

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: P964073

Luminaire Tested: **NAV-SB3B-740-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964073
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-SB3B-740-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18661.2 lumens
Efficiency: N/A
Efficacy: 170.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 109.2
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

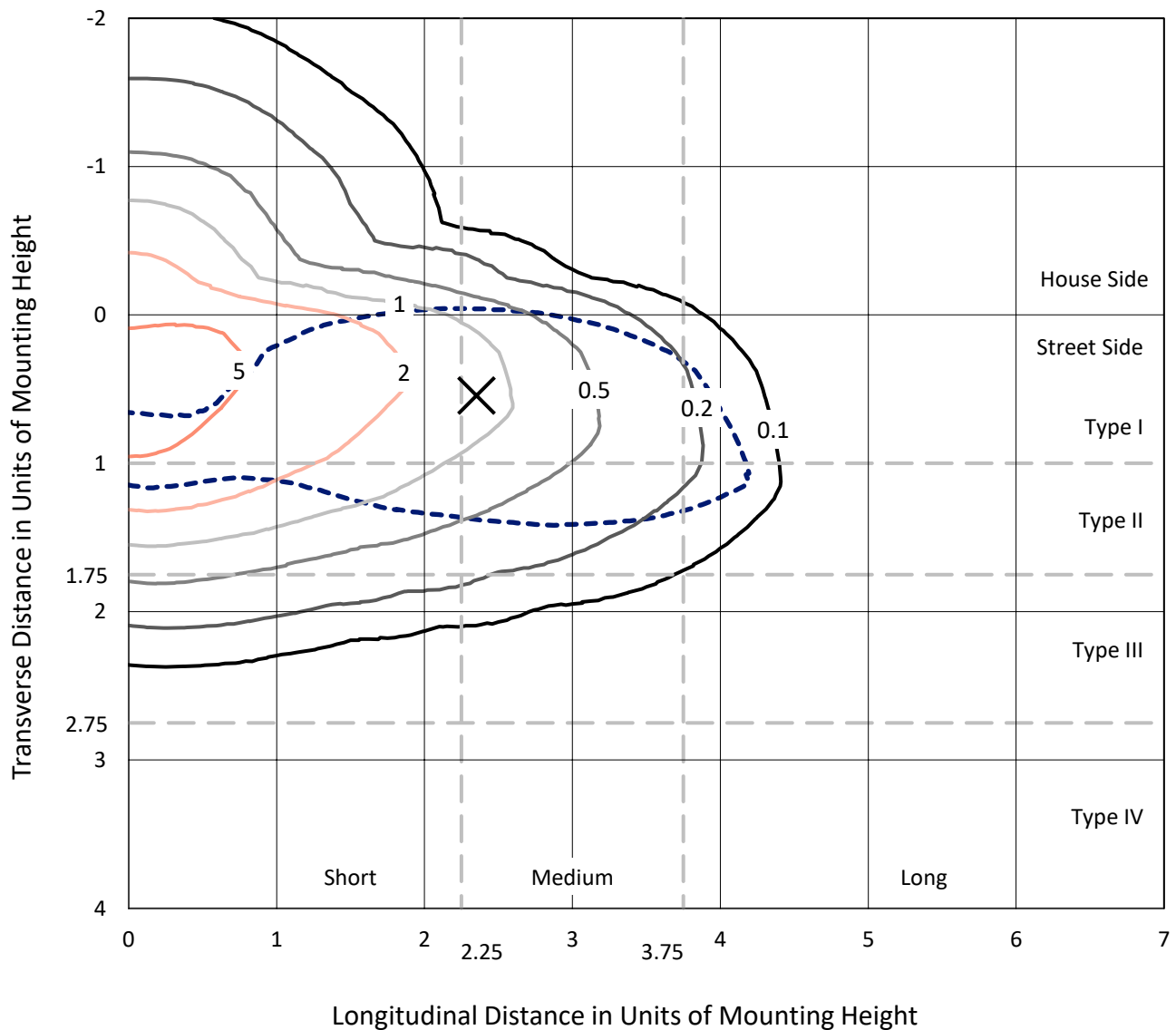


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Iso-Footcandle Lines of Horizontal Illumination

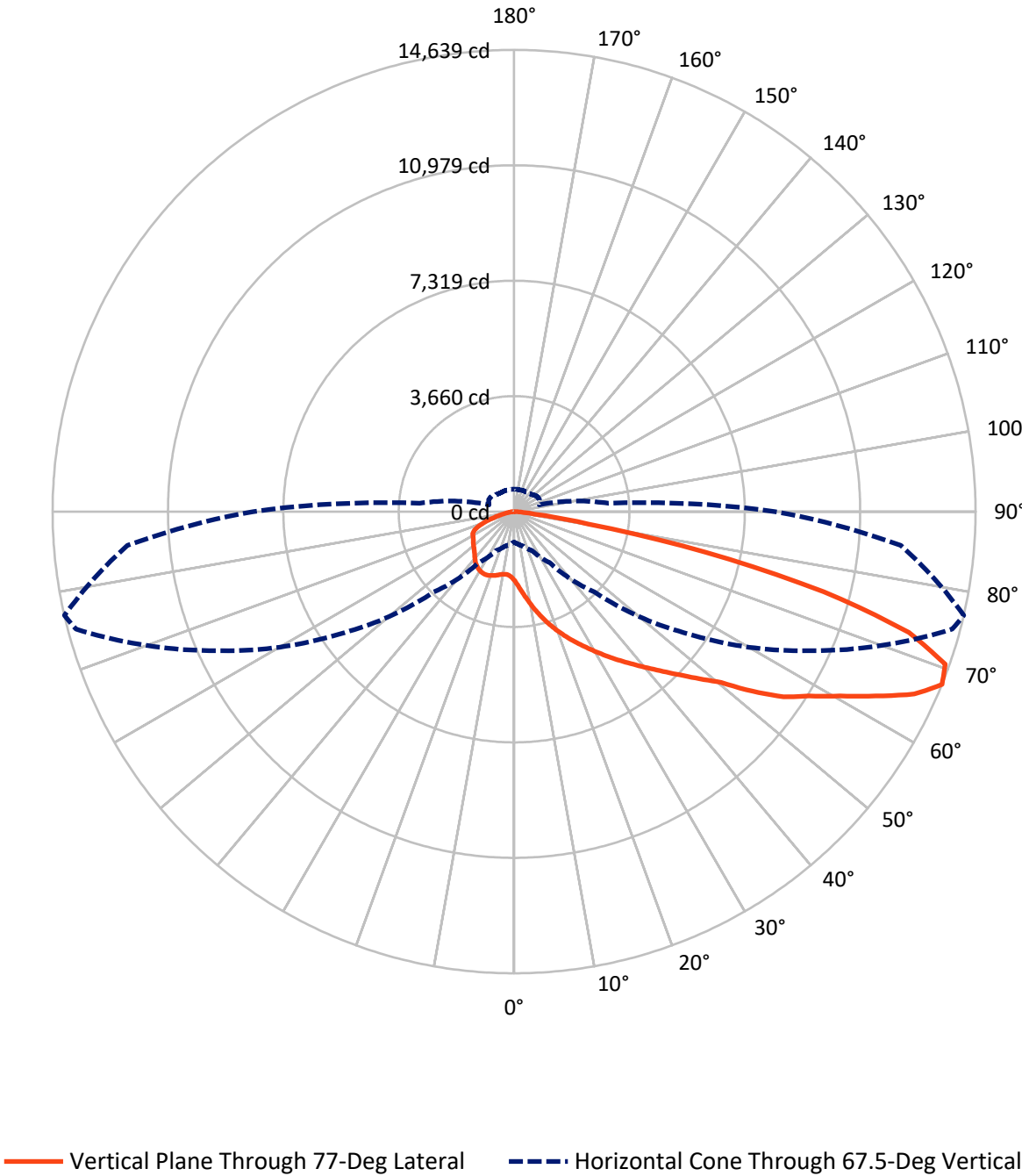
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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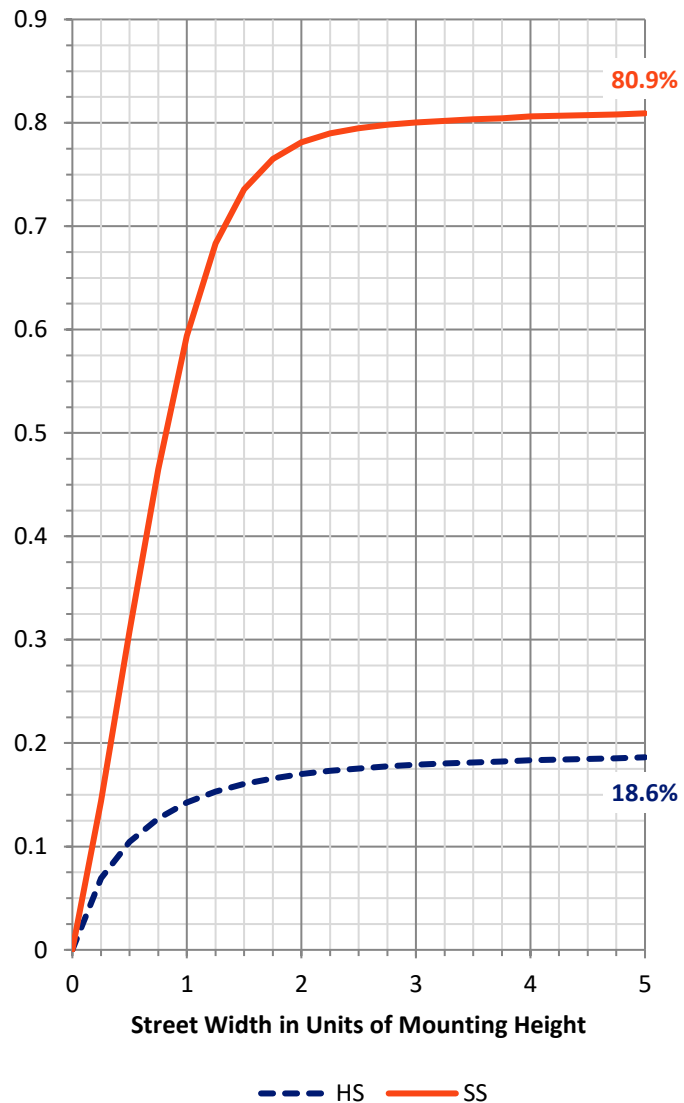
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3529.9	0.0	3529.9
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	15131.2	0.0	15131.2
	% Fixture	81.1	0.0	81.1
Total	Lumens	18661.2	0.0	18661.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.7	1.3
10°-20°	843.1	4.5
20°-30°	1591.9	8.5
30°-40°	2564.6	13.7
40°-50°	3507.9	18.8
50°-60°	3956.9	21.2
60°-70°	3693.3	19.8
70°-80°	2024.5	10.8
80°-90°	244.2	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°	18661.2	100.0
