

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: P962616

Luminaire Tested: **NAV-SB2C-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962616
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2C-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14049.7 lumens
Efficiency: N/A
Efficacy: 139.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 100.9
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: 24 FT

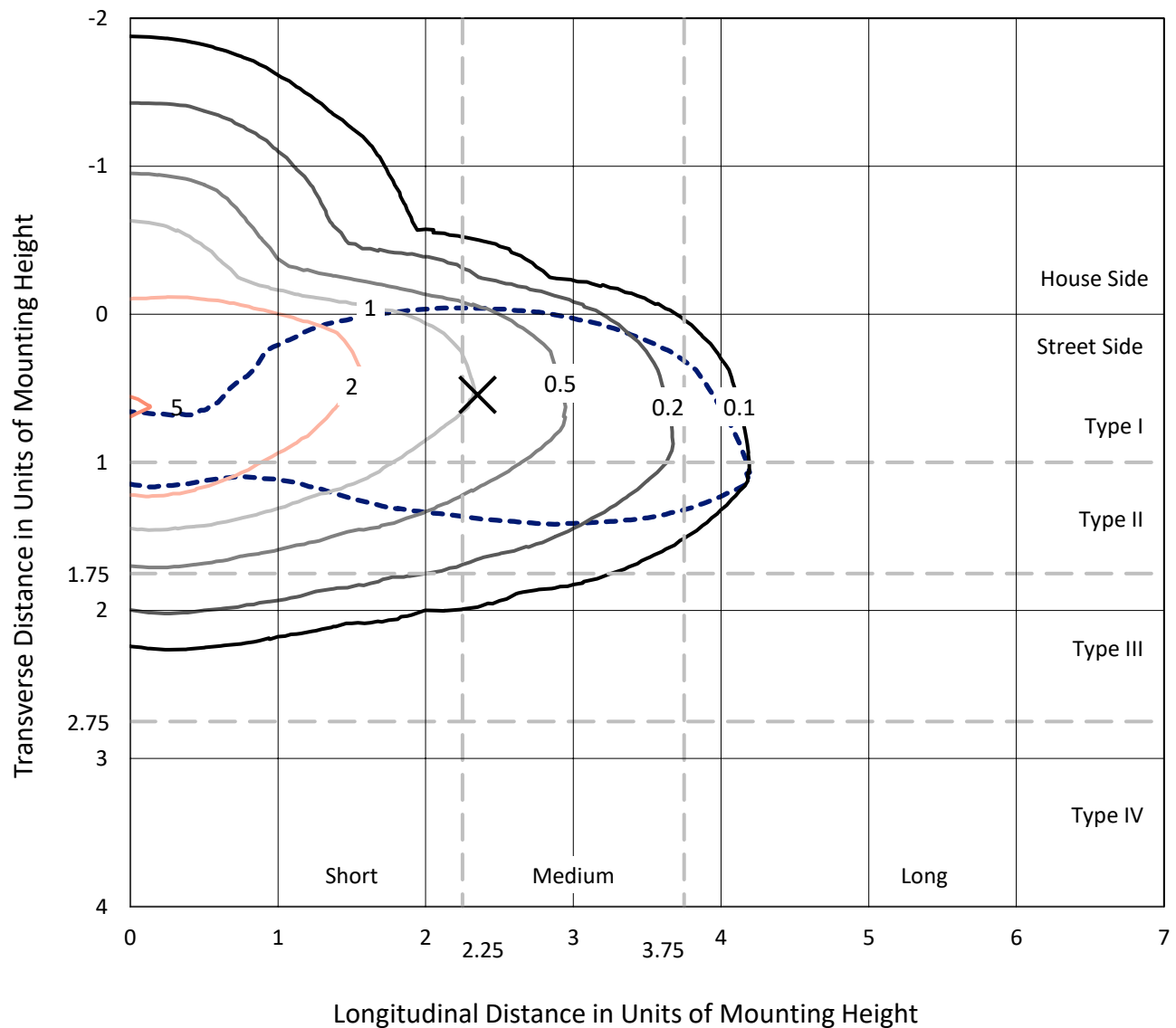


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Iso-Footcandle Lines of Horizontal Illumination

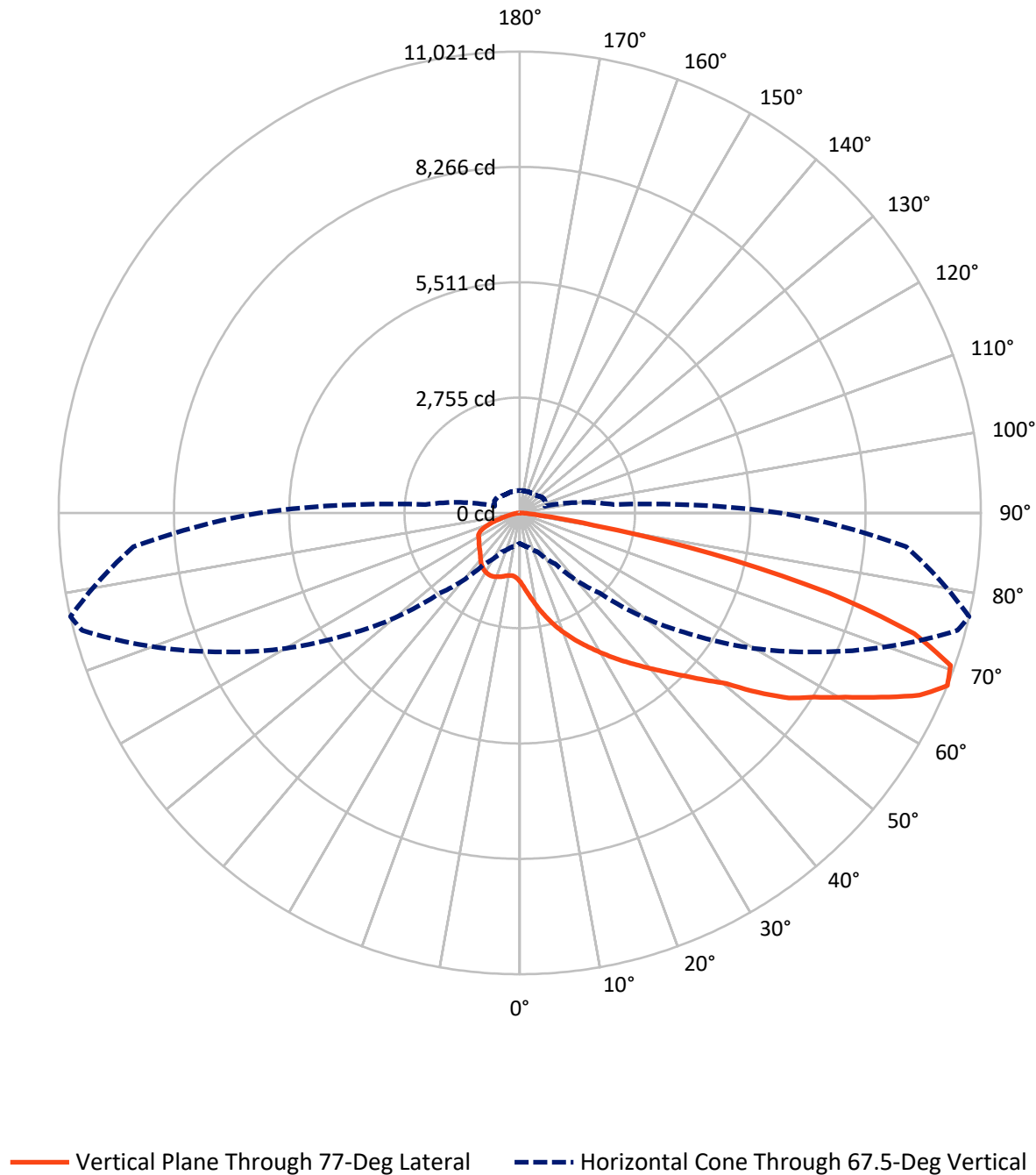
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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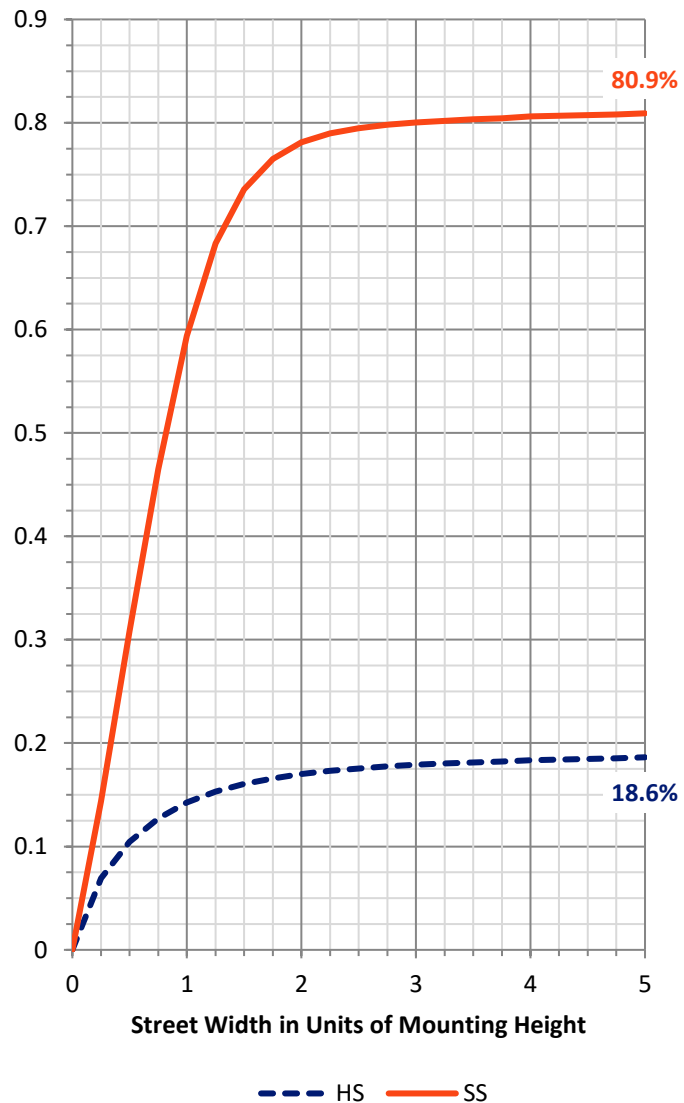
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2657.6	0.0	2657.6
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	11392.0	0.0	11392.0
	% Fixture	81.1	0.0	81.1
Total	Lumens	14049.7	0.0	14049.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.7	1.3
10°-20°	634.8	4.5
20°-30°	1198.5	8.5
30°-40°	1930.8	13.7
40°-50°	2641.0	18.8
50°-60°	2979.1	21.2
60°-70°	2780.6	19.8
70°-80°	1524.2	10.8
80°-90°	183.9	1.3
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°	14049.7	100.0
