

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: P962066

Luminaire Tested: **NAV-SB2B-827-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962066
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7599.4 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - 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



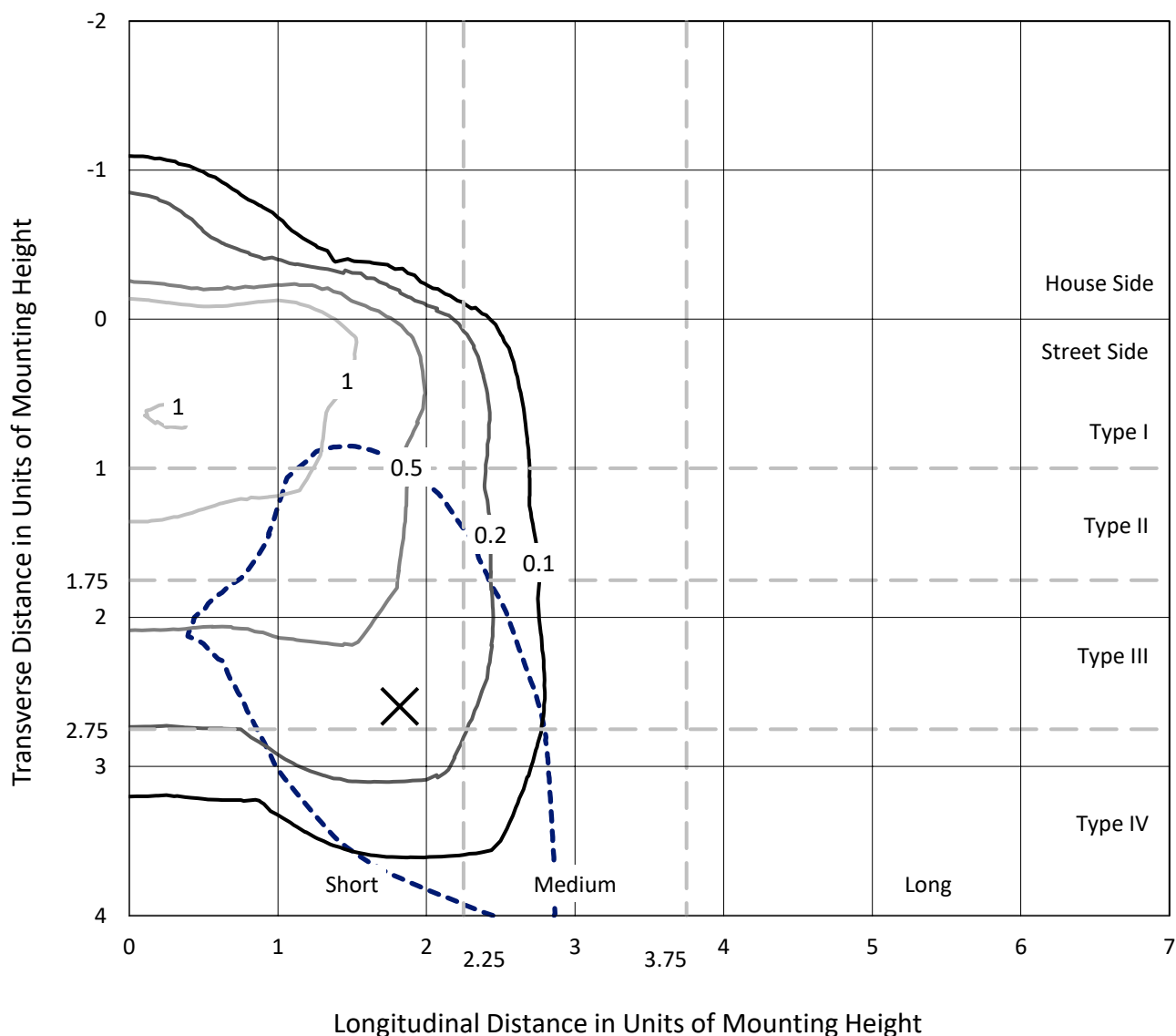
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

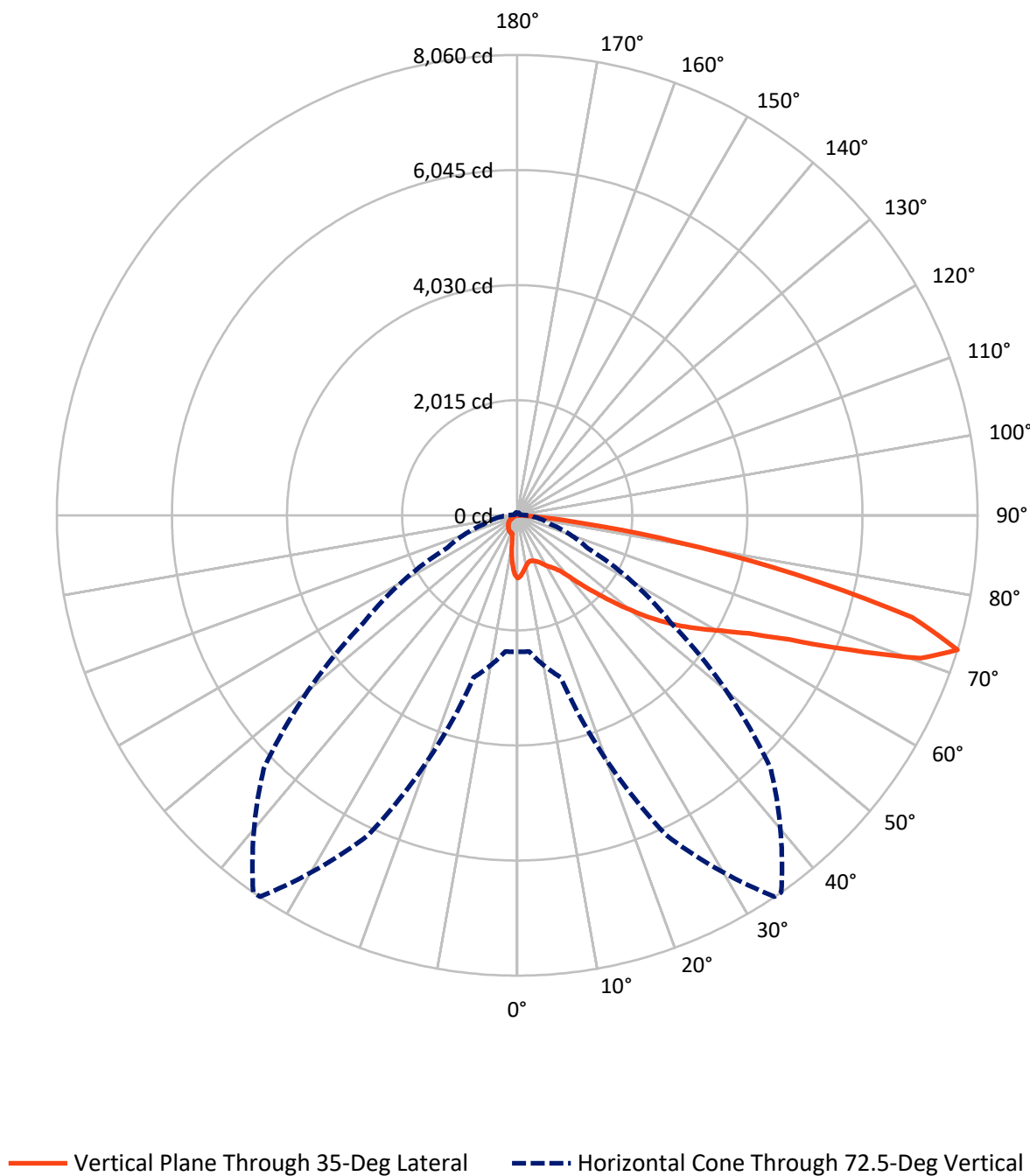


Based on 25 foot mounting height. Maximum calculated value = 1.8 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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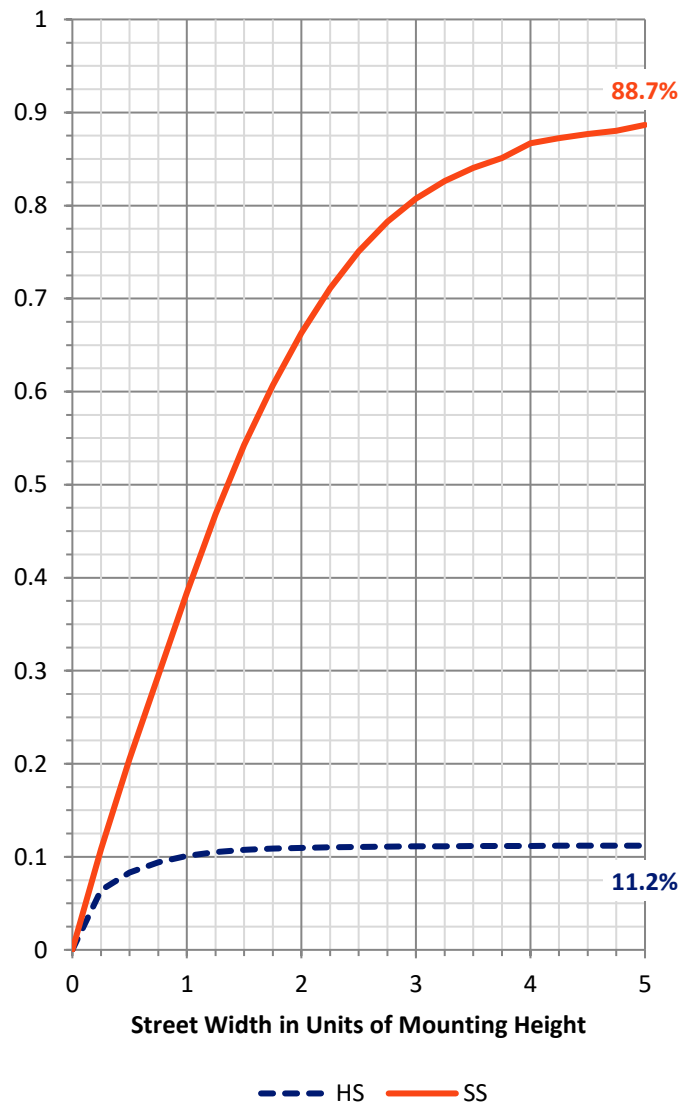
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	855.3	0.0	855.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	6744.1	0.0	6744.1
	% Fixture	88.7	0.0	88.7
Total	Lumens	7599.4	0.0	7599.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	1.2
10°-20°	211.7	2.8
20°-30°	343.9	4.5
30°-40°	573.9	7.6
40°-50°	1085.8	14.3
50°-60°	1725.3	22.7
60°-70°	2134.3	28.1
70°-80°	1326.7	17.5
80°-90°	107.2	1.4
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°	7599.4	100.0
