

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: P962098

Luminaire Tested: **NAV-SB2B-830-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962098
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10251 lumens
Efficiency: N/A
Efficacy: 138.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 73.9
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



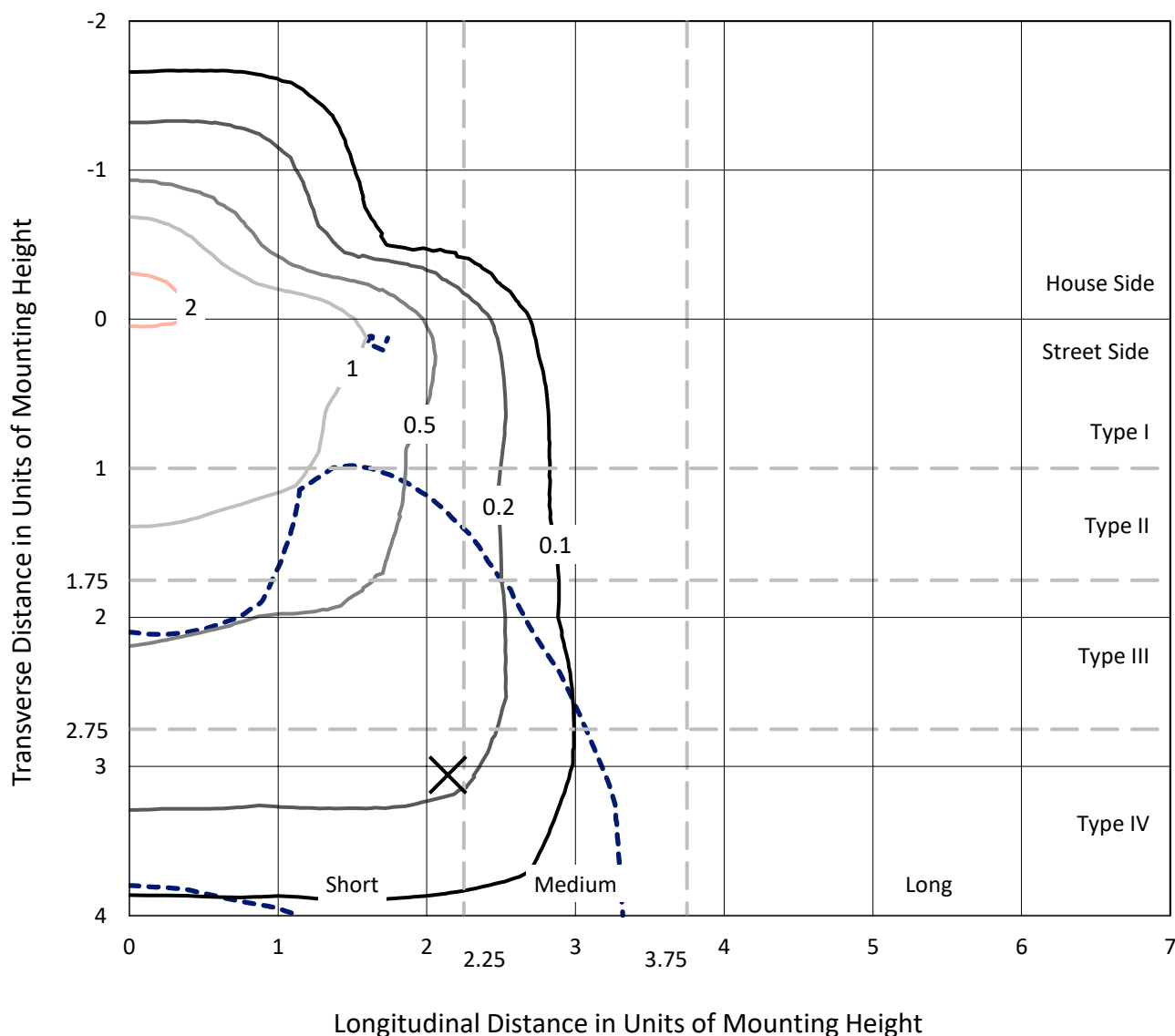
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

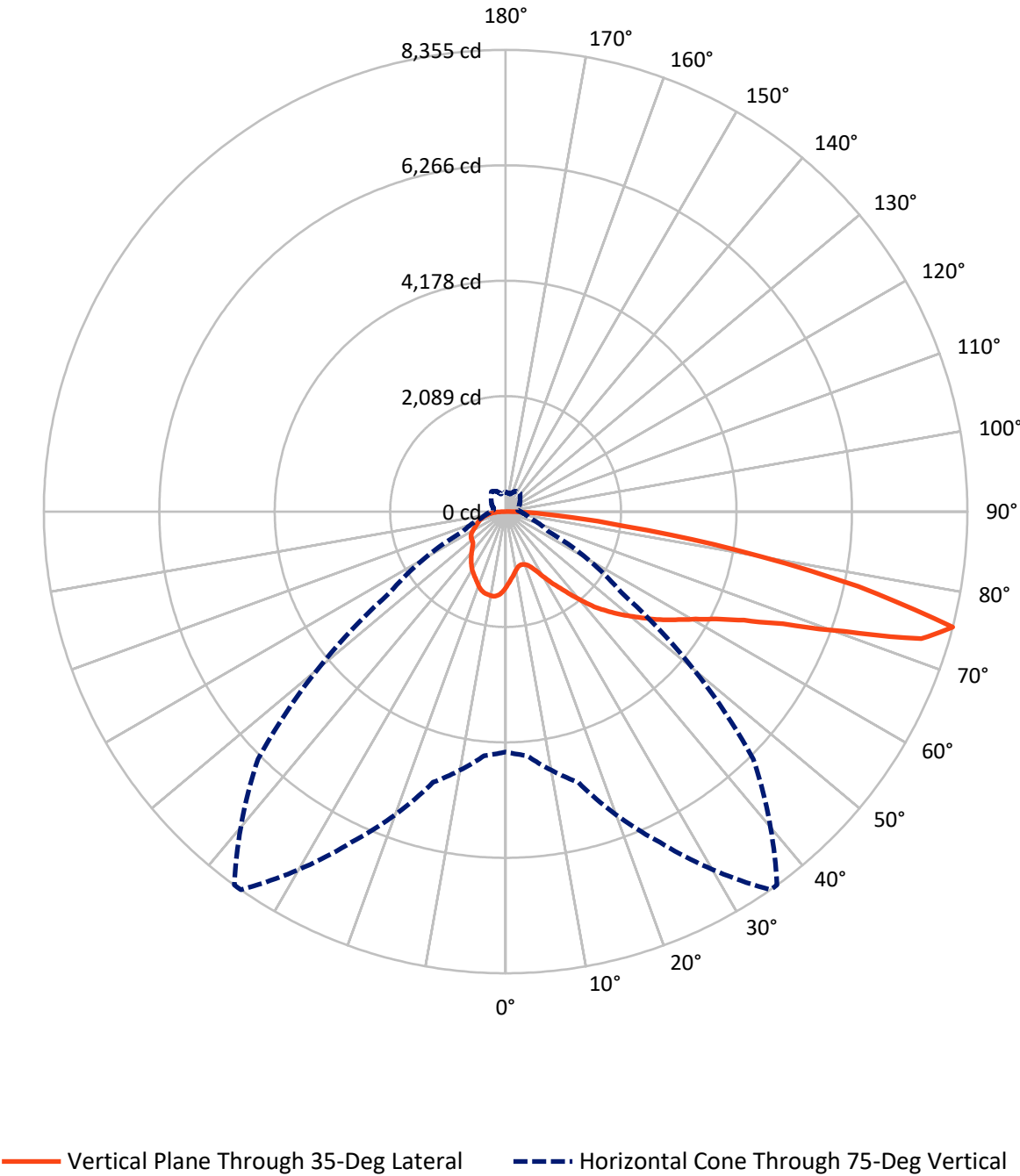


Based on 25 foot mounting height. Maximum calculated value = 2.4 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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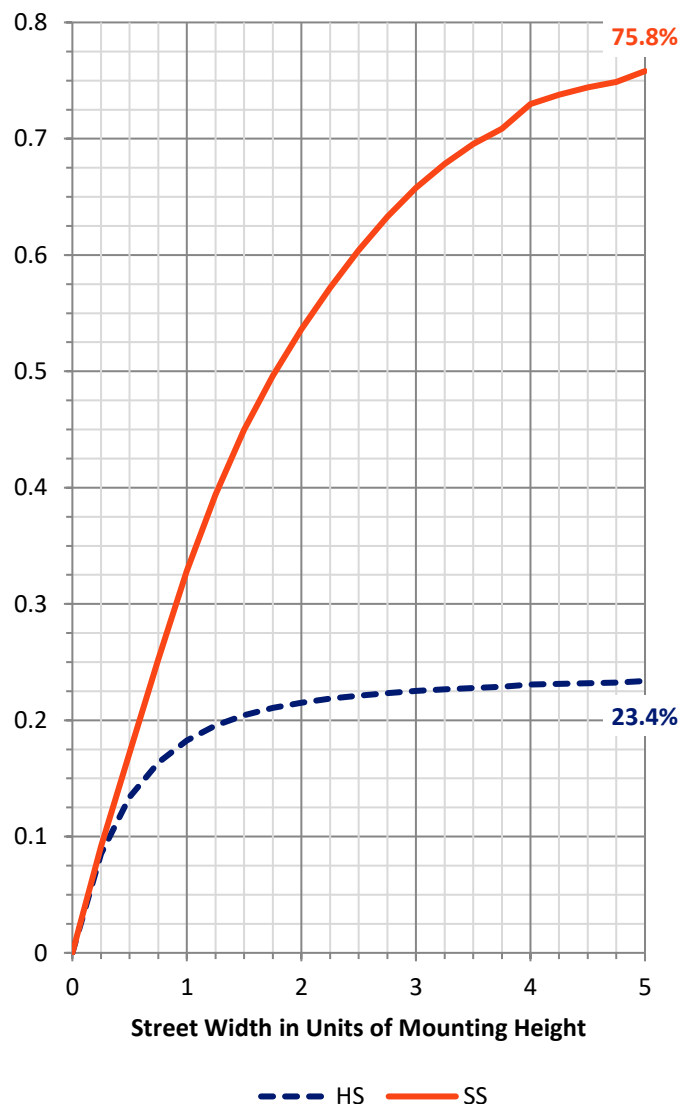
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2439.5	0.0	2439.5
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	7811.5	0.0	7811.5
	% Fixture	76.2	0.0	76.2
Total	Lumens	10251.0	0.0	10251.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	1.3
10°-20°	373.1	3.6
20°-30°	626.5	6.1
30°-40°	973.6	9.5
40°-50°	1445.1	14.1
50°-60°	1995.0	19.5
60°-70°	2420.4	23.6
70°-80°	2000.3	19.5
80°-90°	287.7	2.8
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°	10251.0	100.0
0°-180°	10251.0	100.0

