

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: P143670

Luminaire Tested: **LDRL-5MQ-E06-E**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143670  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33697)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-5MQ-E06-E  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (126) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18646 lumens  
Efficiency: N/A  
Efficacy: 123.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

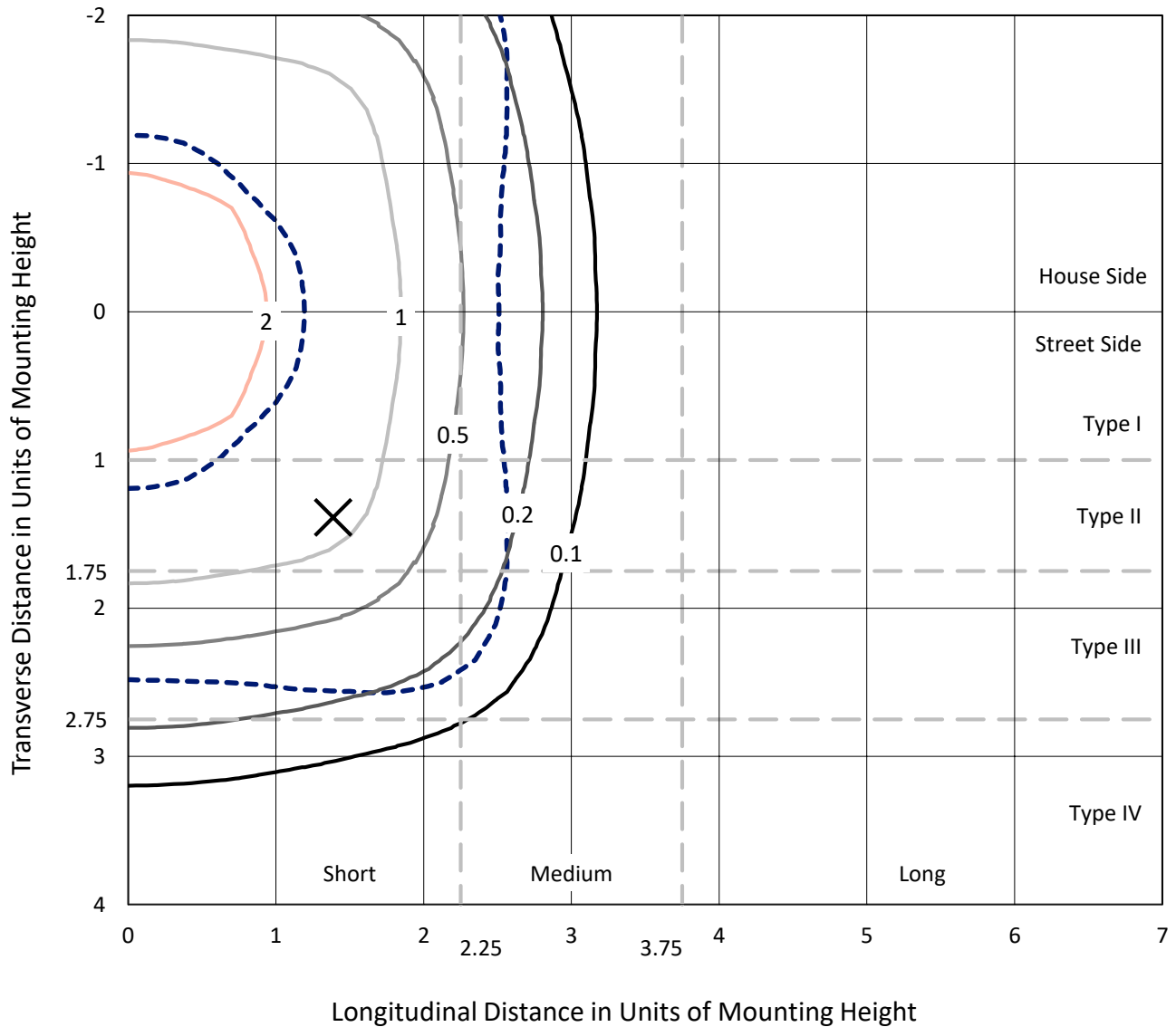
Input Watts (W): 150.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

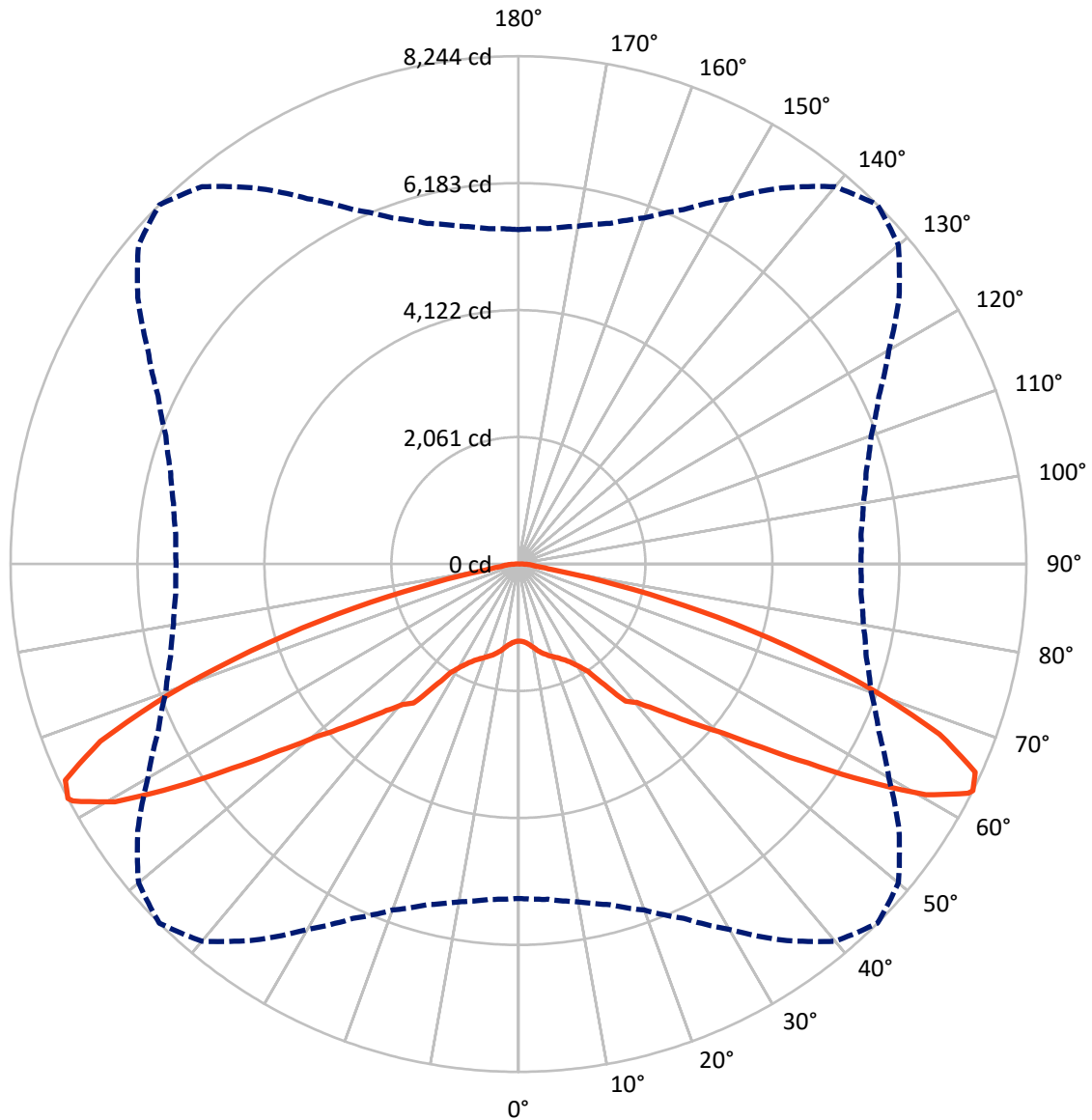
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 63-Deg Vertical

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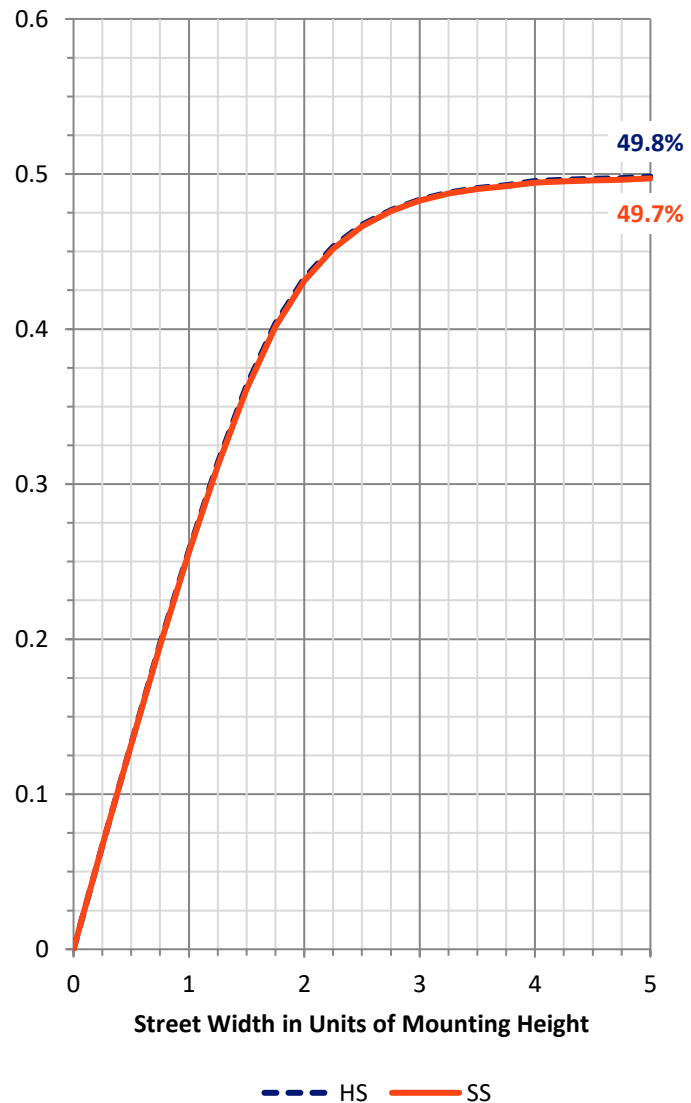
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9323.0	0.0	9323.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9323.0	0.0	9323.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	18646.0	0.0	18646.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.0	0.7
10°-20°	430.5	2.3
20°-30°	822.2	4.4
30°-40°	1566.4	8.4
40°-50°	2697.3	14.5
