

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: P961005

Luminaire Tested: **NAV-SB1D-827-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961005
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6934.1 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

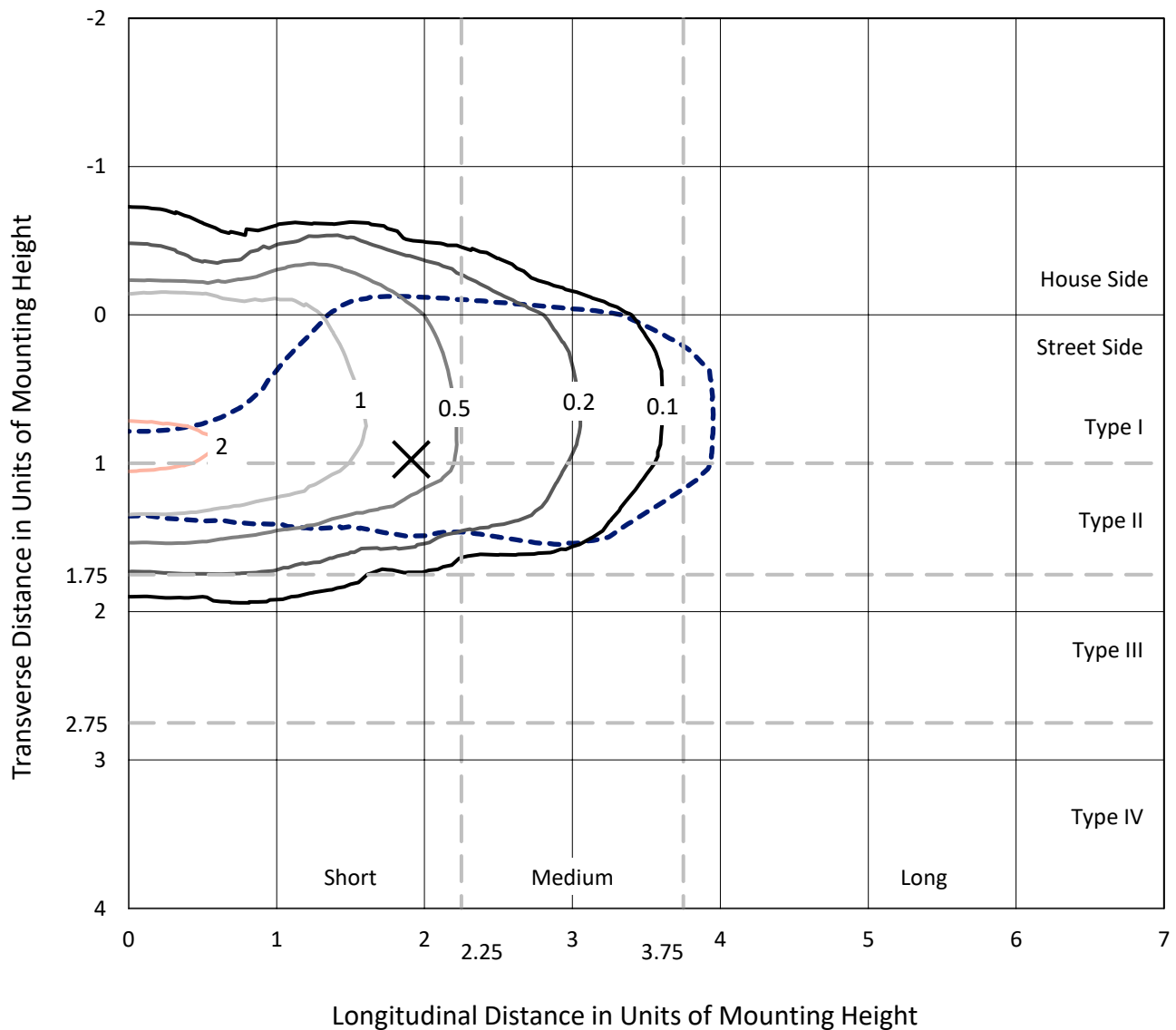
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

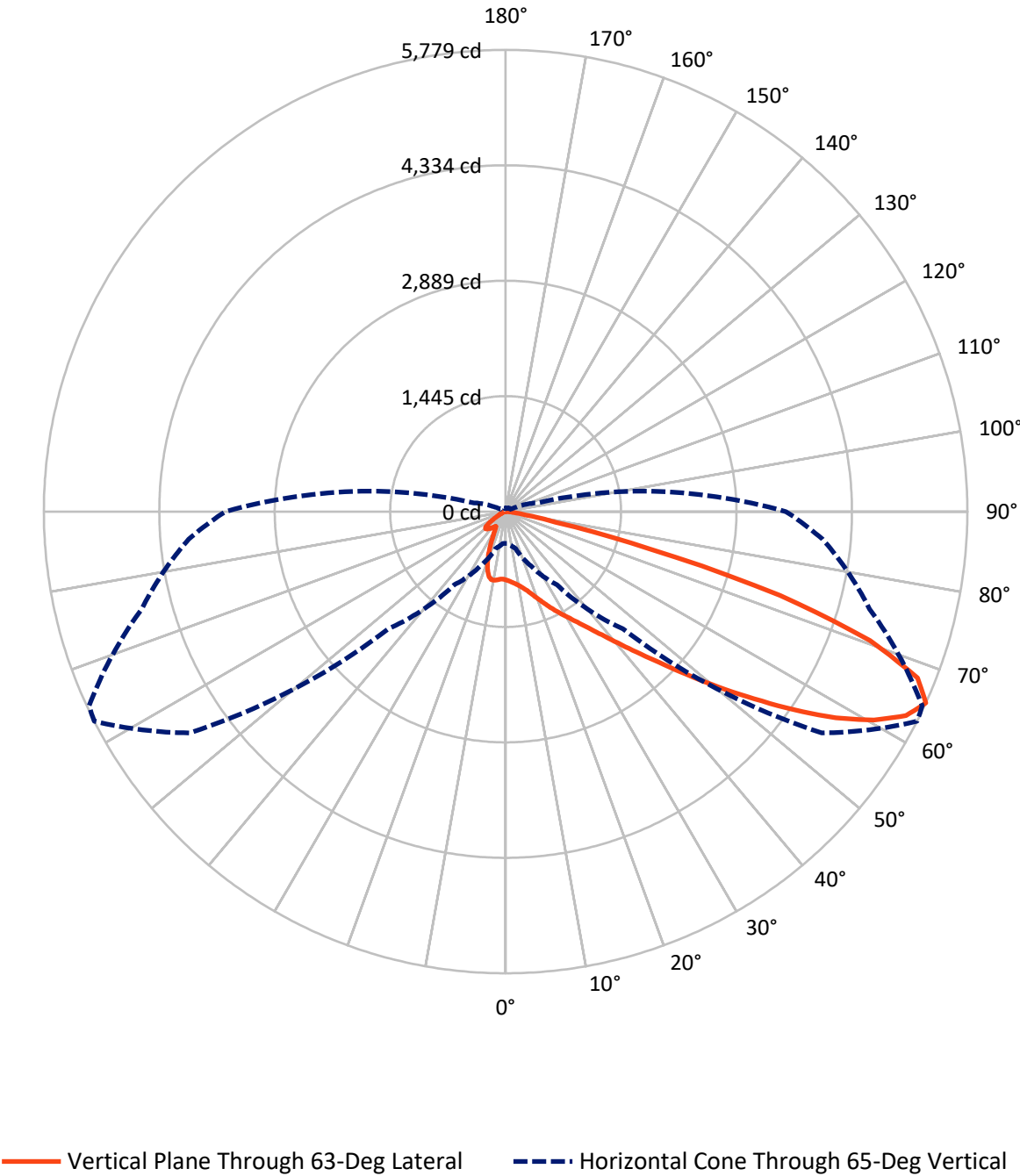
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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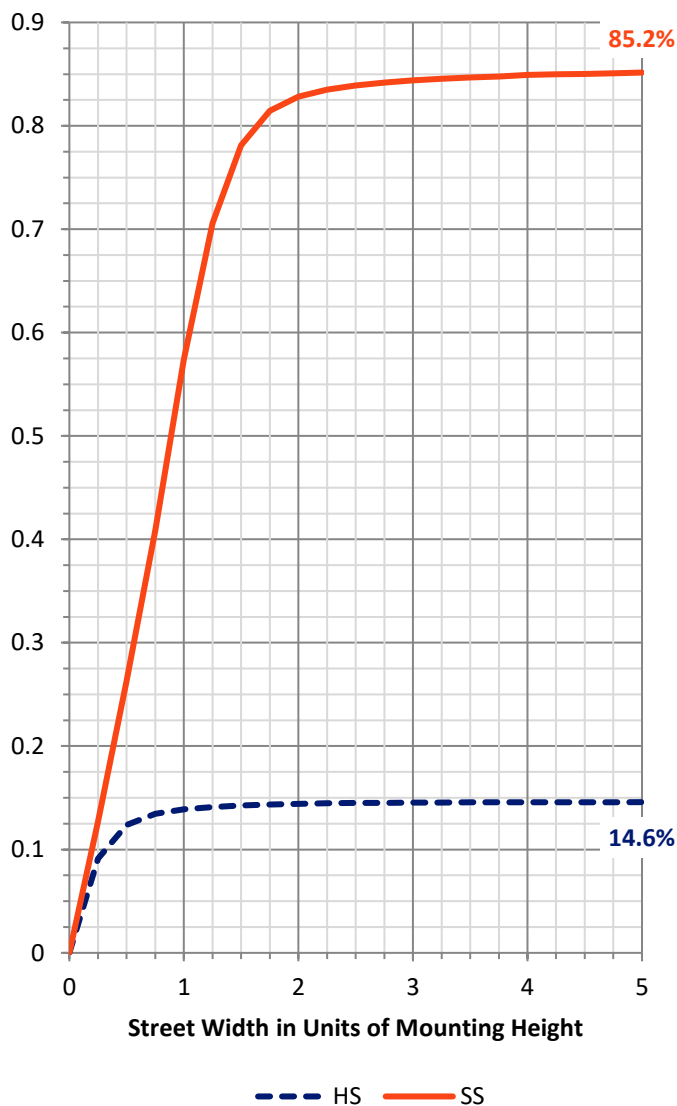
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1019.3	0.0	1019.3
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	5914.8	0.0	5914.8
	% Fixture	85.3	0.0	85.3
Total	Lumens	6934.1	0.0	6934.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	1.2
10°-20°	223.7	3.2
20°-30°	389.6	5.6
30°-40°	702.1	10.1
40°-50°	1392.6	20.1
50°-60°	1896.9	27.4
60°-70°	1514.1	21.8
70°-80°	685.2	9.9
80°-90°	49.3	0.7
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°	6934.1	100.0
0°-180°	6934.1	100.0

Coefficient of Utilization



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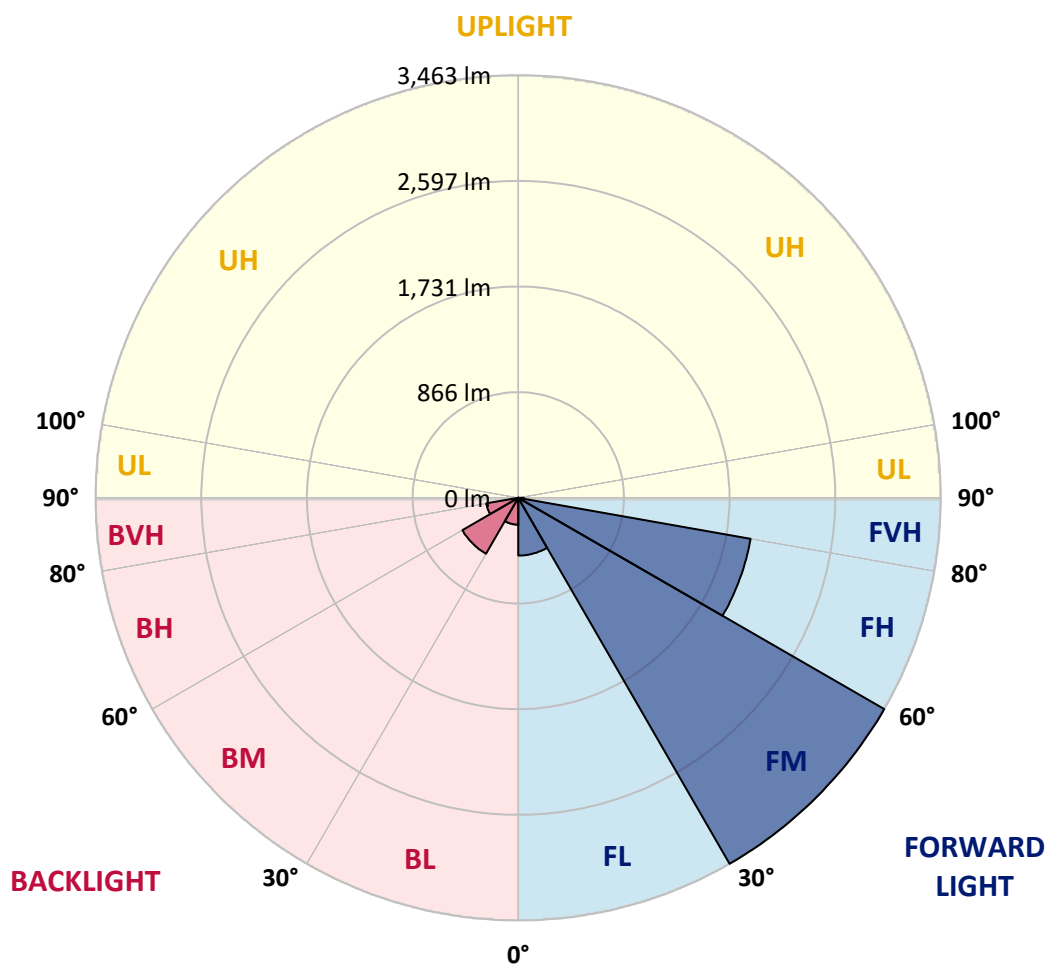
