

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: P143970

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143970  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33698)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-5WQ-E06-E  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (126) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18393.4 lumens  
Efficiency: N/A  
Efficacy: 122.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G3

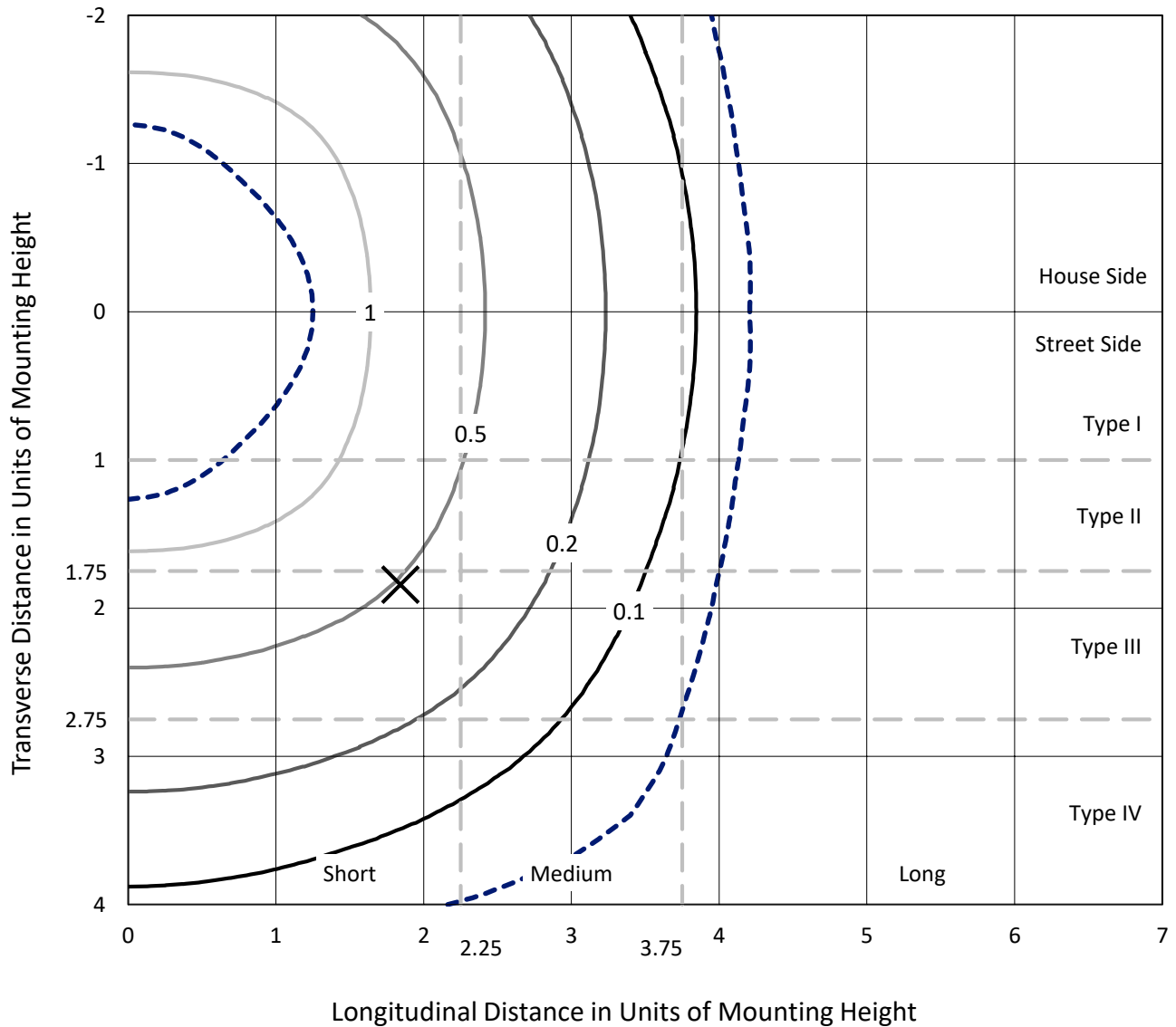
Input Watts (W): 150.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

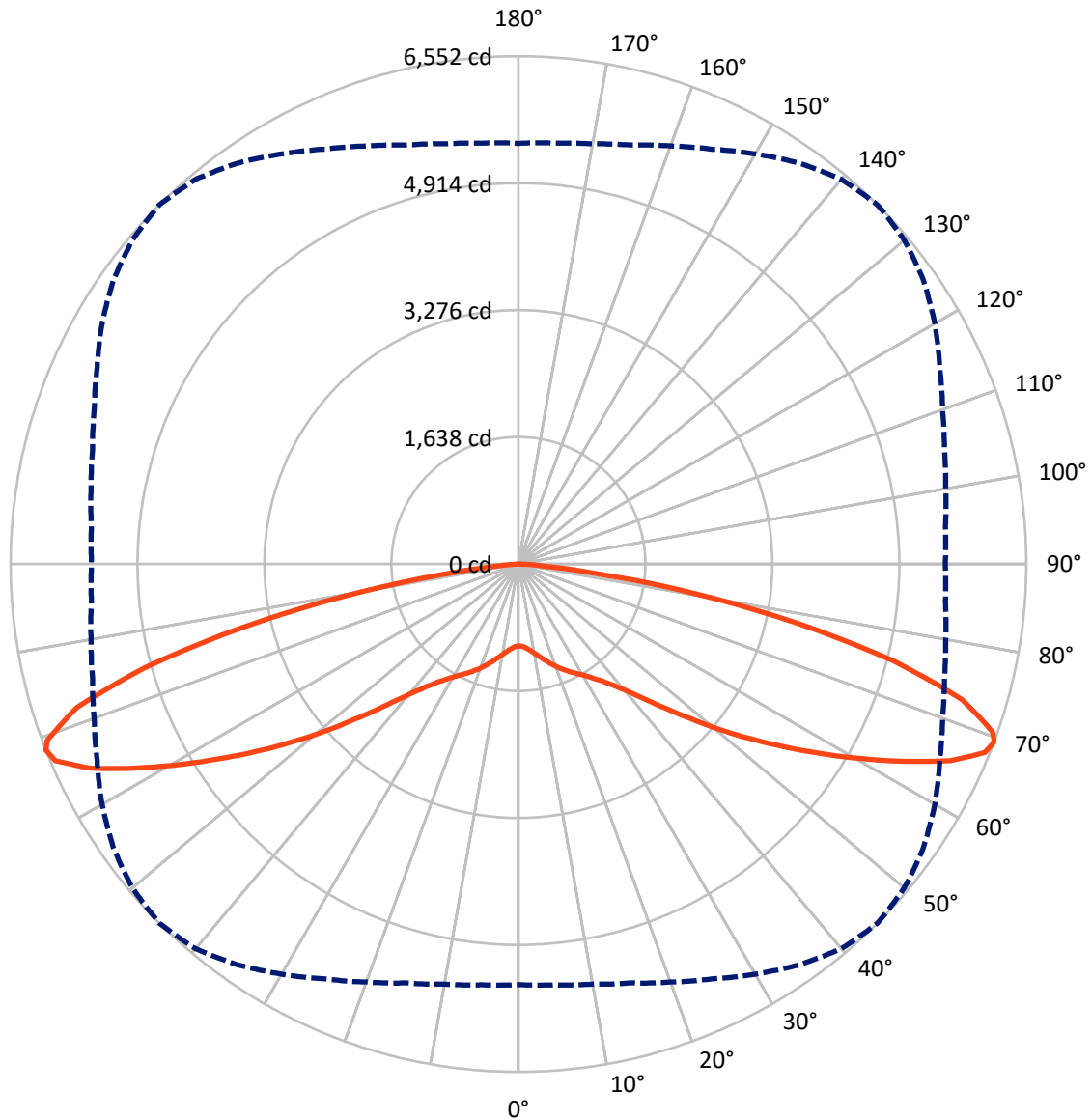
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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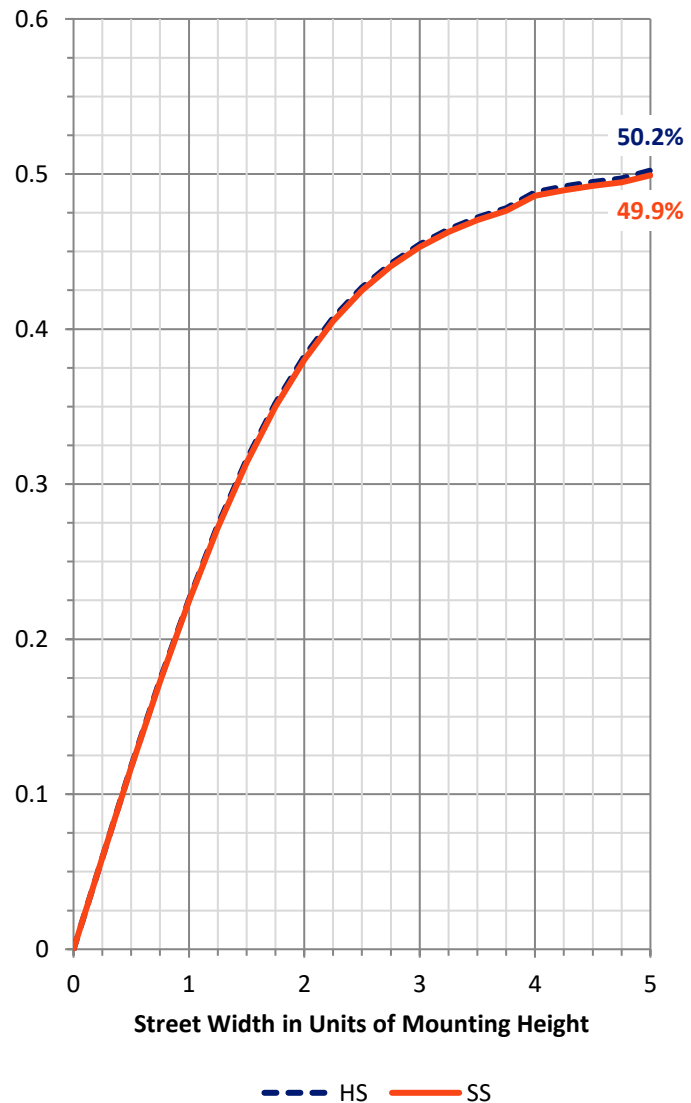
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9196.7	0.0	9196.7
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9196.7	0.0	9196.7
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	18393.4	0.0	18393.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.6	0.6
10°-20°	367.5	2.0
20°-30°	708.5	3.9
30°-40°	1161.0	6.3
40°-50°	2018.8	11.0
50°-60°	3586.1	19.5
60°-70°	5567.7	30.3
70°-80°	4436.0	24.1