0°-180°	18661.2	100.0

Coefficient of Utilization



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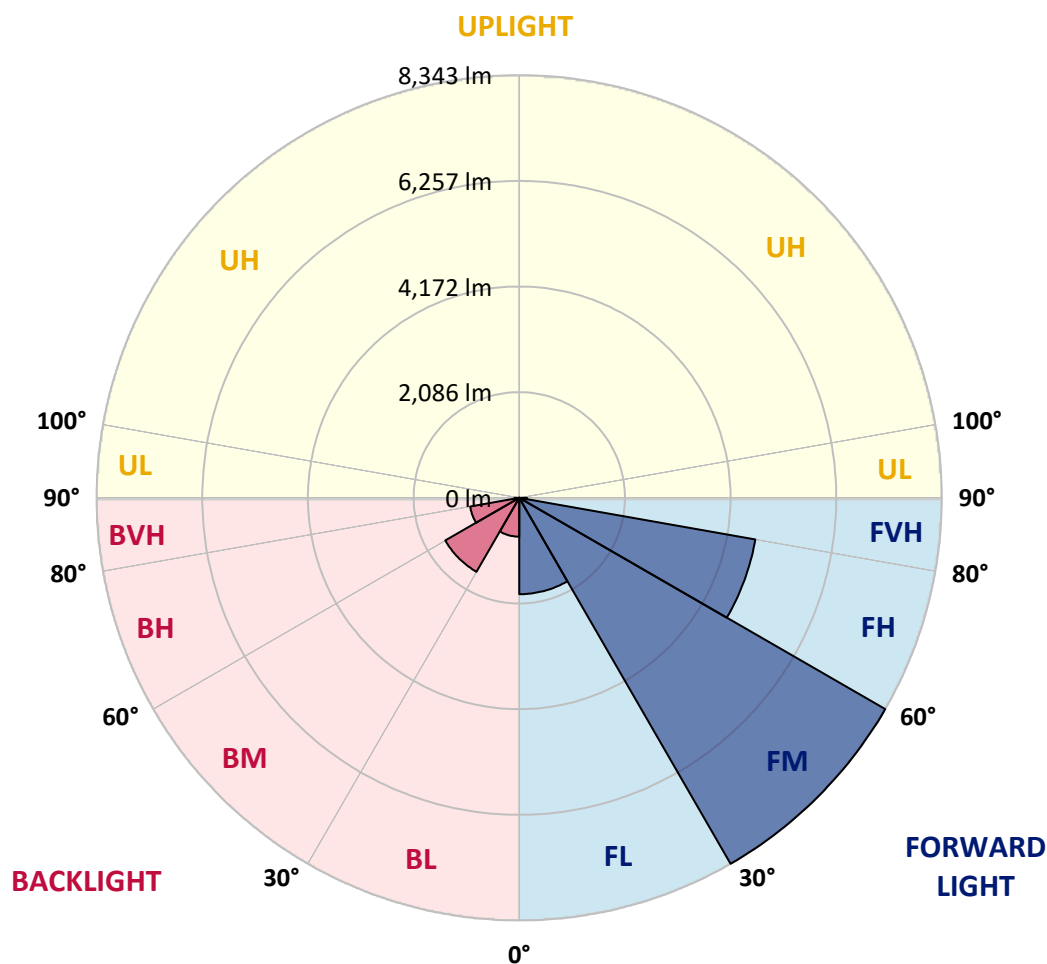
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1902.3	10.2			
FM	(30°-60°)	8343.2	44.7			
FH	(60°-80°)	4733.0	25.4			G2/5000
FVH	(80°-90°)	152.7	0.8			G2/225
BL	(0°-30°)	767.5	4.1	B2/1000		
BM	(30°-60°)	1686.2	9.0	B2/2500		
BH	(60°-80°)	984.8	5.3	B2/1000		G2/1000
BVH	(80°-90°)	91.5	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°	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5
2.5°	2741.5	2760.7	2736.6	2736.6	2655.8	2613.3	2532.5	2470.8	2360.1	2340.8	2267.6
5°	3240.4	3264.5	3230.8	3216.3	3121.0	3033.4	2897.6	2763.6	2566.2	2545.9	2373.5
7.5°	3626.8	3657.6	3627.7	3612.3	3527.5	3429.2	3270.4	3083.4	2805.1	2765.6	2516.1
10°	3941.7	3946.6	3936.9	3942.7	3876.2	3795.3	3632.5	3414.8	3067.1	3013.1	2688.5
12.5°	4120.0	4142.1	4161.4	4196.0	4184.5	4134.4	3988.0	3727.9	3344.5	3275.2	2876.4
15°	4203.7	4242.3	4285.6	4365.6	4430.2	4442.7	4330.9	4064.0	3626.8	3542.9	3066.1
17.5°	4233.7	4270.3	4338.6	4454.2	4592.9	4686.3	4636.3	4390.6	3906.1	3809.7	3265.5
20°	4384.8	4395.4	4436.8	4546.7	4697.0	4852.0	4889.6	4704.6	4182.5	4073.7	3471.7
22.5°	4708.5	4687.3	4698.9	4748.9	4856.9	5007.1	5092.8	4982.1	4466.7	4341.5	3679.7