0°-180°	14049.7	100.0

Coefficient of Utilization



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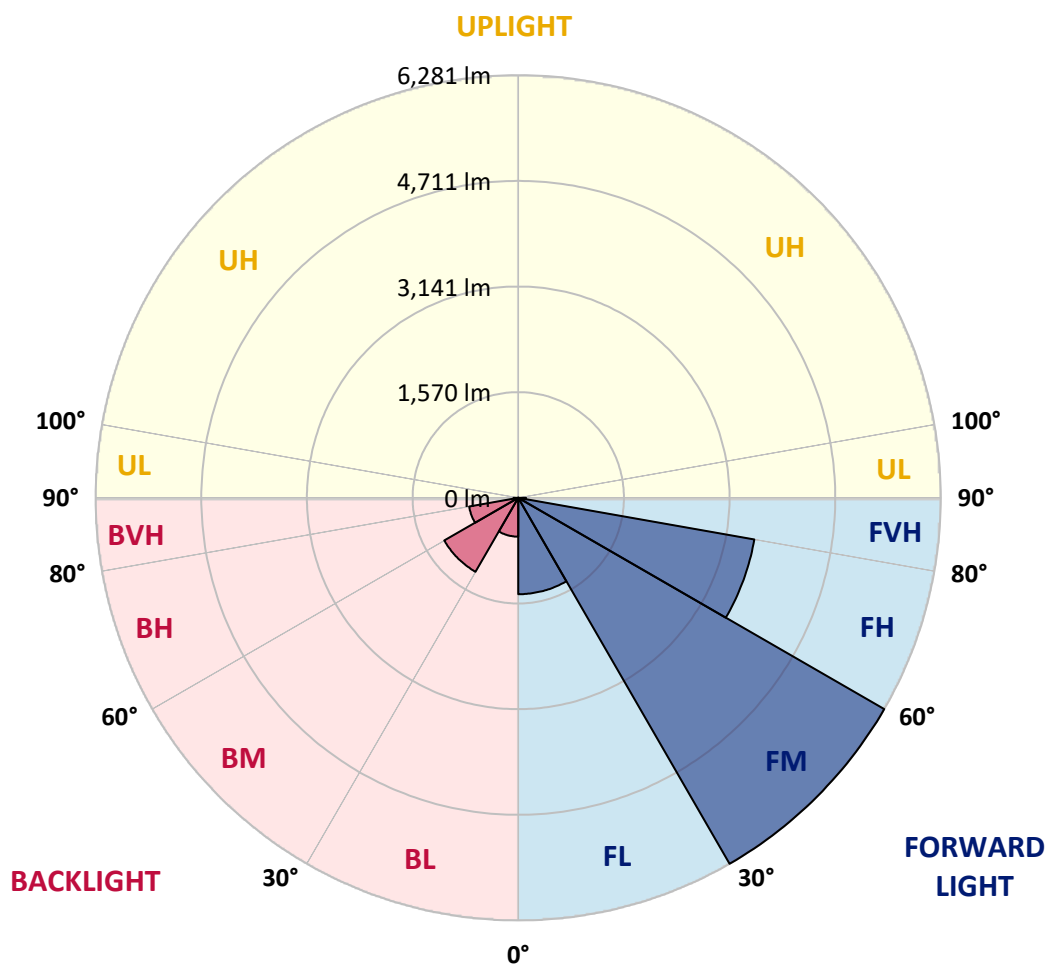
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1432.2	10.2			
FM	(30°-60°)	6281.5	44.7			
FH	(60°-80°)	3563.4	25.4			G2/5000
FVH	(80°-90°)	115.0	0.8			G2/225
BL	(0°-30°)	577.8	4.1	B2/1000		
BM	(30°-60°)	1269.5	9.0	B2/2500		
BH	(60°-80°)	741.4	5.3	B2/1000		G2/1000
BVH	(80°-90°)	68.9	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5
2.5°	2064.0	2078.5	2060.4	2060.4	1999.5	1967.6	1906.6	1860.3	1776.8	1762.3	1707.2
5°	2439.7	2457.8	2432.4	2421.6	2349.8	2283.8	2181.5	2080.8	1932.0	1916.7	1787.0
7.5°	2730.5	2753.8	2731.2	2719.6	2655.8	2581.9	2462.2	2321.5	2111.9	2082.2	1894.3
10°	2967.7	2971.3	2964.0	2968.4	2918.4	2857.4	2734.9	2571.0	2309.1	2268.5	2024.2
12.5°	3101.9	3118.6	3133.0	3159.2	3150.4	3112.7	3002.4	2806.7	2518.0	2465.8	2165.5
15°	3164.9	3193.9	3226.6	3286.8	3335.4	3344.8	3260.6	3059.7	2730.5	2667.5	2308.4
17.5°	3187.4	3215.0	3266.5	3353.5	3457.9	3528.3	3490.5	3305.6	2940.8	2868.4	2458.6
20°	3301.3	3309.2	3340.5	3423.1	3536.2	3653.0	3681.3	3542.1	3149.0	3067.0	2613.8
22.5°	3545.0	3529.0	3537.7	3575.4	3656.7	3769.7	3834.3	3750.9	3362.9	3268.6	2770.4
