

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: P197202

Luminaire Tested: **NAV-AF-06-D-UNV-SLR-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197202  
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-06-D-UNV-SLR-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR RIGHT OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25961 lumens  
Efficiency: N/A  
Efficacy: 78.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4

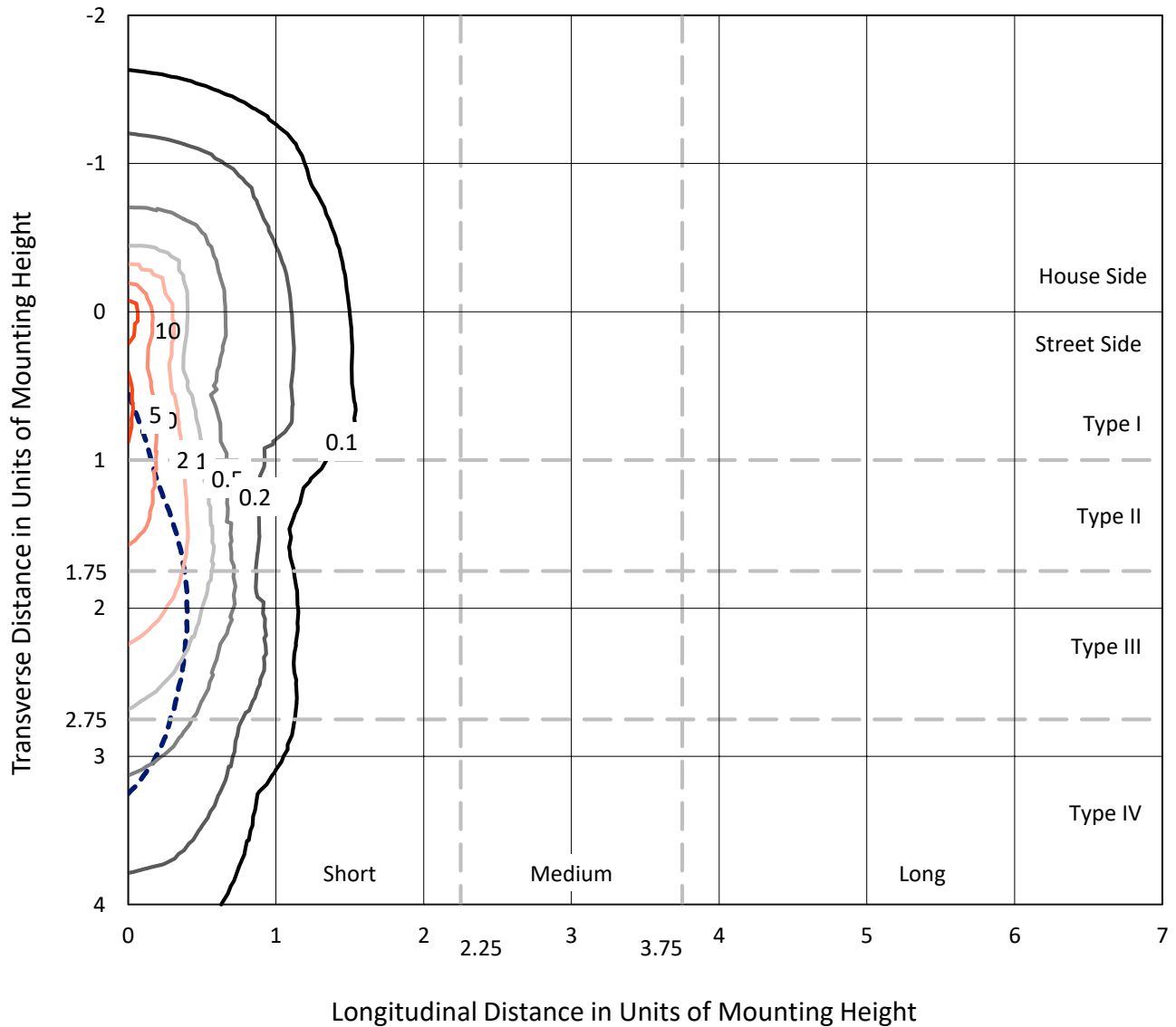
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

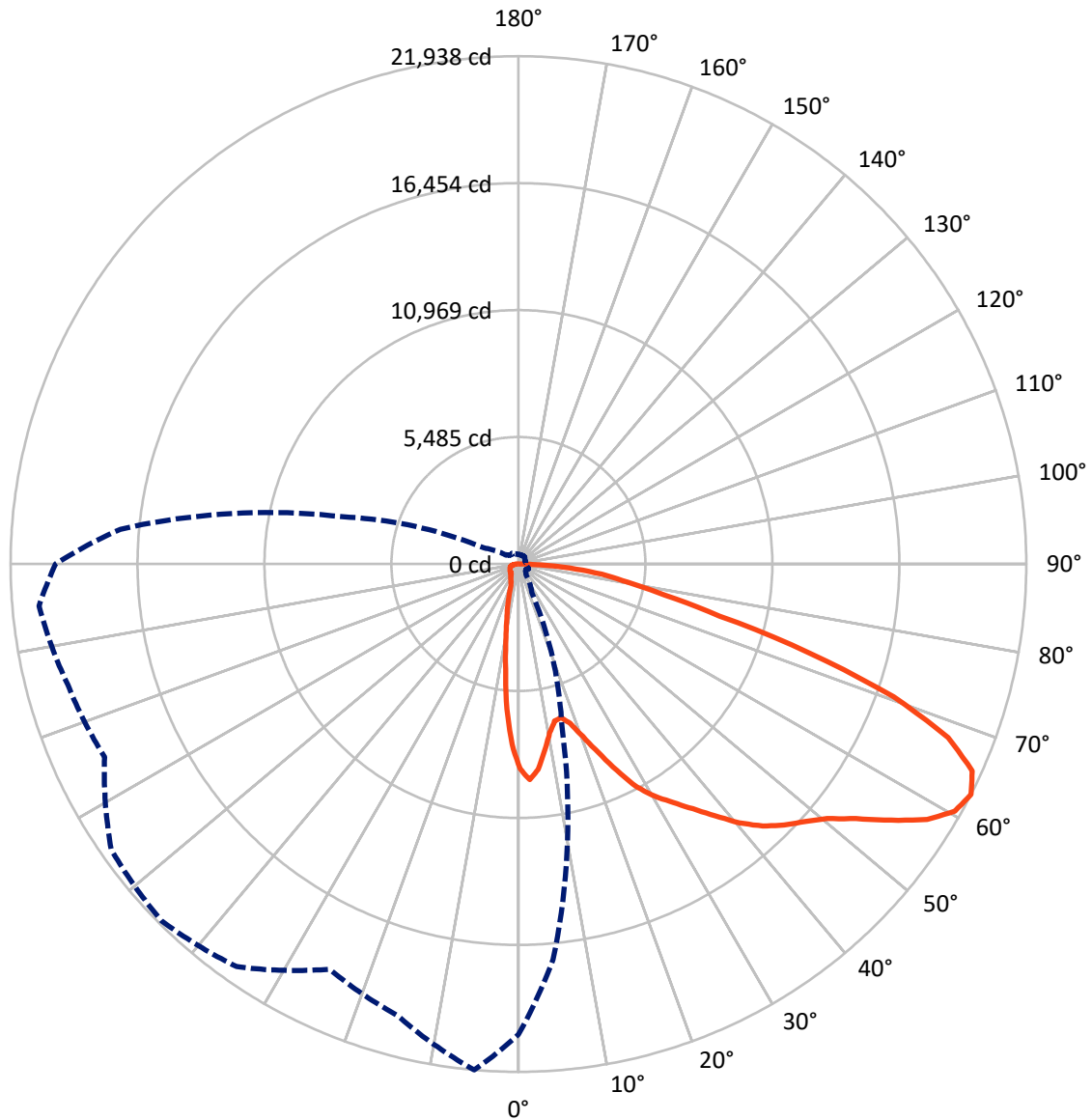
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.2 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	4599.0	0.0	4599.0
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	21362.0	0.0	21362.0
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	25961.0	0.0	25961.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	643.7	2.5
10°-20°	1175.6	4.5
20°-30°	1690.9	6.5
30°-40°	2589.8	10.0
40°-50°	3786.3	14.6
50°-60°	5509.1	21.2
60°-70°	6383.0	24.6
70°-80°	3327.4	12.8
80°-90°	855.3	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°	25961.0	100.0
0°-180°	25961.0	100.0



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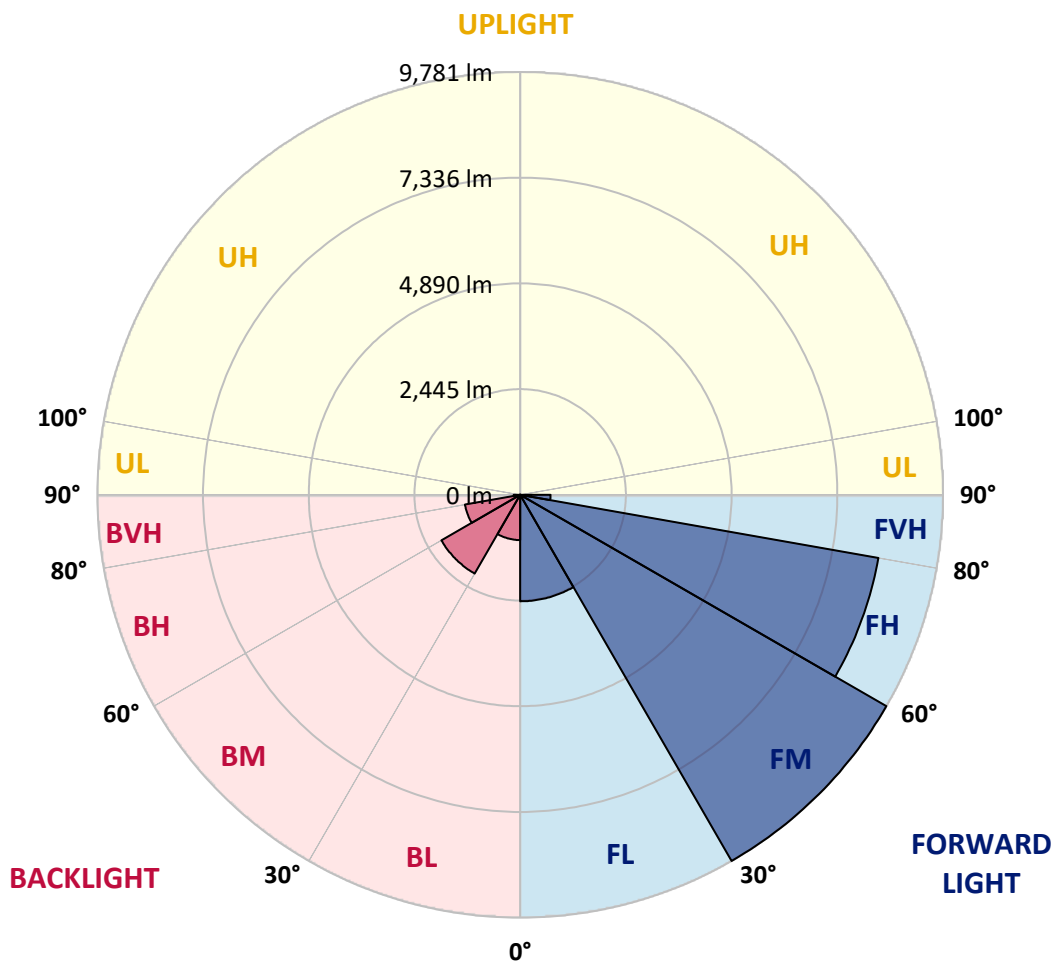
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2463.8	9.5			
FM	(30°-60°)	9780.9	37.7			
FH	(60°-80°)	8413.6	32.4			G4/12000
FVH	(80°-90°)	703.6	2.7			G4/750
BL	(0°-30°)	1046.4	4.0	B3/2500		
BM	(30°-60°)	2104.2	8.1	B2/2500		
BH	(60°-80°)	1296.8	5.0	B3/2500		G3/2500
BVH	(80°-90°)	151.7	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6
2.5°	9136.7	9008.7	8713.2	8453.5	8129.7	7886.9	7591.4	7435.1	7320.3	7243.1	7181.0
5°	8534.4	8225.7	7661.0	7166.0	6631.4	6245.5	5793.8	5547.2	5394.7	5311.9	5274.2