50°-60°	4819.9	25.8
60°-70°	5870.8	31.5
70°-80°	2091.2	11.2
80°-90°	221.7	1.2
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°	18646.0	100.0
0°-180°	18646.0	100.0

**Coefficient of Utilization**



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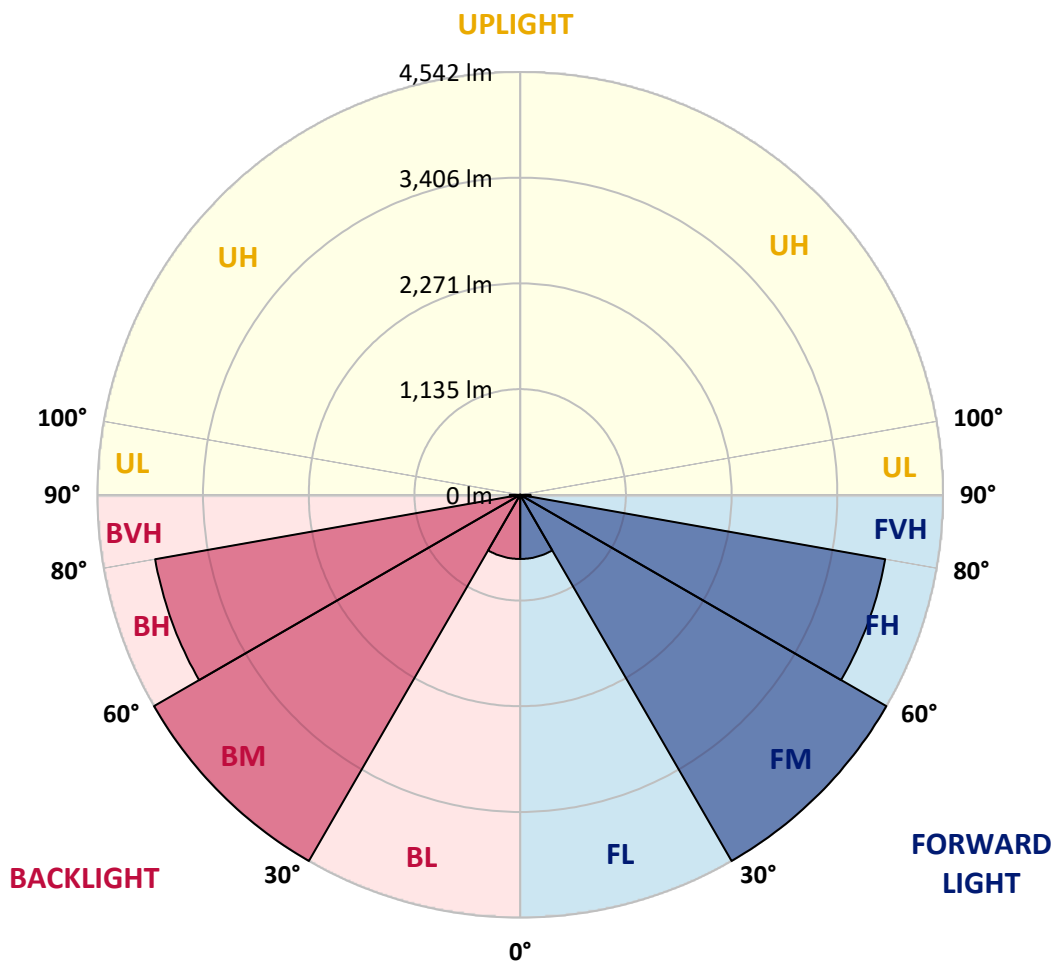
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	689.4	3.7			
FM	(30°-60°)	4541.8	24.4			
FH	(60°-80°)	3981.0	21.4			G2/5000
FVH	(80°-90°)	110.9	0.6			G2/225
BL	(0°-30°)	689.4	3.7	B2/1000		
BM	(30°-60°)	4541.8	24.4	B3/5000		
BH	(60°-80°)	3981.0	21.4	B4/5000		G2/5000
BVH	(80°-90°)	110.9	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6
2.5°	1261.2	1260.0	1261.2	1258.8	1258.8	1257.6	1257.6	1257.6	1255.2	1257.6	1255.2
5°	1287.6	1286.4	1287.6	1285.2	1285.2	1282.8	1282.8	1282.8	1280.4	1282.8	1281.6
7.5°	1333.2	1335.6	1333.2	1330.8	1330.8	1328.4	1327.2	1327.2	1326.0	1324.8	1327.2
10°	1396.8	1399.2	1395.6	1393.2	1392.0	1390.8	1388.4	1387.2	1387.2	1382.4	1383.6
12.5°	1464.0	1464.0	1460.4	1459.2	1459.2	1456.8	1452.0	1450.8	1450.8	1448.4	1446.0
15°	1524.0	1524.0	1521.6	1516.8	1518.0	1514.4	1510.8	1508.4	1508.4	1506.0	1503.6
