

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: P270296

Luminaire Tested: **NAV-AF-01-D-UNV-SLR-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270296  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24264)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-01-D-UNV-SLR-7027-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR RIGHT OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5143 lumens  
Efficiency: N/A  
Efficacy: 76.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 67  
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

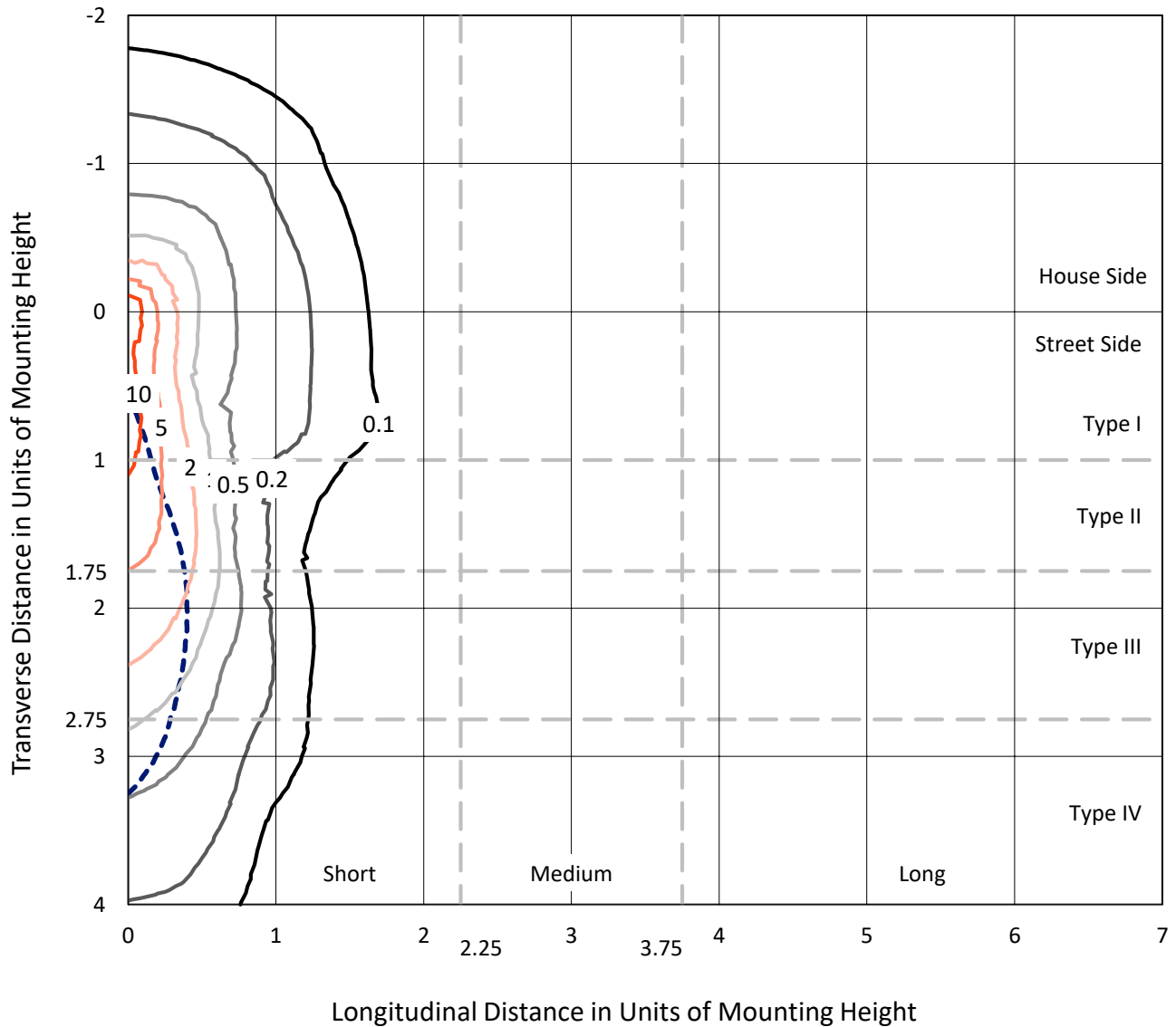


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### Iso-Footcandle Lines of Horizontal Illumination

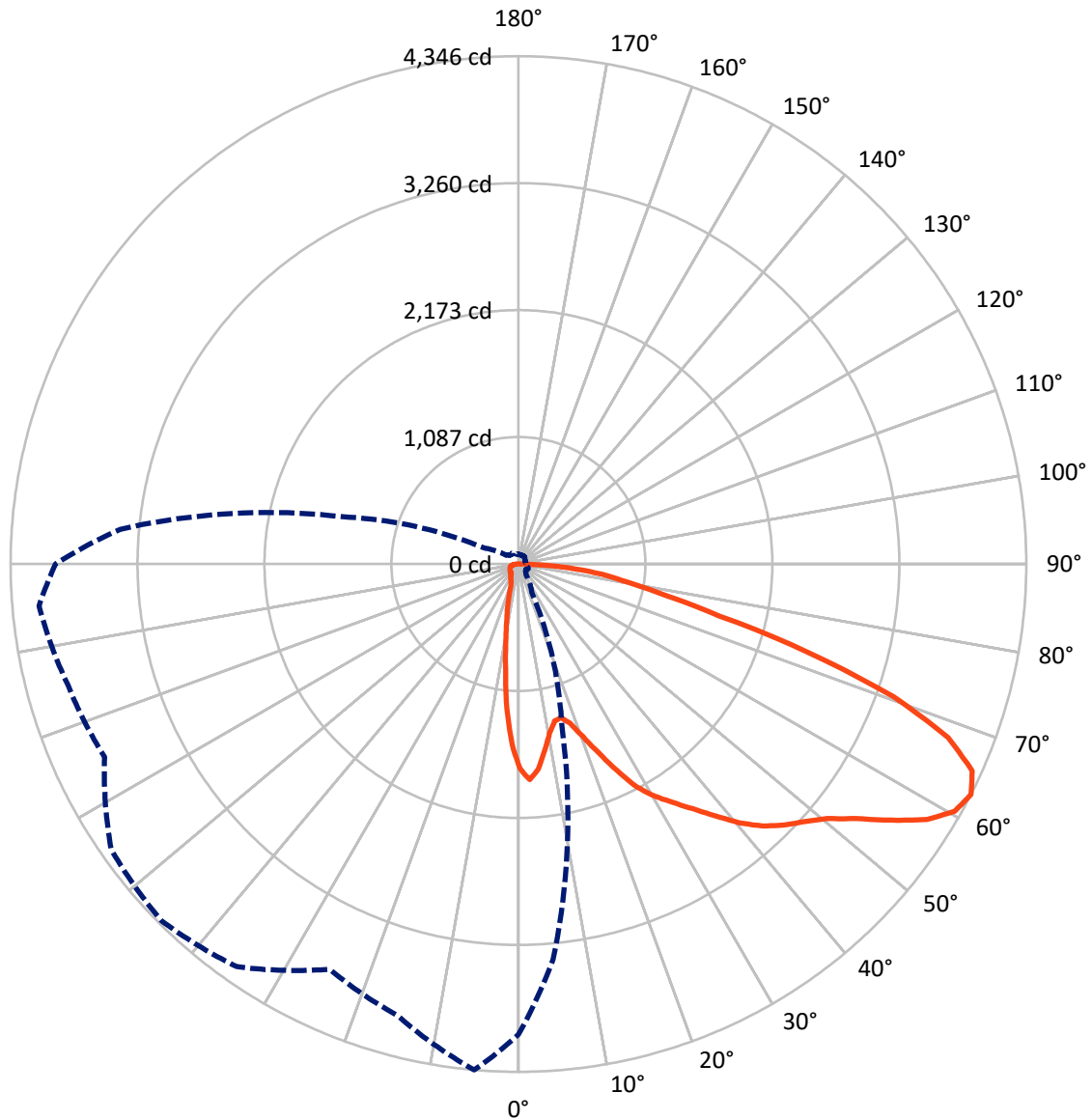
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.5 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	911.1	0.0	911.1
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	4231.9	0.0	4231.9
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	5143.0	0.0	5143.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.5	2.5
10°-20°	232.9	4.5
20°-30°	335.0	6.5
30°-40°	513.0	10.0
40°-50°	750.1	14.6
50°-60°	1091.4	21.2
60°-70°	1264.5	24.6
70°-80°	659.2	12.8
80°-90°	169.4	3.3
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°	5143.0	100.0
0°-180°	5143.0	100.0



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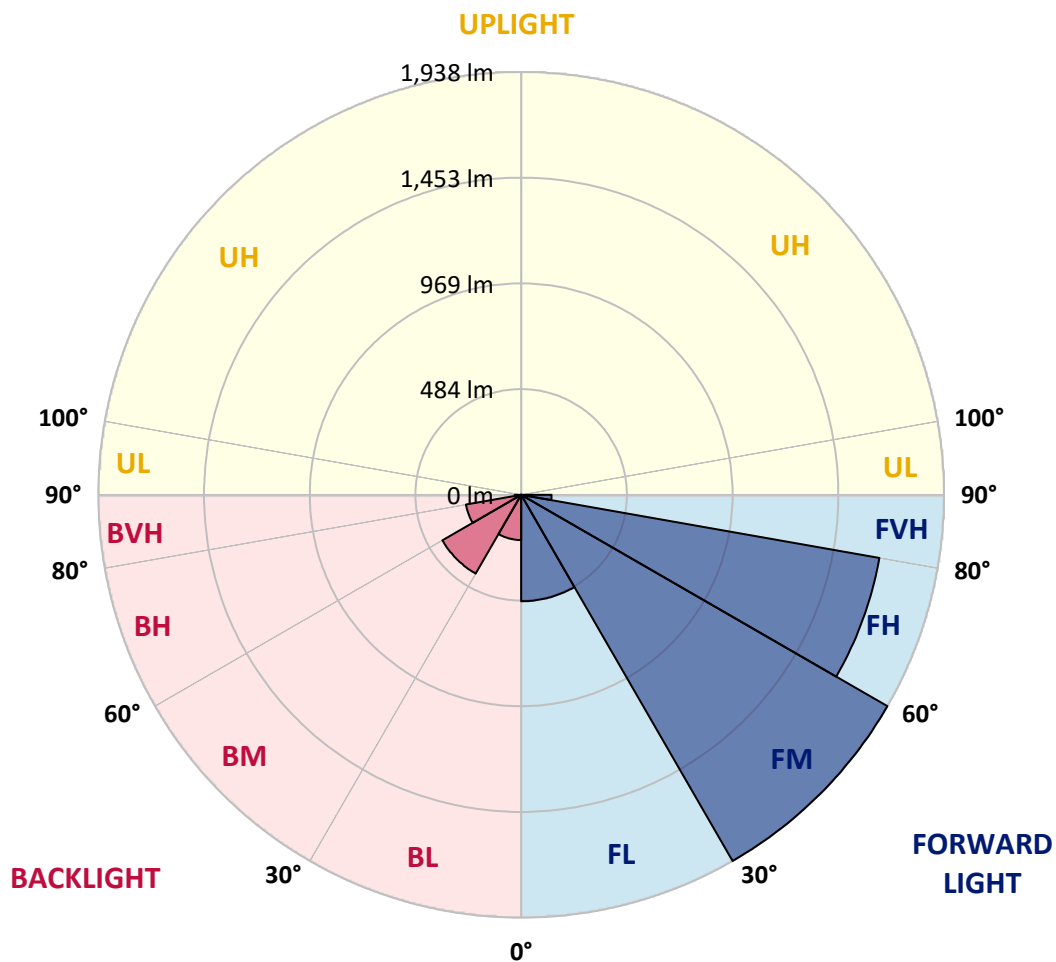
CATALOG NUMBER: NAV-AF-01-D-UNV-SLR-7027-1200

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	488.1	9.5			
FM	(30°-60°)	1937.6	37.7			
FH	(60°-80°)	1666.8	32.4			G1/1800
FVH	(80°-90°)	139.4	2.7			G2/225
BL	(0°-30°)	207.3	4.0	B1/500		
