

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: P961536

Luminaire Tested: **NAV-SB2A-827-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961536
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-827-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6656.3 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 57.3
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

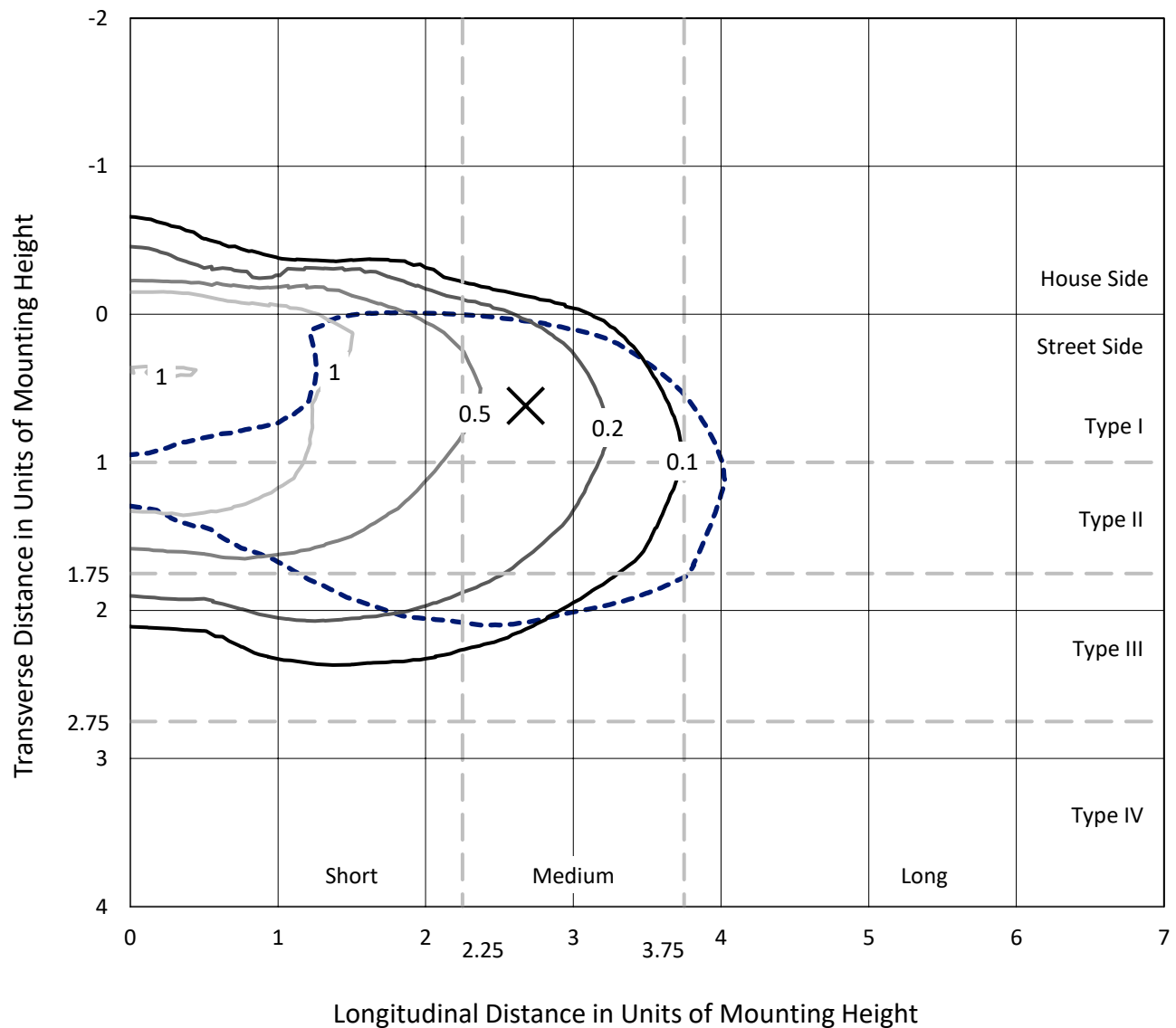


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Iso-Footcandle Lines of Horizontal Illumination

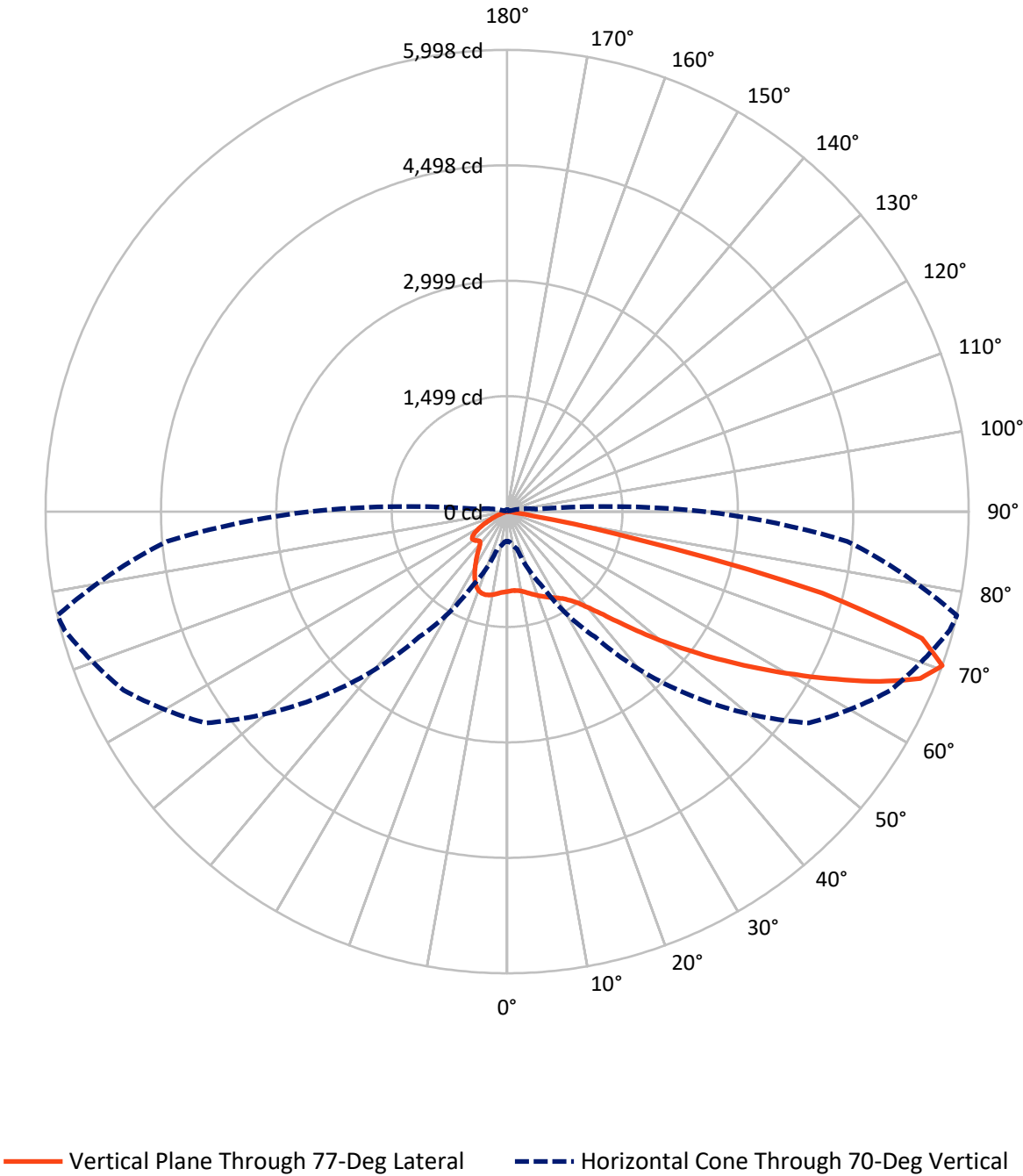
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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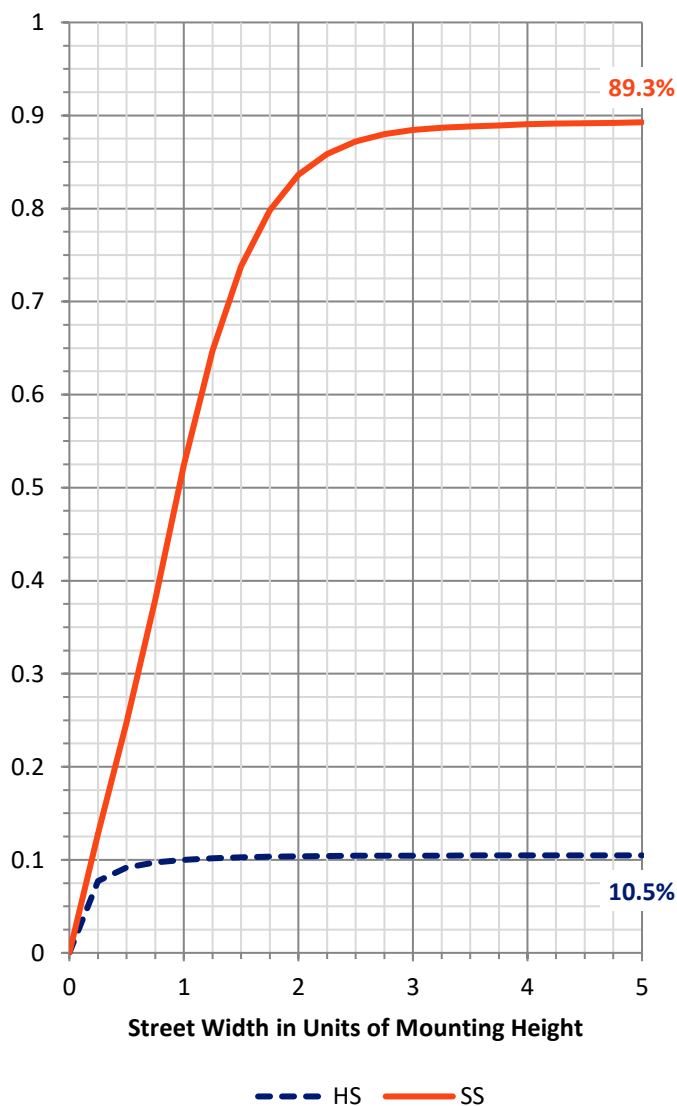
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	701.7	0.0	701.7
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	5954.7	0.0	5954.7
	% Fixture	89.5	0.0	89.5
Total	Lumens	6656.3	0.0	6656.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	1.3
10°-20°	212.4	3.2
20°-30°	328.6	4.9
30°-40°	596.2	9.0
40°-50°	1125.4	16.9
50°-60°	1626.1	24.4
60°-70°	1730.9	26.0
70°-80°	917.2	13.8
80°-90°	30.1	0.5