7.5°	7640.3	7231.8	6501.5	5837.0	5168.8	4687.0	4344.4	3979.2	3785.3	3659.2	3617.8
10°	6859.1	6398.0	5526.5	4779.2	4263.4	3920.9	3627.2	3292.2	3043.7	2827.2	2746.3
12.5°	6405.5	5869.0	4875.2	4199.4	3766.5	3399.5	3088.9	2727.5	2465.8	2239.9	2153.4
15°	6309.5	5710.9	4602.2	3830.5	3299.7	2857.3	2484.6	2091.2	1835.3	1648.9	1588.7
17.5°	6599.4	5861.5	4487.4	3493.6	2853.6	2313.4	1854.1	1432.4	1219.7	1118.1	1093.6
20°	7196.1	6192.8	4432.8	3190.5	2420.7	1780.7	1281.9	973.2	867.7	837.6	835.7
22.5°	7981.0	6731.1	4493.1	2942.1	2014.1	1313.9	939.3	800.0	756.7	739.7	739.7
25°	8867.6	7459.6	4653.1	2751.9	1656.4	1022.1	809.4	734.1	698.3	681.4	683.3
27.5°	9951.8	8346.2	4871.4	2576.9	1400.4	896.0	756.7	692.7	656.9	640.0	641.9
30°	10768.7	9108.5	5059.6	2416.9	1268.7	845.2	728.5	668.2	628.7	604.2	602.3
32.5°	11532.9	9780.5	5212.1	2302.1	1193.4	754.8	658.8	613.6	579.8	551.5	545.9
35°	12378.1	10412.9	5283.6	2298.3	1144.4	681.4	602.3	547.8	513.9	481.9	476.2
37.5°	13336.2	11186.6	5343.9	2320.9	1118.1	634.3	576.0	523.3	495.0	463.0	455.5
40°	14333.8	11943.3	5390.9	2339.7	1114.3	602.3	555.3	508.2	480.0	446.1	438.6
42.5°	15190.2	12613.4	5454.9	2332.2	1088.0	596.7	542.1	495.0	468.7	434.8	425.4
45°	15875.4	13146.1	5554.7	2330.3	1048.4	609.9	538.3	491.3	459.3	423.5	416.0
47.5°	16513.5	13746.5	5765.5	2322.8	1005.2	606.1	559.0	487.5	455.5	419.8	414.1
50°	17243.8	14554.0	6125.0	2266.3	944.9	579.8	596.7	483.8	446.1	414.1	408.5
52.5°	18260.3	15736.1	6657.7	2164.7	862.1	551.5	602.3	481.9	431.0	402.8	395.3
55°	19455.6	17002.9	7231.8	2017.8	752.9	502.6	572.2	474.3	416.0	385.9	374.6
57.5°	20379.8	17938.4	7632.8	1807.0	645.6	474.3	510.1	457.4	397.2	367.1	357.6
60°	20639.5	17979.8	7704.3	1554.8	591.0	455.5	438.6	498.8	382.1	350.1	340.7