80°-90°	441.1	2.4
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°	18393.4	100.0
0°-180°	18393.4	100.0



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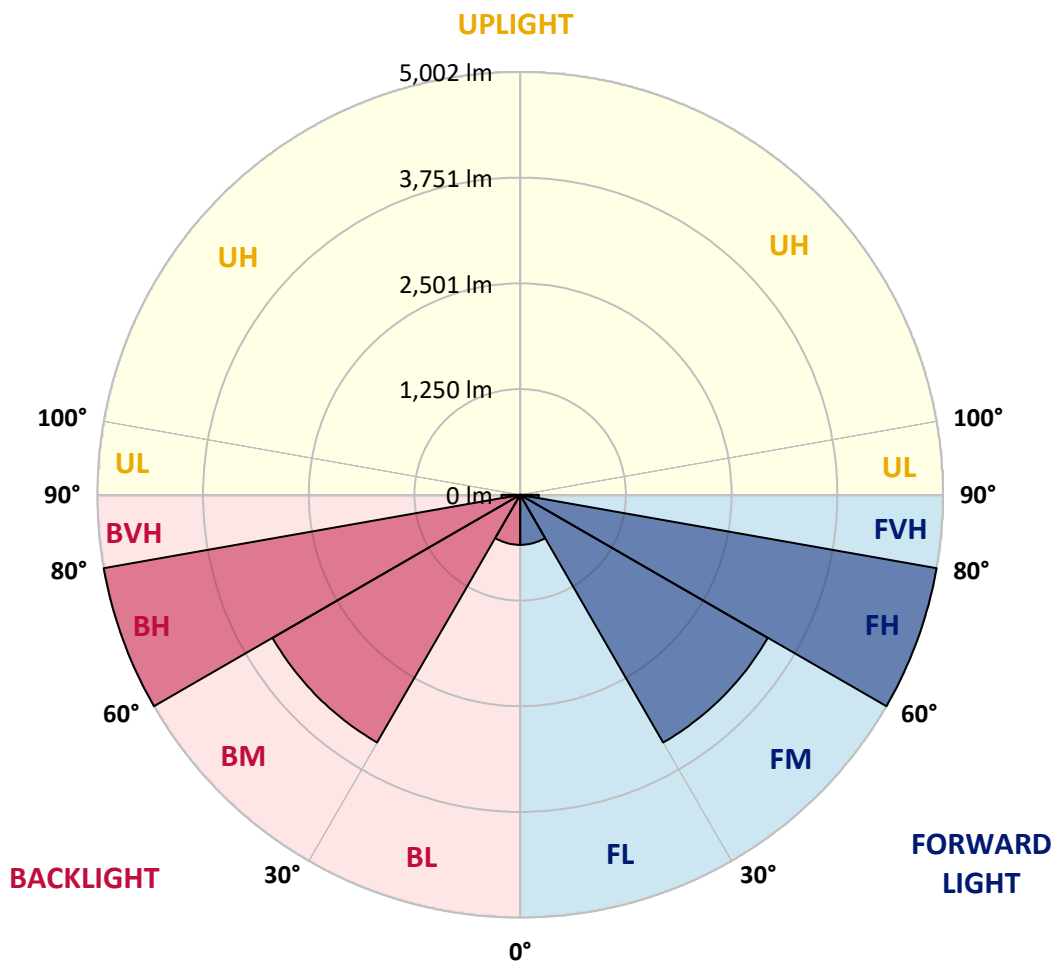
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	591.3	3.2			
FM	(30°-60°)	3383.0	18.4			
FH	(60°-80°)	5001.8	27.2			G3/7500
FVH	(80°-90°)	220.6	1.2			G2/225
BL	(0°-30°)	591.3	3.2	B2/1000		
BM	(30°-60°)	3383.0	18.4	B3/5000		
BH	(60°-80°)	5001.8	27.2	B5		G3/7500
BVH	(80°-90°)	220.6	1.2			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1057.2	1057.2	1057.2	1057.2	1057.2	1057.2	1057.2	1057.2	1057.2	1057.2	1057.2
2.5°	1065.6	1065.6	1065.6	1064.4	1064.4	1063.2	1064.4	1063.2	1063.2	1063.2	1063.2
5°	1093.2	1090.8	1090.8	1089.6	1092.0	1092.0	1089.6	1090.8	1089.6	1090.8	1090.8
7.5°	1128.0	1128.0	1128.0	1126.8	1129.2	1128.0	1126.8	1128.0	1128.0	1126.8	1126.8
10°	1171.2	1172.4	1171.2	1171.2	1174.8	1173.6	1174.8	1174.8	1176.0	1174.8	1174.8
12.5°	1221.6	1221.6	1222.8	1224.0	1225.2	1226.4	1230.0	1228.8	1231.2	1228.8	1228.8
15°	1280.4	1282.8	1280.4	1280.4	1284.0	1286.4	1287.6	1287.6	1290.0	1288.8	1286.4
17.5°	1342.8	1344.0	1342.8	1341.6	1345.2	1348.8	1350.0	1350.0	1353.6	1351.2	1351.2
