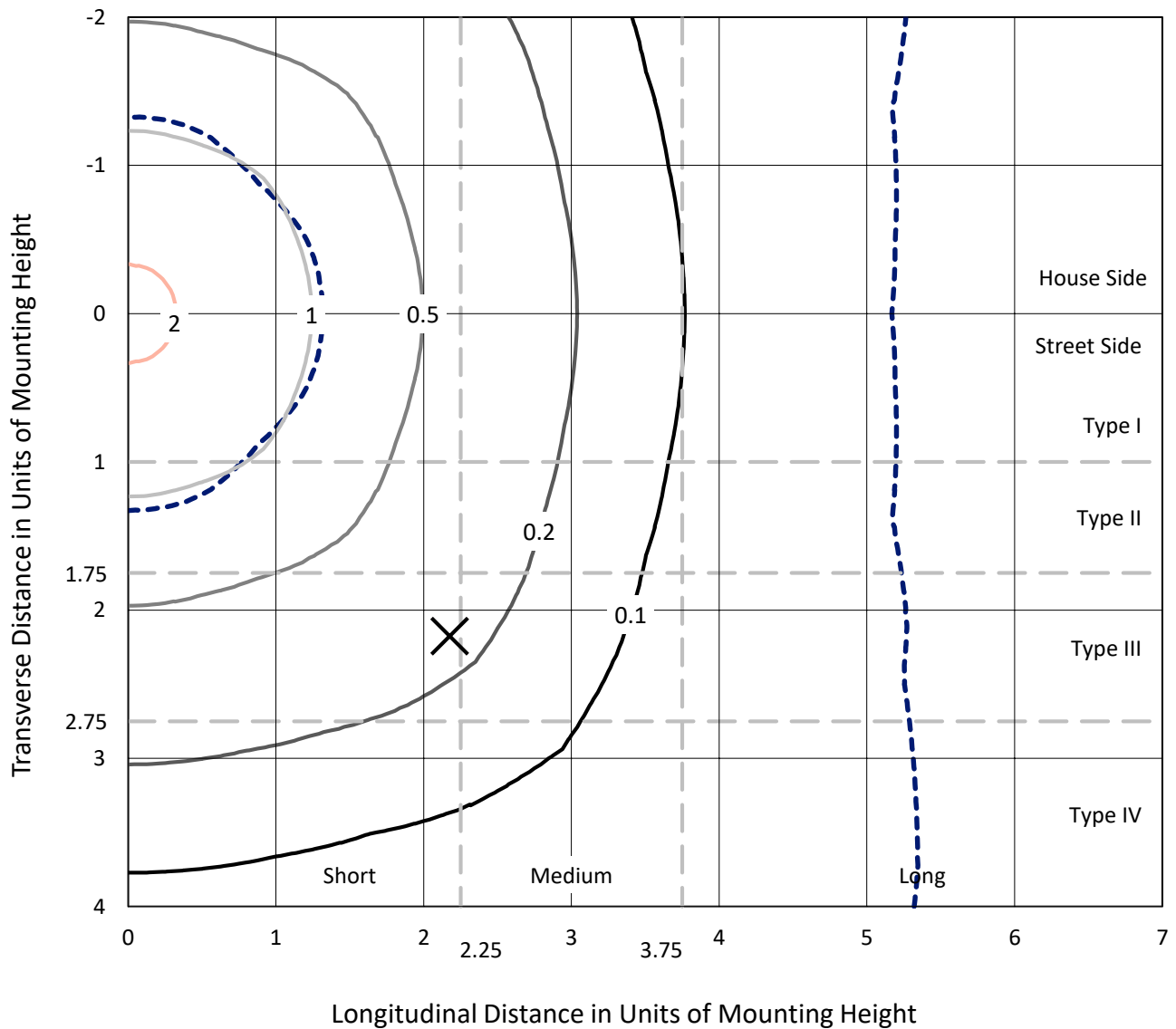
Input Watts (W): 127.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

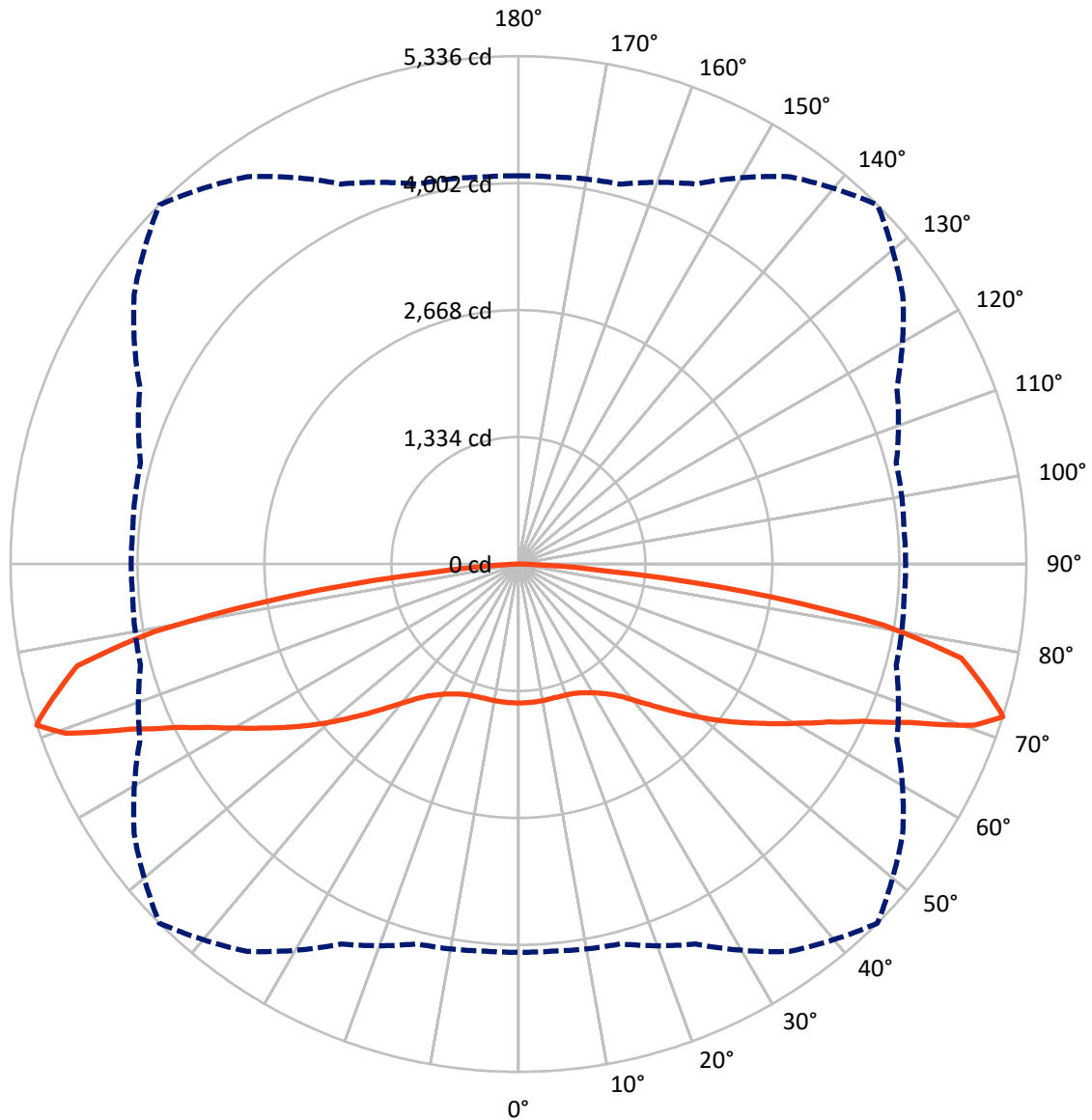
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc  
 Type V - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72-Deg Vertical

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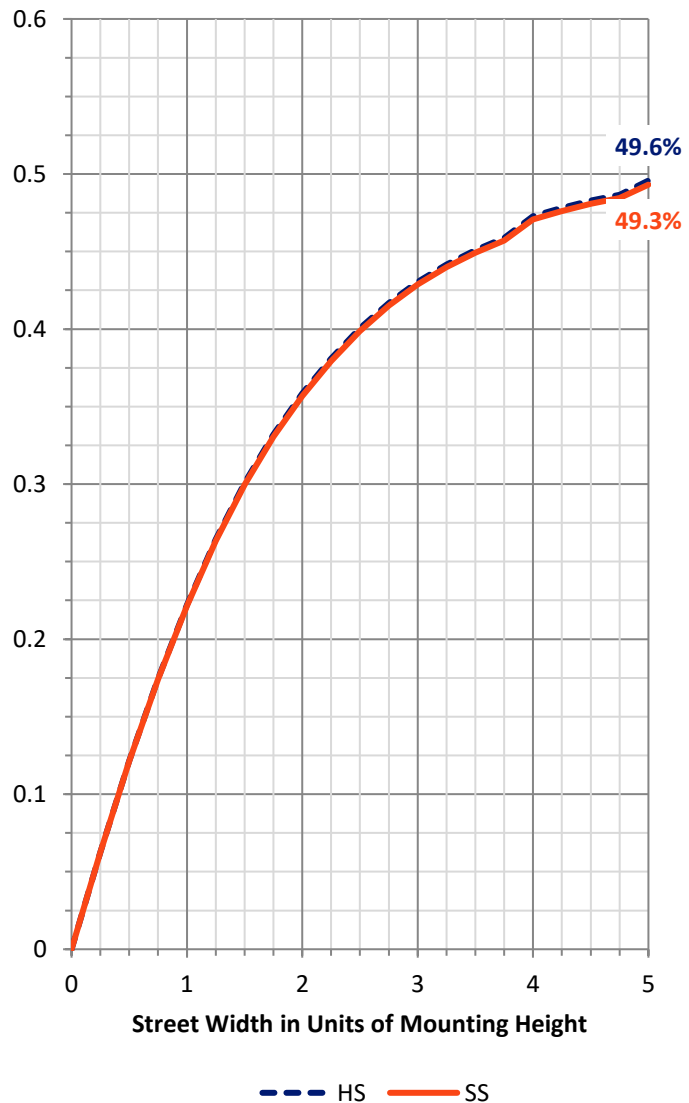
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7730.3	0.0	7730.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7730.3	0.0	7730.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	15460.5	0.0	15460.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.3	0.9
10°-20°	413.9	2.7
20°-30°	695.3	4.5
30°-40°	1058.3	6.8
40°-50°	1673.0	10.8
50°-60°	2555.3	16.5
60°-70°	3743.5	24.2
70°-80°	4252.9	27.5
80°-90°	929.0	6.0
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°	15460.5	100.0
0°-180°	15460.5	100.0



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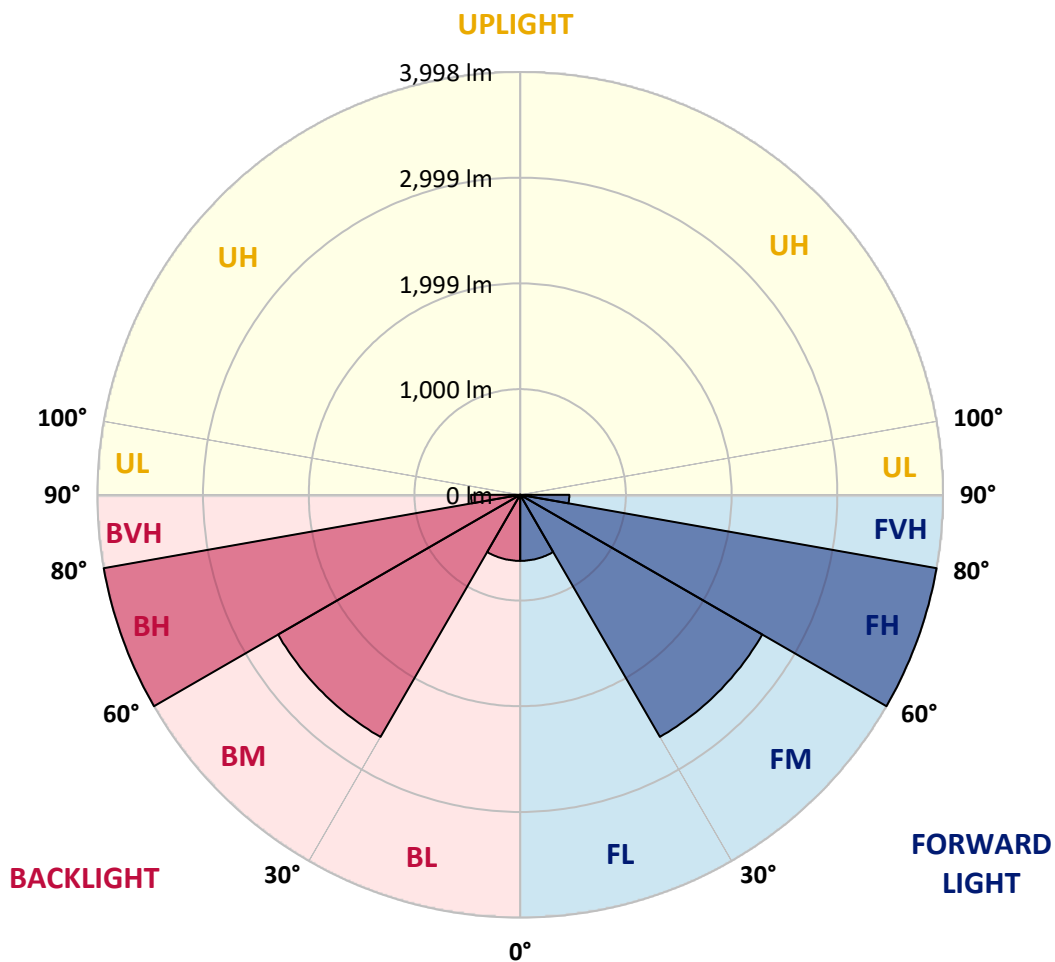
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	624.3	4.0			
FM	(30°-60°)	2643.3	17.1			
FH	(60°-80°)	3998.2	25.9			G2/5000