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°	6656.3	100.0
0°-180°	6656.3	100.0

Coefficient of Utilization



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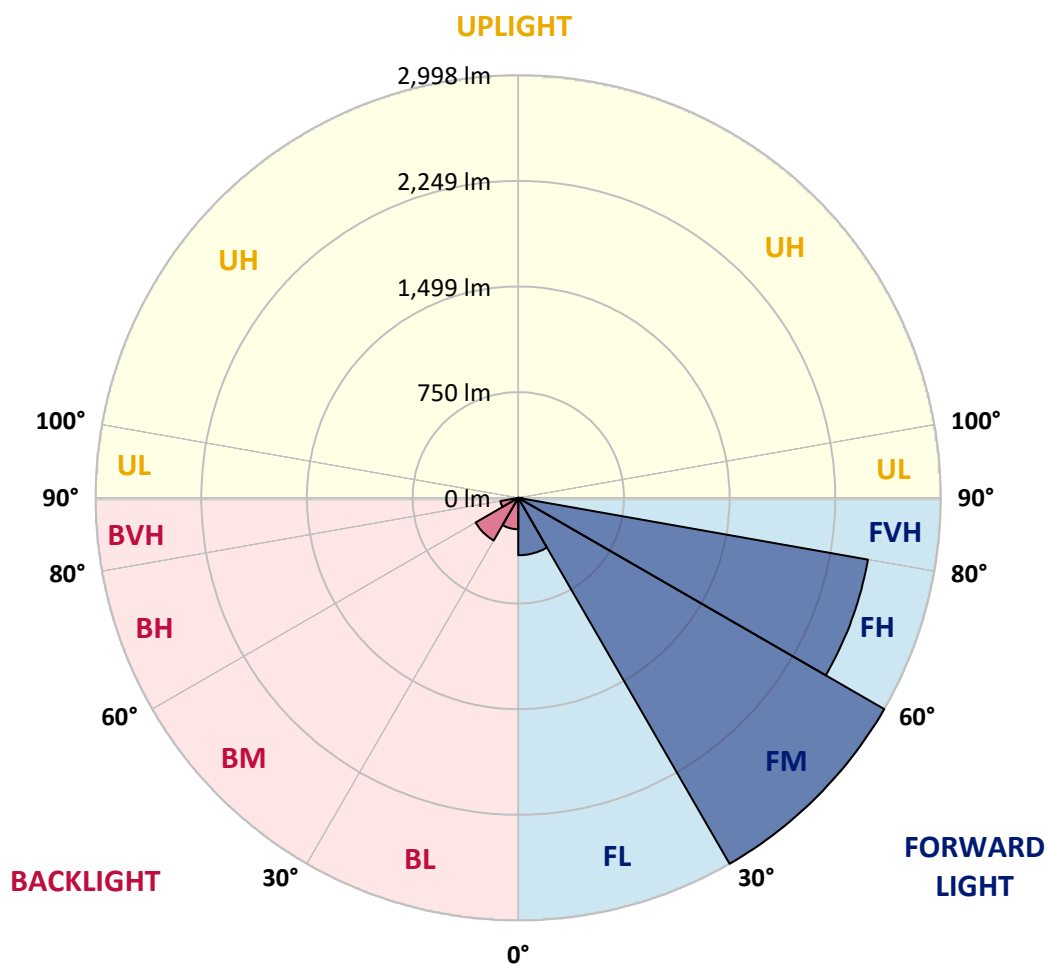
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	407.5	6.1			
FM	(30°-60°)	2998.3	45.0			
FH	(60°-80°)	2519.5	37.9			G2/5000
FVH	(80°-90°)	29.3	0.4			G1/100
BL	(0°-30°)	222.9	3.3	B1/500		
BM	(30°-60°)	349.3	5.2	B1/1000		
BH	(60°-80°)	128.6	1.9	B1/500		G1/500
BVH	(80°-90°)	0.8	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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2
2.5°	974.8	983.6	982.4	988.2	990.4	998.8	1007.2	1018.5	1031.1	1030.7	1039.1
5°	919.7	928.5	930.7	938.7	948.7	961.8	979.0	1001.7	1025.2	1029.0	1045.8
7.5°	854.5	863.9	869.3	885.3	903.7	930.7	958.8	992.0	1031.1	1036.6	1069.0
10°	789.5	797.9	804.9	827.7	857.1	897.1	942.9	990.8	1043.3	1051.3	1097.2
12.5°	749.1	757.1	765.1	784.8	821.3	870.1	932.3	996.6	1063.5	1074.8	1135.4
15°	734.8	741.9	748.2	765.9	799.9	855.5	930.3	1008.8	1089.2	1104.2	1181.6
17.5°	736.9	740.7	744.9	758.3	791.5	848.7	934.0	1029.8	1119.4	1132.8	1227.8
20°	749.1	751.1	751.6	760.9	790.3	847.9	941.6	1050.0	1148.0	1166.0	1273.7