25°	5243.1	5181.5	5119.9	5062.1	5116.9	5201.7	5299.0	5259.5	4764.4	4605.4	3889.7
27.5°	5918.3	5843.2	5707.4	5517.7	5451.2	5481.1	5524.4	5516.7	5039.9	4879.0	4106.5
30°	6583.1	6495.4	6333.6	6059.0	5883.7	5804.7	5772.0	5749.8	5339.4	5167.9	4325.1
32.5°	7113.8	7044.4	6885.5	6578.2	6323.9	6189.1	6080.2	6001.3	5652.6	5481.1	4556.3
35°	7578.1	7513.6	7331.5	6996.3	6719.8	6576.3	6433.7	6265.2	5978.1	5804.7	4804.8
37.5°	8002.0	7937.4	7687.9	7339.2	7060.8	6961.6	6834.5	6548.4	6304.7	6140.9	5067.8
40°	8269.7	8255.3	8022.2	7627.2	7338.3	7289.1	7246.7	6876.8	6666.8	6514.7	5356.8
42.5°	8338.2	8369.9	8184.9	7860.3	7584.9	7545.3	7644.6	7248.7	7073.3	6927.9	5684.3
45°	8173.5	8264.9	8143.5	7922.9	7760.2	7739.0	7997.2	7655.2	7523.2	7390.2	6079.3
47.5°	7756.3	7911.4	7861.3	7830.5	7807.4	7898.9	8307.3	8086.7	8032.8	7917.2	6530.1
50°	6914.4	7208.2	7295.8	7490.5	7713.9	8023.2	8589.6	8557.7	8628.0	8511.5	7079.2
52.5°	5458.9	5863.5	6372.1	6859.5	7426.8	7981.8	8899.8	9234.0	9530.7	9467.1	7951.8
55°	4506.2	4688.2	5079.4	5973.3	6870.1	7807.4	9039.4	9780.1	10426.5	10369.7	8613.7
57.5°	3774.2	3936.9	4177.7	4924.3	6028.2	7411.5	9126.1	10113.5	11040.2	11034.3	9266.7
60°	2989.1	3161.5	3408.1	3936.9	5044.6	6727.6	9106.8	10493.0	11823.3	11871.4	10063.3