20°	1406.4	1407.6	1405.2	1404.0	1408.8	1408.8	1411.2	1412.4	1416.0	1417.2	1413.6
22.5°	1465.2	1466.4	1465.2	1464.0	1468.8	1468.8	1472.4	1473.6	1478.4	1477.2	1477.2
25°	1522.8	1522.8	1521.6	1521.6	1526.4	1527.6	1531.2	1533.6	1538.4	1538.4	1538.4
27.5°	1575.6	1576.8	1574.4	1573.2	1582.8	1586.4	1588.8	1593.6	1597.2	1599.6	1598.4
30°	1635.6	1635.6	1634.4	1638.0	1644.0	1648.8	1653.6	1660.8	1668.0	1665.6	1665.6
32.5°	1706.4	1708.8	1707.6	1712.4	1719.6	1726.8	1732.8	1741.2	1744.8	1750.8	1746.0
35°	1801.2	1806.0	1803.6	1808.4	1814.4	1819.2	1832.4	1840.8	1846.8	1850.4	1848.0
37.5°	1920.0	1917.6	1922.4	1923.6	1935.6	1941.6	1957.2	1969.2	1978.8	1982.4	1980.0
40°	2067.6	2064.0	2070.0	2076.0	2091.6	2097.6	2115.6	2133.6	2146.8	2151.6	2149.2
42.5°	2244.0	2248.8	2258.4	2266.8	2288.4	2305.2	2325.6	2352.0	2366.4	2372.4	2364.0
45°	2475.6	2467.2	2485.2	2506.8	2518.8	2556.0	2589.6	2617.2	2641.2	2650.8	2641.2
47.5°	2739.6	2738.4	2760.0	2786.4	2817.6	2852.4	2892.0	2928.0	2970.0	2972.4	2960.4
50°	3031.2	3055.2	3067.2	3093.6	3151.2	3194.4	3244.8	3298.8	3337.2	3349.2	3327.6
52.5°	3382.8	3400.8	3408.0	3452.4	3505.2	3558.0	3628.8	3693.6	3738.0	3742.8	3732.0