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	473.3	6.8			
FM	(30°-60°)	3462.7	49.9			
FH	(60°-80°)	1933.2	27.9			G2/5000
FVH	(80°-90°)	45.6	0.7			G1/100
BL	(0°-30°)	220.6	3.2	B1/500		
BM	(30°-60°)	528.9	7.6	B1/1000		
BH	(60°-80°)	266.1	3.8	B1/500		G1/500
BVH	(80°-90°)	3.7	0.1			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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	855.8	855.8	855.8	855.8	855.8	855.8	855.8	855.8	855.8	855.8	855.8
2.5°	875.9	873.4	876.8	875.4	874.4	872.5	871.6	870.6	868.7	867.3	861.5
5°	878.2	876.8	880.2	883.0	885.8	888.7	890.1	892.1	890.1	886.3	880.6
7.5°	858.2	857.2	864.4	873.0	885.8	896.9	908.8	915.4	915.9	914.5	908.3
10°	856.8	854.3	861.5	872.1	888.7	908.3	929.3	943.6	945.5	951.7	945.0
12.5°	879.1	876.8	886.8	898.2	915.4	935.9	961.7	981.7	984.6	993.2	988.4
15°	916.9	913.5	925.0	939.7	961.7	985.1	1012.3	1030.4	1032.8	1043.2	1034.7
17.5°	960.7	957.5	970.8	986.5	1010.3	1042.3	1073.8	1093.9	1096.8	1103.4	1087.6
20°	1017.0	1012.7	1023.3	1037.5	1062.8	1101.0	1138.7	1167.3	1166.9	1166.9	1141.0
22.5°	1082.4	1075.7	1084.8	1096.2	1120.1	1166.3	1216.5	1250.3	1250.3	1237.0	1194.5