BM	(30°-60°)	416.8	8.1	B1/1000		
BH	(60°-80°)	256.9	5.0	B1/500		G1/500
BVH	(80°-90°)	30.0	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3
2.5°	1810.1	1784.7	1726.2	1674.7	1610.5	1562.4	1503.9	1473.0	1450.1	1435.0	1422.6
5°	1690.7	1629.5	1517.6	1419.6	1313.7	1237.2	1147.8	1098.8	1068.8	1052.4	1044.9
7.5°	1513.6	1432.6	1288.0	1156.4	1024.0	928.5	860.7	788.4	749.8	724.9	716.7
10°	1358.9	1267.5	1094.9	946.8	844.5	776.8	718.6	652.2	602.9	560.2	544.1
12.5°	1268.9	1162.6	965.8	831.9	746.1	673.4	611.9	540.3	488.5	443.8	426.5
15°	1249.9	1131.3	911.7	758.9	653.6	566.0	492.2	414.3	363.5	326.7	314.8
17.5°	1307.4	1161.1	889.0	692.1	565.4	458.2	367.2	283.8	241.6	221.5	216.6
20°	1425.6	1226.8	878.2	632.0	479.5	352.8	254.0	192.7	171.8	165.9	165.6
22.5°	1581.0	1333.4	890.1	582.8	398.9	260.2	186.0	158.6	149.8	146.6	146.6
25°	1756.6	1477.8	921.8	545.2	328.2	202.5	160.3	145.4	138.3	134.9	135.4
27.5°	1971.5	1653.4	965.0	510.4	277.4	177.4	149.8	137.3	130.2	126.8	127.2
30°	2133.4	1804.4	1002.2	478.7	251.3	167.4	144.3	132.4	124.5	119.7	119.4
32.5°	2284.7	1937.6	1032.5	456.1	236.4	149.6	130.6	121.6	114.9	109.2	108.2
35°	2452.2	2062.9	1046.7	455.4	226.7	134.9	119.4	108.5	101.8	95.5	94.3
37.5°	2641.9	2216.1	1058.7	459.8	221.5	125.7	114.2	103.7	98.1	91.7	90.2
40°	2839.5	2366.0	1067.9	463.5	220.8	119.4	110.0	100.7	95.1	88.4	86.9
42.5°	3009.2	2498.7	1080.7	462.0	215.6	118.1	107.3	98.1	92.9	86.1	84.4
45°	3145.0	2604.2	1100.5	461.6	207.7	120.8	106.7	97.3	91.0	83.9	82.5
47.5°	3271.4	2723.2	1142.1	460.1	199.2	120.1	110.8	96.6	90.2	83.2	82.0
50°	3416.1	2883.2	1213.4	449.0	187.1	114.9	118.1	95.8	88.4	82.0	80.8