Coefficient of Utilization



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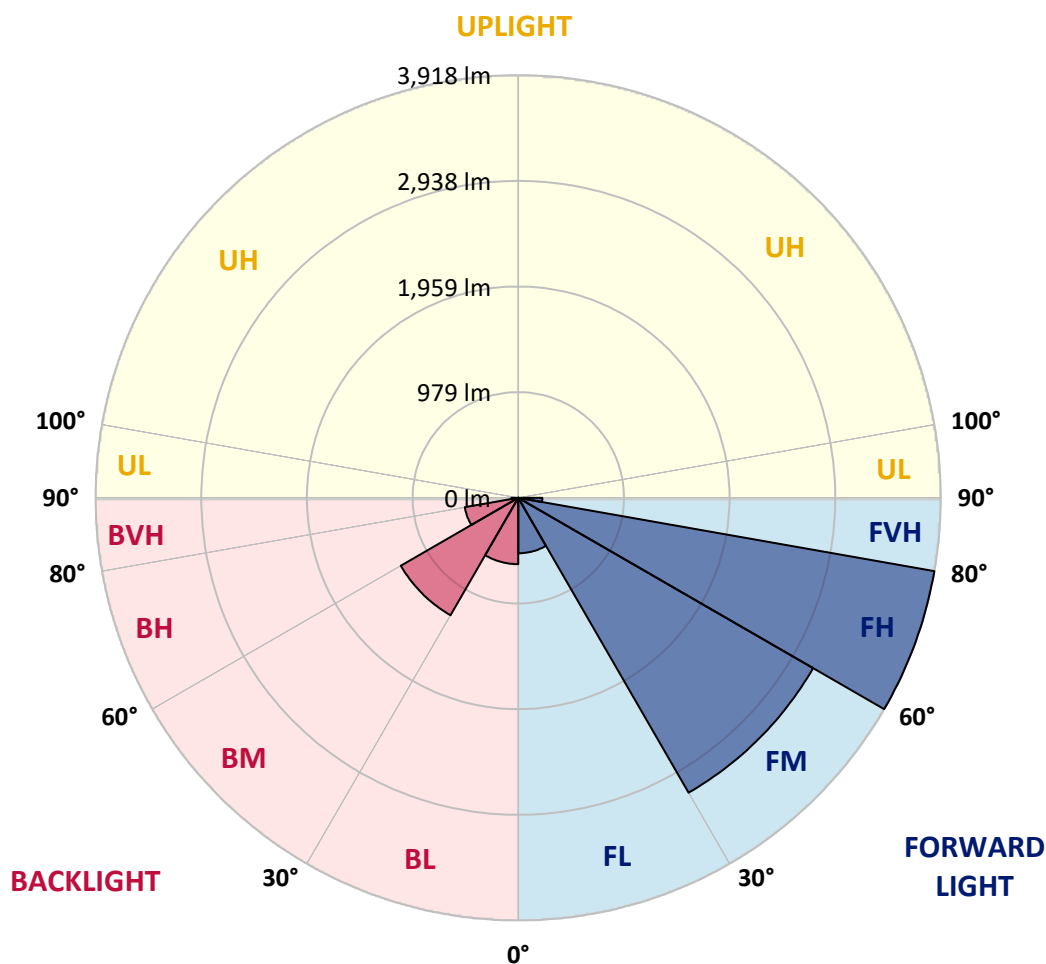
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	514.1	5.0			
FM	(30°-60°)	3156.8	30.8			
FH	(60°-80°)	3917.8	38.2			G2/5000
FVH	(80°-90°)	222.9	2.2			G2/225
BL	(0°-30°)	614.8	6.0	B2/1000		
BM	(30°-60°)	1257.0	12.3	B2/2500		
BH	(60°-80°)	503.0	4.9	B2/1000		G2/1000
BVH	(80°-90°)	64.8	0.6			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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0
2.5°	1259.6	1267.4	1270.7	1269.1	1277.4	1276.2	1287.9	1302.3	1322.2	1341.6	1369.9
5°	1162.7	1171.0	1178.1	1184.8	1200.9	1205.9	1224.2	1251.8	1288.4	1325.5	1372.1
7.5°	1072.4	1079.5	1090.6	1102.8	1130.0	1135.0	1165.4	1208.7	1259.6	1313.9	1378.2
10°	998.7	1005.8	1017.4	1031.3	1065.1	1071.2	1110.0	1167.6	1234.1	1302.9	1384.9
12.5°	967.0	969.2	975.9	989.7	1019.2	1023.0	1065.7	1131.6	1209.2	1294.6	1394.8
15°	965.3	969.8	970.4	977.5	1001.9	1003.6	1042.9	1108.3	1193.7	1292.8	1409.8
17.5°	982.0	985.3	980.3	984.7	1005.2	1008.0	1039.0	1097.3	1188.7	1300.1	1435.3
20°	1026.3	1029.1	1014.1	1008.0	1023.0	1025.2	1055.6	1104.4	1193.7	1315.1	1470.2
22.5°	1120.5	1122.2	1085.6	1060.7	1061.8	1062.9	1089.5	1133.9	1213.1	1342.2	1514.5