25°	1152.5	1145.8	1155.9	1166.3	1187.4	1239.8	1298.5	1340.5	1342.3	1319.5	1251.7
27.5°	1240.2	1231.7	1239.3	1251.7	1264.1	1317.5	1387.2	1435.9	1436.8	1401.5	1306.2
30°	1409.2	1384.9	1361.0	1347.7	1353.3	1406.3	1480.7	1534.6	1539.3	1490.8	1365.3
32.5°	1718.3	1713.5	1629.5	1519.9	1462.6	1501.7	1585.2	1650.0	1652.9	1590.4	1442.1
35°	2198.6	2192.9	2057.9	1849.0	1662.4	1629.5	1712.1	1788.9	1787.0	1716.4	1541.8
37.5°	2772.0	2766.8	2588.8	2309.3	2007.4	1822.8	1875.7	1956.3	1968.2	1875.7	1670.5
40°	3262.0	3242.4	3129.8	2860.3	2465.3	2143.3	2108.5	2161.9	2174.3	2064.7	1834.2
42.5°	3633.1	3616.4	3559.2	3390.8	3019.6	2617.5	2382.8	2403.3	2417.2	2285.4	2022.1
45°	3825.3	3821.5	3844.5	3828.7	3584.4	3199.4	2774.9	2689.5	2694.7	2530.2	2235.4
47.5°	3852.6	3850.6	3955.1	4103.0	4070.1	3855.8	3278.2	3046.3	3027.7	2806.4	2467.3
50°	3692.3	3688.5	3888.7	4165.9	4394.5	4407.3	3849.7	3448.5	3407.5	3092.1	2709.1
52.5°	3180.4	3179.4	3508.6	3969.9	4508.5	4890.1	4414.5	3890.2	3821.5	3394.6	2964.8
55°	2447.2	2464.8	2842.2	3387.4	4300.5	5122.4	4921.5	4380.6	4275.2	3698.9	3200.5
57.5°	1733.6	1759.3	2132.3	2618.0	3655.6	4985.0	5264.6	4871.9	4758.5	4002.3	3439.4