62.5°	20328.9	17157.3	7237.5	1377.9	572.2	436.7	399.0	476.2	367.1	335.1	325.6
65°	19408.5	15768.1	6192.8	1351.5	591.0	419.8	378.3	380.2	352.0	320.0	310.6
67.5°	17258.9	13723.9	4878.9	1368.4	613.6	402.8	363.3	346.3	335.1	306.8	295.5
70°	14036.4	11049.2	3843.7	1398.6	634.3	380.2	344.5	323.8	314.3	284.2	278.6
72.5°	10812.0	8843.1	3032.4	1377.9	655.0	357.6	318.1	301.2	289.9	261.6	256.0
75°	7677.9	7026.7	2228.7	1182.1	600.5	325.6	288.0	272.9	263.5	233.4	231.5
77.5°	5534.0	5262.9	1551.0	888.5	474.3	286.1	254.1	240.9	235.3	201.4	201.4
80°	4414.0	4005.6	928.0	579.8	346.3	237.2	212.7	207.1	201.4	167.5	169.4
82.5°	3171.7	2778.3	592.9	361.4	254.1	180.7	165.6	163.8	154.3	124.2	124.2
85°	1626.3	1419.3	380.2	242.8	178.8	116.7	109.2	105.4	99.8	77.2	77.2
87.5°	316.2	434.8	210.8	118.6	86.6	41.4	41.4	35.8	41.4	28.2	30.1
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6
2.5°	7299.6	7262.0	7235.6	7222.4	7412.5	7491.6	7581.9	7711.8	7800.3	7762.6	7883.1
5°	5451.2	5477.5	5537.8	5631.9	5897.3	6023.4	6104.3	6211.6	6288.8	6211.6	6339.6
7.5°	3727.0	3766.5	3894.5	4088.4	4408.4	4549.5	4577.8	4579.7	4562.7	4436.6	4523.2
10°	2744.4	2665.4	2693.6	2832.9	3119.0	3245.1	3258.3	3224.4	3218.8	3167.9	3265.8
12.5°	2127.0	2017.8	1953.8	1976.4	2191.0	2294.5	2311.5	2330.3	2407.5	2431.9	2552.4
15°	1586.8	1530.3	1483.3	1462.6	1603.7	1684.7	1694.1	1739.3	1820.2	1842.8	1946.3
17.5°	1116.2	1131.3	1155.7	1165.1	1266.8	1319.5	1304.4	1304.4	1317.6	1312.0	1370.3
20°	852.7	882.8	929.9	975.0	1067.3	1097.4	1059.7	1012.7	982.6	967.5	980.7
22.5°	752.9	773.6	803.7	862.1	939.3	954.3	905.4	867.7	839.5	824.5	826.3
25°	698.3	719.0	743.5	790.6	856.5	864.0	818.8	794.3	771.7	756.7	752.9
27.5°	651.3	664.5	679.5	709.6	777.4	781.2	751.0	736.0	720.9	709.6	705.9