55°	3764.4	3778.8	3792.0	3846.0	3903.6	3950.4	4040.4	4104.0	4148.4	4165.2	4158.0
57.5°	4159.2	4172.4	4189.2	4248.0	4306.8	4372.8	4458.0	4532.4	4584.0	4615.2	4606.8
60°	4597.2	4597.2	4635.6	4694.4	4742.4	4820.4	4909.2	4995.6	5052.0	5101.2	5088.0
62.5°	5058.0	5071.2	5108.4	5156.4	5206.8	5278.8	5379.6	5482.8	5569.2	5606.4	5605.2
65°	5407.2	5431.2	5480.4	5535.6	5619.6	5704.8	5832.0	5960.4	6064.8	6118.8	6118.8
67.5°	5509.2	5524.8	5586.0	5670.0	5791.2	5926.8	6099.6	6278.4	6421.2	6492.0	6447.6
69°	5427.6	5450.4	5504.4	5595.6	5739.6	5905.2	6110.4	6313.2	6478.8	6552.0	6500.4
70°	5332.8	5358.0	5412.0	5502.0	5650.8	5827.2	6032.4	6250.8	6428.4	6490.8	6432.0
72.5°	4946.4	4977.6	5016.0	5094.0	5228.4	5394.0	5578.8	5770.8	5941.2	5990.4	5917.2
75°	4287.6	4293.6	4312.8	4370.4	4418.4	4536.0	4693.2	4845.6	4974.0	5002.8	4924.8
77.5°	3034.8	3002.4	2970.0	3019.2	3057.6	3208.8	3379.2	3504.0	3638.4	3679.2	3600.0
80°	1330.8	1318.8	1364.4	1429.2	1598.4	1699.2	1866.0	2044.8	2158.8	2292.0	2149.2
82.5°	262.8	277.2	320.4	396.0	488.4	614.4	723.6	847.2	958.8	1009.2	957.6
85°	106.8	116.4	132.0	147.6	158.4	177.6	208.8	259.2	285.6	289.2	274.8