22.5°	764.6	765.5	764.6	770.9	798.3	854.1	951.7	1074.4	1180.0	1196.8	1319.9
25°	837.3	821.3	801.2	789.0	811.7	866.3	966.8	1107.2	1214.8	1231.2	1364.9
27.5°	1063.0	1017.2	944.9	863.9	839.5	884.0	987.8	1140.4	1250.1	1264.8	1413.3
30°	1429.6	1369.5	1246.8	1063.9	928.5	921.0	1015.2	1173.6	1287.5	1303.5	1464.9
32.5°	1797.0	1782.3	1640.6	1387.5	1129.0	1003.4	1060.6	1218.6	1337.1	1349.7	1534.7
35°	2168.6	2138.8	2022.7	1772.6	1438.1	1171.1	1136.2	1277.5	1402.3	1416.6	1636.4
37.5°	2453.1	2435.1	2363.2	2157.2	1804.6	1430.1	1265.7	1368.7	1496.9	1512.8	1766.7
40°	2704.6	2696.2	2671.8	2536.0	2214.4	1768.8	1467.0	1509.9	1628.0	1647.0	1926.5
42.5°	2902.1	2921.9	2935.7	2897.9	2636.9	2155.6	1737.8	1708.3	1810.9	1830.2	2130.0
45°	3104.3	3111.0	3166.9	3221.6	3056.3	2559.9	2042.9	1940.7	2038.3	2062.3	2373.7
47.5°	3234.2	3261.1	3359.4	3455.7	3409.0	2960.9	2370.8	2215.2	2301.8	2346.8	2647.0
50°	3243.8	3294.8	3430.1	3597.7	3665.9	3342.6	2727.2	2528.0	2620.1	2669.6	2938.7
52.5°	3082.9	3161.9	3371.6	3617.1	3804.6	3665.9	3095.9	2840.8	2958.9	3023.5	3241.4
55°	2363.6	2467.1	3151.8	3512.1	3810.0	3911.0	3454.9	3166.5	3336.4	3409.5	3568.3