25°	3947.5	3901.0	3854.6	3811.2	3852.5	3916.3	3989.5	3959.8	3587.0	3467.4	2928.5
27.5°	4455.9	4399.3	4297.0	4154.1	4104.1	4126.5	4159.2	4153.4	3794.4	3673.3	3091.7
30°	4956.3	4890.3	4768.4	4561.8	4429.7	4370.3	4345.6	4329.0	4019.9	3890.9	3256.3
32.5°	5355.8	5303.7	5184.0	4952.6	4761.2	4659.6	4577.6	4518.2	4255.7	4126.5	3430.4
35°	5705.5	5656.9	5519.7	5267.4	5059.3	4951.2	4843.8	4716.9	4500.8	4370.3	3617.5
37.5°	6024.5	5976.0	5788.1	5525.6	5316.0	5241.3	5145.6	4930.1	4746.7	4623.4	3815.5
40°	6226.2	6215.3	6039.8	5742.5	5524.9	5487.8	5456.0	5177.5	5019.3	4904.7	4033.1
42.5°	6277.6	6301.6	6162.3	5917.9	5710.5	5680.8	5755.5	5457.4	5325.4	5215.9	4279.6
45°	6153.6	6222.6	6131.1	5965.1	5842.5	5826.5	6021.0	5763.5	5664.2	5564.0	4576.9
47.5°	5839.6	5956.4	5918.7	5895.5	5878.1	5946.9	6254.4	6088.4	6047.7	5960.7	4916.4
50°	5205.8	5427.0	5493.0	5639.4	5807.6	6040.5	6466.9	6443.0	6495.9	6408.2	5329.8
52.5°	4109.9	4414.5	4797.4	5164.5	5591.6	6009.3	6700.4	6952.2	7175.5	7127.6	5986.8
55°	3392.6	3529.7	3824.2	4497.2	5172.4	5878.1	6805.6	7363.3	7850.0	7807.2	6485.1
57.5°	2841.5	2964.0	3145.3	3707.4	4538.5	5580.0	6870.9	7614.2	8311.9	8307.6	6976.8