17.5°	1579.2	1579.2	1575.6	1570.8	1568.4	1567.2	1562.4	1560.0	1560.0	1557.6	1555.2
20°	1634.4	1636.8	1630.8	1626.0	1621.2	1616.4	1611.6	1609.2	1605.6	1606.8	1605.6
22.5°	1700.4	1701.6	1692.0	1686.0	1676.4	1670.4	1663.2	1660.8	1656.0	1656.0	1658.4
25°	1784.4	1783.2	1772.4	1761.6	1750.8	1738.8	1728.0	1725.6	1720.8	1719.6	1720.8
27.5°	1894.8	1893.6	1880.4	1866.0	1851.6	1833.6	1820.4	1813.2	1809.6	1804.8	1807.2
30°	2030.4	2032.8	2017.2	2000.4	1982.4	1960.8	1944.0	1934.4	1927.2	1922.4	1924.8
32.5°	2306.4	2304.0	2280.0	2244.0	2205.6	2155.2	2114.4	2097.6	2084.4	2079.6	2083.2
35°	2583.6	2581.2	2571.6	2560.8	2551.2	2518.8	2488.8	2454.0	2425.2	2407.2	2412.0
37.5°	2714.4	2714.4	2707.2	2704.8	2704.8	2724.0	2748.0	2791.2	2824.8	2827.2	2816.4
40°	2918.4	2918.4	2906.4	2900.4	2896.8	2902.8	2918.4	2934.0	2950.8	2954.4	2942.4
42.5°	3158.4	3147.6	3139.2	3127.2	3126.0	3132.0	3148.8	3168.0	3184.8	3199.2	3174.0
45°	3417.6	3408.0	3399.6	3392.4	3397.2	3412.8	3435.6	3469.2	3493.2	3514.8	3494.4
47.5°	3706.8	3686.4	3694.8	3687.6	3699.6	3730.8	3771.6	3822.0	3847.2	3885.6	3853.2
50°	4066.8	4071.6	4066.8	4066.8	4081.2	4122.0	4182.0	4250.4	4293.6	4315.2	4296.0
52.5°	4602.0	4587.6	4555.2	4564.8	4584.0	4648.8	4726.8	4822.8	4878.0	4929.6	4869.6