87.5°	44.4	51.6	69.6	82.8	84.0	80.4	82.8	85.2	69.6	56.4	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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1057.2	1057.2	1057.2	1057.2	1057.2	1057.2	1057.2	1057.2
2.5°	1063.2	1064.4	1063.2	1064.4	1063.2	1063.2	1064.4	1063.2
5°	1089.6	1090.8	1089.6	1088.4	1087.2	1088.4	1088.4	1088.4
7.5°	1126.8	1125.6	1124.4	1124.4	1123.2	1122.0	1124.4	1124.4
10°	1172.4	1171.2	1168.8	1168.8	1167.6	1167.6	1167.6	1167.6
12.5°	1227.6	1224.0	1222.8	1219.2	1218.0	1216.8	1216.8	1218.0
15°	1285.2	1281.6	1280.4	1274.4	1274.4	1273.2	1273.2	1273.2
17.5°	1346.4	1342.8	1338.0	1338.0	1334.4	1332.0	1333.2	1330.8
20°	1408.8	1404.0	1401.6	1400.4	1395.6	1395.6	1395.6	1394.4
22.5°	1470.0	1466.4	1462.8	1458.0	1453.2	1452.0	1452.0	1450.8
25°	1532.4	1526.4	1519.2	1514.4	1509.6	1506.0	1506.0	1506.0
27.5°	1594.8	1587.6	1576.8	1570.8	1563.6	1560.0	1560.0	1558.8
30°	1660.8	1652.4	1642.8	1634.4	1624.8	1621.2	1620.0	1617.6
32.5°	1740.0	1731.6	1722.0	1710.0	1700.4	1694.4	1694.4	1690.8
35°	1840.8	1831.2	1824.0	1808.4	1796.4	1786.8	1788.0	1790.4
37.5°	1972.8	1960.8	1954.8	1935.6	1920.0	1910.4	1910.4	1909.2
40°	2140.8	2128.8	2115.6	2097.6	2078.4	2065.2	2061.6	2061.6
42.5°	2354.4	2343.6	2325.6	2300.4	2277.6	2263.2	2251.2	2252.4