FVH	(80°-90°)	464.5	3.0			G3/500
BL	(0°-30°)	624.3	4.0	B2/1000		
BM	(30°-60°)	2643.3	17.1	B3/5000		
BH	(60°-80°)	3998.2	25.9	B4/5000		G2/5000
BVH	(80°-90°)	464.5	3.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1460.0	1460.0	1460.0	1460.0	1460.0	1460.0	1460.0	1460.0	1460.0	1460.0	1460.0
2.5°	1463.0	1462.5	1461.5	1460.5	1460.0	1459.5	1459.5	1459.5	1459.2	1459.0	1459.2
5°	1463.0	1462.5	1461.8	1461.0	1460.2	1459.5	1459.5	1459.5	1459.2	1459.0	1459.5
7.5°	1461.0	1461.5	1460.8	1460.0	1459.8	1459.5	1459.2	1459.0	1458.5	1458.0	1458.2
10°	1461.5	1463.5	1462.0	1460.5	1460.0	1459.5	1458.5	1457.5	1457.2	1457.0	1456.5
12.5°	1462.5	1464.5	1462.8	1461.0	1460.2	1459.5	1458.5	1457.5	1456.8	1456.0	1455.2
15°	1465.5	1467.0	1465.5	1464.0	1462.5	1461.0	1460.0	1459.0	1457.5	1456.0	1455.2
17.5°	1467.5	1470.0	1468.2	1466.5	1464.8	1463.0	1462.0	1461.0	1460.0	1459.0	1457.8
20°	1471.0	1473.5	1472.0	1470.5	1469.5	1468.5	1467.8	1467.0	1466.2	1465.5	1463.8
22.5°	1477.5	1479.5	1479.0	1478.5	1478.8	1479.0	1479.2	1479.5	1479.0	1478.5	1476.8
25°	1491.0	1491.0	1492.0	1493.0	1494.5	1496.0	1497.2	1498.5	1499.2	1500.0	1497.8