55°	5187.6	5190.0	5185.2	5198.4	5235.6	5301.6	5400.0	5545.2	5614.8	5704.8	5632.8
57.5°	5672.4	5689.2	5718.0	5757.6	5838.0	5948.4	6141.6	6363.6	6548.4	6645.6	6532.8
60°	5829.6	5846.4	5916.0	6026.4	6177.6	6403.2	6716.4	7096.8	7429.2	7602.0	7454.4
62.5°	5527.2	5558.4	5661.6	5814.0	6063.6	6416.4	6882.0	7444.8	7957.2	8193.6	8014.8
63°	5428.8	5463.6	5569.2	5724.0	5978.4	6346.8	6849.6	7452.0	7994.4	8244.0	8050.8
65°	4992.0	5014.8	5126.4	5302.8	5586.0	5970.0	6529.2	7242.0	7860.0	8149.2	7944.0
67.5°	4304.4	4334.4	4436.4	4588.8	4863.6	5270.4	5820.0	6530.4	7138.8	7370.4	7195.2
70°	3452.4	3486.0	3570.0	3711.6	3927.6	4304.4	4774.8	5438.4	5895.6	6076.8	5889.6
72.5°	2426.4	2440.8	2502.0	2650.8	2812.8	3112.8	3486.0	4002.0	4441.2	4560.0	4380.0
75°	1027.2	1028.4	1108.8	1203.6	1406.4	1705.2	2030.4	2474.4	2869.2	3054.0	2826.0
77.5°	328.8	332.4	355.2	390.0	457.2	590.4	830.4	1074.0	1436.4	1611.6	1398.0
80°	274.8	279.6	289.2	296.4	301.2	308.4	336.0	374.4	471.6	548.4	442.8
82.5°	236.4	244.8	266.4	274.8	279.6	282.0	285.6	284.4	278.4	276.0	277.2
85°	180.0	200.4	224.4	243.6	246.0	247.2	254.4	256.8	237.6	218.4	237.6
87.5°	78.0	100.8	154.8	171.6	168.0	156.0	166.8	176.4	160.8	117.6	157.2