52.5°	3617.5	3117.4	1318.9	428.9	170.8	109.2	119.4	95.5	85.3	79.8	78.3
55°	3854.2	3368.4	1432.6	399.7	149.2	99.5	113.4	94.0	82.5	76.4	74.2
57.5°	4037.3	3553.7	1512.0	358.0	127.9	94.0	101.1	90.5	78.7	72.8	70.8
60°	4088.7	3561.9	1526.2	307.9	117.0	90.2	86.9	98.9	75.6	69.3	67.6
62.5°	4027.2	3398.8	1433.8	272.9	113.4	86.4	79.1	94.3	72.8	66.4	64.5
65°	3844.8	3123.8	1226.8	267.8	117.0	83.2	75.0	75.3	69.7	63.4	61.5
67.5°	3419.0	2718.8	966.5	271.1	121.6	79.8	72.0	68.6	66.4	60.7	58.5
70°	2780.7	2188.9	761.5	277.0	125.7	75.3	68.2	64.0	62.3	56.4	55.2
72.5°	2141.9	1751.9	600.7	272.9	129.7	70.8	63.1	59.6	57.4	51.8	50.8
75°	1521.0	1392.1	441.4	234.2	118.9	64.5	57.0	54.1	52.2	46.3	45.9
77.5°	1096.3	1042.7	307.3	176.0	94.0	56.7	50.3	47.7	46.6	40.0	40.0
80°	874.4	793.6	183.9	114.9	68.6	47.0	42.1	41.1	40.0	33.1	33.5
82.5°	628.4	550.4	117.5	71.5	50.3	35.8	32.8	32.5	30.6	24.7	24.7
85°	322.2	281.2	75.3	48.1	35.5	23.1	21.6	20.9	19.8	15.4	15.4
87.5°	62.6	86.1	41.9	23.4	17.2	8.3	8.3	7.0	8.3	5.6	6.0
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3
2.5°	1446.1	1438.6	1433.3	1430.8	1468.5	1484.1	1502.0	1527.7	1545.3	1537.8	1561.7
5°	1079.9	1085.2	1097.0	1115.7	1168.2	1193.3	1209.3	1230.6	1245.8	1230.6	1255.9
7.5°	738.3	746.1	771.6	809.9	873.3	901.3	906.8	907.3	903.9	878.9	896.1
10°	543.7	528.1	533.7	561.3	617.9	642.8	645.5	638.8	637.6	627.6	647.0
12.5°	421.3	399.7	387.1	391.5	434.1	454.5	458.0	461.6	476.9	481.9	505.7
15°	314.3	303.2	293.8	289.8	317.7	333.7	335.5	344.6	360.6	365.0	385.6
17.5°	221.2	224.0	229.0	230.9	250.9	261.3	258.4	258.4	261.0	259.9	271.5
20°	168.9	174.9	184.2	193.1	211.5	217.4	209.9	200.6	194.7	191.7	194.3
22.5°	149.2	153.3	159.2	170.8	186.0	189.1	179.3	171.8	166.2	163.3	163.8
