

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: P143675

Luminaire Tested: **LDRL-5MQ-F06-E**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143675  
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-F06-E  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (42) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15392.8 lumens  
Efficiency: N/A  
Efficacy: 98.4 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

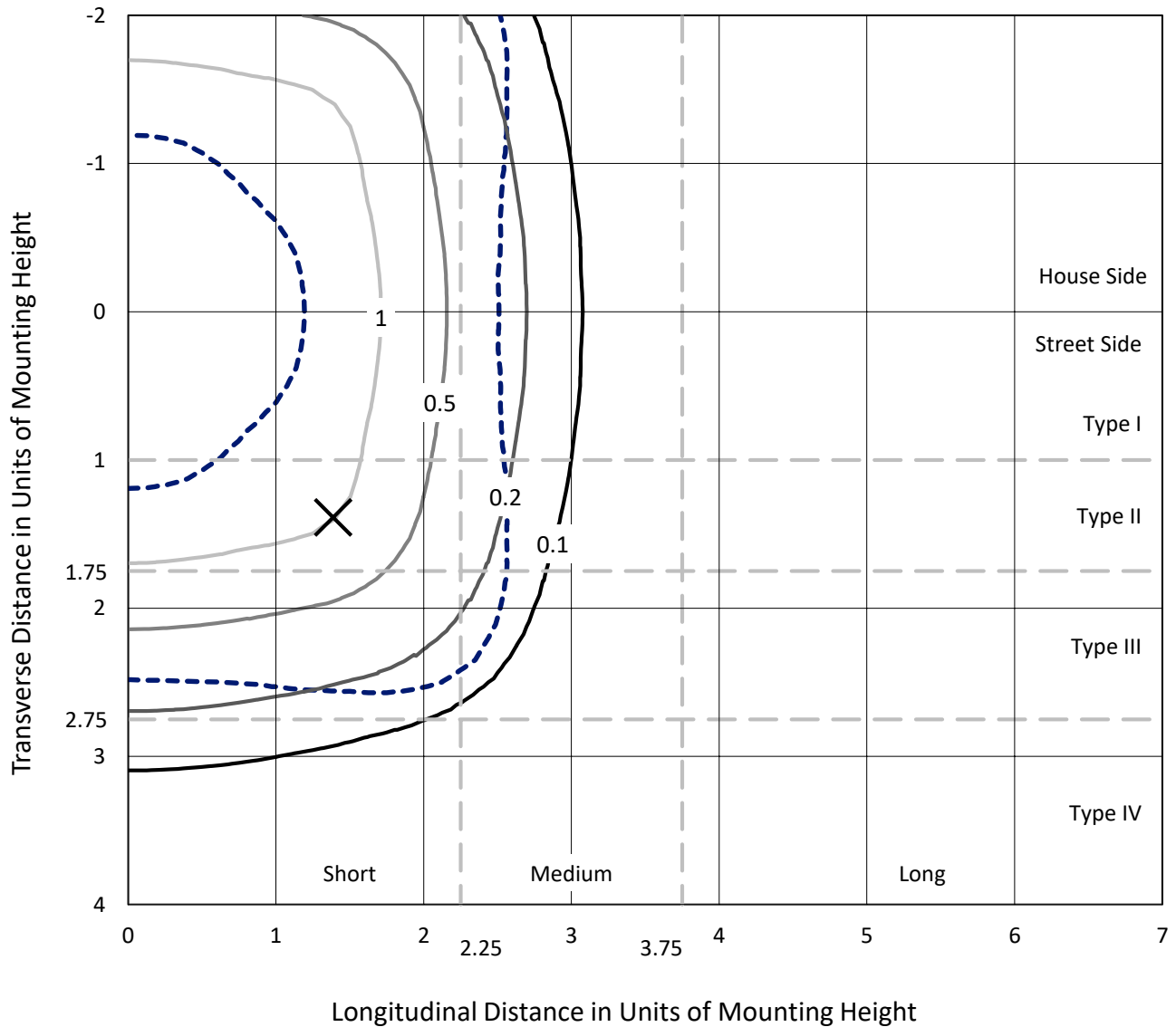
Input Watts (W): 156.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

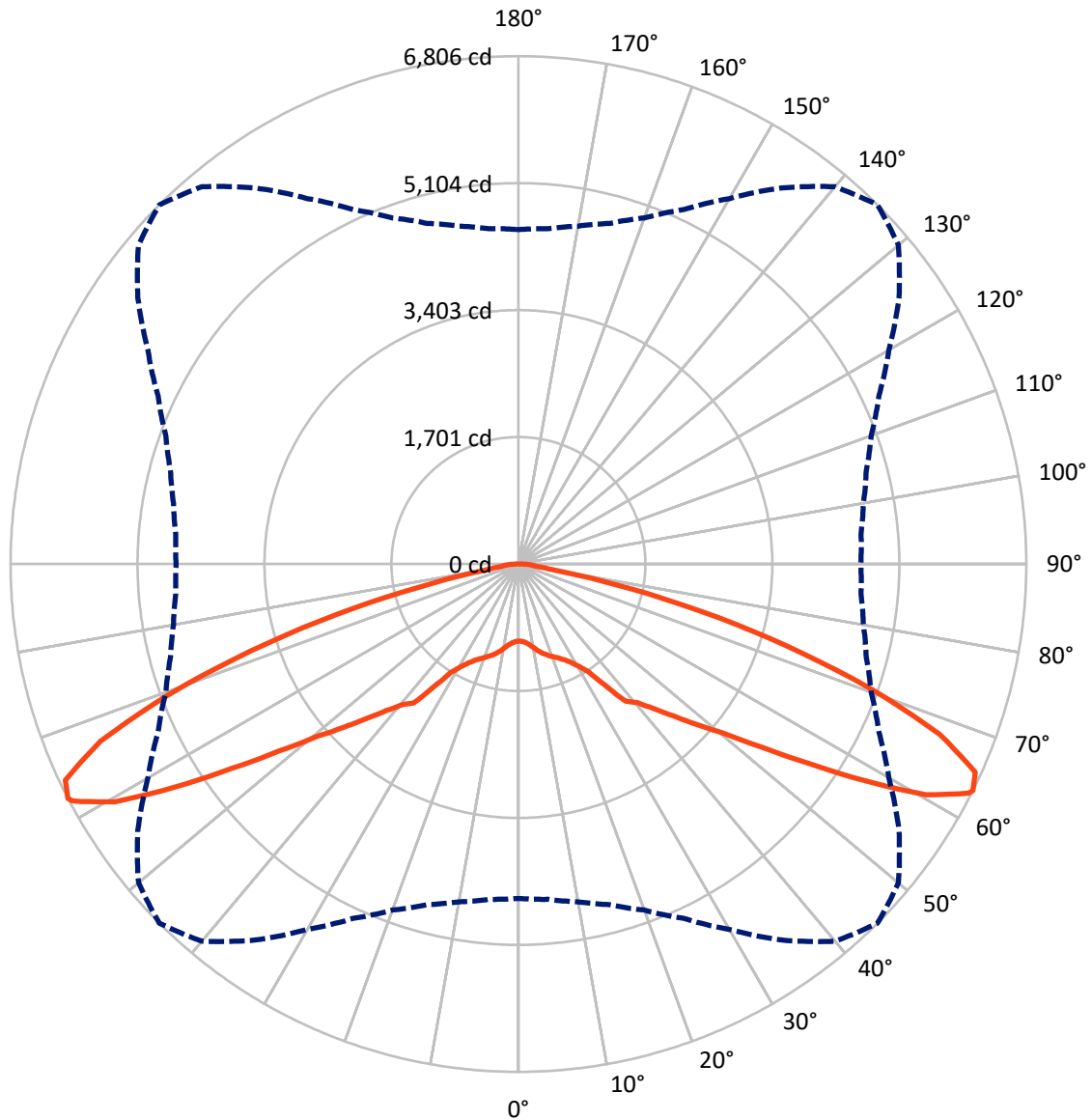
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 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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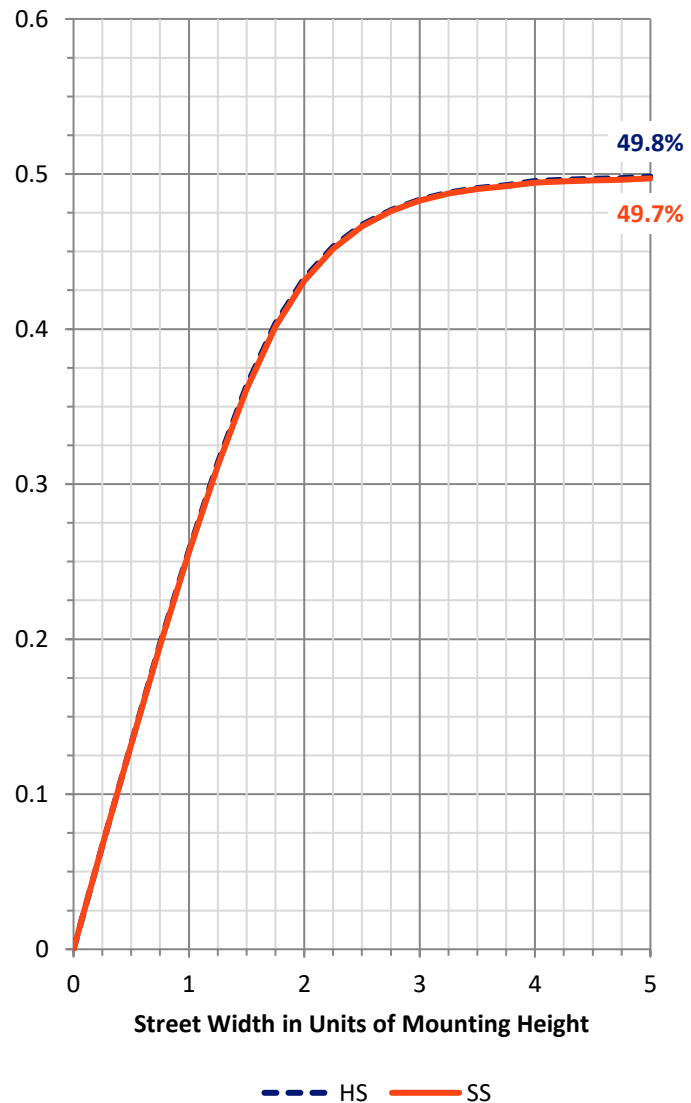
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7696.4	0.0	7696.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7696.4	0.0	7696.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	15392.8	0.0	15392.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.0	0.7
10°-20°	355.4	2.3
20°-30°	678.8	4.4
30°-40°	1293.1	8.4
40°-50°	2226.7	14.5
50°-60°	3979.0	25.8