25°	1267.4	1266.3	1208.1	1159.9	1132.1	1126.1	1143.8	1181.5	1245.8	1378.2	1571.6
27.5°	1439.2	1430.9	1372.7	1300.6	1240.2	1231.3	1227.4	1243.5	1292.3	1425.9	1641.4
30°	1633.1	1625.3	1562.7	1468.5	1384.9	1370.4	1333.8	1325.5	1361.6	1490.7	1738.4
32.5°	1845.9	1840.9	1766.1	1652.0	1540.1	1523.4	1461.9	1439.7	1468.0	1588.7	1873.6
35°	2024.4	2020.0	1957.9	1840.4	1703.6	1683.0	1620.4	1595.4	1609.9	1714.6	2050.4
37.5°	2185.6	2183.5	2130.3	2037.7	1896.4	1871.4	1801.0	1792.7	1790.0	1880.3	2264.8
40°	2335.3	2329.7	2274.3	2225.5	2120.8	2098.1	2036.0	2028.8	2007.8	2084.2	2507.6
42.5°	2501.0	2486.5	2406.2	2383.4	2355.2	2336.4	2299.3	2300.3	2253.8	2314.2	2764.7
45°	2636.2	2627.9	2545.3	2532.0	2562.5	2554.7	2586.9	2595.2	2504.8	2555.2	3031.8
47.5°	2781.3	2773.6	2703.7	2694.3	2776.9	2779.2	2892.8	2895.5	2749.8	2805.7	3299.5
50°	2960.3	2949.2	2880.0	2891.6	2984.2	2992.5	3200.4	3181.5	2975.3	3060.1	3565.0
52.5°	3078.4	3085.0	3070.1	3088.9	3215.2	3223.0	3502.8	3454.7	3198.6	3311.2	3825.4
55°	3165.4	3178.7	3225.3	3268.5	3459.1	3466.9	3788.3	3714.6	3383.7	3543.9	4070.4
57.5°	3277.3	3258.5	3345.5	3429.8	3690.7	3711.2	4065.9	3965.0	3547.7	3744.5	4238.3
60°	3438.1	3424.7	3492.4	3617.0	3950.0	3982.7	4359.6	4190.6	3668.1	3903.5	4271.0