30°	608.0	613.6	619.3	649.4	700.2	705.9	690.8	683.3	677.6	670.1	670.1
32.5°	551.5	559.0	568.5	594.8	643.8	651.3	641.9	636.2	626.8	623.0	617.4
35°	483.8	502.6	523.3	555.3	608.0	611.8	600.5	583.5	560.9	555.3	551.5
37.5°	455.5	459.3	485.6	523.3	577.9	581.6	566.6	538.3	521.4	523.3	527.0
40°	436.7	442.3	457.4	495.0	549.6	555.3	542.1	521.4	504.5	506.3	512.0
42.5°	421.6	429.2	438.6	463.0	517.6	528.9	525.2	506.3	489.4	493.2	500.7
45°	414.1	419.8	419.8	436.7	489.4	506.3	508.2	493.2	480.0	483.8	493.2
47.5°	410.3	410.3	404.7	417.9	470.6	487.5	491.3	483.8	476.2	480.0	489.4
50°	404.7	397.2	391.5	402.8	455.5	470.6	474.3	468.7	472.5	480.0	485.6
52.5°	387.8	380.2	380.2	387.8	440.5	455.5	457.4	453.6	461.2	470.6	480.0
55°	367.1	367.1	368.9	376.5	432.9	444.2	442.3	438.6	446.1	457.4	466.8
57.5°	348.2	346.3	355.8	365.2	423.5	431.0	427.3	427.3	432.9	442.3	451.8
60°	336.9	327.5	335.1	350.1	414.1	421.6	416.0	414.1	423.5	431.0	438.6
62.5°	325.6	316.2	321.9	336.9	400.9	406.6	402.8	402.8	412.2	417.9	425.4
65°	308.7	304.9	308.7	323.8	389.6	391.5	391.5	393.4	400.9	404.7	412.2
67.5°	293.6	293.6	295.5	310.6	380.2	376.5	376.5	385.9	387.8	391.5	399.0
70°	274.8	278.6	278.6	297.4	372.7	359.5	361.4	368.9	372.7	376.5	378.3
72.5°	254.1	256.0	259.8	284.2	361.4	342.6	344.5	350.1	352.0	357.6	359.5
75°	231.5	233.4	239.1	271.1	353.9	325.6	321.9	325.6	329.4	333.2	331.3
77.5°	205.2	208.9	214.6	263.5	329.4	321.9	293.6	297.4	301.2	301.2	299.3
80°	173.2	178.8	188.2	252.2	278.6	310.6	261.6	263.5	265.4	265.4	261.6
82.5°	129.9	141.2	154.3	208.9	218.3	265.4	225.9	229.6	224.0	220.2	218.3
85°	84.7	94.1	112.9	144.9	160.0	208.9	186.3	188.2	176.9	175.1	175.1
87.5°	33.9	35.8	50.8	73.4	96.0	129.9	133.6	137.4	128.0	128.0	131.8
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6