60°-70°	4846.5	31.5
70°-80°	1726.4	11.2
80°-90°	183.0	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°	15392.8	100.0
0°-180°	15392.8	100.0



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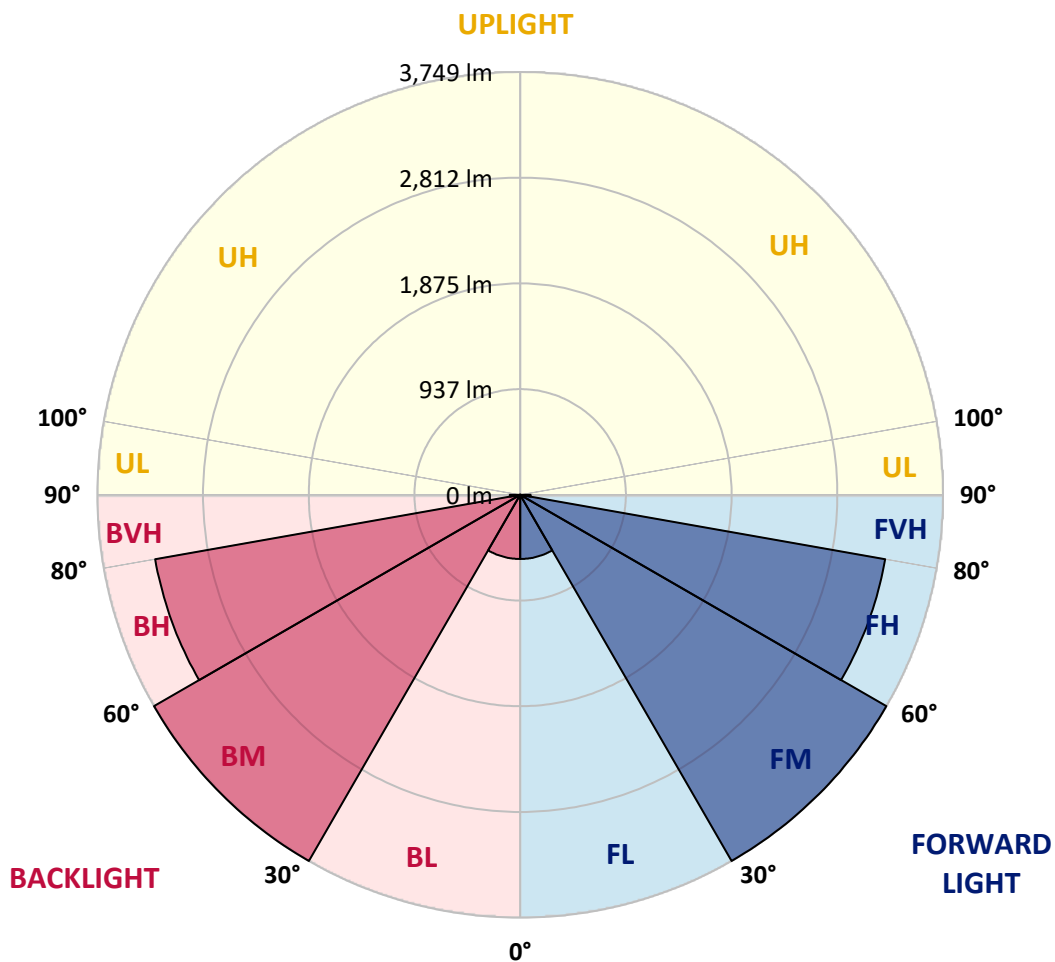
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	569.1	3.7			
FM	(30°-60°)	3749.4	24.4			
FH	(60°-80°)	3286.4	21.4			G2/5000
FVH	(80°-90°)	91.5	0.6			G1/100
BL	(0°-30°)	569.1	3.7	B2/1000		
BM	(30°-60°)	3749.4	24.4	B3/5000		
BH	(60°-80°)	3286.4	21.4	B4/5000		G2/5000
BVH	(80°-90°)	91.5	0.6			G1/100
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°	1033.2	1033.2	1033.2	1033.2	1033.2	1033.2	1033.2	1033.2	1033.2	1033.2	1033.2
2.5°	1041.2	1040.2	1041.2	1039.2	1039.2	1038.2	1038.2	1038.2	1036.2	1038.2	1036.2
5°	1062.9	1062.0	1062.9	1061.0	1061.0	1059.0	1059.0	1059.0	1057.0	1059.0	1058.0
7.5°	1100.6	1102.6	1100.6	1098.6	1098.6	1096.6	1095.6	1095.6	1094.6	1093.7	1095.6
10°	1153.1	1155.1	1152.1	1150.1	1149.1	1148.1	1146.2	1145.2	1145.2	1141.2	1142.2
12.5°	1208.6	1208.6	1205.6	1204.6	1204.6	1202.6	1198.7	1197.7	1197.7	1195.7	1193.7
15°	1258.1	1258.1	1256.1	1252.2	1253.1	1250.2	1247.2	1245.2	1245.2	1243.2	1241.3