0°-180°	7599.4	100.0

Coefficient of Utilization



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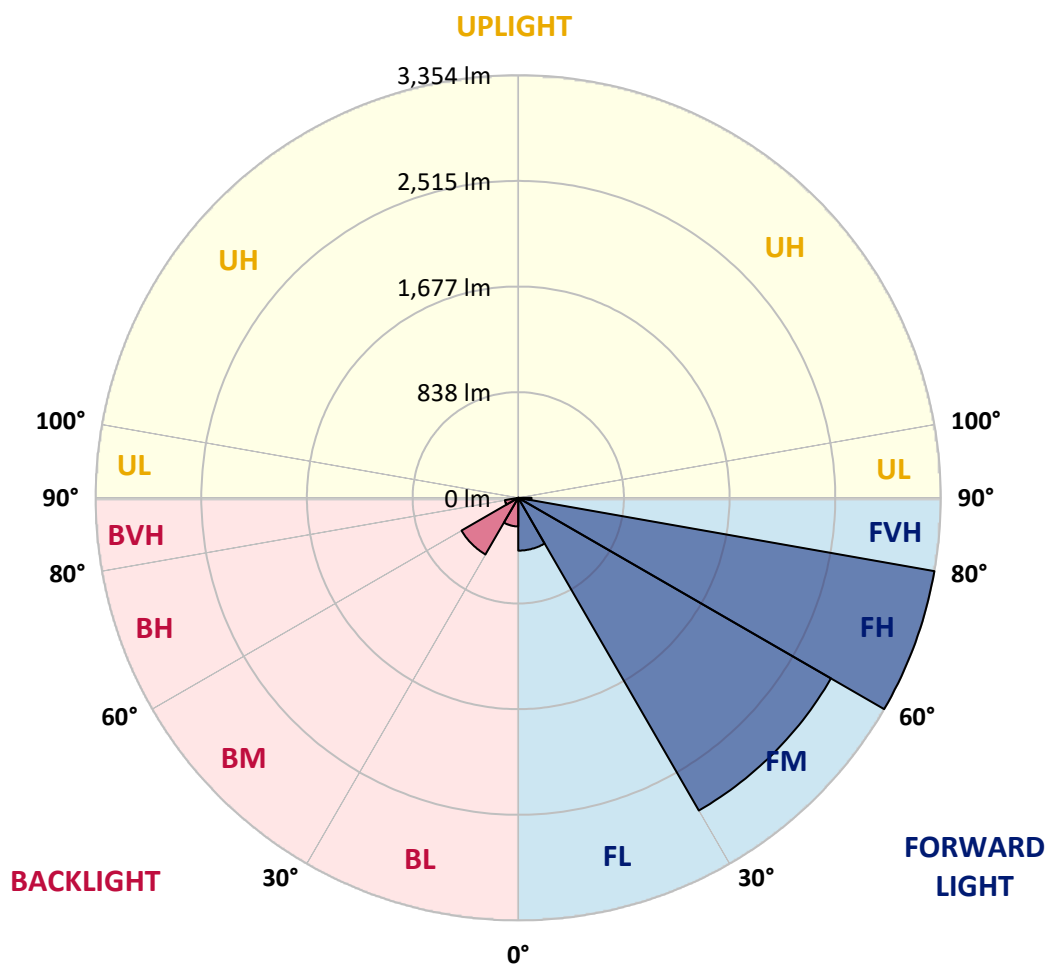
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	418.9	5.5			
FM	(30°-60°)	2865.7	37.7			
FH	(60°-80°)	3353.7	44.1			G2/5000
FVH	(80°-90°)	105.8	1.4			G2/225
BL	(0°-30°)	227.3	3.0	B1/500		
BM	(30°-60°)	519.2	6.8	B1/1000		
BH	(60°-80°)	107.3	1.4	B0/110		G0/110
BVH	(80°-90°)	1.5	0.0			G0/10
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°	34°	35°	45°	55°	65°	75°	85°
0°	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4
2.5°	1052.4	1061.3	1063.0	1065.8	1065.8	1069.1	1074.7	1082.5	1095.3	1102.0	1106.4
5°	970.0	976.7	985.0	991.7	1004.5	1006.1	1027.9	1049.1	1078.6	1100.8	1116.4
7.5°	887.0	894.8	906.0	922.1	938.8	943.8	976.7	1012.3	1059.1	1100.8	1127.0
10°	828.5	829.1	839.2	855.3	882.0	888.2	928.2	978.9	1037.4	1094.2	1137.0
12.5°	795.7	799.6	804.0	816.3	841.9	845.8	888.7	948.2	1015.7	1090.3	1148.7
15°	795.7	798.5	801.2	807.4	828.0	831.4	869.2	928.8	1004.5	1091.9	1167.7
17.5°	804.0	808.5	806.3	813.5	835.3	837.4	870.8	923.2	1004.0	1102.5	1196.6
20°	824.1	827.5	823.0	827.5	849.1	853.6	888.2	933.8	1013.4	1120.9	1232.8