62.5°	2102.8	2292.6	2566.2	3059.4	4040.0	5841.4	8713.8	10767.5	12745.2	12876.2	11021.8
65°	1382.3	1507.6	1713.7	2139.5	3010.2	4701.8	7963.4	10803.2	13731.5	13953.1	11921.6
67.5°	969.0	1017.2	1138.6	1369.8	1984.4	3605.5	6768.0	10434.2	14389.5	14638.9	12311.7
70°	756.1	780.2	841.9	934.4	1246.5	2424.5	5186.3	9474.8	14248.8	14508.9	11904.2
72.5°	653.1	676.2	699.4	710.9	836.1	1496.9	3513.1	7922.0	12924.3	13100.6	10350.4
75°	592.4	598.2	617.5	613.6	637.7	971.0	2027.7	5772.0	10197.3	10136.5	7640.8
77.5°	498.0	505.7	537.5	532.7	566.4	663.7	1052.9	3725.0	6610.9	6198.7	4252.8
80°	421.9	425.8	460.4	454.7	492.2	480.7	537.5	1898.6	2804.1	2375.4	1226.2
82.5°	146.4	181.1	351.6	362.2	375.7	290.9	310.2	774.5	856.4	656.0	257.2
85°	71.2	76.1	179.2	254.3	253.4	146.4	151.2	276.4	269.7	212.0	85.7
87.5°	11.6	14.5	21.2	99.2	79.0	38.5	52.0	53.9	55.9	48.2	19.3
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°	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5
2.5°	2213.6	2165.4	2064.4	1970.9	1897.7	1827.4	1787.8	1754.1	1734.9	1731.0	1731.0
5°	2273.3	2174.1	1990.1	1835.1	1733.9	1658.8	1619.3	1594.2	1581.7	1574.0	1573.1
7.5°	2359.0	2213.6	1951.6	1775.3	1669.3	1615.4	1595.2	1591.3	1590.4	1591.3	1594.2