17.5°	1303.7	1303.7	1300.7	1296.7	1294.8	1293.8	1289.8	1287.8	1287.8	1285.8	1283.9
20°	1349.2	1351.2	1346.3	1342.3	1338.3	1334.4	1330.4	1328.4	1325.5	1326.5	1325.5
22.5°	1403.7	1404.7	1396.8	1391.8	1383.9	1379.0	1373.0	1371.0	1367.1	1367.1	1369.1
25°	1473.1	1472.1	1463.2	1454.2	1445.3	1435.4	1426.5	1424.5	1420.6	1419.6	1420.6
27.5°	1564.2	1563.2	1552.3	1540.4	1528.5	1513.7	1502.8	1496.8	1493.9	1489.9	1491.9
30°	1676.1	1678.1	1665.2	1651.4	1636.5	1618.7	1604.8	1596.9	1591.0	1587.0	1589.0
32.5°	1904.0	1902.0	1882.2	1852.5	1820.8	1779.2	1745.5	1731.6	1720.7	1716.8	1719.7
35°	2132.8	2130.8	2122.9	2114.0	2106.1	2079.3	2054.6	2025.8	2002.1	1987.2	1991.2
37.5°	2240.8	2240.8	2234.9	2232.9	2232.9	2248.7	2268.5	2304.2	2331.9	2333.9	2325.0
40°	2409.2	2409.2	2399.3	2394.4	2391.4	2396.3	2409.2	2422.1	2436.0	2438.9	2429.0
42.5°	2607.3	2598.4	2591.5	2581.6	2580.6	2585.5	2599.4	2615.3	2629.1	2641.0	2620.2
45°	2821.3	2813.4	2806.5	2800.5	2804.5	2817.4	2836.2	2863.9	2883.7	2901.6	2884.7
47.5°	3060.1	3043.2	3050.1	3044.2	3054.1	3079.9	3113.5	3155.2	3176.0	3207.7	3180.9
50°	3357.2	3361.2	3357.2	3357.2	3369.1	3402.8	3452.3	3508.8	3544.5	3562.3	3546.5