62.5°	3763.9	3730.7	3741.1	3851.4	4277.0	4320.3	4691.0	4387.3	3727.8	3965.6	4095.8
65°	4251.0	4193.9	4140.7	4217.2	4737.5	4780.2	5065.0	4542.0	3705.7	3845.4	3630.9
67.5°	4864.4	4808.0	4742.6	4814.6	5415.9	5449.6	5526.7	4628.9	3531.1	3382.1	2809.1
70°	5370.4	5349.4	5427.5	5724.0	6499.2	6500.3	6118.5	4556.9	3052.9	2397.9	1625.3
72.5°	5303.3	5290.6	5702.4	6618.9	7864.7	7835.3	6678.8	4011.6	2056.6	1081.7	609.1
75°	4350.7	4433.3	5071.2	6602.8	8355.2	8351.3	6335.7	2550.3	850.6	448.3	314.8
77.5°	2333.0	2463.8	3292.3	4875.0	6522.5	6620.6	4454.3	892.2	365.2	287.1	217.8
80°	760.9	875.0	1312.3	2482.1	4238.3	4219.9	1909.1	350.2	249.9	203.4	150.8
82.5°	323.1	336.4	586.3	1172.1	2175.0	2141.3	607.9	201.2	175.7	139.1	93.1
85°	126.4	141.3	258.8	542.0	942.1	921.6	219.5	99.7	112.5	90.9	55.5
87.5°	41.5	50.4	92.6	185.6	293.2	282.6	53.7	34.3	48.8	41.5	20.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0	1366.0
2.5°	1377.7	1386.5	1397.1	1412.6	1425.9	1436.9	1448.6	1455.8	1458.6	1466.9	1466.4
5°	1387.6	1407.0	1433.1	1458.6	1483.5	1498.4	1511.8	1518.4	1524.5	1529.0	1530.0
7.5°	1404.2	1429.2	1470.2	1503.5	1524.5	1536.7	1545.6	1543.3	1545.6	1546.7	1548.4