60°	2250.4	2380.3	2565.9	2964.0	3798.0	5065.0	6856.4	7900.0	8901.5	8937.8	7576.6
62.5°	1583.2	1726.1	1932.0	2303.4	3041.7	4397.9	6560.5	8106.7	9595.6	9694.2	8298.2
65°	1040.7	1135.0	1290.2	1610.8	2266.4	3539.8	5995.5	8133.6	10338.3	10505.0	8975.5
67.5°	729.6	765.9	857.2	1031.3	1493.9	2714.6	5095.5	7855.8	10833.6	11021.4	9269.3
70°	569.3	587.4	633.9	703.5	938.5	1825.4	3904.6	7133.4	10727.8	10923.5	8962.5
72.5°	491.7	509.1	526.5	535.3	629.6	1127.0	2644.9	5964.4	9730.5	9863.3	7792.7
75°	446.0	450.4	464.8	462.0	480.1	731.0	1526.6	4345.6	7677.4	7631.6	5752.6
77.5°	374.9	380.8	404.7	401.1	426.4	499.7	792.7	2804.5	4977.3	4666.9	3201.9
80°	317.6	320.5	346.7	342.3	370.6	361.9	404.7	1429.5	2111.2	1788.4	923.2
82.5°	110.2	136.3	264.8	272.6	282.8	219.0	233.5	583.1	644.7	493.8	193.6
85°	53.7	57.3	134.9	191.5	190.8	110.2	113.9	208.2	203.1	159.6	64.6
87.5°	8.7	10.9	16.0	74.7	59.4	29.0	39.2	40.6	42.0	36.3	14.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5	1648.5
2.5°	1666.5	1630.4	1554.2	1483.8	1428.7	1375.8	1346.0	1320.6	1306.2	1303.3	1303.3
5°	1711.5	1636.8	1498.3	1381.6	1305.4	1248.9	1219.1	1200.3	1190.8	1185.0	1184.3
7.5°	1776.1	1666.5	1469.3	1336.6	1256.9	1216.3	1201.0	1198.1	1197.4	1198.1	1200.3