27.5°	1514.5	1516.5	1517.2	1518.0	1520.5	1523.0	1525.8	1528.5	1530.0	1531.5	1529.2
30°	1545.0	1545.0	1546.8	1548.5	1552.8	1557.0	1560.5	1564.0	1566.8	1569.5	1567.8
32.5°	1584.0	1586.5	1589.0	1591.5	1596.8	1602.0	1608.0	1614.0	1617.5	1621.0	1618.2
35°	1643.5	1646.5	1649.0	1651.5	1657.0	1662.5	1669.2	1676.0	1679.0	1682.0	1680.2
37.5°	1727.5	1727.5	1731.0	1734.5	1738.0	1741.5	1750.5	1759.5	1763.2	1767.0	1764.0
40°	1841.0	1841.5	1842.2	1843.0	1846.2	1849.5	1860.5	1871.5	1878.0	1884.5	1878.2
42.5°	1971.5	1977.0	1976.8	1976.5	1978.8	1981.0	1991.5	2002.0	2011.2	2020.5	2016.8
45°	2125.5	2124.5	2122.5	2120.5	2127.2	2134.0	2149.0	2164.0	2172.2	2180.5	2172.8
47.5°	2281.0	2279.5	2276.8	2274.0	2280.8	2287.5	2310.0	2332.5	2344.2	2356.0	2343.5
50°	2436.0	2442.0	2438.5	2435.0	2445.0	2455.0	2483.5	2512.0	2529.2	2546.5	2532.0
52.5°	2607.5	2612.0	2608.0	2604.0	2617.8	2631.5	2665.2	2699.0	2722.0	2745.0	2725.5
55°	2785.0	2779.5	2781.8	2784.0	2797.0	2810.0	2851.5	2893.0	2920.5	2948.0	2926.0
57.5°	2951.0	2953.0	2950.8	2948.5	2969.0	2989.5	3041.8	3094.0	3128.5	3163.0	3135.5