10°	1418.7	1453.6	1502.3	1533.9	1550.0	1550.5	1548.4	1540.6	1536.7	1537.3	1538.3
12.5°	1435.8	1474.7	1527.2	1553.9	1558.3	1546.1	1536.7	1523.4	1518.4	1516.2	1515.1
15°	1459.1	1503.5	1554.4	1564.5	1553.3	1537.8	1521.7	1500.1	1489.0	1480.2	1483.0
17.5°	1487.4	1536.2	1575.5	1568.2	1544.5	1518.9	1492.9	1460.2	1437.5	1428.1	1428.6
20°	1526.7	1570.5	1591.5	1559.9	1524.0	1485.1	1440.8	1401.0	1379.9	1370.4	1369.3
22.5°	1574.4	1616.5	1607.1	1545.6	1494.6	1432.5	1377.1	1347.8	1337.2	1330.6	1331.7
25°	1631.5	1667.5	1618.2	1524.5	1446.4	1362.7	1320.0	1310.6	1305.6	1300.6	1300.6
27.5°	1705.7	1725.1	1626.5	1493.5	1371.0	1288.4	1272.9	1274.6	1272.9	1264.6	1266.3
30°	1803.8	1799.9	1634.3	1443.1	1284.5	1221.4	1222.5	1229.7	1230.8	1225.3	1228.1
32.5°	1932.9	1893.6	1638.2	1377.7	1202.0	1162.7	1163.8	1171.5	1177.0	1167.6	1172.1
35°	2089.2	2002.7	1632.0	1295.6	1138.3	1106.7	1098.4	1100.5	1102.3	1093.4	1099.4
37.5°	2271.5	2125.2	1604.8	1204.8	1085.6	1051.9	1034.1	1019.2	1010.2	1001.9	1007.5
40°	2471.6	2258.8	1555.0	1116.1	1026.8	993.6	967.0	938.8	908.9	897.8	902.7
42.5°	2681.1	2396.2	1494.6	1031.3	959.3	932.1	903.8	862.8	817.9	795.2	798.0
45°	2898.3	2537.0	1435.3	947.6	890.0	878.3	845.6	796.3	747.5	718.7	716.6
47.5°	3111.1	2669.9	1348.3	863.4	825.1	837.9	812.4	767.0	712.7	667.2	662.3