22.5°	855.9	857.5	847.0	850.2	872.6	878.1	918.2	963.9	1036.3	1150.4	1281.2
25°	896.0	899.2	883.1	887.0	908.2	914.9	961.0	1009.0	1072.5	1191.0	1343.1
27.5°	942.2	943.8	929.9	929.4	956.6	966.1	1012.9	1064.7	1120.9	1242.3	1421.1
30°	995.1	1000.1	986.7	984.5	1019.0	1026.7	1073.0	1133.1	1192.2	1319.1	1531.9
32.5°	1036.8	1040.7	1032.9	1038.5	1073.6	1079.7	1145.9	1230.0	1304.1	1428.2	1682.7
35°	1097.0	1099.2	1081.4	1091.4	1131.5	1147.1	1245.6	1365.9	1444.9	1565.3	1879.8
37.5°	1314.7	1314.7	1238.9	1189.4	1227.8	1241.7	1382.0	1536.9	1618.7	1749.0	2128.2
40°	1615.9	1610.9	1500.1	1398.7	1393.7	1421.1	1576.3	1752.3	1843.1	1969.5	2407.7
42.5°	1937.1	1929.4	1778.5	1678.2	1661.5	1671.1	1800.8	2017.9	2110.4	2238.4	2708.4
45°	2222.3	2220.0	2082.0	1947.2	1917.2	1947.2	2080.9	2328.6	2394.9	2529.7	3008.5
47.5°	2461.1	2461.1	2360.4	2272.4	2256.8	2274.7	2460.1	2673.3	2667.2	2839.8	3300.9
50°	2736.2	2734.0	2638.2	2600.4	2616.5	2641.6	2896.6	3036.4	2948.9	3144.4	3562.0
52.5°	2928.9	2942.3	2909.5	2903.3	2985.7	3029.1	3339.9	3391.6	3201.2	3433.3	3757.4
55°	3081.5	3097.0	3135.0	3177.8	3336.5	3393.3	3769.1	3728.5	3412.2	3684.0	3869.9