60°	3121.0	3121.5	3116.5	3111.5	3133.8	3156.0	3231.0	3306.0	3350.8	3395.5	3357.8
62.5°	3311.0	3310.5	3301.8	3293.0	3319.2	3345.5	3438.5	3531.5	3593.0	3654.5	3608.5
65°	3544.0	3538.0	3533.0	3528.0	3558.2	3588.5	3704.0	3819.5	3902.5	3985.5	3926.2
67.5°	3887.5	3883.0	3872.5	3862.0	3895.8	3929.5	4077.5	4225.5	4332.8	4440.0	4361.8
70°	4265.5	4257.0	4264.2	4271.5	4349.5	4427.5	4626.0	4824.5	4951.5	5078.5	4947.0
72°	4079.0	4082.5	4106.8	4131.0	4267.8	4404.5	4686.5	4968.5	5152.2	5336.0	5132.8
72.5°	4014.0	4017.0	4044.5	4072.0	4202.5	4333.0	4623.8	4914.5	5104.8	5295.0	5086.0
75°	3738.0	3746.0	3777.8	3809.5	3941.8	4074.0	4367.2	4660.5	4842.8	5025.0	4815.8
77.5°	3287.5	3312.5	3344.8	3377.0	3534.5	3692.0	4023.5	4355.0	4556.2	4757.5	4520.0
80°	2509.0	2500.0	2555.5	2611.0	2761.5	2912.0	3168.5	3425.0	3656.8	3888.5	3621.5
82.5°	975.0	996.5	1111.5	1226.5	1384.2	1542.0	1771.8	2001.5	2210.2	2419.0	2196.8
85°	100.5	114.5	155.8	197.0	283.0	369.0	509.0	649.0	786.2	923.5	774.5
87.5°	40.5	44.5	57.2	70.0	73.2	76.5	92.5	108.5	107.8	107.0	105.5
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°	70°	75°	80°	85°	90°
0°	1460.0	1460.0	1460.0	1460.0	1460.0	1460.0	1460.0	1460.0