10°	2477.5	2278.2	1947.7	1760.8	1672.3	1642.4	1641.4	1642.4	1646.3	1647.2	1648.2
12.5°	2605.7	2344.6	1963.2	1773.4	1708.9	1692.5	1689.6	1688.6	1691.6	1693.4	1694.4
15°	2745.4	2432.3	1989.2	1800.4	1749.3	1731.9	1729.1	1723.3	1722.3	1721.4	1720.5
17.5°	2888.9	2518.9	2018.0	1829.3	1775.3	1751.2	1740.7	1727.1	1716.6	1713.7	1716.6
20°	3034.3	2604.7	2038.3	1843.7	1777.2	1743.5	1722.3	1699.2	1680.9	1670.3	1674.1
22.5°	3189.4	2694.3	2050.8	1839.9	1759.9	1713.7	1675.2	1648.2	1620.2	1602.0	1602.9
25°	3340.7	2772.3	2049.9	1819.7	1726.2	1667.5	1618.3	1583.6	1545.1	1525.8	1525.8
27.5°	3486.1	2842.6	2025.8	1784.0	1678.0	1612.5	1553.8	1512.4	1474.8	1456.5	1455.5
30°	3636.4	2901.4	1988.2	1731.9	1621.2	1549.0	1484.4	1448.7	1415.0	1397.7	1396.8
32.5°	3785.7	2955.4	1935.2	1667.5	1555.7	1486.4	1422.8	1390.0	1369.8	1369.8	1370.7
35°	3943.7	2992.9	1864.9	1592.3	1486.4	1419.8	1369.8	1350.5	1348.6	1337.0	1334.1
37.5°	4110.4	3017.0	1779.2	1515.3	1418.0	1355.4	1339.9	1316.8	1297.5	1272.5	1268.6
40°	4285.6	3041.1	1676.1	1435.3	1345.7	1311.0	1304.3	1273.5	1218.5	1156.9	1148.2
42.5°	4498.5	3057.5	1569.2	1355.4	1269.6	1258.1	1267.7	1214.7	1127.0	1080.8	1081.8
45°	4745.1	3084.4	1471.0	1276.3	1191.6	1191.6	1232.0	1162.7	1090.4	1061.5	1066.3
47.5°	5064.9	3147.1	1379.4	1189.6	1119.3	1138.6	1153.0	1100.0	1059.6	1024.0	1023.1