50°	3314.4	2794.7	1205.9	778.1	772.5	825.7	801.3	735.9	673.8	615.7	610.7
52.5°	3516.2	2895.5	1023.6	700.5	744.3	822.4	786.9	714.8	639.0	578.0	571.3
55°	3687.4	2947.6	847.9	634.0	703.3	794.2	769.8	689.9	589.7	524.8	519.3
57.5°	3784.9	2905.5	701.6	568.6	646.7	747.5	740.4	636.7	530.8	481.0	474.4
60°	3742.8	2734.8	581.9	511.5	593.0	697.1	689.4	584.0	486.0	438.9	432.2
62.5°	3510.6	2409.5	487.1	461.7	544.2	645.6	638.4	543.7	451.6	406.2	399.0
65°	3042.9	1960.1	413.4	420.0	494.9	583.5	594.1	509.8	424.5	380.2	373.0
67.5°	2320.8	1419.7	355.8	384.1	446.7	522.5	553.1	485.4	401.8	359.7	353.0
70°	1322.8	806.3	307.0	349.1	404.0	466.1	521.5	466.1	377.4	342.5	338.0
72.5°	501.5	370.2	265.5	314.2	363.0	418.4	486.6	435.6	349.1	323.1	318.7
75°	267.6	225.5	223.3	273.2	315.9	371.9	442.8	405.7	328.1	341.3	352.5
77.5°	182.3	159.6	186.8	233.9	264.3	320.3	396.3	360.2	284.3	283.2	261.0
80°	126.4	113.1	151.8	188.4	204.5	269.4	345.8	309.2	231.6	216.2	206.7
82.5°	76.0	73.7	113.6	140.7	144.6	207.8	286.5	259.3	189.5	165.1	166.3
85°	41.5	43.8	72.6	82.6	84.3	145.2	224.5	200.6	145.8	122.5	123.6
87.5°	11.7	15.0	26.6	32.7	40.5	75.3	133.6	119.1	73.2	50.9	50.9
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)