57.5°	3297.5	3275.3	3333.7	3418.4	3675.0	3743.5	4185.1	4046.5	3582.1	3887.2	3882.2
60°	3559.8	3563.1	3573.2	3680.1	4013.1	4101.0	4595.0	4347.1	3691.2	4012.0	3746.3
62.5°	3874.9	3879.9	3900.5	4064.8	4466.8	4549.8	5031.5	4593.2	3741.4	3976.9	3395.5
65°	3853.3	3874.4	4104.4	4666.2	5156.8	5238.6	5540.9	4765.8	3665.6	3656.1	2764.6
67.5°	3510.2	3544.8	3929.5	5384.5	6196.9	6288.3	6156.9	4799.9	3338.7	2843.1	1803.6
70°	3060.3	3072.5	3535.3	6030.4	7401.3	7493.8	6708.1	4426.2	2533.6	1585.9	807.9
72.5°	2389.9	2392.7	2935.6	6180.2	8055.1	8060.1	6275.5	3285.8	1362.5	609.2	280.6
75°	1707.2	1690.5	1966.2	5011.9	7086.7	7143.5	4704.6	1541.3	520.6	287.9	139.8
77.5°	915.4	933.8	1112.5	2972.3	4895.6	4992.5	2567.0	444.3	265.1	196.0	92.5
80°	282.9	298.5	456.0	1360.9	2773.0	2831.5	951.6	197.7	184.9	139.8	60.7
82.5°	89.1	92.5	212.7	571.8	1151.0	1177.7	275.6	111.9	126.4	92.5	35.7
85°	25.6	26.1	94.7	213.3	284.5	290.1	77.4	43.5	72.4	57.4	18.3
87.5°	2.8	8.9	35.7	35.7	25.0	24.5	8.3	9.4	20.6	7.3	3.4
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°	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4	1101.4
2.5°	1103.6	1104.2	1097.0	1084.7	1071.3	1060.2	1046.3	1035.1	1027.4	1025.1	1029.0