25°	138.3	142.4	147.3	156.7	169.7	171.1	162.2	157.4	152.9	149.8	149.2
27.5°	129.0	131.6	134.7	140.6	154.0	154.8	148.8	145.9	142.8	140.6	139.9
30°	120.5	121.6	122.7	128.6	138.7	139.9	136.8	135.4	134.2	132.8	132.8
32.5°	109.2	110.8	112.6	117.9	127.5	129.0	127.2	126.0	124.1	123.4	122.3
35°	95.8	99.5	103.7	110.0	120.5	121.2	118.9	115.6	111.1	110.0	109.2
37.5°	90.2	91.0	96.2	103.7	114.4	115.3	112.3	106.7	103.2	103.7	104.5
40°	86.4	87.7	90.5	98.1	108.9	110.0	107.3	103.2	99.9	100.3	101.4
42.5°	83.5	85.0	86.9	91.7	102.5	104.8	104.1	100.3	96.9	97.6	99.3
45°	82.0	83.2	83.2	86.4	96.9	100.3	100.7	97.6	95.1	95.8	97.6
47.5°	81.2	81.2	80.2	82.7	93.2	96.6	97.3	95.8	94.3	95.1	96.9
50°	80.2	78.7	77.6	79.8	90.2	93.2	94.0	92.9	93.7	95.1	96.2
52.5°	76.8	75.3	75.3	76.8	87.2	90.2	90.5	89.9	91.4	93.2	95.1
55°	72.8	72.8	73.1	74.6	85.8	88.0	87.7	86.9	88.4	90.5	92.4
57.5°	69.0	68.6	70.4	72.4	83.9	85.3	84.6	84.6	85.8	87.7	89.6
60°	66.7	64.9	66.4	69.3	82.0	83.5	82.5	82.0	83.9	85.3	86.9
62.5°	64.5	62.6	63.8	66.7	79.4	80.6	79.8	79.8	81.7	82.7	84.4
65°	61.2	60.4	61.2	64.0	77.2	77.6	77.6	78.0	79.4	80.2	81.7
67.5°	58.2	58.2	58.5	61.5	75.3	74.6	74.6	76.4	76.8	77.6	79.1
70°	54.4	55.2	55.2	58.8	73.8	71.2	71.5	73.1	73.8	74.6	75.0
72.5°	50.3	50.8	51.5	56.4	71.5	67.8	68.2	69.3	69.7	70.8	71.2
75°	45.9	46.3	47.4	53.7	70.1	64.5	63.8	64.5	65.2	65.9	65.7
77.5°	40.7	41.4	42.5	52.2	65.2	63.8	58.2	58.8	59.6	59.6	59.3
80°	34.3	35.5	37.3	49.9	55.2	61.5	51.8	52.2	52.6	52.6	51.8
82.5°	25.7	27.9	30.6	41.4	43.3	52.6	44.7	45.5	44.3	43.7	43.3
85°	16.8	18.7	22.4	28.7	31.7	41.4	36.9	37.3	35.0	34.7	34.7
87.5°	6.6	7.0	10.2	14.6	19.0	25.7	26.5	27.2	25.3	25.3	26.1