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°	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6
2.5°	1256.4	1258.8	1258.8	1258.8	1258.8	1260.0	1261.2	1260.0
5°	1282.8	1285.2	1284.0	1285.2	1285.2	1286.4	1287.6	1286.4
7.5°	1328.4	1328.4	1328.4	1330.8	1330.8	1333.2	1333.2	1333.2
10°	1384.8	1383.6	1383.6	1386.0	1388.4	1389.6	1392.0	1390.8
12.5°	1446.0	1443.6	1444.8	1447.2	1449.6	1450.8	1453.2	1452.0
15°	1501.2	1500.0	1500.0	1503.6	1504.8	1506.0	1510.8	1510.8
17.5°	1554.0	1554.0	1554.0	1558.8	1560.0	1564.8	1568.4	1568.4
20°	1606.8	1606.8	1606.8	1611.6	1615.2	1622.4	1629.6	1628.4
22.5°	1660.8	1662.0	1664.4	1669.2	1677.6	1688.4	1694.4	1694.4
25°	1728.0	1732.8	1737.6	1744.8	1756.8	1771.2	1780.8	1784.4
27.5°	1814.4	1825.2	1837.2	1848.0	1861.2	1879.2	1892.4	1894.8
30°	1932.0	1947.6	1966.8	1981.2	1998.0	2018.4	2034.0	2042.4
32.5°	2098.8	2137.2	2162.4	2214.0	2245.2	2280.0	2308.8	2320.8
35°	2442.0	2480.4	2514.0	2548.8	2556.0	2568.0	2583.6	2587.2
37.5°	2781.6	2750.4	2720.4	2719.2	2710.8	2713.2	2718.0	2724.0
40°	2929.2	2919.6	2904.0	2910.0	2911.2	2911.2	2920.8	2922.0
42.5°	3166.8	3144.0	3126.0	3140.4	3142.8	3145.2	3154.8	3165.6