60°	931.2	954.1	1327.6	1907.2	2719.5	4472.7	5445.3	5298.4	5191.1	4290.4	3655.0
62.5°	554.8	562.4	717.0	1231.2	1839.5	3417.0	5368.5	5623.3	5535.0	4532.3	3842.5
65°	398.3	399.7	477.5	751.8	1116.7	2076.0	4830.0	5778.8	5751.6	4714.6	3981.3
67.5°	335.4	334.4	366.8	499.5	760.9	1040.0	3701.8	5558.9	5674.3	4830.0	4060.0
70°	287.6	289.0	327.3	365.9	571.9	588.7	1840.4	4840.0	5086.2	4860.5	4055.3
72.5°	214.2	218.9	254.3	333.4	431.7	405.0	635.4	3588.7	4033.8	4579.5	3844.9
75°	151.2	153.6	178.9	280.5	322.0	294.8	324.4	1855.1	2425.8	3510.9	3147.0
77.5°	116.4	120.6	135.5	196.1	317.2	207.0	198.4	642.1	986.5	2120.9	2157.6
80°	62.9	70.6	97.8	141.7	222.7	146.5	98.3	255.7	334.4	991.8	832.0
82.5°	32.4	36.3	68.3	102.1	126.9	127.8	48.7	106.4	137.9	306.3	114.0
85°	12.9	15.8	45.8	56.3	65.4	62.9	21.9	42.9	49.6	84.9	34.8
87.5°	2.9	4.8	16.7	12.9	12.4	13.3	5.2	10.0	9.5	10.0	6.3
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°	855.8	855.8	855.8	855.8	855.8	855.8	855.8	855.8	855.8	855.8	855.8
2.5°	861.0	859.2	853.9	848.2	841.5	837.6	835.3	834.9	831.5	829.1	831.5
5°	875.4	873.4	863.5	851.5	838.7	828.6	819.1	810.5	798.1	795.7	794.8