52.5°	3799.1	3787.2	3760.4	3768.4	3784.2	3837.7	3902.1	3981.3	4026.9	4069.5	4020.0
55°	4282.5	4284.5	4280.5	4291.4	4322.1	4376.6	4457.8	4577.7	4635.2	4709.5	4650.0
57.5°	4682.7	4696.6	4720.4	4753.0	4819.4	4910.6	5070.0	5253.3	5405.9	5486.1	5393.0
60°	4812.5	4826.3	4883.8	4974.9	5099.8	5286.0	5544.6	5858.6	6133.0	6275.6	6153.8
62.5°	4562.8	4588.6	4673.8	4799.6	5005.7	5296.9	5681.3	6145.9	6568.9	6764.0	6616.4
63°	4481.6	4510.3	4597.5	4725.3	4935.3	5239.4	5654.5	6151.8	6599.6	6805.6	6646.1
65°	4121.0	4139.8	4232.0	4377.6	4611.4	4928.4	5390.0	5978.5	6488.6	6727.4	6558.0
67.5°	3553.4	3578.2	3662.4	3788.2	4015.0	4350.8	4804.6	5391.0	5893.3	6084.4	5939.8
70°	2850.0	2877.8	2947.1	3064.0	3242.3	3553.4	3941.7	4489.5	4867.0	5016.5	4862.0
72.5°	2003.1	2014.9	2065.5	2188.3	2322.0	2569.7	2877.8	3303.8	3666.3	3764.4	3615.8
75°	848.0	849.0	915.3	993.6	1161.0	1407.7	1676.1	2042.7	2368.6	2521.2	2332.9
77.5°	271.4	274.4	293.2	322.0	377.4	487.4	685.5	886.6	1185.8	1330.4	1154.1
80°	226.9	230.8	238.7	244.7	248.6	254.6	277.4	309.1	389.3	452.7	365.5
82.5°	195.2	202.1	219.9	226.9	230.8	232.8	235.8	234.8	229.8	227.8	228.8
85°	148.6	165.4	185.2	201.1	203.1	204.1	210.0	212.0	196.1	180.3	196.1