5°	1111.4	1107.5	1086.9	1049.6	1005.1	966.7	923.7	889.8	867.6	858.0	861.4
7.5°	1123.1	1112.0	1066.9	993.3	908.2	832.5	755.6	696.1	658.2	639.2	642.1
10°	1133.1	1110.9	1033.5	912.0	781.8	667.1	563.5	491.7	451.6	432.7	433.2
12.5°	1142.6	1110.3	990.0	815.8	639.2	498.9	402.6	367.0	355.8	351.9	350.8
15°	1160.4	1112.0	935.5	705.5	497.2	377.0	341.9	341.3	343.6	342.5	341.9
17.5°	1184.9	1113.7	873.7	588.6	383.7	332.4	330.8	335.8	339.1	337.4	336.9
20°	1216.7	1120.3	807.9	472.7	329.6	321.3	325.2	329.6	332.4	329.6	329.1
22.5°	1261.2	1132.0	736.2	379.8	312.4	314.6	318.0	323.0	325.7	321.8	321.3
25°	1315.8	1150.4	665.4	330.2	304.0	306.8	311.8	317.3	320.7	316.8	316.3
27.5°	1386.5	1179.9	600.2	319.1	295.7	297.4	304.6	312.9	317.3	312.4	312.4
30°	1488.9	1228.4	544.0	324.1	290.7	286.8	296.7	308.5	313.4	309.0	308.5
32.5°	1624.8	1296.8	509.5	331.9	288.4	274.5	284.0	299.0	307.4	304.6	304.6
35°	1803.0	1401.0	496.1	340.8	286.8	261.7	268.3	284.5	299.0	301.8	301.8
37.5°	2019.0	1545.7	500.0	344.7	281.8	251.1	254.5	268.3	287.3	296.2	298.5
40°	2264.6	1714.4	522.3	340.8	276.1	242.2	242.8	253.4	270.1	283.4	287.9
42.5°	2518.0	1911.6	563.5	326.3	271.2	234.4	232.8	240.0	251.1	260.6	264.4