57.5°	2059.3	2111.4	2477.9	3329.6	3708.8	4009.7	3779.4	3476.7	3747.0	3837.8	3877.4
60°	1713.4	1781.9	2078.2	3031.1	3571.3	4019.4	4066.1	3877.0	4192.1	4294.3	4160.7
62.5°	1164.4	1238.8	1533.4	2518.3	3383.4	4014.8	4301.0	4288.8	4686.9	4796.6	4400.6
65°	721.3	768.0	962.2	2056.4	3120.7	4019.8	4547.0	4789.1	5209.0	5320.4	4586.5
67.5°	570.0	591.4	692.7	1578.8	2668.0	3906.4	4792.4	5259.5	5700.4	5788.7	4643.2
70°	382.9	396.0	504.0	1058.4	1984.9	3382.6	4787.8	5495.6	5953.4	5997.6	4436.4
72.5°	201.7	211.9	294.7	490.2	1198.8	2404.4	4035.8	5213.3	5701.7	5635.2	3792.0
75°	100.9	117.7	198.4	248.9	512.0	1340.9	2506.1	4110.2	4487.7	4230.4	2433.0
77.5°	76.5	92.5	163.9	163.9	178.2	451.4	1061.4	2241.8	2067.7	1721.8	714.2
80°	48.8	63.0	143.3	124.0	74.4	114.8	276.5	628.0	439.3	334.2	129.9
82.5°	28.6	41.2	119.4	82.0	41.6	42.4	78.2	133.7	113.9	88.7	40.0
85°	11.4	26.9	82.0	32.4	16.4	10.6	23.6	28.6	23.6	17.6	10.0
87.5°	0.0	6.4	14.2	0.0	1.2	0.8	1.6	2.2	2.2	1.6	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°	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2	1038.2
2.5°	1042.9	1043.8	1046.2	1046.6	1040.8	1033.2	1030.3	1029.0	1024.0	1023.6	1024.4