87.5°	64.4	83.2	127.8	141.7	138.7	128.8	137.7	145.6	132.7	97.1	129.8
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1033.2	1033.2	1033.2	1033.2	1033.2	1033.2	1033.2	1033.2
2.5°	1037.2	1039.2	1039.2	1039.2	1039.2	1040.2	1041.2	1040.2
5°	1059.0	1061.0	1060.0	1061.0	1061.0	1062.0	1062.9	1062.0
7.5°	1096.6	1096.6	1096.6	1098.6	1098.6	1100.6	1100.6	1100.6
10°	1143.2	1142.2	1142.2	1144.2	1146.2	1147.1	1149.1	1148.1
12.5°	1193.7	1191.7	1192.7	1194.7	1196.7	1197.7	1199.7	1198.7
15°	1239.3	1238.3	1238.3	1241.3	1242.2	1243.2	1247.2	1247.2
17.5°	1282.9	1282.9	1282.9	1286.8	1287.8	1291.8	1294.8	1294.8
20°	1326.5	1326.5	1326.5	1330.4	1333.4	1339.3	1345.3	1344.3
22.5°	1371.0	1372.0	1374.0	1378.0	1384.9	1393.8	1398.8	1398.8
25°	1426.5	1430.5	1434.4	1440.4	1450.3	1462.2	1470.1	1473.1
27.5°	1497.8	1506.7	1516.7	1525.6	1536.5	1551.3	1562.2	1564.2
30°	1594.9	1607.8	1623.6	1635.5	1649.4	1666.2	1679.1	1686.1
32.5°	1732.6	1764.3	1785.1	1827.7	1853.5	1882.2	1906.0	1915.9
35°	2015.9	2047.6	2075.4	2104.1	2110.0	2119.9	2132.8	2135.8
37.5°	2296.3	2270.5	2245.8	2244.8	2237.8	2239.8	2243.8	2248.7
40°	2418.1	2410.2	2397.3	2402.3	2403.3	2403.3	2411.2	2412.2
42.5°	2614.3	2595.5	2580.6	2592.5	2594.5	2596.4	2604.4	2613.3