45°	2622.0	2608.8	2583.6	2552.4	2524.8	2504.4	2487.6	2487.6
47.5°	2947.2	2919.6	2884.8	2857.2	2810.4	2779.2	2767.2	2764.8
50°	3318.0	3266.4	3223.2	3183.6	3134.4	3102.0	3084.0	3079.2
52.5°	3706.8	3652.8	3598.8	3547.2	3487.2	3453.6	3424.8	3422.4
55°	4129.2	4060.8	3992.4	3942.0	3871.2	3836.4	3807.6	3790.8
57.5°	4560.0	4483.2	4434.0	4362.0	4287.6	4262.4	4234.8	4214.4
60°	5044.8	4960.8	4896.0	4820.4	4772.4	4718.4	4692.0	4676.4
62.5°	5540.4	5462.4	5379.6	5307.6	5240.4	5203.2	5167.2	5149.2
65°	6044.4	5916.0	5817.6	5718.0	5638.8	5571.6	5515.2	5508.0
67.5°	6354.0	6192.0	6027.6	5882.4	5766.0	5671.2	5613.6	5593.2
69°	6379.2	6202.8	5997.6	5823.6	5689.2	5598.0	5529.6	5508.0
70°	6309.6	6132.0	5916.0	5728.8	5589.6	5490.0	5433.6	5397.6
72.5°	5800.8	5644.8	5437.2	5252.4	5126.4	5010.0	4953.6	4939.2
75°	4785.6	4620.0	4429.2	4340.4	4252.8	4179.6	4141.2	4137.6
77.5°	3398.4	3229.2	3084.0	2967.6	2872.8	2826.0	2836.8	2797.2
80°	1945.2	1724.4	1549.2	1446.0	1305.6	1221.6	1126.8	1195.2
82.5°	836.4	675.6	514.8	418.8	319.2	253.2	208.8	194.4
85°	234.0	190.8	159.6	146.4	132.0	117.6	99.6	92.4
87.5°	79.2	75.6	67.2	67.2	61.2	51.6	36.0	32.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)