7.5°	903.9	898.7	882.5	866.3	841.9	812.8	777.6	737.0	700.8	689.8	684.5
10°	939.3	932.1	911.6	883.0	829.1	749.9	664.5	585.3	522.3	504.7	498.0
12.5°	979.4	973.1	946.0	893.0	775.2	631.6	500.9	402.6	341.5	326.3	322.0
15°	1027.0	1018.0	980.3	877.7	678.9	479.9	344.0	285.8	263.8	261.0	258.1
17.5°	1077.6	1062.8	1010.9	822.9	549.1	341.1	265.7	249.0	239.4	236.6	235.1
20°	1123.9	1104.8	1029.0	739.8	410.2	265.7	238.0	227.0	218.5	215.1	213.2
22.5°	1170.1	1143.0	1029.0	626.8	307.7	235.6	218.5	208.5	198.4	194.1	191.8
25°	1218.3	1182.1	1010.9	500.9	247.5	216.1	199.9	188.9	180.3	175.1	173.1
27.5°	1265.1	1215.0	969.3	381.6	220.4	199.0	182.7	172.2	164.1	160.3	160.3
30°	1309.4	1247.4	911.1	289.6	202.7	182.2	167.0	157.8	149.8	146.0	146.5
32.5°	1369.6	1288.4	849.1	237.6	187.5	166.5	152.6	144.1	136.9	134.1	134.1
35°	1453.0	1349.1	795.7	233.3	174.6	153.6	139.8	131.7	124.5	122.1	122.1
37.5°	1571.3	1446.9	767.5	261.9	164.1	142.2	129.3	120.6	114.0	112.1	111.6
40°	1717.3	1579.4	782.8	290.5	156.9	132.1	119.7	111.1	105.5	103.0	102.6
42.5°	1890.5	1743.1	867.3	312.4	152.2	123.5	110.7	101.2	97.3	96.4	96.4