2.5°	1459.5	1460.0	1460.5	1460.5	1460.5	1461.2	1462.0	1461.0
5°	1460.0	1460.2	1460.5	1460.5	1460.5	1461.2	1462.0	1461.0
7.5°	1458.5	1458.5	1458.5	1459.2	1460.0	1460.2	1460.5	1460.0
10°	1456.0	1456.2	1456.5	1457.2	1458.0	1458.8	1459.5	1460.0
12.5°	1454.5	1454.8	1455.0	1455.8	1456.5	1457.2	1458.0	1459.0
15°	1454.5	1454.8	1455.0	1455.5	1456.0	1457.0	1458.0	1459.0
17.5°	1456.5	1456.0	1455.5	1456.0	1456.5	1457.8	1459.0	1460.0
20°	1462.0	1461.2	1460.5	1460.5	1460.5	1461.8	1463.0	1463.0
22.5°	1475.0	1472.5	1470.0	1469.5	1469.0	1469.2	1469.5	1470.0
25°	1495.5	1491.5	1487.5	1486.2	1485.0	1484.5	1484.0	1485.0
27.5°	1527.0	1522.5	1518.0	1515.2	1512.5	1511.0	1509.5	1510.0
30°	1566.0	1560.8	1555.5	1551.0	1546.5	1544.5	1542.5	1543.0
32.5°	1615.5	1609.2	1603.0	1597.0	1591.0	1588.2	1585.5	1586.0
35°	1678.5	1671.2	1664.0	1659.0	1654.0	1649.8	1645.5	1649.0
37.5°	1761.0	1754.2	1747.5	1744.2	1741.0	1737.2	1733.5	1734.0
40°	1872.0	1865.0	1858.0	1855.2	1852.5	1847.8	1843.0	1844.0
42.5°	2013.0	2002.5	1992.0	1987.0	1982.0	1979.8	1977.5	1979.0
45°	2165.0	2154.5	2144.0	2139.8	2135.5	2129.5	2123.5	2129.0