5°	1055.5	1059.3	1055.5	1044.6	1018.5	982.0	954.2	931.5	910.9	904.6	900.8
7.5°	1080.8	1084.6	1073.2	1030.3	964.7	892.0	826.5	780.1	738.5	723.0	716.7
10°	1116.8	1122.0	1086.2	999.6	883.6	766.7	655.8	577.6	516.6	491.8	481.3
12.5°	1162.2	1164.4	1093.4	952.9	778.1	611.2	454.0	370.3	316.1	295.9	289.7
15°	1212.3	1209.4	1094.2	889.5	634.3	432.1	296.3	243.3	221.5	214.8	214.8
17.5°	1264.8	1252.7	1077.4	797.9	476.7	295.5	219.9	207.3	203.5	201.7	201.3
20°	1316.5	1289.2	1046.6	678.0	342.1	220.7	199.7	195.9	193.8	192.9	192.1
22.5°	1363.7	1316.9	994.1	538.8	248.5	195.1	188.7	185.4	181.6	179.9	179.5
25°	1409.5	1332.9	920.1	409.0	198.8	182.4	177.4	171.1	166.0	163.9	163.1
27.5°	1454.0	1343.1	827.7	302.7	177.4	170.7	161.4	152.6	148.8	148.0	147.1
30°	1501.5	1346.3	722.6	225.7	164.3	155.9	142.5	132.4	130.3	130.7	130.7
32.5°	1559.5	1351.5	616.6	184.9	153.4	138.3	122.3	111.8	110.1	111.8	111.4
35°	1628.8	1361.5	514.6	170.3	143.8	120.2	103.0	94.2	92.5	93.8	93.3
37.5°	1723.0	1377.9	419.1	167.3	135.8	105.1	86.6	79.4	79.4	79.8	79.4
40°	1848.3	1421.7	333.7	165.2	131.6	93.8	73.2	70.2	71.4	72.3	72.3
42.5°	2000.9	1514.5	276.1	162.7	127.0	88.7	66.4	65.2	67.2	68.1	68.1