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3
2.5°	1597.8	1635.2	1678.0	1721.6	1757.4	1803.6	1848.4	1896.1	1920.3	1934.6	1974.5
5°	1295.4	1346.5	1407.3	1475.6	1532.1	1629.2	1733.5	1849.9	1905.8	1961.0	2065.5
7.5°	926.6	976.5	1047.5	1135.8	1216.3	1344.3	1481.8	1639.2	1716.8	1806.3	1977.4
10°	688.0	740.9	805.2	880.0	959.5	1092.6	1246.9	1423.8	1509.2	1610.1	1804.9
12.5°	557.8	619.7	686.1	753.3	821.5	911.1	1072.8	1269.3	1361.0	1462.9	1657.9
15°	435.1	501.6	573.1	646.2	714.2	814.0	979.2	1211.5	1316.2	1414.7	1574.4
17.5°	307.9	370.6	451.2	539.9	638.3	756.6	959.1	1236.8	1364.0	1466.9	1574.0
20°	209.9	253.2	333.7	438.9	560.5	710.4	966.5	1326.0	1484.9	1597.8	1638.5
22.5°	167.9	188.4	242.7	349.8	493.3	676.9	997.1	1448.2	1658.2	1795.8	1755.9
25°	152.5	164.1	192.3	276.3	433.7	654.4	1056.8	1609.8	1852.6	1992.0	1897.3
27.5°	143.2	153.3	171.5	227.1	382.1	640.0	1132.5	1799.9	2071.4	2185.8	2044.5
30°	137.3	147.3	164.1	203.9	343.4	618.3	1198.9	1973.8	2246.3	2320.5	2124.0
32.5°	125.7	133.5	147.3	182.7	314.3	592.9	1256.3	2129.3	2411.5	2436.2	2219.4
35°	113.7	121.9	135.7	165.6	297.2	573.1	1286.6	2267.2	2575.3	2551.6	2314.2
37.5°	109.2	116.1	128.6	153.3	287.8	560.2	1298.1	2403.0	2750.8	2679.6	2380.1
40°	106.3	112.3	123.4	145.0	285.2	547.7	1295.4	2532.0	2921.3	2812.0	2432.0
42.5°	104.1	109.2	119.7	139.4	278.1	536.2	1286.8	2643.4	3057.7	2926.0	2481.6
45°	102.1	107.7	118.1	142.4	265.1	523.5	1281.6	2745.2	3162.6	3022.3	2548.0
47.5°	101.4	107.7	118.5	141.8	250.9	509.3	1300.2	2858.1	3253.8	3103.3	2636.3
50°	100.3	107.3	126.8	134.9	231.6	491.8	1363.3	2992.9	3349.7	3194.3	2750.8
52.5°	98.5	107.0	135.4	129.7	206.6	467.6	1465.5	3183.1	3515.2	3371.2	2920.1