45°	2089.5	1922.9	996.5	335.8	144.5	115.4	101.6	94.4	91.6	91.1	90.6
47.5°	2315.6	2120.4	1146.4	364.9	136.9	107.8	94.4	89.7	87.3	86.3	86.3
50°	2539.7	2319.4	1300.4	381.2	130.7	100.7	88.8	84.9	83.0	82.5	82.5
52.5°	2774.5	2524.0	1425.0	365.9	125.5	94.9	83.9	81.1	79.2	78.7	78.7
55°	2998.1	2689.5	1446.4	310.6	115.0	89.2	78.7	77.3	74.9	74.9	74.4
57.5°	3190.9	2772.5	1294.7	228.1	104.4	80.7	73.5	72.1	70.1	69.6	69.2
60°	3367.8	2748.6	999.4	153.6	93.1	72.1	66.8	65.8	64.0	61.5	61.1
62.5°	3467.6	2643.8	683.6	100.1	81.6	62.9	59.1	58.6	54.4	49.6	48.7
65°	3505.3	2428.1	426.5	73.0	68.3	53.9	51.0	50.1	43.9	38.6	38.1
67.5°	3472.4	2073.2	215.1	57.7	53.9	44.8	42.0	42.0	37.7	32.9	32.4
70°	3340.7	1554.2	90.6	46.2	41.5	34.3	34.3	36.3	32.0	26.8	26.2
72.5°	3054.9	1045.7	48.2	35.3	31.1	24.3	28.2	29.6	25.3	20.0	20.0
75°	2428.6	637.8	33.4	26.2	19.6	17.2	21.4	22.4	17.2	13.3	12.9
77.5°	1661.0	366.3	22.4	16.7	12.4	10.0	14.8	13.8	9.0	6.3	6.7
80°	729.4	152.6	12.9	7.6	4.8	3.8	5.2	3.8	2.9	1.9	1.9
82.5°	85.4	35.8	4.8	2.9	1.9	0.9	0.5	0.0	0.0	0.0	0.0
85°	17.6	4.3	2.4	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	0.9	0.5	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)