47.5°	2331.0	2317.8	2304.5	2297.0	2289.5	2291.5	2293.5	2289.0
50°	2517.5	2495.2	2473.0	2464.2	2455.5	2455.5	2455.5	2455.0
52.5°	2706.0	2675.2	2644.5	2637.0	2629.5	2627.8	2626.0	2624.0
55°	2904.0	2866.2	2828.5	2814.5	2800.5	2802.5	2804.5	2810.0
57.5°	3108.0	3058.2	3008.5	2992.5	2976.5	2977.8	2979.0	2988.0
60°	3320.0	3255.8	3191.5	3173.8	3156.0	3160.8	3165.5	3171.0
62.5°	3562.5	3484.8	3407.0	3383.2	3359.5	3365.5	3371.5	3386.0
65°	3867.0	3770.0	3673.0	3648.2	3623.5	3626.2	3629.0	3654.0
67.5°	4283.5	4154.2	4025.0	4002.2	3979.5	3983.5	3987.5	4028.0
70°	4815.5	4624.0	4432.5	4338.2	4244.0	4229.2	4214.5	4236.0
72°	4929.5	4659.0	4388.5	4249.5	4110.5	4088.8	4067.0	4069.0
72.5°	4877.0	4603.5	4330.0	4195.0	4060.0	4042.2	4024.5	4021.0
75°	4606.5	4339.0	4071.5	3932.0	3792.5	3758.8	3725.0	3725.0
77.5°	4282.5	3945.2	3608.0	3457.5	3307.0	3271.8	3236.5	3209.0
80°	3354.5	3052.2	2750.0	2597.2	2444.5	2388.0	2331.5	2298.0
82.5°	1974.5	1696.5	1418.5	1224.5	1030.5	972.2	914.0	833.0
85°	625.5	481.2	337.0	263.0	189.0	152.8	116.5	102.0
87.5°	104.0	84.5	65.0	62.8	60.5	47.5	34.5	29.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)