55°	96.2	107.7	129.4	121.6	180.1	436.2	1567.6	3443.7	3783.8	3657.0	3163.2
57.5°	93.7	106.7	122.3	114.2	158.1	396.7	1645.2	3657.3	4005.3	3951.6	3461.9
60°	91.7	109.2	110.0	109.7	144.0	359.1	1652.6	3643.5	4069.1	4142.9	3754.2
62.5°	89.6	111.5	100.3	106.3	136.8	324.1	1560.5	3418.0	3961.3	4118.2	3992.5
65°	86.4	97.3	95.1	103.2	136.8	305.5	1346.1	3042.4	3663.3	3885.4	4122.0
67.5°	83.5	88.4	91.4	99.3	139.9	287.8	1081.7	2566.3	3193.5	3510.0	3976.4
70°	79.4	83.5	87.2	95.5	138.3	275.6	851.4	2056.8	2628.1	2990.5	3574.1
72.5°	75.6	78.7	82.5	89.9	138.3	270.0	683.9	1613.4	2006.5	2312.0	2960.8
75°	70.1	72.8	76.0	84.4	135.7	246.9	513.6	1292.8	1468.1	1659.3	2336.1
77.5°	64.5	66.4	69.0	77.2	122.3	206.3	363.2	1001.3	1087.7	1193.6	1821.3
80°	57.4	58.8	60.7	69.0	101.4	160.0	236.4	783.1	813.2	864.3	1198.1
82.5°	49.2	51.5	51.8	59.3	81.7	116.1	140.6	536.6	536.2	611.1	845.3
85°	40.2	41.4	42.1	46.6	60.4	77.2	92.4	293.0	261.3	366.1	734.3
87.5°	30.3	29.0	30.3	31.4	40.0	45.5	49.5	54.1	32.5	66.4	427.0
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):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3	1753.3
2.5°	1995.8	2017.8	2004.7	1988.9	1949.9	1892.4	1848.4	1810.1
5°	2137.7	2178.4	2160.6	2102.4	2001.0	1885.7	1764.5	1690.7
7.5°	2119.9	2200.5	2193.3	2096.5	1950.9	1781.2	1610.9	1513.6
10°	1976.7	2089.6	2109.1	2009.9	1855.9	1666.0	1468.8	1358.9
12.5°	1820.9	1915.9	1955.4	1917.8	1772.7	1579.9	1379.0	1268.9
15°	1690.3	1738.4	1777.6	1801.8	1711.9	1549.3	1363.3	1249.9
17.5°	1593.8	1584.4	1617.2	1675.3	1679.1	1590.0	1434.1	1307.4
20°	1547.2	1474.1	1493.1	1574.6	1670.2	1693.3	1575.4	1425.6
22.5°	1544.5	1430.5	1434.1	1522.2	1695.9	1834.2	1751.9	1581.0