45°	3469.2	3434.4	3411.6	3403.2	3411.6	3409.2	3422.4	3424.8
47.5°	3814.8	3769.2	3717.6	3700.8	3696.0	3685.2	3708.0	3705.6
50°	4238.4	4165.2	4102.8	4078.8	4066.8	4060.8	4066.8	4066.8
52.5°	4774.8	4701.6	4616.4	4588.8	4579.2	4592.4	4573.2	4593.6
55°	5512.8	5394.0	5277.6	5240.4	5234.4	5228.4	5230.8	5239.2
57.5°	6343.2	6132.0	5976.0	5884.8	5826.0	5797.2	5766.0	5761.2
60°	7144.8	6760.8	6464.4	6262.8	6120.0	6012.0	5956.8	5937.6
62.5°	7531.2	6969.6	6508.8	6165.6	5953.2	5776.8	5679.6	5654.4
63°	7542.0	6943.2	6454.8	6092.4	5845.2	5686.8	5583.6	5557.2
65°	7341.6	6660.0	6087.6	5689.2	5427.6	5262.0	5134.8	5107.2
67.5°	6612.0	5950.8	5365.2	4960.8	4677.6	4544.4	4404.0	4400.4
70°	5426.4	4836.0	4342.8	3970.8	3734.4	3602.4	3459.6	3463.2
72.5°	3967.2	3442.8	3103.2	2812.8	2563.2	2438.4	2304.0	2317.2
75°	2388.0	1920.0	1614.0	1362.0	1105.2	951.6	848.4	789.6
77.5°	1021.2	698.4	501.6	398.4	336.0	310.8	298.8	295.2
80°	355.2	314.4	296.4	291.6	288.0	283.2	274.8	266.4
82.5°	288.0	288.0	278.4	277.2	266.4	258.0	236.4	225.6
85°	255.6	250.8	242.4	238.8	236.4	218.4	190.8	176.4
87.5°	169.2	157.2	150.0	153.6	148.8	133.2	81.6	64.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)