2.5°	8065.7	8253.9	8470.4	8690.6	8871.3	9104.7	9330.6	9571.5	9693.9	9765.4	9966.8
5°	6539.1	6797.0	7103.8	7448.3	7734.4	8223.8	8750.9	9338.1	9620.5	9899.1	10426.1
7.5°	4677.5	4929.8	5287.4	5733.5	6140.1	6785.7	7480.3	8274.6	8666.2	9117.9	9981.9
10°	3472.9	3740.2	4063.9	4442.3	4843.2	5515.2	6294.4	7186.7	7617.7	8127.8	9110.4
12.5°	2815.9	3128.4	3463.5	3802.3	4146.7	4598.5	5415.4	6407.4	6870.4	7384.3	8368.8
15°	2196.7	2531.7	2893.1	3262.0	3604.6	4109.1	4942.9	6115.6	6644.6	7141.5	7947.1
17.5°	1554.8	1871.0	2277.6	2725.6	3222.5	3819.2	4841.3	6243.6	6885.5	7405.0	7945.2
20°	1059.7	1278.1	1684.7	2215.5	2829.1	3585.8	4878.9	6693.5	7495.4	8065.7	8270.9
22.5°	847.0	950.6	1225.4	1765.6	2490.3	3416.4	5033.3	7310.9	8370.6	9065.2	8863.8
25°	769.9	828.2	971.3	1394.8	2189.1	3303.5	5334.5	8125.9	9351.3	10055.3	9577.2
27.5°	722.8	773.6	865.9	1146.3	1929.4	3230.0	5716.6	9085.9	10456.2	11034.1	10320.7
30°	692.7	743.5	828.2	1029.6	1733.6	3120.9	6051.6	9963.1	11339.0	11713.6	10721.6
32.5°	634.3	673.9	743.5	922.3	1586.8	2992.9	6341.5	10748.0	12172.9	12297.1	11203.5
35°	574.1	615.5	685.2	835.7	1500.2	2893.1	6494.0	11444.4	12999.2	12880.6	11681.6
37.5°	551.5	585.4	649.4	773.6	1453.1	2827.2	6552.3	12129.6	13885.8	13526.3	12014.8
40°	536.5	566.6	623.0	732.2	1440.0	2765.1	6539.1	12780.9	14746.0	14194.5	12276.4
42.5°	525.2	551.5	604.2	704.0	1404.2	2706.8	6495.9	13343.7	15434.9	14770.5	12526.8
45°	515.8	544.0	596.7	719.0	1338.3	2642.8	6469.5	13857.6	15963.9	15256.1	12861.8
47.5°	512.0	544.0	598.6	715.3	1266.8	2571.2	6563.6	14427.9	16425.0	15664.6	13307.9
50°	506.3	542.1	640.0	681.4	1168.9	2482.8	6881.7	15107.4	16908.8	16123.9	13885.8
52.5°	496.9	540.2	683.3	655.0	1042.8	2360.4	7397.5	16067.4	17744.5	17018.0	14740.4
55°	485.6	544.0	653.2	613.6	909.2	2202.3	7913.2	17383.1	19099.8	18459.8	15967.6