45°	2759.1	2114.3	604.1	306.3	265.1	226.6	222.7	225.5	227.8	231.6	233.9
47.5°	2969.5	2256.8	592.4	287.9	256.7	217.7	211.0	209.9	203.3	202.6	202.1
50°	3114.9	2288.0	526.2	269.5	244.5	207.7	197.1	190.4	178.8	173.1	173.7
52.5°	3161.1	2164.9	429.9	251.1	224.4	194.3	179.3	168.7	154.3	149.2	148.6
55°	3099.8	1923.8	343.6	228.9	196.6	176.5	159.8	145.9	134.2	128.0	128.0
57.5°	2950.1	1617.0	271.7	202.6	167.1	156.5	139.8	125.9	115.8	109.7	108.5
60°	2701.7	1284.0	214.9	171.5	142.6	134.8	117.5	108.5	99.6	92.5	90.7
62.5°	2324.7	916.6	168.7	135.9	119.2	110.3	100.2	93.6	82.9	73.0	71.2
65°	1814.1	560.7	130.3	99.6	95.7	91.3	85.2	79.0	66.2	56.3	54.5
67.5°	1144.3	265.6	93.0	75.1	75.7	73.5	70.7	65.7	56.3	47.4	46.2
70°	503.9	128.6	61.3	57.4	56.3	56.3	58.4	56.8	47.9	39.6	37.8
72.5°	171.5	69.1	45.6	43.5	40.7	40.1	49.0	47.4	38.4	30.6	28.9
75°	89.7	46.2	33.4	31.2	24.5	29.5	38.9	36.8	27.3	20.1	18.3
77.5°	58.4	32.9	22.9	20.1	13.9	19.5	28.9	25.6	16.2	10.0	8.9
80°	36.8	21.7	13.3	9.4	6.7	10.6	15.6	11.2	6.1	2.3	1.6
82.5°	19.5	11.2	5.0	3.4	2.8	3.4	3.9	2.8	1.1	0.0	0.0
85°	7.8	3.9	1.6	1.1	0.5	0.0	1.1	0.5	0.0	0.0	0.0
87.5°	2.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)