45°	2863.9	2835.2	2816.4	2809.4	2816.4	2814.4	2825.3	2827.3
47.5°	3149.2	3111.6	3069.0	3055.1	3051.1	3042.2	3061.0	3059.1
50°	3498.9	3438.5	3387.0	3367.2	3357.2	3352.3	3357.2	3357.2
52.5°	3941.7	3881.3	3811.0	3788.2	3780.2	3791.1	3775.3	3792.1
55°	4551.0	4452.9	4356.8	4326.1	4321.1	4316.2	4318.2	4325.1
57.5°	5236.5	5062.1	4933.3	4858.0	4809.5	4785.7	4760.0	4756.0
60°	5898.2	5581.2	5336.5	5170.1	5052.2	4963.1	4917.5	4901.6
62.5°	6217.2	5753.6	5373.2	5089.9	4914.5	4768.9	4688.7	4667.8
63°	6226.1	5731.8	5328.6	5029.4	4825.4	4694.6	4609.4	4587.6
65°	6060.7	5498.0	5025.5	4696.6	4480.6	4343.9	4238.9	4216.1
67.5°	5458.4	4912.5	4429.1	4095.3	3861.5	3751.5	3635.6	3632.6
70°	4479.6	3992.2	3585.1	3278.0	3082.8	2973.9	2856.0	2859.0
72.5°	3275.0	2842.1	2561.8	2322.0	2116.0	2013.0	1902.0	1912.9
75°	1971.4	1585.0	1332.4	1124.4	912.4	785.6	700.4	651.8
77.5°	843.0	576.5	414.1	328.9	277.4	256.6	246.7	243.7
80°	293.2	259.5	244.7	240.7	237.8	233.8	226.9	219.9
82.5°	237.8	237.8	229.8	228.8	219.9	213.0	195.2	186.2
85°	211.0	207.0	200.1	197.1	195.2	180.3	157.5	145.6
87.5°	139.7	129.8	123.8	126.8	122.8	110.0	67.4	53.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)