57.5°	472.5	538.3	617.4	576.0	798.1	2002.8	8304.8	18461.7	20217.9	19946.8	17475.4
60°	463.0	551.5	555.3	553.4	726.6	1812.7	8342.4	18392.1	20539.8	20912.5	18951.1
62.5°	451.8	562.8	506.3	536.5	690.8	1635.7	7877.5	17253.3	19995.8	20788.2	20153.9
65°	436.7	491.3	480.0	521.4	690.8	1541.6	6795.1	15357.8	18491.8	19613.7	20807.1
67.5°	421.6	446.1	461.2	500.7	705.9	1453.1	5460.6	12954.1	16120.1	17718.2	20073.0
70°	400.9	421.6	440.5	481.9	698.3	1391.0	4297.3	10382.8	13266.5	15096.1	18041.9
72.5°	382.1	397.2	416.0	453.6	698.3	1362.8	3452.2	8144.8	10128.7	11670.3	14945.5
75°	353.9	367.1	384.0	425.4	685.2	1246.1	2591.9	6526.0	7410.7	8376.3	11792.7
77.5°	325.6	335.1	348.2	389.6	617.4	1040.9	1833.4	5054.0	5490.7	6025.3	9193.2
80°	289.9	297.4	306.8	348.2	512.0	807.5	1193.4	3952.9	4105.3	4363.2	6047.9
82.5°	248.5	259.8	261.6	299.3	412.2	585.4	709.6	2708.6	2706.8	3085.1	4267.2
85°	203.3	208.9	212.7	235.3	304.9	389.6	466.8	1479.5	1319.5	1848.4	3706.3
87.5°	152.5	146.8	152.5	158.1	201.4	229.6	250.3	272.9	163.8	335.1	2155.2
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):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6	8850.6
2.5°	10074.1	10185.2	10119.3	10040.2	9842.6	9552.7	9330.6	9136.7
5°	10791.3	10996.5	10906.1	10612.5	10100.5	9518.8	8907.1	8534.4
7.5°	10700.9	11107.5	11071.7	10582.3	9848.2	8991.8	8131.6	7640.3
10°	9978.1	10548.5	10646.3	10145.7	9368.3	8410.2	7414.4	6859.1
12.5°	9191.3	9671.3	9870.8	9680.7	8948.5	7975.3	6960.8	6405.5
15°	8532.5	8775.3	8973.0	9095.3	8641.7	7821.0	6881.7	6309.5
17.5°	8045.0	7997.9	8163.6	8457.2	8476.0	8026.2	7239.4	6599.4
20°	7809.7	7440.8	7536.8	7949.0	8430.9	8547.6	7952.8	7196.1
22.5°	7796.5	7220.5	7239.4	7683.6	8560.7	9259.1	8843.1	7981.0