45°	2172.0	1632.2	256.0	158.5	122.7	92.0	63.4	61.8	64.3	64.8	65.2
47.5°	2348.9	1747.4	253.5	153.9	118.5	97.1	62.6	58.8	61.8	62.2	62.6
50°	2528.0	1822.7	256.0	146.7	111.8	97.1	63.0	55.9	58.4	59.7	60.1
52.5°	2708.4	1857.1	254.3	131.2	100.0	91.2	63.0	53.4	55.9	56.8	56.8
55°	2883.2	1850.4	228.7	108.0	84.9	80.7	61.4	51.2	53.0	53.4	53.4
57.5°	3021.5	1756.6	181.2	84.0	69.0	67.2	55.9	48.8	50.0	49.6	49.6
60°	3093.8	1550.7	129.5	64.8	54.2	53.0	49.2	45.4	46.2	44.2	43.8
62.5°	3094.7	1278.3	86.6	51.2	43.3	42.0	42.0	40.8	40.0	35.8	34.4
65°	3028.7	976.1	57.6	40.8	34.8	32.8	35.3	34.8	32.0	26.0	25.2
67.5°	2879.0	639.8	43.8	32.0	26.9	25.6	28.2	29.4	27.4	21.8	21.4
70°	2571.3	372.4	36.2	24.8	20.2	19.0	22.7	25.2	22.7	17.6	16.8
72.5°	2135.8	200.9	29.4	18.4	13.8	12.6	18.0	20.6	18.0	13.0	12.6
75°	1385.9	107.6	22.7	12.2	7.2	8.0	13.4	15.2	12.6	8.4	7.6
77.5°	465.4	47.5	14.2	5.8	3.4	3.4	8.0	9.2	5.8	3.0	2.6
80°	103.8	19.8	5.8	2.6	1.2	1.2	1.6	1.6	0.8	0.0	0.0
82.5°	34.0	8.0	2.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	13.0	3.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.0	0.4	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)