10°	1865.3	1715.2	1466.5	1325.7	1259.0	1236.6	1235.8	1236.6	1239.4	1240.1	1240.9
12.5°	1961.7	1765.3	1478.0	1335.2	1286.6	1274.3	1272.0	1271.3	1273.6	1275.0	1275.7
15°	2066.9	1831.3	1497.6	1355.5	1317.0	1304.0	1301.8	1297.4	1296.7	1296.0	1295.3
17.5°	2174.9	1896.5	1519.4	1377.2	1336.6	1318.5	1310.5	1300.3	1292.4	1290.2	1292.4
20°	2284.5	1961.0	1534.6	1388.1	1338.0	1312.7	1296.7	1279.3	1265.6	1257.6	1260.4
22.5°	2401.3	2028.5	1544.1	1385.2	1325.0	1290.2	1261.2	1240.9	1219.9	1206.1	1206.8
25°	2515.1	2087.2	1543.3	1370.0	1299.6	1255.4	1218.4	1192.3	1163.3	1148.8	1148.8
27.5°	2624.6	2140.2	1525.2	1343.2	1263.3	1214.0	1169.8	1138.7	1110.4	1096.5	1095.8
30°	2737.8	2184.4	1496.9	1304.0	1220.6	1166.1	1117.6	1090.8	1065.4	1052.4	1051.5
32.5°	2850.2	2225.1	1457.0	1255.4	1171.3	1119.0	1071.1	1046.5	1031.3	1031.3	1032.0
35°	2969.1	2253.4	1404.0	1198.8	1119.0	1069.0	1031.3	1016.8	1015.4	1006.7	1004.5
37.5°	3094.6	2271.4	1339.5	1140.8	1067.5	1020.4	1008.8	991.4	976.9	958.1	955.1
40°	3226.6	2289.5	1261.9	1080.6	1013.1	987.1	982.0	958.8	917.4	871.0	864.5
42.5°	3386.8	2301.9	1181.4	1020.4	955.8	947.2	954.4	914.5	848.5	813.7	814.5
45°	3572.5	2322.2	1107.4	960.9	897.1	897.1	927.6	875.4	820.9	799.2	802.9
47.5°	3813.3	2369.4	1038.5	895.6	842.8	857.2	868.1	828.2	797.8	770.9	770.2