50°	5527.3	3297.3	1285.0	1102.0	1064.5	1103.0	1082.7	1051.9	1004.7	975.8	972.9
52.5°	6101.4	3385.9	1201.2	1023.1	1017.2	1055.8	1026.8	997.9	962.3	923.8	916.0
55°	6492.5	3402.3	1130.9	965.2	985.4	981.5	971.0	944.9	925.7	874.6	875.7
57.5°	6929.8	3435.1	1073.1	930.5	965.2	922.8	919.0	896.8	871.8	837.1	825.5
60°	7452.9	3486.1	1023.1	917.1	947.8	884.3	865.0	856.4	831.3	814.0	818.8
62.5°	8023.2	3532.4	971.9	919.0	927.6	846.8	817.8	815.0	799.5	793.8	793.8
65°	8412.3	3406.2	908.4	917.1	895.8	808.2	771.6	770.6	758.1	756.1	755.2
67.5°	8276.5	3006.4	822.7	890.1	863.0	769.7	729.2	725.4	709.0	709.9	709.9
70°	7596.4	2436.1	704.2	823.6	822.7	735.0	684.9	672.4	650.3	654.1	657.9
72.5°	6321.1	1805.2	545.2	712.8	758.1	703.2	633.9	613.6	585.7	589.5	588.6
75°	4564.9	1227.2	396.9	542.3	659.9	665.6	583.7	549.1	515.4	521.1	523.1
77.5°	2336.0	695.5	291.9	373.7	518.2	605.0	538.4	492.2	484.5	538.4	530.7
80°	762.0	348.7	202.3	262.0	340.0	495.1	472.0	419.0	417.1	429.6	368.9
82.5°	227.3	147.4	130.1	172.4	187.9	379.6	407.4	316.9	272.6	287.1	296.7
85°	78.0	71.2	74.2	85.7	89.6	222.5	285.2	210.0	198.4	218.6	215.8
87.5°	18.3	25.0	21.2	19.3	19.3	53.9	110.8	87.6	121.4	80.9	78.0
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)