25°	1584.8	1425.6	1428.9	1516.6	1741.5	1976.4	1955.8	1756.6
27.5°	1653.4	1446.5	1444.2	1541.1	1802.2	2094.8	2161.6	1971.5
30°	1727.6	1476.6	1471.1	1580.7	1861.8	2168.0	2307.8	2133.4
32.5°	1820.1	1530.4	1510.9	1638.5	1920.8	2238.0	2432.7	2284.7
35°	1908.1	1609.0	1581.0	1721.2	1983.7	2316.0	2572.6	2452.2
37.5°	1998.0	1726.5	1710.8	1840.5	2072.8	2400.7	2732.6	2641.9
40°	2113.3	1893.5	1886.1	2014.0	2191.9	2493.2	2911.9	2839.5
42.5°	2237.4	2071.0	2064.8	2213.2	2339.5	2586.0	3065.6	3009.2
45°	2363.8	2286.1	2287.8	2425.7	2495.0	2673.6	3186.4	3145.0
47.5°	2512.9	2521.5	2574.8	2646.0	2646.3	2771.4	3293.4	3271.4
50°	2702.3	2805.6	2904.1	2915.3	2799.3	2900.4	3424.2	3416.1
52.5°	2916.7	3133.4	3247.9	3212.5	2948.4	3060.3	3617.8	3617.5
55°	3171.5	3476.1	3583.9	3523.4	3127.1	3268.8	3870.6	3854.2
57.5°	3435.5	3805.7	3892.6	3813.9	3350.5	3511.6	4124.2	4037.3
60°	3720.7	4089.5	4177.8	4059.7	3601.0	3753.6	4292.0	4088.7
62.5°	3907.5	4255.5	4318.8	4205.4	3825.5	4000.1	4346.1	4027.2
65°	3917.1	4145.0	4161.8	4121.6	3920.9	4214.0	4267.8	3844.8
67.5°	3651.0	3664.5	3686.5	3729.7	3716.9	4118.5	3965.7	3419.0
70°	3081.5	2902.7	2974.9	3016.7	3110.7	3663.3	3407.5	2780.7
72.5°	2356.3	2094.8	2177.0	2162.8	2358.2	3004.8	2606.9	2141.9
75°	1695.9	1428.6	1435.0	1435.6	1694.5	2398.5	1777.6	1521.0
77.5°	1152.6	1011.0	1031.9	1018.8	1134.0	1879.1	1279.7	1096.3
80°	788.4	784.6	789.0	758.4	756.3	1214.5	947.5	874.4
82.5°	584.6	540.3	534.0	501.6	579.4	928.5	719.4	628.4
85°	461.3	299.0	259.9	313.6	502.0	854.3	438.6	322.2
87.5°	195.4	117.5	71.2	140.9	279.0	626.1	121.6	62.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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