50°	4161.4	2482.4	967.5	829.6	801.3	830.4	815.2	791.9	756.4	734.6	732.5
52.5°	4593.6	2549.2	904.4	770.2	765.9	794.9	773.1	751.3	724.5	695.5	689.7
55°	4888.1	2561.6	851.5	726.7	741.9	739.0	731.0	711.5	697.0	658.6	659.3
57.5°	5217.4	2586.2	807.9	700.6	726.7	694.7	691.9	675.2	656.3	630.3	621.6
60°	5611.2	2624.6	770.2	690.4	713.6	665.7	651.3	644.7	625.9	612.8	616.4
62.5°	6040.5	2659.5	731.7	691.9	698.4	637.4	615.7	613.6	602.0	597.6	597.6
65°	6333.5	2564.4	683.9	690.4	674.4	608.4	580.9	580.2	570.7	569.3	568.6
67.5°	6231.3	2263.5	619.3	670.1	649.8	579.4	549.0	546.1	533.8	534.5	534.5
70°	5719.2	1834.1	530.1	620.1	619.3	553.4	515.7	506.2	489.5	492.4	495.4
72.5°	4759.0	1359.0	410.5	536.7	570.7	529.4	477.2	462.0	441.0	443.8	443.1
75°	3436.9	923.9	298.8	408.3	496.8	501.1	439.5	413.4	388.0	392.4	393.8
77.5°	1758.7	523.6	219.8	281.4	390.2	455.4	405.4	370.6	364.8	405.4	399.6
80°	573.7	262.5	152.3	197.3	256.0	372.8	355.4	315.5	314.1	323.5	277.8
82.5°	171.2	111.0	97.9	129.9	141.4	285.8	306.8	238.6	205.2	216.1	223.3
85°	58.7	53.7	55.9	64.6	67.4	167.5	214.6	158.1	149.4	164.6	162.5
87.5°	13.7	18.9	16.0	14.6	14.6	40.6	83.4	66.0	91.4	60.9	58.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)