25°	7999.8	7196.1	7213.0	7655.4	8790.4	9976.2	9872.7	8867.6
27.5°	8346.2	7301.5	7290.2	7779.6	9097.2	10574.8	10911.8	9951.8
30°	8720.7	7453.9	7425.7	7979.1	9398.4	10943.8	11649.6	10768.7
32.5°	9187.6	7725.0	7627.1	8270.9	9695.8	11297.6	12280.2	11532.9
35°	9631.8	8122.2	7981.0	8688.7	10013.9	11691.0	12986.1	12378.1
37.5°	10085.4	8715.1	8636.0	9291.1	10463.8	12118.3	13793.6	13336.2
40°	10667.1	9558.4	9520.7	10166.4	11064.2	12585.1	14699.0	14333.8
42.5°	11293.9	10454.4	10422.4	11171.5	11809.6	13053.8	15474.5	15190.2
45°	11932.0	11540.4	11548.0	12244.4	12594.5	13496.2	16084.3	15875.4
47.5°	12684.9	12728.2	12997.4	13356.9	13358.8	13989.3	16624.6	16513.5
50°	13641.1	14162.5	14659.4	14715.9	14130.5	14640.6	17285.3	17243.8
52.5°	14723.4	15817.1	16394.9	16216.1	14883.4	15448.1	18262.2	18260.3
55°	16009.0	17546.9	18090.9	17785.9	15785.1	16500.3	19538.4	19455.6
57.5°	17341.7	19210.9	19649.4	19252.3	16912.6	17725.7	20818.3	20379.8
60°	18781.7	20643.3	21089.4	20492.7	18177.5	18947.3	21665.4	20639.5
62.5°	19724.7	21480.9	21800.9	21228.7	19310.6	20191.5	21938.3	20328.9
65°	19773.7	20923.8	21008.5	20805.2	19792.5	21272.0	21543.0	19408.5
67.5°	18429.7	18497.5	18608.5	18826.9	18762.9	20790.1	20018.4	17258.9
70°	15555.4	14651.9	15017.1	15227.9	15702.2	18491.8	17200.5	14036.4
72.5°	11894.3	10574.8	10988.9	10917.4	11903.7	15167.7	13159.2	10812.0
75°	8560.7	7211.1	7243.1	7246.9	8553.2	12107.0	8973.0	7677.9
77.5°	5818.2	5102.9	5208.4	5142.5	5724.1	9485.0	6460.1	5534.0
80°	3979.2	3960.4	3983.0	3828.6	3817.3	6130.7	4782.9	4414.0
82.5°	2951.5	2727.5	2695.5	2531.7	2925.1	4687.0	3631.0	3171.7
85°	2328.4	1509.6	1312.0	1583.0	2533.6	4312.4	2213.6	1626.3
87.5°	986.3	592.9	359.5	711.5	1408.0	3160.4	613.6	316.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)